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Mental Health Status of Asian and Latino/ Caribbean Immigrants

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MENTAL HEALTH STATUS OF ASIAN AND LATINO/CARIBBEAN IMMIGRANTS

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This study examines how the migration experience affects the mental health status of recent Asian and Latin American/Caribbean immigrants. It analyzes the relationship between stress among immigrants and their adaptation patterns. Specifically, this study focuses on the psycho-social transition processes associated with migration, examining how disruption of cultural norms, and restructured lifestyle may lead to stress, or other mental health difficulties. In addition, this study highlights "transnationalism," a newly defined adaptation pattern of recent immigrants, especially among Latin immigrants. It focuses on "transnational activity" as a potential mediator of the relationship between immigration stressors and mental health outcomes among recent migrants from Asia and Latin America/Caribbean countries.

Previous research has been largely dedicated to two aspects of immigrants' mental health status, post-traumatic stress disorder and acculturative related stress. This study includes both aspects, focusing on both the context of exit and the context of reception to analyze the factors associated with immigrants' mental health problems. Based on previous research, this study incorporates various theories and concepts,

including stress theory, acculturation theory, the life course perspective and transnationalism to establish a synthetic model to explain mental health problems. Using the first wave data from New Immigrant Survey, this study includes a broad range of variables, employs logistic regression to examine the effects of pre-migration experiences and post-migration trajectories on symptoms of depression and distress among Asian and Latin American/Caribbean immigrants.

Statistical results show that in general Asian immigrants have slightly better mental health than Latino/Caribbean immigrants. Socioeconomic status, gender, pre-migration persecution, social support, acculturation, transnationalism, and sub-ethnicity all predict symptoms of depression among immigrants with the exception of the age at arrival in the U.S. The effects of factors examined in this study vary slightly across ethnic groups.

Future research should use longitudinal data in order to track the long-term effects and the patterns of immigrants' incorporation and their mental health status. In addition, the development of more synthetic theories and key concepts are suggested to better understand how the post migration trajectories of each sub-ethnic group within Asian and Latino/Caribbean immigrants' populations are related with their mental health status.

To my parents,
Dequan Lv and Xiuqin Shen

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INTRODUCTION

The Problem:

The dramatic growth of the immigrant population, coupled with the fact that many immigrants are arriving from developing countries has created a growing concern for their health status. Specifically, there are concerns that poor health among immigrants may create a social welfare burden for the host society (Blau, 1984; Simon, 1984; Tienda and Jensen, 1986; Borjas, 1994). The mental health status of immigrants, in particular, became increasingly important because of the large influx of refugees who suffered from mental trauma coming to the U.S. after 1965 (Gaines, 1998; Portes and Rumbaut, 2006). The increase in immigrant populations from different cultural backgrounds has also led to a growing interest in their coping styles and health trajectories in the host society. As a result, this growing concern with stress and immigrants' mental health has been reflected among both researchers and policy makers (Angel and Angel, 1992; Eaton and Garrison, 1992; Ghaffarian, 1998; Harker, 2001; Min, Moon, and Lubben, 2005; Mehta, 1998; Nicassio, 1985; Shen and Takeuchi, 2001; Murphy and Mahalingam, 2004; Mossakowski, 2007). Therefore, this study will examine the mental health status of the two major ethnic groups of "new immigrants"--immigrants from Asia and Latin America/Caribbean countries.

This study examines how the migration experience affects the mental health status of recent Asian and Latin American/Caribbean immigrants. It analyzes the relationship between stress among immigrants and their adaptation patterns. Specifically, this study focuses on the psycho-social transition processes associated with migration, examining

how disruption of cultural norms, and restructured lifestyle may lead to stress, or other mental health difficulties. In addition, this study has a special interest in "transnationalism", a newly defined adaptation pattern of recent immigrants, especially among Latino/Caribbean immigrants. It focuses on "transnational activity" as a potential mediator of the relationship between immigration stressors and mental health outcomes among recent migrants from Asia and Latin America/Caribbean countries.

Background:

Since its inception, the United States has been marked by different immigrant's flows over time (Massey, 2003). As a nation of immigrants, many Americans recognize that immigrants are an integral part of U.S. society, and have contributed greatly both to the nation's economy and culture. In comparison to earlier periods, immigrants to the U.S. today are more racially diverse and arrive from every corner of the world. Immigrants are also the fastest growing segment of the U.S. population (Kaiser, 2000). According to the U.S. Bureau of the Census (2006), the foreign-born population of the U.S. grew from 9.6 million to 36 million between 1970 and 2005. As a result, the foreign-born U.S. population share increased from 4.7% to 11.5% between 1970 and 2002.

The amendments to the Immigration and Nationality Act of 1965 dramatically changed the picture of migration to the United States (Castle and Miller, 1993). It shifted major migration flows to the United States from Europe to Latin America and Asia (Massey, 2003). According to the U.S. Bureau of the Census (2006), among the growing immigrant populations, migrants from Latin America and Asia represent substantial majorities. By the year 2005, 36% of immigrants were from Central America, 10% were

from the Caribbean, and 6% were from South America. In total, Latin American immigrants made up more than one-half of all immigrants in the United States. Twenty-five percent of the immigrants to the U.S. are from Asia, 14% are from Europe, and 8% are from other regions. Although the destinations that immigrants choose are diversifying, most recent immigrants remain concentrated in certain areas of the country. For example, more than two-thirds of recent immigrants live in six states: California (28%), New York (12%), Texas (9%), Florida (9%), New Jersey (5%) and Illinois (5%) (Kaiser, 2004). However, the states with the fastest growing immigrant population are North Carolina, Georgia and Nevada (the Urban Institute, 2002).

Historical changes in U.S. immigration policies are very important in understanding the mental health status of immigrants. Waddell (1998) suggests that immigration policies not only determine which immigrants come to the United States, but also shape, more or less, their experience of being accepted by the host society, which in turn mediates their stress in adapting to their new environment. As such, immigration policies can have important consequences for immigrant's mental health status. At the same time, the U.S. immigration policy is also constantly shaped and reshaped by how the host society values and perceives the adaptation of immigrants to their new environment. Thus, the influences of immigration policy on immigrants' mental health are very significant to research on this topic.

Immigration to the United States was generally unrestricted prior to 1875. Nevertheless, there were strong advocates for restrictions on immigration (Waddell, 1998). Anti-immigrant movements, even against individuals of European background, were mainly directed toward immigrants with non-Anglo-Saxon backgrounds, who spoke

languages other than English, or had different (non-Protestant) religions (Waddell, 1998). Immigrants from countries involved in wars against the United States were also subject to being apprehended, restrained, secured or expelled.

The prospect for immigrants assimilating into the dominant Anglo-Saxon culture has always been a major concern, even though economics plays an important role in shaping U.S. immigration policy (Waddell, 1998). In this sense, cultural differences have sometimes led to negative feelings and responses toward particular immigrant groups. For example, the 1882 Chinese Exclusion Act represented the beginning of federal immigration policy changes rooted in national anti-immigrant attitudes. Waddell (1998) contends that from late 19th century to early 20th century, the U.S. immigration policy began to screen out unhealthy and poor immigrants, and to search for the perfect immigrant using the "science" of eugenic so popular at the same time. English proficiency became one of the key determinants of whether immigrants were eligible to come to the U.S. (Waddell, 1998).

The passage of the Refugee Act of 1980 opened the gate for refugees escaping from persecution and wars. Among refugees, those who suffered from emotional traumas and developed emotional problems are protected by law from being screened out of the U.S. (Waddell, 1998). According to Waddell (1998), although refugees are not discriminated against by immigration policy, they have experienced differential reception in the United States because of political reasons. For example, Cuban immigrants escaping from communism received considerable social resources and support from the U.S. government to help them succeed in America. In contrast, refugees from Eastern Europe who also escaped from communism usually have not received the same treatment

as Cuban refugees. Additionally, refugees from South Asia are generally ignored by government and receive little or no help in adapting to the host society.

Although the Immigration and Nationality Act of 1965 removed many restrictions on immigrants, immigrants and immigration policy are once again under fire (Waddell, 1998). As a result of rapid growth in the immigrant population, public concern over immigration policy, especially concern about illegal immigrants' potentially abusing social services has become widespread. Consequently, stricter immigration policies and legislations have been passed, or are being considered, to control immigrants. Most immigrants who haven't become naturalized are likely to be excluded from federal benefit programs, such as Medicaid.

In general, U.S. immigration policies have screened out immigrants with physical or mental health problems or with different cultural backgrounds other than White-Anglo-Saxon-Christian culture to control the "quality" of immigrant populations (Waddell, 1998). Waddell (1998) concludes that those policies also incorporate strategies for encouraging assimilation. Immigration policies at any given time reflect how mainstream society views the impact of immigration. They also tend to reinforce anti-immigrant attitudes toward migrants from developing countries, which creates a potentially hostile environment for immigrants to adapt to the host society. As a result, some immigrants may feel that they are not really welcomed by the host society or their cultures are not appreciated. This can have negative consequences for immigrants' mental health.

Migration and Stress:

Migration itself is a very stressful process (Salgado de Snyder , 1987). Some immigrants may begin suffering from emotional problems even before migration due to their experiencing traumatic events in their countries of origin (Gaines, 1998). Others may begin experiencing distress during the migration process. Migration involves a significant psycho-social transition, in addition to geographical or physical relocation. Espino (1991) believes that what immigrants leave behind is more than their home country. They also leave the cultures, and social networks, in which they were deeply embedded. Thus, immigration can cause a disruption in cultural norms and social ties, and often requires restructured lifestyles which can result in stress, as well as mental, emotional, and physical health difficulties. As a result, immigration has been linked to increased levels of psychological distress, including a sense of helplessness, somatic complaints, anxiety disorders, and depression (Berry et. al., 1987; Espino, 1991; Nicassio, 1985; Rumbaut, 1991).

How the migration process influences the emotional well being of immigrants remains unclear. To some extent, this is not surprising, especially given that current immigrants to the United States represent such a heterogeneous population. Researchers (Min, Moon, and Lubben, 2005) argue that when immigrants leave their home country, they are leaving all the social ties, bonds, and networks, behind. At the same time, by entering a new country, most immigrants face numerous challenges and changes in various aspects of their lives (including social, economic, political, cultural, and family contexts). In coping with these changes, immigrants may experience high levels of psychological distress mentioned above (Min, Moon, and Lubben, 2005).

The immigrant's decision to leave his or her home country is often stress related in many cases. For example, among refugees, migrating may be an escape from threats to their lives or well being. Such threats may involve religious or political persecution, economic deprivation, ideological rejection of mainstream values, or other forms of alienation (Shuval, 1982). Stress may actually be the trigger toward migration. Indeed, many refugees are found to suffer from post traumatic stress disorder (Jenkins, 1991). This pattern is common among refugees from South Asia, as well as Latin America. For non-refugee immigrants, the decision to migrate might also be accompanied with stress. As Hull (1979) points out, the individual decision to migrate is influenced by the social context which immigrants use as a reference for social norms. In societies where migration is normative, individual level decisions to migrate could result from social pressures to follow the norm, which in turn could generate stress among individuals whose initial inclination to migrate may be low. In addition, the influence of stress associated with migration varies across age and gender groups (Shuval, 1982; Salgado de Snyder, 1987; Portes and Rumbaut, 2006). In the migration decision-making process, some individuals, comparatively speaking, are more passive participants (i.e., women who migrate with their husbands, or their children, or elderly family members). For such passive immigrants, it is possible that they could experience even greater negative influences from disengaging from the home country (Synder, 1987). According to Shuval (1982), disengagement from the home country could result in a variety of negative emotional consequences. For example, immigrants have to break numerous social relationships and long-standing social ties which could result in a sense of isolation and leave them feeling unsupported.

If disengaging from the home country is emotionally challenging for immigrants, then fitting into the host society can be an even more mentally disturbing experience. Most immigrants face employment problems, difficulties in establishing new social networks, embracing or adapting to different cultures and dealing with antagonistic attitudes from some members of the host society (Shuval, 1982). When immigrants arrive to the U.S., they will be subjected to the racial stratification system of the U.S. and often find that they are viewed as members of a minority group which is either undesired, or despised, and with little or no status in the United States (Synder, 1987; Zuberi, 2001). They are often stereotyped and stigmatized because of their ethnic group membership and their individual characteristics are largely ignored. Immigrants from Asia or Latin America often experience discrimination, prejudice, intolerance and similar antagonistic attitudes from the dominant group (Kuo, 1995; Hovey and Magaña, 2000). In addition, the dominant group also influences the structural integration of immigrants, and largely determines the economic opportunities immigrants will have in the host society (Gordon, 1964). Therefore, potential antagonistic attitudes among dominant group members may serve directly, or indirectly, as stressors to the minority immigrant populations.

Additionally, most immigrants, to some degree, face a cultural gap between their home country and the host U.S. society. The greater the cultural gap, the more adaptation immigrants have to make. In a situation where their traditional beliefs and values are devalued by the U.S. society, immigrants could face various stressors and pressures to balance their traditional culture with the norms of the host society (Shuval, 1982; Hovey and Magaña, 2000; Mui and Kang, 2006; Portes and Rumbaut, 2006). Acculturation is the process whereby immigrants adapt to the culture of host society (Gordon, 1964). It

represents a major source of stress for many immigrants. Last but not the least, in the host country, many immigrants lack the social support and other means for stress reduction, buffering, and coping (Synder, 1987; Shuval, 1982; Gaines, 1998), although this disadvantage could gradually disappear as the time immigrants stay in the host country increases. As a result, the migration process itself—leaving the home country and adapting to the host country--is associated with the mental health status of immigrants.

Theorizing Immigrant Mental Health

The diverse set of theories which have been employed to explain immigrants' mental health problems have also been heavily influenced by U.S. immigration policy. For example, according to Portes and Rumbaut (2006), many of the early epidemiological studies took a eugenics approach to explain the mental health problems of immigrants. This research focused on the hospital admission rates of immigrants and the proportion of "lunatics" among specific ethnic groups (Jarvis, 1855). In the public discourse, a major emphasis was also focused on selection effects, including the large proportion of "lunatic" immigrants, and widespread beliefs regarding the inferior psychological makeup of particular immigrant populations (Portes and Rumbaut, 2006).

More recently, research has focused largely on the influence of social, political, and economic factors which are instrumental in shaping the mental health status of immigrants. Selection effects are a major concern in explaining the mental health status of immigrants. Migration is a self-selection process. Only individuals with sufficient resources can afford to migrate to another country. Therefore, some researchers suggest that immigrants may actually be healthier (Frisbie, Cho and Hummer, 2001), and mentally more stable than many natives in the host society (Golding and Burman, 1990).

However, to the extent this may be true, it would only explain the experience of active immigrants, not passive participants. On the other hand, this self-selection process is also heavily influenced by U.S. immigration policies. For example, some U.S immigration policies are designed to fit labor force needs in jobs deserted by white males, or jobs that are disproportionately concentrated in low wage, low job security industries (Sassen, 1989). Therefore, immigration selectivity can be a two dimensional process and needs further research.

Acculturation represents another important theoretical perspective in the study of immigrant's mental health problems. It is a multi-dimensional process by which one cultural group adopts the cultural practices of the host society (Mui and Kang, 2006). This perspective brings together social, political and economic factors that may influence the subjective experience of immigrants in the host society, to explain their mental health status. It considers the stressors that immigrants might encounter in the host society, due to cultural conflicts, discrimination, and the lack of social resources to meet expectations. The acculturation perspective also takes into account individual characteristics, which also shape the context of migration experiences. It is concerned with how individuals' lack of social resources, social supports to reduce stress, or to buffer and cope with stress, would affect immigrants mental health (Synder, 1987; Shuval, 1982; Walden, 1998). However, the actual influence of acculturation is likely very complicated and has never been thoroughly studied across ethnic minorities. Portes (1990) has argued that acculturation which involves individual behavioral changes through constant interaction with a different culture (Berry, 2005), is the decisive variable in explaining the mental health status of the immigrants. Depending on specific contexts

and immigrants' demographics, acculturation can lead to widely different outcomes. Thus, researchers should focus on the specific circumstance that immigrants undergo because acculturation is also context specific. Further studies are needed to better understand the relationship between acculturation and immigrants' mental health status.

The concept of transnationalism has been introduced to explain the more recent migration phenomenon. It generally refers to multiple social ties and interactions of people between home countries and host societies. Transnationalism (Kivisto, 2001) was first proposed to explain the experience or the adjustment of the immigrants in the host country. Immigrants engaged in transnational activities are active agents connecting the host country and home country. They retain strong social and cultural ties to their home countries and seek to transcend national boundaries and bring two separate societies into a single social field. Some researchers find that the transnational experience might impose a stronger ethnic identity, which serves as a coping resource in the face of discrimination (Smith, 2006), and thus, indirectly protect certain immigrant minorities from mental health problems (Mossakowski, 2003). This idea, which has gained growing attention among immigration researchers, will be a major focus of this study.

Research on Asian and Hispanic Immigrants:

Studies of the mental health of Asian and Latino immigrants have become commonplace as a result of their increasing population shares. Kuo (1995) concludes that previous research shows a low rate of hospitalization and utilization of mental health services among Asian Americans. However, he claims that the pattern is caused by low reporting rates of mental problems and underutilization of these services. Indeed, Asians might have at least the same prevalence of depression or other mental problems as

whites, but they usually under-report it. One explanation is rooted in the cultural beliefs and practices among Asians. Specifically, Asians exhibit cultural beliefs which deter public admission of any emotional problems (Sue, 1994; Yeh and Inose, 2002). Few national studies have examined the sub-ethnic differences within the Latino and Asian immigrant groups. For example, most studies either fail to address the different cultural system across Asian countries, especially East Asian, South Asian and West Asians, or ignore the difference between Asian immigrants and American-born Asians.

When examining Hispanic groups, this paradox is more evident. Studies find that some foreign born sub-ethnic immigrant groups experience less depression or distress than the U.S. born (Golding and Burnam, 1990; Shrout et al. 1992), while others do not (Shrout et al. 1992). Meanwhile acculturation is associated with more drug and alcohol use among certain ethnic groups (Shuval, 1982). Therefore, mental health status is suggested to be a multi-dimensional concept that varies across sub-ethnic groups and generations. However, while successfully addressing differences across sub-ethnic groups, no general information is provided to view how Hispanic immigrants as a group, differ from other ethnic groups in the U.S.

The Purpose of This Study:

This study seeks to understand the mental health issues that immigrants, particularly immigrants from Asia and Latin America, face in the United States. It explains the question of how migration experiences are related to the emotional well-being and mental health of immigrants from a social scientific perspective.

As Portes and Rumbaut (2006) conclude, most of the early epidemiological research on the mental health of immigrants took a eugenic approach to explain the

mental problems of the immigrants. These studies focused on the hospital admission rates of immigrants and the proportion of lunatics (Jarvis, 1855). However, as noted earlier, the enactment of the Immigration and Nationality Act amendments in 1965 changed both the pace and composition, of immigrant populations in the United States (Waddell, 1998). Thus challenges to the eugenic approach have been advanced.

Social factors have been brought into the explanation of the mental health of immigrants. Social context, ethnicity, and the like have recently received greater attention (Portes and Rumbaut, 2006). My dissertation will be organized according to the two aspects that influence immigrant's mental health, with their demographic background taken into account. First, I will examine factors associated with the context of exit (from the home country) and the second, factors operating in the context of reception (host country) for different Asian and Latino immigrant groups. The former focuses largely on the influence of pre-migration factors on the mental health status of immigrants, such as traumatic events (e.g., persecution). And the latter focuses primarily on the incorporation models and their influence on the mental health status of the immigrants.

In addition, this study has a special interest in transnationalism and its association with the mental health of immigrants. As a concept, transnationalism has captured increasing attention among scholars who study immigration. Although transnational activities, such as sending remittances, traveling back to the home country, and participating in local politics are not rare among immigrants in history, researchers believe that globalization and modern technologies greatly support to those activities. It has become more common and involves more immigrants and thus it should be re-introduced and studied under this newly defined concept (Portes et al. 1999). Many

researchers imply that transnationalism could elaborate theories of how immigrants fit into the host society by providing new incorporation patterns of immigrants (Portes et al. 1999, 2007; Levitt and Schiller, 2004; Kivisto, 2001). Although some previous studies implicitly suggest that transnationalism might be associated with the emotional well-being of immigrants (Smith, 2006; Murphy and Mahalingam, 2004), transnationalism has not been widely considered in studies to explain immigrants' emotional well being. This study will analyze the mental health status of immigrants from Asia and Latin America in the United States. My dissertation will employ logistic regression to examine the effects of pre-migration experiences and post-migration trajectories on symptoms of depression and distress among Asian and Latin American immigrants.

CHAPTER 2

LITERATURE REVIEW

There has been considerable research on the emotional well-being and mental health status of immigrants. However, the findings have not been consistent with regard to the factors, such as socioeconomic status (SES), which influence the emotional well- and mental health status of immigrants (Eaton and Garrison, 1992). As has been well documented, the immigrant population itself is very heterogeneous. There are different ethnic groups among immigrants and different generations of immigrants. They differ significantly in their cultures, values, socioeconomic statuses and so forth. They also migrated at different times, which might affect their levels of acceptance and degree of discrimination faced in the host society. Therefore, there is no single universal model that has successfully explained the emotional well being of immigrant populations (Eaton and Garrison, 1992).

Researchers have been concerned with the mental health status of immigrants for some time (Berry et. al., 1987; Espino, 1991; Min, Moon, and Lubben, 2005; Nicassio, 1985; Rumbaut, 1991). Although these studies all focused on the relationship between immigration and mental health, they all suffered from inadequate data at different levels (Eaton and Garrison, 1992). They are either based on small local samples or larger samples which examine only one or two groups of immigrants. Research using sub-samples have grouped immigrants according to their ethnicities, countries of origin, or races. However, the rationale behind their grouping is not consistent across studies, and seldom adequately explained. In spite of such inconsistencies in research methods and data, most of these studies conclude that immigrants are at high mental health risk (Min,

Moon, and Lubben, 2005). There are high rates of depression and stress among immigrant populations. However, no national data has suggested that immigrants in general, are more likely than their native-born counterparts, to have mental problems. Therefore, generalizing findings from local samples to the national population of immigrants may cause biased image of the whole immigrant population. As a result, national data are necessary to provide a better and more accurate understanding of the mental health of immigrants.

In general, immigrants are at risk for developing mental disorders for several reasons. First, prior to their U.S. arrival, many immigrants experienced traumatic circumstances in their native country, including extreme poverty, human trafficking, exposure to war, and natural disasters (Gaines, 1998; NIH news, 2005). Exposure to traumatic conditions, coupled with difficulties in acculturation, can lead to severe and long-lasting psychological and behavioral problems, including depression, anxiety, posttraumatic stress disorder, and a high risk for suicide (Jenkins, 1991; Lipsedge, 2001; Kandula et al., 2004). Second, many immigrants have difficulties adapting to their new environments in the U.S., due to the hostile social realities, prejudices and discriminations that can produce stresses (Kuo, 1995). Conflicts between their own ethnic cultures and the cultures of the host country can create stress and tension for many immigrants, in addition to any difficulties they may face in regard to their economic and social status (Eaton and Garrison, 1992; Ghaffarian, 1998; Harker, 2001; Mehta, 1998; Shen and Takeuchi, 2001). Immigrants also have less access to health care services, especially mental health services because of their legal status or low economic status (Johnson et al., 1995). Ironically, however, contact with mental health facilities might

even bring more distress to immigrants because of their cultural differences (Ong, 2003).

Research on mental health and migration also suggests that sociodemographic differences, for example, socioeconomic status gaps between immigrants and host populations are likely to result in mental health problems. Interestingly, however the relationship between socioeconomic status and mental health problems is not consistent with previous research and therefore might not be linear (Dohrenwend et al. 1992). For Latino and Asian immigrants, social mobility and economic success affect their mental health status by influencing both their feelings of competence, and their capabilities to cope with acculturative stress (Porter and Washington, 1993).

Some researchers believe that high socioeconomic status might be associated with having better social support systems, which serve as protective factors for mental health among immigrants (Shen and Takeuchi, 2001). On the one hand, lower socioeconomic status is associated with poor mental health (Eaton and Garrison, 1992). It is explained that because there is a discrepancy between demands of an individual and his/her potential responses to fulfill those demands, stress is generated. And persons with low socioeconomic status generally experience more stresses and consequently more stress-related disorders (Eaton and Garrison, 1992).

However, on the other hand, the influence of socioeconomic status on the mental health status of immigrants is complicated. It is embedded in the acculturation process. It can be both a cause and the outcome of acculturation processes. Socioeconomic status might be an index of the level of acculturation. High socioeconomic status could be a result of immigrant's assimilation into the mainstream, thereby receiving greater

acceptance. Thus, high status immigrants might experience less psychological distress and have better emotional health. Ghaffarian (1998) finds that certain indexes of higher socioeconomic status (higher education) are associated with greater levels of acculturation and therefore, better mental health status. At the same time, higher socioeconomic status is usually associated with better health services and health insurances which might serve as coping resources, protecting immigrants from mental health problems. Therefore, it is difficult to establish the correct causal relationship. However, since previous research has framed the debate in terms of acculturation and structural assimilation (which means immigrants are fully incorporated into host society), it could be argued that immigrants can be structurally assimilated without being acculturated (Portes and Böröcz, 1989). So immigrants can benefit from all the protective factors associated with being structurally assimilated, such as socioeconomic success, without being culturally assimilated. Their score on all measurements on acculturation, such as language proficiency could be low, but they still could have good mental health at the same time. This suggests that socioeconomic status is better examined as a separate factor, independent of acculturation.

Educational level and occupational background are measures of socioeconomic status that influence post-migration adaptation trajectories. Berry et al. (1987) notes that better education is associated with better cognitive, economic and social resources to cope with or buffer stress. However, education is also found to be negatively associated with depression because there is a discrepancy between expectation/aspiration and the realistically attainable opportunities available to immigrants (Hovey and Magaña, 2000). If immigrants with high levels of education end up in the lower tier of the job hierarchy

due to limited opportunities, they might experience lower self-esteem. The discrepancy in aspirations and achievements could result in stress and depression among immigrants (Bhugra, 2004).

Age is another factor being extensively studied to predict the emotional well being of immigrants. Previous research shows contradictory findings on the relationship between age and emotional well being (Mirowsky and Ross, 1999; Min, Moon, and Lubben, 2005; Mossakowski, 2007). Some studies suggest that older adults may experience more emotional problems. Empirical research (Takeuchi et al., 1998) shows that younger ethnic group members are less likely to have major depressive episodes. Researchers (Angel and Angel, 1992) find that because older immigrants experience greater cultural and value conflicts, and language barriers may present greater challenges; psychological impact of migration may be greater among older immigrants who migrate later in life than those who do so in childhood, or young adulthood. Older immigrants may also experience greater social isolation due to withdrawal from labor market, and lack of social services because of unfamiliarity (Min, Moon, and Lubben, 2005), all of which might contribute to distress that could threaten their emotional well being. As a consequence, older immigrants may experience greater levels of psychological distress than their younger counterparts (Portes and Rumbaut, 2006; Wilmoth, DeJong and Himes, 1997). Min et al. (2005) findings support this perspective: migrating at an old age, or being an older immigrant actually makes it more likely to experience distress, even controlling the effects of socioeconomic status. It is believed that older immigrants have limited resources to deal with stressors (Mui, 1996a; Mui and Kang, 2006).

In contrast to the studies cited above, other research has shown that older adults, in general, experience less distress than younger people (Carstensen and Charles, 1998) As acculturation level increased, young immigrants are at greater risk to develop depression than older adult (Kaplan and Marks, 1990). Bhugra (2004) argues that young immigrants are at greater risks of developing mental problems, because although they might be more flexible to adjust to the new host society, they are also in the process of developing their cultural identity, thus more likely to be influenced by cultural confusion and culture shock.

Social support networks and the extent of acculturation are also suggested to be more important mediating factors in the psychological well-being of women than that of men. Many of the variables of social support networks are significantly positively correlated with higher psychological distress levels for the whole group. Studies show that when immigrants from similar backgrounds concentrate geographically, they might receive support from within the group, to deal with the stress. On the other hand, if they reside scattered, the social support from the same group may be less (Bhugra, 2004). Social support is found to be critically important in preventing depressive symptoms (Cochrane, 1983; Kuo, 1995; Kuo and Tsai, 1986). As Kuo and Tsai (1986) note, strong social support will reduce the effect on psychological impairment.

Gender is another issue that might be related to the emotional well being of immigrants. As researchers (Ghaffarian, 1998; Ong, 2003; Smith, 2006) have suggested, females might experience greater cultural differences, because a lot of immigrants come from the cultures that allow less equal rights and opportunities for women than men. The change from reproductive roles or domestic work to both productive and reproductive

roles can also increase the level of distress women might experience in their new lives in the host society (Ghaffarian, 1998). Ghaffarian (1998) observed that male immigrants are actually in better mental health than their female counterparts. Therefore, we expect that gender matters, and predicts the mental health status of immigrants.

Nevertheless, whether females or males are more likely to have mental disorders is inconclusive in previous research among immigrants. Kuo (1995) finds that males report more discrimination, which could result in more psychological distress and depression. However, some research shows different patterns. Takeuchi et al. (2007a) find that Asian female immigrants have fewer mental disorders than natives, but women reported more psychological symptoms then men. Thoits (1982) has suggested that the women are psychologically vulnerable because they usually have less education, lower incomes, and less prestige, which leaves them more exposed to the negative consequences of stressful events.

Post traumatic stress disorder of mental status involves fear, helpless, or horror after individuals experience actual or threatened death and /or serious injury (APA, 1994). Many immigrants are found suffering from this type of mental disorder collectively due to exposure to politically motivated terror, torture or massacre (Lipsedge, 2001). As a result, immigrants who had experienced trauma, torture or persecution are more likely to have mental disorders (Jenkins, 1991). Empirical study (Kandula et al., 2004) shows that there are high rates of depression, anxiety and stress among immigrants who experienced traumatic events, such as torture or persecution, in their lives.

Acculturation is often used to explain mental disorders among immigrants. Acculturation is a multi-dimensional process by which one the cultural group adopts the

cultural practices of the host society (Mui and Kang, 2006). Most previous research is influenced by the mainstream incorporation model, relying on acculturation model despite the fact that the incorporation patterns of immigrants varies significantly due to the heterogeneity of these groups. When examining the influence of the incorporation process on immigrants' emotional well being, researchers have primarily focused on how levels of acculturation affect immigrants' mental health status (Eaton and Garrison, 1992; Ghaffarian, 1998; Harker, 2001; Mehta, 1998; Shen and Takeuchi, 2001). Research (Mehta, 1998) shows that migration to the host country might cause emotional distress because of the "the grief over loss of the familiar, feelings of homesickness and alienation, cultural nuances to grasp and interpret" (pg. 63).

Generally, there are two perspectives regarding the influence of acculturation on an immigrant's mental health status or emotional well being (Mehta, 1998). Shen and Takeuchi (2001) summarize those two aspects focusing on both the problems and contributions of acculturation. The first perspective argues that higher levels of acculturation are associated with high levels of stress and thus contribute to more mental health problems, such as depression and mental disorders, because the loss of the connection with their own culture will cause an identity crisis among immigrants. The second perspective claims that being acculturated to the mainstream would ease the psychological distress and result in better mental status for immigrants, and that greater loyalty to ethnic culture actually causes greater stress, because immigrants are constantly under the pressure of adjusting themselves to the host society, and sometimes these adjustments could be dramatic. In addition, acculturation is correlated with higher

socioeconomic status, which serves as a mediator to lower the risk of having mental health problems.

Ghaffarian (1998) examines three stages of acculturation: cultural resistance, cultural incorporation, and cultural shift. His findings support the first acculturation perspectives suggestion that higher levels of acculturation would result in worse emotional well being of immigrants. He finds that as cultural resistance increases, the mental health status of immigrants' decreases. However, his sample is based on an Iranian sub-sample of immigrants. Therefore, these findings can hardly be generalized to all immigrants, but it offers some credibility to this perspective. In another study, Metha (1998) finds that better mental health is associated with greater perceptions of acceptance, being oriented toward U.S. culture, and better English proficiency, across different immigrants groups. In this research, she suggests that the context of reception is more important in shaping immigrants' mental health statuses than the immigrants' nations of origin.

Researchers (Porter and Washington, 1993; Portes and Rumbaut, 2001) also believe that acculturation of Latinos and Asians can be nonlinear. Marginalization of ethnic culture will lead to psychological distress among individual immigrants. However, when individuals gradually become acculturated into the host society, there will be less distress and psychological health will be improved. Similar evidence is found to support the argument that acculturation will result in better mental health status among immigrants (Pang, 1998, Stokes et al., 2001).

The traditional understanding is that acculturation benefits the emotional well-being of immigrants (Portes, 1990). However, the findings of empirical studies are

mixed. Burnman et al. (1987) find that lower levels of acculturation are associated with less exposure to drug abuse or dependence, and function through the positive effects on family ties, social controls, and traditional values associated with the ethnic cultural heritage of U.S.-born Mexican Americans. In addition, Amaro et al. (1990) find that highly acculturated Mexican Americans are much more likely to use illegal drugs, controlling for other factors. Therefore, studies tend to reveal a negative association between acculturation and mental health among immigrants. Portes (1990) warns of the danger of fully acculturating into an increasingly complex and permissive society and its negative consequences for both physical and mental health problems.

Therefore, as Portes (1990) contends, acculturation per se is not the decisive variable in explaining the mental health status of immigrants. Depending on specific contexts, acculturation can lead to widely different outcomes. Researchers should focus on the specific circumstances in which immigrants are embedded because acculturation is also context specific. Both the home context and host contexts of immigrants contribute to different acculturation patterns and their influences on mental health status will vary. The acculturation process is multidimensional and can be either very stressful to immigrants (Mui and Kang, 2006) or beneficial to immigrants (Portes, 1990).

Several indicators have been employed to measure levels of acculturation. These include language proficiency, length of residency in the United States, age at migration, generation status, exposure to U.S. culture, and the like (Bhugra, 2004; Golding and Burnam, 1990).

Fluency in English can facilitate the assimilation or acculturation to the host society (Bhugra, 2004; Takeuchi et al., 2007a). It is a key for social integration and

acculturation of immigrants. Empirical research shows that immigrants who speak better English generally report both less life-time, and 12-month, mental disorders (Takeuchi et al., 2007a). Language proficiency could affect the utilization of health care services which might affect immigrants' mental health status by influencing their perceived social support. Limited English proficiency among immigrants could lead to communication problems which prevent them from using, or effectively using, health care services or seeking supports and helps outside their ethnic communities (Johnson et al., 1995). It also limits immigrants' opportunities to find jobs outside their ethnic communities and thus may result in their lack of social resources to buffer and cope with stress and depression (Kuo, 1995). However, it is important to point out that to some immigrants groups, such as Filipino's immigrants, English is no longer a barrier to acculturation (Mossakowski, 2007). Because English is the official language of Philippines' and most Filipinos speak fluent English, English language proficiency is not a proxy for acculturation.

Scholars suggest that the age at which immigrants migrated to the United States is strongly associated with major depression (Takeuchi et al., 2007a; Mossakowski, 2007). Research shows that people who migrate after their 20s are far more likely to develop major depressive episodes than those who migrate at younger ages (Takeuchi et al., 1998). Padilla, Lindholm, Alvarez & Wagatsuma (1986) also find that individuals who migrate after the age of 14 (late migration) experience higher levels of stress than those who migrate prior to age 14 (early migration). Although there is no agreement on the specific age representing early migration, it is suggested that early migration is associated with fewer mental health problems. The explanation is that older immigrants face greater pressure to succeed in the new country, but lack of communication and other essential

skills and thereby may be more prone to developing psychological conflicts (Salgado de Snyder, 1987). Mossakowski (2007) finds that Filipino childhood immigrants have significantly higher levels of depressive symptoms than those who immigrated after age 13.

Immigration puts individuals at risk for developing stress and depression. However, it may do so for very different reasons and in very different ways for specific groups (Gaines, 1998). The immigrant population is very heterogeneous (Nakanishi and Lai, 2003; Tam 1995; Porter and Washington, 1993; Flack et al., 1995; Bhugra, 2004). Immigrants differ significantly in their cultures, values, socioeconomic statuses, migration experiences, etc. Studying them with the assumption of homogeneity could lead to fallacious conclusions (Tam, 1995; Frisbie, Cho and Hummer, 2001). Immigrants come in at different times, which might affect their level of acceptance and discrimination in the host society. Therefore, there is no single universal model developed that has successfully explained the emotional well being of the immigrant population at large (Eaton and Garrison, 1992).

Recently, the concept of transnationalism has been introduced to examine the post migration trajectories of the immigrants. Research suggests that transnationalism might be associated with the emotional well being of immigrants. Smith (2006) finds that transnational experiences serve to enhance primordial ties which are the ties to their ethnicity and home country, the social and cultural connections of immigrants with their countries of origin. And according to previous theory and research, ethnic cultural ties serve as protective factors associated with emotional well being. Immigrants engaged in transnational experiences might have different, and perhaps stronger, ethnic identities

compared to immigrants with a similar ethnic background and characteristics but not involved in transnational experiences, and this might lead to different mental health outcomes. Engaging in transitional activity is also found to maintain an ethnic identity and contact with ethnic communities, which is found to help immigrants cope with distress. For example, Portes and Washington (1993) suggest that Latino and Asian immigrants may find social support networks, economic opportunities, and social acceptance in their respective ethnic communities (Vega and Rumbaut, 1991). Kin networks are also very important in providing social support. These ethnic sub-cultural and community ties are vital in sheltering the immigrant from acculturative stress by serving as social support systems (Noh and Avison, 1996).

Murphy and Mahalingam (2004) argue that transnational ties and practices among new immigrants enhance their lives directly, or indirectly, by promoting and maintaining valuable social networks, providing social support, and helping immigrants negotiate their ethnic identity. Therefore, transnational activities have been associated with life satisfaction, which results in better mental health. However, their findings are complicated in the sense that their results reveal that transnational activities are associated with high level of stress among Caribbean immigrants. Further research is needed on the relationship between transnationalism and mental health status of immigrants from different countries.

Mental Health Status of Asian Immigrants:

Although the population of Asian immigrants remains relatively small compared to African Americans and Latinos in the United States, Asian immigrants have the fastest growth rate among all ethnic groups (Kuo, 1995). This growth has occurred among both

the U.S. born and immigrant population segments. In 1970, the US-born Asian population totaled about 1.5 million. However, by 2000, the Asian American population had increased to roughly more than 10 million (the U.S. Bureau of the Census, 2001a). It is estimated that the Asian American population will reach 20 million in 20 years (Nakanishi and Lai, 2003). Between 1992 and 2000, the growth rate of people who declare themselves as Asian was 72 percent (Lien, Conway and Wong, 2004). Seventy-one percent of this increased growth in the Asian population is a result of immigration (Lien, 1997).

Among Asian Americans, Chinese represent the largest sub-ethnic group in the United States. As of the year, 2000, a total of 2.7 million people reported Chinese alone or in combination with one or more other races or Asian groups. Filipinos are the second largest Asian American group. There were 1.9 million Filipinos in 2000. Asian Indians comprise the third largest sub-ethnic groups of Asians: There were 1.7 million Asian Indians in 2000. Together, Chinese, Filipinos and Asian Indians account for 58 percent of all Asians in the United States. Other large Asian sub-ethnic groups include Koreans, Vietnamese, and Japanese (U.S. Bureau of the Census, 2001c).

Asians have long been characterized as the "model minority" since they have relative high level of socioeconomic status, high level of education, high income, lower poverty rates compared to other minorities, and even SES status comparable to whites (U.S. Bureau of Census, 2002). However, Asians are a very heterogeneous group. Asian ethnic groups differ in language, religion, culture, SES, migration experience and the like (Nakanishi and Lai 2003; Tam, 1995; Kuo, 1995; Mui and Kang, 2006). Moreover, the characteristics of non-refugees are very different from refugees. Most of the Asian non-

refugees are Chinese, Filipinos, Japanese, Koreans and Asian Indians. These groups tend to be highly educated and skilled. In contrast, refugees are mainly from Southeast Asian countries such as Vietnam, and typically are from lower-socioeconomic backgrounds (Frisbie, Cho and Hummer, 2001).

In general, many Asian immigrants experience adaptation or adjustment difficulties in the host society and suffer from psychological distress (Kuo and Tsai, 1986). And their mental health status is influenced by many factors, including immigration policy, nativity or generational status, the degree of facility with the English language, lack of ethnic contacts, residential concentration, SES, culture and in adjusting into the American lifestyle and so forth (Kuo and Tsai, 1986; Johnson et al., 1995).

Although Asian immigrants and their decedents are often characterized as "model minorities," some researchers believe the concept is quite misleading (Johnson et al. 1995). They point out that the socioeconomic statuses differ significantly among diverse Asian subgroups. Asian immigrants are overrepresented at both the high and low ends of the job hierarchies. Johnson et al. (1995) also note that the high family income of Asians in the U.S. is due to multiple wage earners in one household. Asians are more likely to be in poverty and receive less income return for their educational attainment than whites. These Asian-White inequalities are considered as economic strains and can have a great influence on the mental health status of immigrants.

In contrast to their model minority image, Asian immigrants are not a problem-free population. They also experience difficulties in adjusting to the host society. Kuo (1995) finds that Asian Americans score at least at high as whites on indicators of depression. He suggests that although many highly assimilated Asian immigrants adopted

the expression blue to describe depression, researchers are uncertain about whether this indigenous concept reflects the depression mode of Asian immigrants. He also finds significant variations among Asian ethnic subgroups. Specifically, Kuo (1995) shows that, after holding constant several demographic variables, the differences between Korean, Filipinos, Chinese and Japanese still remain statistically significant. His results also show that a lower employment status tends to work against the psychological well-being of newer immigrants.

Culture is suggested to be instrumental in understanding the mental health problems of Asian immigrants (Johnson et al., 1995). Depression may also be more prevalent among older Asian immigrants because the lack of social resources to deal with difficulties in the process of adaptation, acculturation and family disruption (Mui, 1996b). For Asian immigrants, research on the relationship between acculturation and mental disorder has produced mixed results. Some research (Pang, 1998; Stokes et al., 2001) shows that more acculturated Asians have better mental health outcomes. However, those stresses might stem from the fact that older immigrants are associated with shorter length of residency in the U.S., poorer health, more life stresses, more financial strains, poor English proficiency, social isolation and lack of social support. Nevertheless, the acculturation process can be stressful to Asian immigrants and can result in higher levels of depression (Mui and Kang, 2006).

Korean: East Asians are influenced by similar traditional cultural influences, including Confucian ethics, which might affect their patterns of mental disorder. However, Filipinos experiences may be different since they are influenced by a different tradition. Filipinos are heavily influenced by the Spanish colonization (Kuo, 1995).

Interestingly, Kuo also finds that Chinese individuals aged 60 and over score the lowest on depression, but fails to find similar pattern among other Asian groups. He finds the highest depression scores among young people under 30, except among Koreans. Among those who are unemployed, or holding part-time jobs, or whose family incomes are lower than $25,000, Kuo (1984) also finds high depression scores. Low depression scores are associated with retirement and family incomes greater than $40,000. He also finds that Korean immigrants score the highest on depression, and might experience difficulties adjusting to their post migration social environments. Conversely, this may also be due to their shorter average length of residency in his sample, 7 years compared to other Asian groups, who have stayed in the U.S. for 15 years or longer. Koreans also have greater difficulties with English, which limits their opportunities for establishing themselves economically outside the community. In another study, Korean immigrants were found to have more difficulties in adaptation and have more financial stresses than Chinese, Philippine and Japanese immigrants (Kuo and Tsai, 1986).

Chinese: In a study of Chinese Americans in Los Angeles, researchers (Takeuchi et al., 1998) find that they are at most risk for developing mental health problems. However, in this study, because Chinese immigrants are not differentiated from native born Chinese Americans, it is difficult to determine whether immigrants are at greater risks than native-born. Nevertheless, the study provides a general picture of the mental health status of the Chinese ethnic group in the United States. Their study finds that younger adults (from 18 to 49), single or married, are less likely to develop major depressive episodes. Chinese ethnics who migrated at older ages (over 20), from disruptive family backgrounds (separated, divorced or widowed), have lower educational

attainment, higher unemployment rates, lower income families, and females, are more likely to develop major depressive episodes. This research (Takeuchi et al., 1998) also finds some associations between acculturation and depression. Compared to those who speak only Chinese, people who speak only English are far less likely to have major depressive episodes. Those who have stayed in the U.S. less than ten years have fewer depressive episodes in the past 12 months. However, if they have stayed in the U.S. more than 10 years, they are more at risk to report major depressive episodes.

Other Asian Immigrants Group: McKelvey et al. (1993) found that Vietnamese American Youth with high pre-migration expectations are more likely to report fewer symptoms of anxiety and depression after settling down in the recipient society. Filipinos are found to rate their mental health status worse than whites. The life satisfaction levels of Chinese, Filipinos, and Japanese are all below whites (Cabezas, 1982). Japanese and Philippine ethnics report more stresses than Korean and Chinese ethnics (Kuo, 1995). Indian immigrants are found to have fewer psychological disorders compared to natives in a national community survey of psychological symptoms (Cochrane and Stope-Roe, 1981).

Mental Health Status of Latino Immigrants

Latinos became the largest minority group in the United States in the year 2000 (U.S. Bureau of the Census, 2001a).According to the census there are 35.3 million Latinos in the U.S., representing 12.5% of the total population. The Latino population increased by 57.9 percent, from 22.4 million in 1990 to 35.3 million in 2000. However, the population growth varies by group. Mexican ethnics increased by 52.9 percent, from 13.5 million to 20.6 million. Mexicans are also the largest Latino ethnic group,

representing 58.5 percent of all Latinos in the U.S. Puerto Rican ethnics, which increased by 24.9 percent, from 2.7 million to 3.4 million, represent the second largest subgroup, also comprise about 9.6 percent of Latinos. Cubans increased by 18.9 percent, from 1 million to 1.2 million, and represent the third largest Latino ethnic group in the U.S (U.S. Bureau of the Census, 2001b).

On average, Latino families have the lowest SES attainment of all racial and ethnic groups in the United States (Flack et al. 1995; Johnson et al, 1995). They also have lower high school graduation rates, lower family incomes and higher unemployment rate (U.S. Bureau of the Census, 1990). Latinos, on average, have lower per capita income than African Americans (Johnson et al., 1995). They have the second largest population that live below the poverty level, about 7.1 million, only better than African Americans (U.S. Bureau of the Census, 2006). Twenty five percent of Latino families live in poverty. They also have very low rate of health insurance coverage which results in limited resources for buffering and coping whenever they experience stress or depression (Johnson et al., 1995).

Previous research reveals inconsistent findings regarding the mental health status of Latinos (Rogler, 1989; Shrout et al. 1992). Some studies find that Latinos have higher rates of mental disorder than other ethnic minorities (Dohrenwend and Dohrenwend, 1969; Roberts, 1980; Roberts and Vernon, 1983), while others find the opposite (Vernon and Roberts, 1982). Research shows that for elderly Latino immigrants, the more they are acculturated to the host culture, the more likely they will suffer from depression (Black et al., 1998; Falcon and Tucker, 2000; Gonzalez, Hann, and Hinton, 2001; Hovey and Magaña, 2000).

Research shows that Latino immigrants, like other ethnic minorities, face pressures to fit into the dominant Anglo culture, stress associated with discrimination, and strains of the socioeconomics disadvantage (Shrout et al., 1992). In addition, Latino, like Asian American, is a socially constructed concept that can be viewed both as ethnic and racial categories. These categories encompass many sub-ethnic groups that are very heterogeneous (Porter and Washington, 1995; Rogler et al., 1991). They differ with respect to socioeconomic status, other demographic characteristics, language and cultures. Among them, Mexican Americans vary greatly in terms of socioeconomic status, generation composition within group; Puerto Ricans have the lowest education level; Cubans have the highest socioeconomic status, highest median income, lowest unemployment rate and lowest poverty rates (Bean and Tienda, 1987). Few previous studies have focused on the differences among Latino immigrant groups (Shrout et al., 1992). However, extant research on Latino immigrants' mental health status indicates because Latinos are a very heterogeneous panethnic group, they should be studied based on their sub-ethnic group membership (Shrout et al., 1992)

Puerto Ricans: Puerto Ricans are found to have higher depression level than other Latino immigrants, when controlling for the socioeconomic status. One explanation is that unlike other Latino groups who have gone through the strict screening process for immigration, Puerto Ricans do not experience any of the strict selection processes imposed by the U.S. Immigration service (Waddell, 1998). Thus, among Puerto Ricans, psychologically impaired immigrants are not prevented from migrating to the U.S. (Shrout et al., 1992). Shrout et al. (1992) found that Puerto Ricans are most at risk of developing somatization disorders.

Mexicans: Mexicans have a long history as laborer immigrants in the United States even during historical periods with restrictions on non-European immigrants (Massey, 1995). They are also the most studied Latino ethnic group in regard to mental health issues. Previous research finds that Mexican immigrants experience numerous mental health problems associated with migration (Golding and Burnam, 1990; Salgado de Synder, 1987; Vega and Koody, 1985; Warheit et al., 1985). Salgado de Snyder (1987) finds that recently married, recently migrated women from Mexico suffer from high acculturative stress. Vega et al. (1987, 1988) finds that more recent Mexican immigrants have higher levels of depression than immigrants who have stayed in the U.S. for longer terms. They suggest that this pattern might result from the fact that acculturation of migration is a stressful event itself, and is more consequential for recent immigrants. Other research suggests that new immigrants are less acculturated to the host society which results in smaller support networks (Vega and Kolody, 1985). Since social network are vital in buffering and coping with stress, the high level of stress among recent immigrants could be a result of lack of social support.

Other analyses of Mexican immigrants reveal that females, younger immigrants (those under age of 30), separated and divorced individuals, and those with less than a high school education have the highest depression scores (Warheit et al., 1985; Vega and Kolody, 1985). Vega, Kolody and Valle (1987) have identified several factors that are vital in predicting the mental health status of Mexican immigrants. Those factors include demographic factors (education, income), perceived economic opportunity, perceived distance between the two centers involved in the migration, and loss of personal ties in Mexico.

However, compared to other Latino ethnic groups, researchers (Shrout et al., 1992) find that Mexican American immigrants have the fewest mental health problems. Burnman et al. (1987) contend that acculturation is not associated with higher levels of psychological distress among Mexican immigrants, but does lead to increased drug use. They also suggest that the reason Mexican immigrants have fewer mental disorders is that only mentally healthy and strong Mexicans tend to migrate to the U.S. Mexican American immigrants have been found to have better mental health than Central American immigrants when educational level is controlled (Salgado de Snyder et al., 1990). Researchers suggest that strong extended-family ties and pseudo-kinships account for their stronger social support and their better psychological well being compared to other Latino ethnic groups (Mirowsky and Ross, 1980). It is also suggested that because of these strong social supports, education and income might not exhibit the same for stress buffering and coping among Mexican immigrants (Mirowsky and Ross, 1980).

Other Latino Groups: Research has also been done on other Latino immigrants' groups as well (Jenkins, 1991; Williams et al., 2007). Jenkins (1991) finds that female Salvadoran refugees suffer from stresses, due to their exposure to war and terror. Williams et al. (2007) find that Caribbean Black women have better mental health status compared to African Americans. Immigrants in general have lower rates in developing 12-month psychiatric disorder. They suggest that nativity is important in studying the mental health status of Caribbean immigrants since it is intertwined with culture and language, both of which will influence their post-migration trajectories in the United States. They also imply that acculturation might be negatively associated with mental health among Caribbean immigrants.

CHAPTER 3

THEORIES/CONCEPTS

Defining mental health has always been a challenge for mental health researchers (Vega and Rumbaut, 1991; Alker, 1965). As reflected in the literature, contemporary mental health research is a multi-disciplinary arena, which incorporates psychiatry, psychology, social work, anthropology, genetics, and other fields in addition to sociology. Indeed, the concepts of "mental health" and "mental illness" have never been sharply defined (Wakefield, 1992). In most research, mental health and psychological well-being are used interchangeably. However, the purpose of this study is to examine the stress experienced by immigrants, and its consequences for their potential distress, and depression. Thus we begin with a discussion the concept of "stress".

Stress has been characterized as a mental state resulting from either of the following two situations: (1) when socio-environmental demands exceed the individual's ordinary adaptive capacity or (2) when the individuals themselves lack the resources to meet such demands (Aneshensel, 1992). Those external circumstances that trigger emotional status change are considered stressors, and the consequent internal status is the distress. When there are discrepancies between those external conditions and the adaptive or dealing capacities, stress is very likely to be generated. Pearlin and his colleagues (1981) establish a model to illustrate the stress process. Disruptive life events and chronic life strains could bring stressors into people's life. And experiencing stressors would lead to erosion of individual's self-concept and make them more vulnerable to symptoms of psychological distress. They also emphasize the importance of social support and coping

as mediators between stressors and psychological distress, which will be elaborated later in this chapter.

The stressors immigrants experience may be caused by both social structures and cultures. When coming to the U.S., Asian and Latin American immigrants experience a change in the cultural environment and more or less face the pressure to adapt to the new culture and life style of the host society (Padilla et al., 1986; Lee and Ellenbecker, 1998). For example, the language barrier is one of the most observed stressors among recent Latin American immigrant (Padilla et al. 1986). In addition to "acculturative stressors" many immigrants face many other stressors such as limited education and work skills, discrimination and lower economic levels (Cervantes and Castro, 1985). As ethnic minorities, many recent immigrants from developing countries, coming as laborers are from lower social class background (Massey, 1995). Research shows that people from lower social classes are more likely to be exposed to stressors (Aneshensel, 1992; Pearlin, 1999). However immigrants from high socioeconomic background are not immune to stressors. They could experience structural stress in the form of economic strain. For immigrants seeking better economic status, the position of "outsiders" in the host society could lead to discrepancies between their occupations and income, or discrepancies between their aspirations and achievements, and consequently increase their psychological distress (Aneshensel, 1992).

An important component of the stress process is how individuals react to those discrepancies. The stress response process involves two components, coping behavior and coping resources. Coping behavior refers to actions or strategies taken by individuals to reduce the present problems, avoid or eliminate the stressor (Aneshensel, 1992; Pearlin

1999). However, those actions and strategies are also related to coping resources to help them deal with the discrepancies (Aneshensel, 1992; Hobfoll, 1989; 2001). Coping resources are preexisting assets that individuals can use to combat stressors (Aneshensel, 1992). Resources are very critical in the coping process. Resources can help individuals 1) reduce any negative effects of exposure to stressors; 2) reduce chances of being exposed to stressors; 3) counterbalance stressors (Wheaton, 1985; Pearlin, 1999).

Some scholars take resources as the key to understand the stress process. Hobfoll (1989) presents the conservation of resources as a new model to understand stress and its impact on mental health. He argues that people reserve resources to cope with difficulties, and any potential or actual loss to the resource or failure to replenish resources can result in psychological distress (Hobfoll, 2001). Both the actual resources of individuals and their access to resources are important to the outcome of stress. Asian and Latino immigrants are often found to have fewer actual resources and therefore are likely to be more vulnerable to resource loss and result in psychological distress (Aneshensel, 1992; Pearlin, 1999; Hobfoll, 2001).

Some of the resources identified by Hobfoll (2001) and other scholars (Pearlin, 1999) include self-efficacy, self-esteem, socioeconomic statuses loss. For example, self-efficacy is a key mediator between social position and stress. Self-efficacy represents a sense of subjective control, which assigns cause to outcomes such as success and failure to either personal attributes, such as ability and effort or to external causes such as fate (Aneshensel, 1992). A belief in personal control may alleviate stress at times, especially when stressors cannot in fact be controlled. A sense of control could alleviate the

negative psychological impact of failure by encouraging active problem-solving (Aneshensel, 1992; Pearlin, 1999).

The life course perspective has also been introduced to explain stress and its influence on immigrants. Life course research studies exposure to health risk experienced by individuals and groups at different life stages (Elder, George, and Shanahan, 1996). It emphasizes that there is an "an age-graded pattern of events and social roles that is embedded in social life and structures." The key concepts of the life course perspective are transitions and trajectories. Transitions refer to changes which are discrete in status with consequences that may be long-term. Trajectories are long-term patterns of stability and change, often including multiple transitions (Elder, 1994; Elder, George, and Shanahan, 1996).

The life course perspective integrates both social structure and human agency (Elder, 1994; Elder, George, and Shanahan, 1996). Immigrants are viewed as planful and make proactive choices among options that construct their life course. Any individual's biography is influenced by both social and historical factors. The life course is age graded (Elder, 1994; Elder, George, and Shanahan, 1996), therefore the stage when the transition takes place is critical. For immigrants as a group, migration is a big transition in the life course for all members. However, different cohorts experience this transition at different stages, within different historical contexts. Therefore, the impact of the same transition would vary among cohorts. Migration might have different psychological impacts on people of different ages and in different historical periods.

The adaptation of immigrants is associated with their exposure to stressors, actual resources and access to resources to cope with stress (Gaines, 1998). Therefore the

incorporation model of immigrants is another perspective from which to understand their mental health status. The incorporation model of immigrants is quite complicated (Portes and Böröcz, 1989; Alba and Nee, 2003; Portes and Rumbaut, 2001; Levitt and Glick, Schiller, 2004). Immigrants who come with high levels of social, human, and economic capital, and resemble whites' phenotypically find it easier to assimilate into the White-Anglo Saxon dominated mainstream culture. But immigrants of color, often coming with limited resources, might remain at the bottom of racial stratification system and be marginalized in U.S. society. And for even others, their migration experience is strongly shaped by their transnational activities. Therefore, different incorporation types might affect immigrant's mental health outcomes differently. It is necessary to explore the theories that explain the incorporation model of immigrants (Alba and Nee, 2003; Portes and Rumbaut, 2001) in order to understand the stress process associated with immigrants.

Assimilation is the most widely used theory in explaining the adaptation patterns of immigrants. It was first proposed by Robert E. Park (1950) to explain the incorporation of European immigrants. He argues that immigrants will all experience contacts, competition, accommodation and eventual assimilation to the mainstream. The assimilation perspective was viewed as progressive and irreversible. Park acknowledged that economic competition between the host group and the immigrants would create tension between those two groups, but believed that all immigrants would eventually assimilate into the host society. This view minimizes the values, beliefs, and culture of immigrants. He implies that immigrants would all incorporate to the common culture of the society and society achieves cultural solidarity (Alba and Nee, 2003). Milton Gordon (1964) argues even further that immigrants will eventually adapt to the culture of the core

society, which is the middle-class American culture. This process is called acculturation and it is the core stage of assimilation in Gordon's seven-stage assimilation process. During this stage immigrants will adopt English, host society religion (Christianity) and other cultural characteristics. It is inescapable for all immigrants. For Gordon, acculturation is very unique because it is typically the first, and inevitable stage (Alba and Nee, 2003), and it can continue indefinitely without other stages.

Park's (1950) and Gordon's (1964) version of acculturation theory focuses on cultural homogeneity regardless of the nature of the immigrants and devalues the culture of ethnic groups, which puts tremendous pressure on immigrants. Because its explanation in cultural adaptation patterns of immigrants, assimilation theory has been considered very Anglo-conformist, and imposes ethnocentric and patronizing demands on minority people struggling to retain their cultural and ethnic integrity for a long time (Alba and Nee, 2003).

Many researchers (Portes et al, 1999; Alba and Nee, 2003) try to revitalize assimilation by re-evaluating the different socio-demographic traits of immigrants, the specific social context of their adaptation processes, and the influence of their own ethnic cultures. They integrate the core concepts from the classic assimilation theory, and the ethnic diversity and dynamics of the American population today. They redefine the mainstream as a composite culture with different characteristics of diverse cultural practices and beliefs instead of the core culture of the WASPs' (White Anglo Saxon Protestant). Assimilation no longer means cultural conformity to WASPs' culture and thus opens the door for ethnic cultures becoming valued in the core culture. The revised assimilation model reflects a process through which changes take place in both the host

society and among the immigrants. Changes, including changes in cultures now take place on both sides of the ethnic boundary through boundary crossing, blurring and shifting. The changes do not take place from the core outward, but are more likely found at the boundaries between the dominant groups and immigrants. As a result, the new acculturation grants value to ethnic culture, and the incorporation model gives immigrants more freedom in adaptation. Furthermore, once they become acculturated, they are able to allocate more social resources and better utilize them in coping and buffering.

Transnationalism is a newly defined concept which was first introduced as a competing concept to traditional assimilation theory and cultural pluralism theory by cultural anthropologists. It seeks to explain the experience or the adjustment of immigrants in the host country. It was proposed as a reaction to changing immigrant populations (Kivisto, 2001). Transnationalism has provided a new explanation of the immigrants' role in both the host society and their home country. Nowadays, many researchers (Portes et al. 1999; 2007, Kivisto, 2001; Levitt and Schiller, 2004) imply that trasnationalism could complement assimilation theory rather than contradict it.

Transnationalism involves any activities that bridge both host countries and sending countries at different levels, individual, institutional, and governmental (Portes et al., 1999). For the research purpose of my dissertation, I will focus exclusively on transnational activities that involve only immigrants at the individual level. Many immigrants are involved in such transnational activities as sending back remittances, running businesses that are in the U.S. and their home countries, and participating in political activities at home countries. As Portes et al. (1999) indicate, those are not new

phenomena that are unique to today's immigrants. However, the old phenomena deserve new attention and are entitled to a new concept because of the social meanings and influences of those old activities. With globalization and modern technologies, more and more immigrants now engage in international activities and those activities not only shape the adaptation patterns of immigrants themselves but also the economic development and political situation in their home countries (Portes et al., 2007). Therefore, it is important to study those activities under the newly adapted concept (Portes ,1997; Portes et al., 1999; 2007).

Transnationalism views immigrants as active agents connecting the host country and home country. They are actively involved in the development of the home country, especially economically (Portes, 1999). As Kivisto (2001) suggests, the transnational concept is not responding to the argument that new immigrants differ qualitatively from old immigrants. Both groups remain in interaction with their home countries, perhaps at different levels, due to technological developments and new techniques of communication. He argues that immigrants are not passive recipients to be assimilated into a society that is fixed and given, adopting the middle-class American culture. Instead, they influence and bring changes to the host society as well. Scholars of transnationalism also challenge the old concepts of citizenship, nations, states and so forth. Levitt and Glick, Schiller (2004) propose the concepts of "ways of being" and "ways of belonging" to refer to the social membership of immigrants. Their memberships with the home country and host society do not preclude one another. They can coexist at the same time.

The transnational experience could serve to enhance immigrants' ties to their ethnicity and home country, the social and cultural connections of immigrants with their countries of origin, and thus serve as a protective factor and lead to better emotional well being. Immigrants engaged in transnational activities could still keep their ethnic identity and maintain a positive sense of identity (Smith, 2006), which could also protect them from stressors. The transnational experience that involves religious organization might also mediate immigrants' distress, perceptions of inequality and discrimination (Smith, 2006). Transnational ties have also been argued to enhance their lives by directly or indirectly promoting and maintaining valuable social networks, providing social support and helping immigrants maintain their ethnic identities (Murphy and Mahalingam, 2004). And ethnic identity is related to a positive sense of self. Therefore, it has been associated with life satisfaction, which also results in better mental health status. However, their finding is complicated in the sense that they also find that transnational activities are associated with high level of stress among Caribbean immigrants (Murphy and Mahalingam, 2004).

Since no single theory can fully explain the mental health statues of immigrants, a conceptual model (see Figure 1) which incorporates various theories and concepts will be applied in my dissertation, to account for the mental health problems of immigrants. It considers the whole migration process, from pre-migration to post-migration, and a broad range of social factors associated with the various stages in the migration process. Specifically, the model examines the influences of *pre-migration factors* such as socio-demographic status, socioeconomic status, and persecution, and post-migration factors including age of migration, acculturation, transnationalism, and social support on the

mental health status of Asian and Latino immigrants. As the model suggests, socio-demographic status, socioeconomic status, and persecution experiences may affect immigrants' patterns of acculturation, transnationalism, and social support as well as age at migration. In turn, acculturation, transnationalism, social support and age at migration are believed to both directly influence immigrants' mental health, and potentially mediate, or moderate the effects of pre-migration factors.

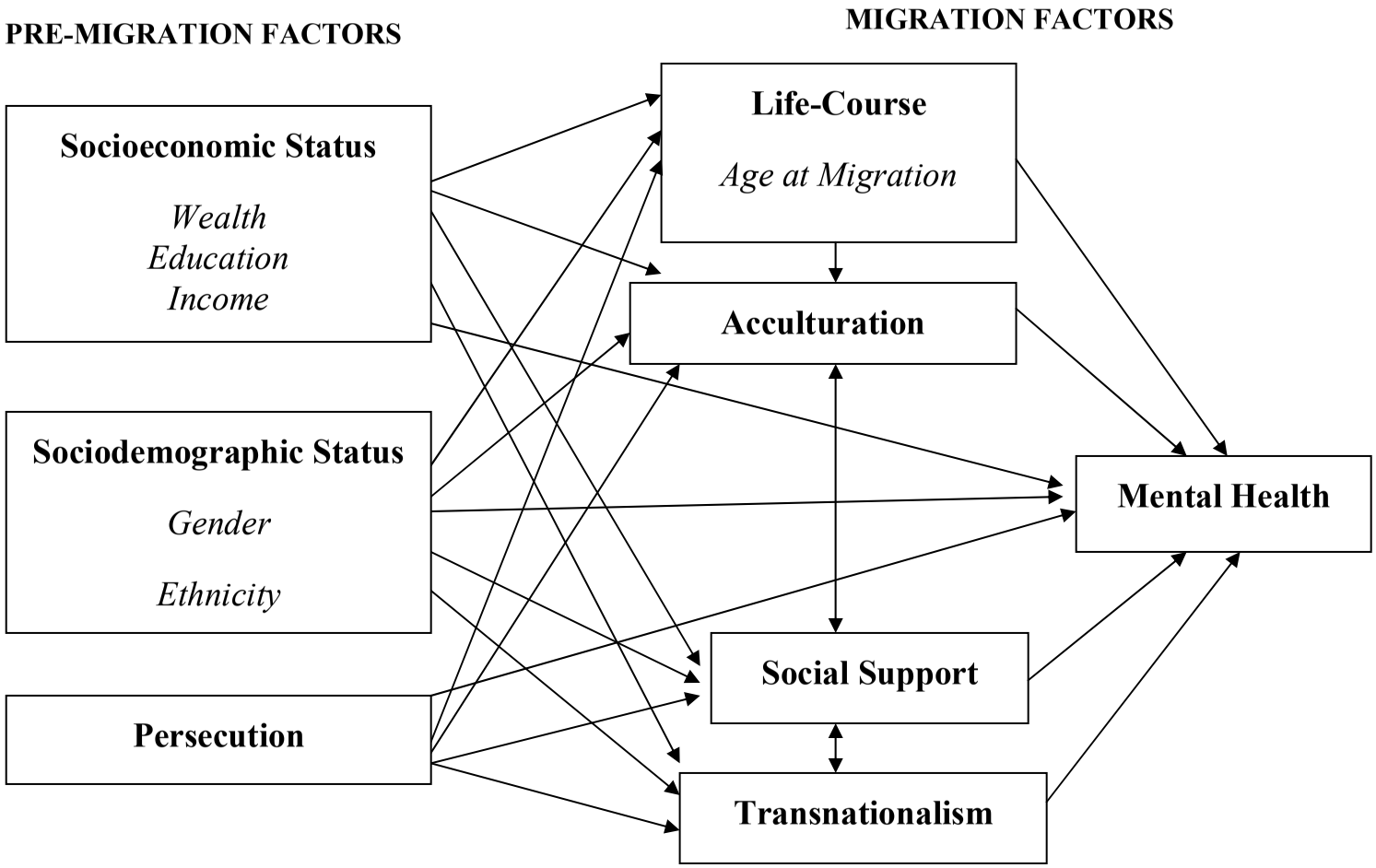

Figure 3.1: Conceptual Model of Factors Influencing Immigrants' Mental Health

CHAPTER 4

DATA AND METHODS

This study examines the effects of the pre-migration experience and post-migration trajectories on the mental health status of Asian and Latin immigrants, using the New Immigrant Survey data wave 1 (NIS). The New Immigrant Survey (NIS) is a nationally representative multi-cohort longitudinal study of new immigrants and their children in the United States. This prospective-retrospective panel study is based on nationally representative samples of the U.S. Immigration and Naturalization Service (INS) administrative records on the newly admitted permanent residence from immigrants. A pilot project was conducted in 1996 to inform the fielding and design of the full New Immigrant Survey. The first full cohort of immigrants was sampled between May, 2003 and November, 2003. The baseline survey was conducted from June 2003 to June 2004. A second follow-up was planned for the summer, 2007. The data include the questions on pre- and post- migration experience of immigrants. Information on educational attainment, labor force participation, occupational attainment, income determination, and social assimilation before arriving in the United States, and the health and wellbeing of immigrants compared to native citizens is also collected. The sampling frame consists of new-arrival immigrants and adjustee immigrants. The geographic sampling design is national-wide, with the focus on metropolitan areas. Forty six percent of the interviews are conducted in English, twenty-six percent in Spanish and the remaining twenty eight percent of the interviews are conducted in 17 other languages. In this study only the information from the baseline data is analyzed in the model.

Out of twelve thousand and five hundred adults sampled in the study, eight thousand five hundred and seventy three completed the interview. The response rate is 68.6%. Survey participants consist of immigrants from Asia, Latin America, Africa, Europe and Australia. Among them, there are 31.6% immigrants from Asian and 36.8% from Latin American countries. For the purpose of this study, only Asian and Latin American immigrants are examined in the analysis. There are 5,860 participants examined in this study. Among 2,707 are immigrants from Asian countries, and 3,153 are from Latin American countries.

Table 4.1: The Ethnic Background of the Sample

Ethnicity	Sub-ethnicity	Population (f)	Population %
	Indian	771	28.5
	Filipino	508	18.1
	Chinese	469	17.3
Asian	Vietnamese	223	8.2
	Korean	142	5.2
	Others	594	21.9
	Total	**2707**	**100**
	Mexican	1158	36.7
	Salvadorian	480	15.2
	Guatemalan	189	6.0
	Dominican Republican	166	5.3
Latino	Haitians	152	4.8
	Cuban	146	4.6
	Colombian	133	4.2
	Jamaican	116	3.7
	Peruvian	113	3.6
	Others	500	15.9
	Total	**3153**	**100**

As it is described in table 4.1, among Asian immigrants, Indians are the largest group, about 28.5% (771), followed by Philippines, 18.8% (508). Chinese are the third largest Asian immigrants group, around 17.3 % (469), followed by Vietnamese, 8.2%

(223), and Korean, 5.2% (142). There is also 21.9% Immigrants from other Asian countries (594). For immigrants from Latin American countries, Mexicans are the largest group, about 36.7% (1158). Salvadorians are the second largest group, about 15.2% (480). In the sample, Guatemalans are the third largest Latin American immigrants group ,about 6% (189), followed by immigrants from Dominican Republic, 5.3% (166), Haitians, 4.8 % (152), Cubans, 4.6% (146), Colombians, 4.2% (133), Jamaicans, 3.7% (116), immigrants from Peru, 3.6% (113). There are also about 15.9% of immigrants from other Latin American and Caribbean countries (500).

MEASURES

Outcome:

The outcome examined in the paper is the mental health status of Asian and Latin American immigrants. There are two dependent variables, experience of depression and intensity of depression. All the measures are self-reported. The first dependent variable is measured by the question “During the past 12 months, was there ever a time when you felt sad, blue, or depressed for two weeks or more in a row?” The answers are coded as no=0, a little=1, yes=2. The second dependent variable is measured by the question “Please think of the two-week period during the past 12 months when these feelings were worst. During that time did the feelings of being sad, blue, or depressed usually last all day long, most of the day, about half the day, or less than half the day?” The answers are coded as no emotion problem=0, less than half the day=1, about half the day=2, most of the day=3, all day long=4.

Predicting Variables:

This study has a particular interest in how transnational activities affect immigrants' mental health status. However, there are also other relevant variables included in the model to predict immigrants' mental health. All the predicting variables are:

Gender: is measured by respondents' self-reported answer to the question about their gender Codes: (male=1; female=0).

Ethnicity: is measured by the question "in what country were you born?" Only Asian and Latino origin immigrants are examined in this study.

Age Arrived in U.S.: is measured through question at what age immigrants first arrived in the United States.

Pre-migration Persecution: pre-migration persecution is a single indicator. It is composited with eight variables. The first variable is measured through the question "Did you or your immediate family ever suffer any harm outside of the United States because of your political or religious beliefs, or your race, ethnicity or gender?" answers are coded as no=0, yes=1. The next seven variables are measured through a series of questions. Respondents are asked if they have been incarcerated (jail or prison), received physical punishment by public officials, received physical punishment by others, received confiscation of property, experienced loss of job, received property damage, received verbal or written threats, because of their political or religious beliefs, or your race, ethnicity or gender? All answers are coded as no=0, yes=1. All eight variables are added up to construct one indicator, pre-migration persecution. The new variable pre-migration persecution is a scale from zero to eight. Zero means that the participant has never been

persecuted; eight means that the participant has been persecuted on all ways examined in the survey.

Years of Education: this variable is measured through the question "How many years of schooling in total have you completed?"

Home Ownership: this variable is measured through the question "Do you (or your husband/wife/partner) own the home, rent it or what?" Answers are coded as no=0, yes=1.

Number of Houses: it is measured through question "how many houses do you own?"

Social Support: it is measured through the question "Are you a member of any informal group of people who pool their money so that members of the group can borrow sums of money from that pool at some future date?" Answers are coded as no=0, yes=1.

Years in United States: this variable is measured through the question how many years they have spent in the United States.

Language Proficiency: this variable is computed through five questions. The first question asks if the respondents speak English at home. The second question asks if the respondents speak English at work. The third question asks if the respondents speak English with their friends. All the answers are coded as no=0, yes=1. The fourth question is operationalized by asking how well the respondents understand spoken English. Answers are coded as not at all=1, not well=2, well=3, very well=4. The fifth question is operationalized through asking how well the respondents speak English. Answers are coded as not at all=1, not well=2, well=3, very well=4.

Guttman scale analysis is used to test the reliability and the unidimensionality of all the above variables. A Guttman Scale consists of individual questions in order of language proficiency. The lower bound of reliability ($lamda_6$) based on linear multiple correlation for the five items was .918 indicating high correlation between each item in the scale on the remaining item. The coefficient alpha, the indicator of internal consistency for the total data was .858 (Cronbach's Alpha). This high value of alpha suggests that there language proficiency is the homogeneous dimension underlying the scores, and that items correlate with one another. In conclusion, results showed that the scale has a high level of internal consistency and indicate the homogeneous unidimensionality and good reliability. Due to the unidimensionality, a single scale is constructed with all the five variables using factor analysis. It is a standardized factor score with a mean of zero and standard deviation as 1. The loading of each of the five variables (based on the order introduced above) are .725, .804, .826, .910, .906. The value of language proficiency of each case is the estimated score of each participant has on English proficiency.

Remittance to Children: is measured through question whether they send to or receive any money from their children live outside of USA. The answers are coded as no=0, yes=1.

Remittance to Parents: is measured through the question whether they send to or receive any money from their parents when their parents live outside of USA. The answers are coded as no=0, yes=1.

Travel Plan: this variable is measured through the question "Do you plan to travel back during the next 12 months, for example to observe a national, religious, or family

holiday, or any other time?" The answers are coded as no=0, yes=1.

Vote in Home Country: this variable is measure through the question "while living in the United States, have you voted in any election held in your country of origin?" The answers are coded as no=0, yes=1.

My dissertation will employ binary logistic regression and ordered logistic regression to evaluate the effects of pre-migration experiences and post-migration trajectories on symptoms of depression and distress among Asian and Latin American immigrants. This analytics technique allows for the assessment of the simultaneous and unique effects of transnational activity and other related factors on Asian and Latino immigrants' mental health status. Logistic regression uses maximum likelihood estimation (MLE) to derive parameters (Pampel, 2000). It requires large sample size but does not assume normal distribution for dependent variables or error terms. It does not assume linear relationship between independent and dependent variables (Pampel, 2000). Therefore it is a good estimation for dichotomized dependent variable. For the other dependent variable which is an ordered one, ordered logistic regression is applied. It is an extension of binary logistic regression and a preferred method for variables with multiple ranked categories (Pampel, 2000).

Figure 4.1 shows the regression steps applied in this study. For both binary regression and ordered logistic regression, three measures of pre-migration variables indicating transnationalism will be included in the first model. The effects of premigration factors alone will be analyzed in the first step without controlling any other effects. In the second or full model, transnationalism, socicodemographic status,

socioeconomic status, acculturation, persecution, life course and social support variables will be included as predictors

Figure 4.1 Logistic Regression Models Estimated for Immigrants' Mental Health Status

Model 1	Model 2
Socioeconomic Status	
Sociodemographic status	
Persecution	
	Transnationalism
	Life Course
	Acculturation
	Social Support

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CHAPTER 5

STATISICAL RESULTS

Table 5.1 presents the means and standard deviations of all manifest variables. The statistic results show that 46% of respondents in the data are Asian, and 46% of them are males. On average, immigrants arrived in US in their mid thirties, and have only spent about one year in the U.S. education system. On average, all Asian and Latino immigrants have spent about six years in U.S. when they were interviewed.

The results in table 5.1 reveal that, in the sample, only a small portion of Asian and Latino immigrants have been persecuted before migration. As it is showed in table 5.1, financial transfer between immigrants and their children or parents outside the United States are not very prevalent in the population analyzed in my dissertation. Four percent of all Asian and Latino immigrants have engaged in financial transfer between them and their children outside the U.S., and about six percent of them have sent money to their parents. However, there is a high tendency among immigrants to travel back to their home countries in the sample. The results also reveal that over 43% of all Asian and Latino immigrants plan to visit their home countries within the next twelve months. In contrast, voting in the countries of origin while living in the United States is less popular among immigrants. Only roughly 4% of immigrants voted in any elections held in countries of origin.

Table 5.1 also shows that, on average, immigrants have about 12 years of education. In the data, we can see that Asian and Latino immigrants didn't receive much social support in the sample. About one percent of immigrants belong to any social organization that they could pool money together for future emergency use.

Table 5.1: Means and Standard Deviations of the Indicators Included in the Measurement

Variables	Mean	Standard Deviation
Asian	0.46	0.50
Male	0.46	0.50
Age of Migration	33.06	15.77
Persecution[1]	0.12	0.68
Acculturation		
Language Proficiency[2]	0	1.00
Length of Residency	5.95	7.18
Transnationalism		
Remittance_Children	0.03	0.17
Remittance_Parents	0.06	0.24
Plan to Travel Back	0.43	0.50
Vote in Home Country	0.04	0.19
SES		
Home Ownership	0.22	0.41
Number of Houses Owned	0.23	0.46
Years of Education	11.82	5.29
Social Support		
Member of Financial Support Group	0.01	0.09
Mental Health		
Intensity of Depression	0.30	0.90
Experienced Depression	0.13	0.34

[1]Persecution because of Race, Gender, Religion and so on
[2]This is a composite variable from scaling English use at home, work, with friends, write, read, and speak
[3]This is a single indicator

On average, all Asian and Latino immigrants rate their mental health status fairly good. When asked during the time when they feel sad or depressed in a row, how often do they experience it, the average time period is less than a day. When asked if they ever feel sad or depressed, only 13% of the respondents answer that they ever experience sadness and depression.

The correlations among the 21 variables are shown in table 5.2. As it shows in the table, ethnicity is significantly related to negative mental statuses. Specially, Asians report less likelihood in experiencing sadness or depression, and less frequent in feelings of being worst in mental status, compared to Latino immigrants. The differences between Asian and Latino immigrants are statistically significant ($r=-.15$, $p<.01$; $r=-.15$, $p<.01$). In terms of gender difference, being male is negatively associated with both ever experienced depression and the intensity of depression. This means that males are significantly less likely than females to ever have experienced depression ($r=-.08$, $p<.01$; $r=-.08$, $p<.01$). Age arrived in U.S. is also negatively associated with emotional problems. Specifically, the older when immigrants moved to U.S., the less likely they have ever experienced and depression ($r=-.05$, $p<.01$), the less intense they feel worst emotionally ($r=-.02$). Experience of persecution, including being punished by public officers, being punished by others, and threats because of race, ethnicity, and religion is positively associated with if immigrants ever experienced depression and the intensity of depression ($r=.01$; $r=.03$, $p<.05$). All variables indicating socioeconomic status are negatively associated with mental health problems. Among them, years of education is negatively associated with the intensity of depression immigrants experienced and whether they ever experienced depression or sadness, and the effects are statistically significant ($r=-.09$, $p<.01$; $r=-.10$; $p<.01$). Home ownership is also negatively associated with the intensity of depression immigrants experienced ($r=-.02$), and whether they have ever experienced sadness or depression ($r=-.05$, $p<.01$). In addition, number of houses is negatively correlated with the intensity of depression immigrants experienced ($r=-.02$), and whether they have ever experienced sadness or depression ($r=-.05$, $p<.01$).

Variables indicating acculturation level suggest more complicated relationship between acculturation and mental health statuses. Specifically, English proficiency is negatively associated with the intensity of depression immigrants experienced, and whether they have ever experienced sadness or depression, and both correlations are statistically significant ($r=-.06$ $p<.01$; $r=-.09$; $p<.01$).In contrast, length of residency in the United States has a statistically significant positive effect on the intensity of depression immigrants experienced. The longer immigrants stay in US, the more likely they will feel sad, depressed ($r=.06$, $p<.01$), and the more intense of their experience of depression ($r=.04$; $p<.01$).

Most variables indicating transnationalism are positively associated with the intensity of depression immigrants experienced, and whether they have ever experienced sadness or depression. Specifically, remittance to children is positively associated with the intensity of depression immigrants experienced ($r=.06$, $p<.01$), and whether they have ever experienced sadness or depression ($r=.07$, $p<.01$). Both the correlations are statistically significant. Similarly, travel plan to home country is also positively associated with the intensity of depression immigrants experienced ($r=.06$, $p<.01$), and whether they have ever experienced sadness or depression ($r=.07$, $p<.01$), and both correlations are statistically significant. Vote in elections held in country of origin is also positively associated with poor mental health status. Neither of the correlations with dependent variable is statistically significant ($r=.02$, $r=.01$). Another variable indicating transnationalism, remittance to parents is positively associated with the intensity of depression immigrants experienced, but negatively associated with whether they have

Table 5.2: Correlations of All the Indicators Included in the Measurement Model

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Asian	1															
Male	.03*	1														
Age of Mig.	.15**	-.07**	1													
Persecution	-.05**	.05**	-.04**	1												
Education	.37**	.14**	-.28**	-.01	1											
Home	-.09**	.04**	-.17**	.06**	.13**	1										
N.of Houses	-.08**	.04**	-.17**	.07**	.13**	.96**	1									
English	.26**	.16**	-.45**	.03*	.60**	.16**	.16**	1								
Length of Res.	-.31**	.08**	-.45**	.10**	-.08**	.23**	.22**	.16**	1							
Support	.02	.01	-.01	.02	.02	-.01	-.01	.03	-.00	1						
Rem_P	.04**	.10**	-.10**	.02	.09**	.03	.05**	.12**	.07**	.00	1					
Rem-Ch	-.06**	.02	.03*	.01	-.07**	-.05**	-.03*	-.06**	.05**	-.02	.04**	1				
Travel	-.12**	.06**	-.09**	.01	.06**	.12**	.13**	.13**	.14**	.02	.08**	.07**	1			
Vote	.04**	.02	-.01	.01	.09**	.02	.03	.07**	.01	.05**	.01	-.00	.04**	1		
Intensity	-.15**	-.08**	-.05**	.03*	-.09**	-.02	-.02	-.06**	.06**	.01	.01	.06**	.06**	.02	1	
Depression	-.15**	-.08**	-.02	.01	-.10**	-.05**	-.05**	-.09**	.04**	.00	-.00	.06**	.07**	.01	.88**	1

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

experienced sadness or depression. However, the associations are very weak and neither of them is statistically significant (r=.01, r=-.00).

Social support is slight positively associated with the intensity of depression immigrants experienced. However, the correlation is very small (r=.01, 0). As for indicators for mental health status, the intensity of depression immigrants experienced is positively associated with whether they have ever experienced sadness or depression (r=.88, p<.01).

Among all predicting variables, ethnicity is significantly associated with all other predicting variables except for social support. Specifically, Asian immigrants are more likely to arrive in the U.S. at younger age, compared to Latino immigrants (r=.15, p<.01). They are also less likely to have the experience of being punished by others, and threats because of race, ethnicity, and religion (r=-.05, p<.01).Compared to Latinos, Asian immigrants have higher education level (r=.37, p<.01), and better English skill (r=.26, p<.01). However, Asian immigrants are less likely to have their own houses, and have fewer houses compared to Latino immigrants (r=-.09, p<.01; r=-.08, p<.01). In addition, Asian immigrants have stayed shorter in the U.S. than Latino immigrants (r=-.31, p<.01). They also have more social support than Latino immigrants, however, the difference is not statistically significant (r=.02). In terms of transnational activities, Asian immigrants are more likely to send money back to their parents (r=.04, p<.01), while less likely to send money back to their children, compared to Latino immigrants (r=-.06, p<.01). Asian immigrants are also less likely to plan to travel back to their home countries (r=-.12, p<.01). Compared to Latino immigrants, more Asian immigrants report to have voted in elections held in their countries of origin (r=.04, p<.01).

Gender is also found to have significant associations with most of the predicting variables. Table 5.2 shows that in this sample, male immigrants are significantly younger when they first arrive in the U.S. than females (r=-.07, p<.01). Male immigrants are also more likely to have experienced suffering, being punished by public officers, being punished by others, and threats because of race, ethnicity, and religion, and the gender difference is statistically significant (r=.05, p<.01). Compared to their female counterparts, male immigrants in the sample have significantly higher education level. (r=.14, p<.01). Male immigrants are more likely to own their houses, and have more houses than female immigrants (r=.04, p<.01; r=.04, p<.01). Meanwhile, male immigrants have stayed longer in the United States than female immigrants(r=.08, p<.01). In addition, male immigrants are more likely to send money back to their parents living outside the U.S., and plan to travel back to home country. And the gender differences are statistically significant (r=.10, p<.01; r=.06, p<.01). Statistic results also show that male immigrants are more likely to receive social support (r=.01), to send money back to their children living outside the U.S. (r=.02), and to have voted in elections held in their countries of origin (r=.02). However, none of the associations is statistically significant.

The correlations analysis indicates migration age is significant negatively associated with all other predicting variables except for remittance to children. Age when immigrants arrived in US is negatively associated with persecution experience, and the correlation is statistically significant (r=-.04, p<.01). The younger when immigrants arrived in US, the more likely they have suffered any persecution in their home countries. Age arrived in US is also negatively associated with travel plan back to home country

(r=-.09, p<.01). Immigrants who migrated at young age are significant more likely to plan to travel back to home country. Compared to immigrants who migrate to U.S. at old age, immigrants who arrive in U.S. at young age are found to be at significant higher socioeconomic statuses. To be more specific, they have significant high level of education (r=-.28, p<.01), are more likely to own their own houses (r=-.17, p<.01) and have more houses (r=-.17, p<.01). Age of migration is also negatively associated with English proficiency, length of residency, and remittances to parents. Immigrants who migrate at young age are found to have better English skill (r=-.45, p<.01), have stayed longer in U.S. (r=-.45, p<.01), and are more likely to send money back to their parents living outside the U.S. (r=-.10, p<.01). All the three associations are statistically significant. Age of migration is also negatively associated with social support, and voting in elections held in countries of origin. Immigrants who migrate at young age seem to have more social support (r=-.01) and are more likely to have voted in elections held in countries of origin (r=-.01). The correlations are not statistically significant. However, age of migration is positively associated with remittances to children. Immigrants who migrate young age are less likely to send money back to their children who live outside the U.S. and the correlation is statistically significant (r=.03, p<.05).

Experience of persecution is positively associated with home ownership and number of houses they own. Immigrants who have experienced suffering, being punished by public officers, being punished by others, and threats because of race, ethnicity, and religion are more likely to report own houses (r=.06, p<.01) and have more houses (r=.07, p<.01). The associations are statistically significant. In addition, they have significant higher education level (r=. 03, p<.05) and have stayed significantly longer in the United

States (r=.10, p<.01). Experience of persecution is positively associated with social support, remittance to parents, remittance to children, travel plan to home country, and vote in elections held in countries of origin. However, none of the association is statistically significant.

Correlation analysis shows that education level is positively related to home ownership, number of houses immigrants have, English proficiency. Immigrants with higher education level are significant more likely to have their own houses (r=.13, p<.01), have more houses (r=.13, p<.01) and have better English skill (r=.06, p<.01). However, immigrants with higher education level have stayed fewer years in the Unites States (r=-.08, p<.01). In addition, immigrants with better English skills are more likely to send money back to their parents living outside the United States (r=.09, p<.01), have travel plan back to home countries (r=.06, p<.01), and have voted in elections held in countries of origin (r=.09, p<.01). All the associations are statistically significant.

Education level is also positively related with social support, but the association is not statistically significant. On the other hand, immigrants with level are significant less likely to send money back to their children (r=-.07, p<.01).

Home ownership is positively associated with number of houses (r=.96, p<.01), English proficiency (r=.16, p<.01) and length of residency (r=.23, p<.01). In addition, home ownership is positively associated with remittance to parents, travel plan to home country.

Immigrants who own houses are more likely to send money back to their parent (r=.03, p<.05), and travel back to their home counties (r=.12, p<.01). However, immigrants who have their own houses are less likely to send money back to their

children living outside U.S. (r=-.05, p<.01). All the associations are statistically significant.

Immigrants with better English skills are more likely to send money back to their parents living outside U.S. (r=.12, p<.01), more likely to plan to travel back to home countries (r=.13, p<.01), and more likely to have voted elections held in countries of origin (r=.07, p<.01). Both the associations are statistically significant. English proficiency is negatively associated with remittance to children. Immigrants with better English skill are less likely to send money back to children living outside U.S. (r=-.06, p<.01). Length of residency is positively associated with remittance to parents, remittance to children, travel plan to home countries. The longer immigrants stay in the United States, the more likely they send money back to parents living outside U.S. (r=.07, p<.01), children living outside U.S. (r=.05, p<.01), and the more likely they plan to travel back to their home countries (r=.14, p<.01). All the associations are statistically significant. Length of residency is also positively associated with having voted in elections held in countries of origin. However, the association is very weak and not statistically significant. Social Support is significantly associated with one of the transnationalism variable, have voted in elections held in countries of origin (r=.05, p<.01).

Table 5.3 shows the first dependent variable of mental health status among different groups among immigrants. In general, only a small fraction of the immigrants in the sample report to ever experienced sadness or depression. Specifically, 13.33% of the immigrants report to ever experienced sadness or depression, 86.67% say they never experienced sadness or depression. When look at different ethnic groups, 7.79% Asians

say they ever experienced sadness or depression, while 18.11% Latinos report that they ever experienced sadness or depression. Latinos are significant more likely to experience sadness and depression compared to Asians (χ^2=128.89, p<.01). Female immigrants are significant more likely to experience sadness or depression (χ^2=32.98, p<.01). In this sample, 15.72% female immigrants say that they experienced sadness or depression, compared to 10.50% male immigrants. Results also show that involving in transnational activities also makes a difference in immigrants' mental health statuses. Immigrants who have travel plan to home countries are significant more likely to experience sadness or depression (χ^2=23.20, p<.01). Specifically, 15.99% immigrants who plan to visit home country say that they ever experienced sadness or depression, compared to only 11.48% immigrants who have no plan to visit home country. Immigrants who have sent money back to children living outside U.S. are significant more likely to experience sadness or depression, compared to those who have sent money back to children living outside U.S (χ^2=17.33, p<.01). In the sample, 23.98% immigrants who have sent money back to children living outside U.S. say they have experienced sad and depressed, compared to 12.99% immigrants who have never sent money back to children living outside U.S. However, having sent money back to parents living outside U.S. does not make a significant difference in immigrants' mental health statuses.

Table 5.3 Experience of Sadness or Depression across Different Groups of People (N=5860)

	No	Yes
Feel Sad or Depressed	86.67	13.33
Percent Differences among the Categories by Demographic Characteristics and Predicting Variables		
	No	Yes
Race/Ethnicity		
Asian	92.21	7.79
Latino	81.89	18.11
	Chi-square=128.89, p<.01	
Gender		
Male	89.50	10.50
Female	84.28	15.72
	Chi-square=32.98, p<.01	
Transnational Activity		
Travel Plan		
Plan to visit home country	84.01	15.99
No Plan to visit home country	88.52	11.48
	Chi Square=23.20, p<.01	
Sending Money to Children		
Yes	76.02	23.98
No	87.01	12.99
	Chi-Square=17.33, p<.01	
Sending Money to Parents		
Yes	86.68	13.32
No	86.67	13.33
	Chi-Square=0	
Vote in Home Country		
Yes	84.43	15.57
No	86.75	13.25
	Chi-Square= .95	

There are 13.33 % immigrants who have sent money back to their parents say they have experienced sadness and depression, compared to 13.32% immigrants who have never sent money back to their parents say they have experienced sadness and depression (χ^2=0). In addition, 15.57% immigrants who have voted in elections held in

countries of origin say they have experienced sadness and depressed, compared to 13.25% immigrants who have never voted in elections held in countries of origin say they have experienced sadness and depressed. However, even participating in politics in home country is associated with more emotional problems, the difference is not statistically significant (χ^2=0.95).

Table 5.4 shows the second dependent variable of mental health status among different groups among immigrants. In general, when asked about the intensity of their experience of depression, 87.33% immigrants report no experience of emotional problems, 4.03% immigrants say that they experience less than half of the day, 3.04% immigrants say that they feel worst mentally about half of the day, 2.12% immigrants say that they feel worst mentally most of the day, 3.47% immigrants say that they feel worst mentally all day long. When look at different ethnic groups, 92.60% Asian immigrants report no experience of emotional problems, 3.07% Asian immigrants say that they experience less than half of the day, 1.55% Asian immigrants say that they feel worst mentally about half of the day, 1.41% Asian immigrants say that they feel worst mentally most of the day, 1.37% Asian immigrants say that they feel worst mentally all day long. In contrast, 82.82% Latino immigrants report no experience of emotional problems, 4.86% Latino immigrants say that they experience less than half of the day, 4.32% Latino immigrants say that they feel worst mentally about half of the day, 2.73% Latino immigrants say that they feel worst mentally most of the day, 5.27% Latino immigrants say that they feel worst mentally all day long. The differences across ethnic groups are statistically significant (χ^2=140.16, p<.01).

When we look at different gender groups, 89.96% male immigrants report no experience of emotional problems, 3.81% male immigrants say that they experience less than half of the day, 2.43% male immigrants say that they feel worst mentally about half of the day, 1.42% male immigrants say that they feel worst mentally most of the day, 2.39% male immigrants say that they feel worst mentally all day long. For female immigrants, 85.12% of them report no experience of emotional problems, 4.22% female immigrants say that they experience less than half of the day, 3.56% female immigrants say that they feel worst mentally about half of the day, 2.71% female immigrants say that they feel worst mentally most of the day, 4.38% female immigrants say that they feel worst mentally all day long. The differences across gender groups are statistically significant (χ^2=38.71, p<.01).

Table 5.4 also reveals mental health status of immigrants across different transnational activity groups. For immigrants who plan to visit home country, 84.75% of them report no experience of emotional problems, 4.89% say that they experience less than half of the day, 3.41% say that they feel worst mentally about half of the day, 2.38% say that they feel worst mentally most of the day, 4.56% Latino immigrants say that they feel worst mentally all day long. For immigrant who have no plan to visit home country, 89.09% report no experience of emotional problems, 3.52% say that they experience less than half of the day, 2.70% say that they feel worst mentally about half of the day, 1.98% say that they feel worst mentally most of the day, 2.70% say that they feel worst mentally all day long. The differences are statistically significant (χ^2=26.13, p<.01).

Table 5.4 Intensity of Depression across Different Groups of People (N=5860)

	No Problem	Less than Half of the Day	About Half of the Day	Most of the Day	All Day Long
How Often Feel Worst	87.33	4.03	3.04	2.12	3.47
Percent Differences among the Categories by Demographic Characteristics and Predicting Variables					
	No Problem	Less than Half of the Day	About Half of the Day	Most of the Day	All Day Long
Race/Ethnicity					
Asian	92.60	3.07	1.55	1.41	1.37
Latino	82.82	4.86	4.32	2.73	5.27
Chi-square=140.16 P<.001					
Gender					
Male	89.96	3.81	2.43	1.42	2.39
Female	85.12	4.22	3.56	2.71	4.38
Chi-square=38.71, p<.001					
Transnational Activity					
Travel Plan					
Plan to visit home country	84.75	4.89	3.41	2.38	4.56
No Plan to visit home country	89.09	3.52	2.70	1.98	2.70
Chi Square=26.13 p<.001					
Sending Money to Children					
Yes	76.97	7.30	4.49	2.25	8.99
No	87.66	3.93	3.00	2.11	3.30
Chi-Square=24.54, p<.001					
Sending Money to Parents					
Yes	87.17	3.74	2.41	2.41	4.28
No	87.35	4.05	3.09	2.10	3.41
Chi-Square=1.52					
Vote in Home Country					
Yes	84.51	3.29	4.23	4.23	3.76
No	86.90	4.23	3.12	2.13	3.62
Chi-Square= 5.42					

For immigrants who have sent money back to their children living outside the U.S., 76.97% of them report no experience of emotional problems, 7.30% say that they experience less than half of the day, 4.49% say that they feel worst mentally about half of the day, 2.25% say that they feel worst mentally most of the day, 8.99% Latino

immigrants say that they feel worst mentally all day long. For immigrant who have not sent money back to children living outside the U.S., 87.66% report no experience of emotional problems, 3.93% say that they experience less than half of the day, 3.00% say that they feel worst mentally about half of the day, 2.11% say that they feel worst mentally most of the day, 3.30% say that they feel worst mentally all day long. The differences are also statistically significant (χ^2=24.54, p<.01).

For immigrants who have sent money back to parents living outside the U.S., 87.17% of them report no experience of emotional problems, 3.74% say that they experience less than half of the day, 2.41% say that they feel worst mentally about half of the day, 2.41% say that they feel worst mentally most of the day, 4.28% Latino immigrants say that they feel worst mentally all day long. For immigrant who have not sent money back to parents living outside the U.S., 87.35% report no experience of emotional problems, 4.05% say that they experience less than half of the day, 3.09% say that they feel worst mentally about half of the day, 2.10% say that they feel worst mentally most of the day, 3.41% say that they feel worst mentally all day long. However, the differences are not also statistically significant (χ^2=1.52).

For immigrants who have voted in elections held in countries of origin, 84.51% of them report no experience of emotional problems, 3.29% say that they experience less than half of the day, 4.23% say that they feel worst mentally about half of the day, 4.23% say that they feel worst mentally most of the day, 3.76% Latino immigrants say that they feel worst mentally all day long. For immigrant who have not voted in elections held in countries of origin., 86.90% report no experience of emotional problems, 4.23% say that they experience less than half of the day, 3.12% say that they feel worst mentally about

half of the day, 2.13% say that they feel worst mentally most of the day, 3.62% say that they feel worst mentally all day long. The differences are not statistically significant (χ^2=5.42, p<.01).

Table 5.5 and 5.6 present the results of the regression of immigrants' mental health status with and without controls. Table 5.5 is the binary logistic regression analysis for the experience of sadness or depression on ethnicity, gender, aged arrived in the U.S., socioeconomic backgrounds (including, number of houses, home ownership, and education), acculturation level (including language proficiency, length of residency), social support, and transnationalism (including remittance to parents, remittance to children, travel plan back to home country, and vote in elections held in countries of

Table 5.5 Logistic Regression Estimated for Immigrants' Experience of Sadness or Depression (N=5860)

	Model 1			Model 2		
	Coef.	S.E	OR	Coef.	S.E	OR
Number of Houses	.08	.37	1.08	-.09	.40	.92
Home Ownership	-.50	.41	.61	-.43	.45	.65
Education	-.01	.01	.99	-.01	.01	.99
Asian	-.93***	.11	.40	-.82***	.13	.44
Male	-.42***	.09	.66	-.59***	.10	.62
Persecution	.02	.06	1.02	.03	.06	1.04
Remittance_ Parents				.15	.17	1.16
Remittance_ Children				.52***	.20	1.68
Plan to Travel Back				.33***	.10	1.39
Vote in Home Country				.34	.24	1.41
Age				-.01	.00	.99
Language Proficiency				-.01	.07	.91
Length of Residency				-.00	.01	1.00
Social Support				.65	.52	1.91
Constant	-1.09***	.11	.34	-1.10***	.24	.33
Likelihood Ratio	3297.07			2834.73		

*. Coefficient significant at the 0.1 level (2-tailed).
**. Coefficient significant at the 0.05 level (2-tailed).
***. Coefficient significant at the 0.01 level (2-tailed).
Reference group is Latino/Caribbean immigrants

origin). The regression coefficients represent the effects of immigrants' mental status. Odds ratio is used to explaining the ratio of whether immigrants ever experienced sadness or depression across different ethnic groups. Two models are analyzed in the process to examine the effects of pre-migration and post-migration factors on immigrants' mental health status. In model one, the primary predictors, socioeconomic background (including number of house, home ownership, education), social demographic information (ethnicity and gender), and persecution experience are analyzed to predicting the mental health status of immigrants. Examining the results in Table 5.5, we can see that in general, socioeconomic status has a positive effect on immigrants' mental health status, except for the variable number of houses. Specifically, one more house immigrants own increases the likelihood for immigrant to have experienced sadness and depression by 8% (b=.08, OR=1.08, S.E.=.37), controlling for the effects home ownership, education, ethnicity, gender and persecution. Compared to immigrants who don't have their own houses, immigrants who own house(s) are 39% less likely to have experienced sadness and depression (b=-.50, OR=.61, S.E.=.41), controlling for the effects of number of houses, education, ethnicity, gender, and persecution. One year increase in education level decreases the likelihood for immigrants to have experienced sadness and depression by 1% (b=-.01, OR=.99, S.E.=.01), controlling the effects number of houses, home ownership, ethnicity, gender and persecution experience. However, none of the effects is statistically significant. In addition, compared to Latino immigrants, Asian immigrants are 60% less likely to have experienced sadness and depression (b= -.93, OR= .40, S.E.= .09, $p<.01$), controlling for the effects of number of houses, home ownership, education, gender and persecution experience. The difference is statistically significant. Compared

to female, males are 34% less likely to have experienced sadness and depression (b= -.42, OR=.66, S.E.= .09, p<.01), controlling for the effects of number of houses, home ownership, education, ethnicity and persecution experience. The difference is statistically significant. Immigrants who have been persecuted due to their race, religion, or gender are 2% more likely to have experienced sadness and depression compared to those who have not been persecuted (b=.02, OR=1.02, S.E.=.06), controlling for the effects of number of houses, home ownership, education, ethnicity and gender. However, the difference is not statistically significant. The likelihood ratio of model 1 is 3297.07.

In model 2, the effects of post migration factors on immigrants' mental health status are added in the analysis in addition to ethnicity, gender, persecution, socioeconomic status and wealth. The factors added are transnationalism (including sending money back to parents living outside the U.S., sending money back to children living outside the U.S., travel plan to home country, voting in any elections held in countries of origin), age arrived in the U.S., acculturation level (including language proficiency, and length of residency)

From the analysis, we can see that in general, the positive effects of socioeconomic status on immigrants' mental health status remain the same as in the first model. Specifically, one year increase in education level decreases the likelihood for immigrants to have experienced sadness and depression by 1% (b=-.01, OR=.99, S.E.=.01), controlling the effects of transnational activities, ethnicity, gender, age when immigrants arrived in the U.S., persecution, home ownership, number of houses, language proficiency, length of residency, and social support. Indicators of wealth also have positive effects on the mental health status of Asian and Latino immigrants. One

more house immigrants own decreases the likelihood for immigrant to have experienced sadness and depression by 8% (b=-.09, OR=.92, S.E.=.40), controlling for the effects of all other factors in the model. Compared to immigrants who don't have their own houses, immigrants own house(s) are 35% less likely to have experienced sadness and depression (b=-.43, OR=.65, S.E.=.45), controlling for the effects of all other factors in the model. Compared to Latino immigrants, Asian immigrants are 56% less likely to have experienced sadness and depression (b= -.82, OR= .44, S.E.= .13, p<.01), controlling for the effects of all other factors in the model. Compared to female, males are 38% less likely to have experienced sadness and depression (b= -.59, OR=.62, S.E.= .10, p<.01), controlling for the effects of all other factors in the model . In this model, one year increase in age people arrived in U.S. decreases the likelihood for immigrants to have experienced sadness and depression by 1% (b= -.01, OR=.99, S.E.=.00), controlling for the effects of all other factors in the model. In the full model, immigrants who have been persecuted due to their race, religion, or gender are 4% more likely to have experienced sadness and depression compared to those who have not been persecuted (b=.03, OR=1.04, S.E.=.06), controlling for the effects of all other factors in the model.

Transnational activities increase the likelihood for immigrants having mental problems. Specifically, immigrants who have sent money back to their parents living outside the U.S. are 16% more likely to have experienced sadness and depression (b=.15, OR=1.16, S.E.=.17), controlling for the effects of other transnational activities, acculturation level, age arrived in the U.S., and social support. However, the difference is not statistically significant. Meanwhile, immigrants who have sent money back to their children living outside the U.S. are 68% more likely to have experienced sadness and

depression (b=.52, OR=1.68, S.E.=.20, p<.01), controlling for the effects of all other variables in the model. Immigrants who plan to travel back to home countries are 39% more likely to have experienced sadness and depression (b=.33, OR=1.39, S.E.=.10, p<.01), controlling for the effects of other transnational activities, ethnicity, age they arrived in the U.S., gender, persecution, socioeconomic status, acculturation level and social support. Immigrants who have voted in elections held in their countries of origin are 41% more likely to have experienced sadness and depression (b=.34, OR=1.41, S.E.=.24), controlling for the effects of other transnational activities, ethnicity, age they arrived in the U.S., gender, persecution, socioeconomic status, acculturation level and social support. The difference is not statistically significant.

In addition, One point increase in English proficiency decreases the likelihood for immigrants to have experienced sadness and depression by 9% (b=-.10, OR=.91, S.E.=.07), controlling the effects of transnational activities, ethnicity, gender, age when immigrants arrived in the U.S., persecution, home ownership, number of houses, education, years in U.S., and social support. Length of residency does not make a difference in predicting immigrants' mental health status, controlling for the effects transnational activities, ethnicity, gender, age when immigrants arrived in the U.S., persecution, home ownership, number of houses, education, language proficiency, and social support (b=-.00, OR=1.00, S.E.=.01). Compared to immigrants who don't receive social support, immigrants who have social support are 91% more likely to have experienced sadness and depression (b=.65, OR=1.91, S.E.=.24), controlling for the effects of transnational activities, ethnicity, gender, age when immigrants arrived in the U.S., persecution, home ownership, number of houses, education, length of residency,

and language proficiency. However, the difference of social support is not statistically significant. The likelihood ratio of this step is 2834.73 (p<.01).

Table 5.6 Ordered Logistic Regression Estimated for Immigrants' Intensity of Depression (N=5860)

	Model1			Model 2		
	Coef.	S.E	OR	Coef.	S.E	OR
Number of Houses	.05	.37	1.05	-.13	.40	.88
Home Ownership	-.44	.41	0.64	-.35	.45	.70
Education	-.01	.01	0.99	-.01	.01	.99
Asian	-.95***	.11	0.39	-.84***	.13	.43
Male	-.44***	.09	0.64	-.51***	.10	.60
Persecution	.05	.06	1.05	.07	.06	1.07
Remittance_ Parents				.16	.17	1.17
Remittance_ Children				.57***	.20	1.77
Plan to Travel Back				.33***	.10	1.39
Vote in Home Country				.38	.24	1.46
Age of Migration				-.01*	.00	.99
Language Proficiency				-.10	.07	.90
Length of residency				-.00	.00	1.00
Social Support				.50	.54	1.65
Cut Point 1	2.95***	.44		.59	.62	
Cut Point 2	3.41***	.44		1.04*	.61	
Cut Point 3	3.90***	.45		1.51**	.62	
Cut Point 4	4.37***	.45		2.01***	.62	
Likelihood Ratio (Model-Fitting)	1438.82***			5152.36***		
Likelihood Ratio (Test Parellelism)	1301.20***			4901.36***		

*. Coefficient significant at the 0.1 level (2-tailed).
**. Coefficient significant at the 0.05 level (2-tailed).
***. Coefficient significant at the 0.01 level (2-tailed).
Reference group is Latino/Caribbean immigrants

Table 5.6 shows the results of the ordered logistic regression analysis for the effects of transnationalism, ethnicity, gender, age arrived in the U.S., persecution, socioeconomic status, acculturation, and social support on immigrants intensity of

depression experience. There are five ordered categories for the dependent variable, intensity of depression, including no emotional problems, less than half the day, about half the day, most of the day, all day long. And in the analysis, the reference group is the category "all day long". Model 1 includes socioeconomic background (including number of house, home ownership, education), social demographic information (ethnicity and gender), and persecution experience. In general, socioeconomic status has a positive effect on immigrants' intensity of depression experience, except for the variable number of houses. However, the difference is not statistically significant. Specifically, one more house immigrants owned increases the likelihood for immigrant to have felt mentally worst all day long by 5% (b=.05, OR=1.05, S.E.=.37), controlling for the effects of home ownership, education, ethnicity, gender and persecution experience. Compared to immigrants who don't have their own houses, immigrants own a house are 36% less likely have felt mentally worst all day long (b=-.44, OR=.64, S.E.=.41), controlling for the effects of number of houses, education, ethnicity, gender and persecution experience. One year increase in education level decreases the likelihood for immigrants to have felt mentally worst all day long by 1% (b=-.01, OR=.99, S.E.=.01), controlling the effects of number of houses, home ownership, ethnicity, gender and persecution experience.

Compared to Latino immigrants, Asian immigrants are 61% less likely to have felt mentally worst all day long (b= -.95, OR= .39, S.E.= .11, $p<.01$), controlling for the effects of number of houses, home ownership, education, gender and persecution experience. The difference is statistically significant. Compared to female, males are 36% less likely to have felt mentally worst all day long (b= -.44, OR=.64, S.E.= .09, $p<.01$), controlling for the effects of number of houses, home ownership, education, ethnicity and

persecution experience. The gender difference is statistically significant. In addition, immigrants who have been persecuted due to their race, religion, or gender are 5% more likely to have felt mentally worst all day long compared to those who have not been persecuted (b=.05, OR=1.05, S.E.=.06), controlling for the effects of number of houses, home ownership, education, ethnicity, and gender. The likelihood ratio of model fitting is 1438.82 ($p<.01$). The likelihood ratio of test parallelism is 1301.20 ($p<.01$).

In model 2, the effects of post migration factors on immigrants' mental health status are added in the analysis in addition to ethnicity, gender, persecution, socioeconomic status and wealth. The factors added are transnationalism (including sending money back to parents living outside the U.S., sending money back to children living outside the U.S., travel plan to home country, voting in any elections held in countries of origin), age arrived in the U.S., acculturation level (including language proficiency, and length of residency).

The statistic results in model 2 shows that in general economic status has a positive effect on Asian and Latino immigrants' mental health status. Specifically, one more house immigrants own decreases the likelihood for immigrant to have felt mentally worst all day long by 12% (b=-.09, OR=.92, S.E.=.40), controlling for the effects of all other variables in the model. Compared to immigrants who don't have their own houses, immigrants own house(s) are 30% less likely have felt mentally worst all day long (b=-.35, OR=.70, S.E.=.45), controlling for the effects of all other factors in the model. One year increase in education level decreases the likelihood for immigrants to have felt mentally worst all day long by 1% (b=-.01, OR=.99, S.E.=.01), controlling the effects of all other factors in the model. Compared to Latino immigrants, Asian immigrants are

57% less likely to have felt mentally worst all day long (b= -.84, OR= .43, S.E.= .13, p<.01), controlling for the effects of all other variables in the model. Compared to female, males are 40% less likely to have felt mentally worst all day long (b= -.51, OR=.60, S.E.= .10, p<.01), controlling for the effects of all other factors in the model. Immigrants who have been persecuted due to their race, religion, or gender are 7% more likely to have felt mentally worst all day long compared to those who have not been persecuted (b=.07, OR=1.07, S.E.=.06), controlling for the effects of all other factors in the model.

Similarly, transnational activities increase the likelihood for immigrants to have felt depressed or sad. Specifically, immigrants who have sent money back to their parents living outside the U.S. are 17% more likely to have felt mentally worst all day long (b=.16, OR=1.17, S.E.=.17), controlling for the effects of all other variable in the model. However, the difference is not statistically significant. Meanwhile, immigrants who have sent money back to their children living outside the U.S. are 77% more likely to have felt mentally worst all day long (b=.57, OR=1.77, S.E.=.20, p<.01), controlling for the effects of all other variables in the model. Immigrants who plan to travel back to home countries are 39% more likely to have felt mentally worst all day long (b=.33, OR=1.39, S.E.=.10, p<.01), controlling for the effects of all other factors in the model. Immigrants who have voted in elections held in their countries of origin are 46% more likely to have felt mentally worst all day long (b=.38, OR=1.46, S.E.=.24), controlling for the effects of all other variables in the model. The difference is not statistically significant. In this model, one year increase in age people arrived in U.S. decreases the likelihood for immigrants to have felt mentally worst all day long by 1% (b= -.01, OR=.99, S.E.=.00), controlling for the effects of all other variables in the model. One point increase in English proficiency

Table 5.7 Logistic Regression Estimated for Asian Immigrants' Experience of Sadness or Depression (N=2707)

	Model 1			Model 2		
	Coef.	S.E	OR	Coef.	S.E	OR
Number of Houses	-.17	.87	.84	-.19	.85	.83
Home Ownership	-.23	.96	.80	-.25	.95	.78
Education	-.03	.02	.97	-.04	.03	.96
Indian	-.40	.29	.67	-.43	.32	.65
Korean	.16	.43	1.18	.03	.47	1.03
Filipino	.21	.21	1.24	.08	.33	1.09
Vietnamese	-1.34**	.55	.26	-1.52**	.63	.22
Other Asian	.22	.26	1.24	.20	.30	1.22
Male	-.13	.18	.88	-.16	.19	.85
Persecution	.11	.13	1.11	.11	.13	1.12
Remittance_ Parents				.22	.29	1.24
Remittance_ Children				-.06	.55	.94
Plan to Travel Back				.51***	.19	1.66
Vote in Home Country				.05	.42	1.06
Age of Migration				-.00	.01	1.00
Language Proficiency				.01	.16	1.01
Length of Residency				-.10	.20	.99
Social Support				.53	.82	1.70
Constant	-1.91***	.31	.14	-1.80	.54	.17
Likelihood Ratio	994.93			916.41		

*. Coefficient significant at the 0.1 level (2-tailed).
**. Coefficient significant at the 0.05 level (2-tailed).
***. Coefficient significant at the 0.01 level (2-tailed).
Reference group is Chinese immigrants.

decreases the likelihood for immigrants to have felt mentally worst all day long by 10% (b=-.10, OR=.90, S.E.=.07), controlling the effects of all other variables in the model. Length of residency does not make a difference in predicting how often they have felt mentally worst all day long, controlling for the effects of all other factors in the model (b=-.00, OR=1.00, S.E.=.00). Compared to immigrants who don't have social support, immigrants who have social support are 65% more likely to have felt mentally worst all day long (b=.50, OR=1.65, S.E.=.54), controlling for the effects of all other factors in the

model. However, the difference of social support is not statistically significant. The likelihood ratio of model fitting is 4162.83 ($p<.01$). The likelihood ratio of test parallelism is 4162.13 ($p<.01$).

Table 5.7 and 5.8 present the results of the regression of Asian immigrants' mental health status with and without controls. Table 5.7 is the binary logistic regression analysis for whether Asian immigrants have experienced sadness or depression on sub-ethnicity, gender, aged arrived in the U.S., socioeconomic backgrounds (including, number of houses, home ownership, and education), acculturation level (including language proficiency, length of residency), social support, and transnationalism (including remittance to parents, remittance to children, travel plan back to home country, and vote in elections held in countries of origin).

Examining the results in Table 5.7, we can see that in general, socioeconomic status has a positive effect on Asian immigrants' mental health status. Specifically, one more house Asian immigrants own decreases the likelihood for immigrant to have experienced sadness or depression by 16% (b=-.17, OR=.84, S.E.=.84), controlling for the effects home ownership, education, sub-ethnicity, gender and persecution. Compared to Asian immigrants who don't have their own houses, those who own house(s) are 20% less likely to have experienced sadness or depression (b=-.23, OR=.80, S.E.=.96), controlling for the effects of number of houses, education, sub-ethnicity, gender, and persecution. One year increase in education level decreases the likelihood for Asian immigrants to have experienced sadness or depression by 3% (b=-.03, OR=.97, S.E.=.02), controlling the effects number of houses, home ownership, sub-ethnicity, gender and persecution experience. None of the effects is statistically significant.

When comparing different sub-ethnic groups, Chinese immigrants are used as the reference group. Compared to Chinese immigrants, Indian immigrants are 33% less likely to have felt experiences sadness or depression (b= -.40, OR= .67, S.E.= .29), controlling for the effects of all other variables in the model. The difference is not statistically significant. In contrast, Korean immigrants are 18% more likely to have experienced sadness or depression (b=.16, OR=1.18, S.E.= .43) than Chinese immigrants, controlling for the effects of all other variables in the model. The difference is not statistically significant. Compared to Chinese immigrants, Vietnamese immigrants are 74% less likely to have experienced sadness or depression (b=-1.34, OR= .26, S.E.= .55, $p<.01$), controlling for the effects of all other variables in the model. The difference is statistically significant. In addition, Other Asian immigrants are 24% more likely to have experienced sadness or depression (b=.22, OR=1.24, S.E.= .26) than Chinese immigrants, controlling for the effects of all other variables in the model. The difference is not statistically significant.

Compared to Asian females, Asian males are 12% less likely to have experienced sadness or depression (b= -.13, OR=.88, S.E.= .18), controlling for the effects of number of houses, home ownership, education, sub-ethnicity and persecution experience. However, the difference is no longer statistically significant as it is in all immigrants' population. Asian immigrants who have been persecuted due to their race, religion, or gender are 11% more likely to have experienced sadness or depression compared to those who have not been persecuted (b=.11, OR=1.11, S.E.=.13), controlling for the effects of number of houses, home ownership, education, sub-ethnicity and gender. However, the difference is not statistically significant. The likelihood ratio of model 1 is 994.93.

Model 2 is the full model. In model two we can see that economic status has a positive effect on Asian immigrants' mental health status. Specifically, one more house Asian immigrants own decreases the likelihood for immigrant to have experienced sadness or depression by 17% (b=-.19, OR=.85, S.E.=.83), controlling for the effects of all other variables in the model. Compared to Asian immigrants who don't have their own houses, Asian immigrants who own house(s) are 22% less likely to have experienced sadness or depression (b=-.25, OR=.78, S.E.=.95), controlling for the effects of all other variables in the model. One year increase in education level decreases the likelihood for Asian immigrants to have experienced sadness or depression by 4% (b=-.04, OR=.96, S.E.=.03), controlling the effects of all other variables in the model.

When look at the differences across sub-ethnicity, we can see from the table that compared to Chinese immigrants, Indian immigrants are slightly less likely to have experienced sadness or depression, about 35% (b=-.43, OR=.32, S.E.=.65), controlling for the effects of all other variables in the model. Korean immigrants are slightly more likely to have experienced sadness or depression, about 3% (b=.03, OR=1.03, S.E.=.47), controlling for the effects of all other variables in the model. However, the difference is not statistically significant.

Filipino immigrants are 9% more likely to have experienced sadness or depression compared to Chinese immigrants (b=.08, OR=1.09, S.E.=.33), controlling for the effects of all other variables in the model. Compared to Chinese immigrants, Vietnamese are 78% less likely to have experienced sadness or depression (b=-1.52, OR=.22, S.E.=.63, $p<.01$), controlling for the effects of all other variables in the model. The difference is statistically significant. For all other Asian immigrants, they are 22%

more likely to have experienced sadness or depression (b=.20, OR=1.22, S.E.=.30), controlling for the effects of all other variables in the model.

Compared to Asian female, Asian males are 15% less likely to have experienced sadness or depression (b= -.16, OR=.85, S.E.= .19), controlling for the effects of all other variables examined in the model. In addition, in the full model, Asian immigrants who have been persecuted due to their race, religion, or gender are 12% more likely to have experienced sadness or depression compared to those who have not been persecuted (b=.11, OR=1.12, S.E.=.13), controlling for the effects of all other variables examined in the model.

As it shows in the table, similar to the models for all immigrants, transnational activities in general increase the likelihood for Asian immigrants to have experienced sadness or depression, controlling for the effects of sub-ethnicity, gender, age arrived in the U.S., persecution experience, socioeconomic status, acculturation level and social support. Overall, Asian immigrants who have sent money back to their parents living outside the U.S. are 24% more likely to have experienced sadness or depression (b=.22, OR=1.24, S.E.=.29), controlling for the effects of other variables in the model. On the contrary, Asian immigrants who have sent money back to their children living outside the U.S. are 6% less likely to have experienced sadness or depression (b=-.06, OR=.94, S.E.=.55), controlling for the effects of all other variables examined in the model. However, the differences are not statistically significant. Asian immigrants who plan to travel back to home countries are 66% more likely to have experienced sadness or depression (b=.51, OR=1.66, S.E.=.19, $p<.01$), controlling for the effects of all other variables in the model. Asian immigrants who have voted in elections held in their

countries of origin are 6% more likely to have experienced sadness or depression (b=.05, OR=1.06, S.E.=.42), controlling for the effects of all other variables in the model. The difference is not statistically significant.

Age arrived in the U.S. does not make any difference in terms whether Asian immigrants have experienced sadness or depression, controlling for the effects of all other variables in the model (b=-.00, OR=1.00, S.E.=.01). Unlike all immigrants group, one point increase in English proficiency slightly increases the likelihood for Asian immigrants to have experienced sadness or depression by 1% (b=-.01, OR=1.01, S.E.=.16), controlling the effects of all other variables in the model. One year increase in Asian immigrants stay in the U.S. slightly decreases the likelihood for them to have experienced sadness or depression by 1% (b=-.10, OR=.99, S.E.=.20), controlling for the effects of all other variables in the model. Compared to immigrants who don't have social support, Asian immigrants who have social support are 70% more likely to have experienced sadness or depression (b=.53, OR=1.70, S.E.=.82), controlling for the effects of all other variables in the model. The likelihood ratio of this step is 916.41.

Table 5.8 is the result of the ordered logistic regression analysis for the effects of transnationalism, ethnicity, gender, age arrived in the U.S., persecution, socioeconomic status, acculturation, and social support on Asian immigrants mental health status, the intensity of depression experience. Model 1 includes socioeconomic background (including number of house, home ownership, education), social demographic information (ethnicity and gender), and persecution experience. In general, socioeconomic status has a positive effect on Asian immigrants' mental health status.

Table 5.8 Ordered Logistic Regression Estimated for Asian Immigrants' Intensity of Depression (N=2707)

	Model1			Model 2		
	Coef.	S.E	OR	Coef.	S.E	OR
Number of Houses	-.20	.88	0.82	-.23	.87	.79
Home Ownership	-.19	.97	0.83	-.19	.97	.83
Education	-.02	.02	0.98	-.04	.03	.96
Indian	-.38	.29	0.68	-.43	.32	.65
Korean	.16	.43	1.17	.09	.46	1.09
Filipino	.24	.27	1.27	.07	.33	1.07
Vietnamese	-1.30**	.55	0.27	-1.48**	.63	.23
Other Asian	.18	.27	1.20	.15	.30	1.16
Male	-.13	.19	0.88	-.15	.20	.86
Persecution	.14	.12	1.15	.16	.12	1.17
Remittance_ Parents				.21	.29	1.23
Remittance_ Children				-.03	.54	.74
Plan to Travel Back				.53***	.19	1.70
Vote in Home Country				.07	.41	1.07
Age of Migration				.00	.01	1.00
Language Proficiency				.05	.16	1.05
Length of Residency				-.02	.02	.98
Social Support				.14	1.06	1.15
Cut Point 1	3.42**	1.52		3.16	2.04	
Cut Point 2	4.04***	1.52		3.80*	2.04	
Cut Point 3	4.53***	1.53		4.27**	2.05	
Cut Point 4	5.06***	1.53		4.80**	2.05	
Likelihood Ratio (Model-Fitting)	750.54***			1244.85**		
Likelihood Ratio (Test Parellelism)	727.22***			245.98***		

*. Coefficient significant at the 0.1 level (2-tailed).
**. Coefficient significant at the 0.05 level (2-tailed).
***. Coefficient significant at the 0.01 level (2-tailed).
Reference group is Chinese immigrants

Specifically, one more house Asian immigrants owned increases the likelihood for them to have felt mentally worst all day long by 18% (b=-.20, OR=.82, S.E.=.88), controlling for the effects of home ownership, education, ethnicity, gender and

persecution experience. Compared to those who don't have their own houses, Asian immigrants own house(s) are 17% less likely have felt mentally worst all day long (b=-.19, OR=.83, S.E.=.97), controlling for the effects of number of houses, education, ethnicity, gender and persecution experience. One year increase in education level decreases the likelihood for Asian immigrants to have felt mentally worst all day long by 2% (b=-.02, OR=.98, S.E.=.02), controlling the effects of number of houses, home ownership, ethnicity, gender and persecution experience.

Compared to Chinese immigrants, Indian immigrants are 32% less likely to have felt mentally worst all day long (b= -.38, OR= .68, S.E.= .29), controlling for all other variables in the model. The difference is not statistically significant. Compared to Chinese immigrants, Korean immigrants are 17% more likely to have felt mentally worst all day long (b=.16, OR=1.17, S.E.= .43), controlling for all other variables in the model. The difference is not statistically significant.

Filipino immigrants are 27% more likely to have felt mentally worst all day long (b=.24, OR=1.27, S.E.= .27), compared to Chinese immigrants, controlling for all other variables in the model. The difference is not statistically significant. Compared to Chinese immigrants, Vietnamese immigrants are 63% less likely to have felt mentally worst all day long (b=-1.30, OR=.27, S.E.= .55), controlling for all other variables in the model. The difference is statistically significant. In addition, compared to Chinese immigrants, other Asian immigrants are 20% more likely to have felt mentally worst all day long (b=.18, OR=1.20, S.E.= .27), controlling for all other variables in the model. The difference is not statistically significant.

Compared to Asian female, Asian males are 12% less likely to have felt mentally worst all day long (b= -.13, OR=.88, S.E.= .19), controlling for the effects of number of houses, home ownership, education, ethnicity and persecution experience. However, the difference is not statistically significant. In addition, Asian immigrants who have been persecuted due to their race, religion, or gender are 15% more likely to have felt mentally worst all day long compared to those who have not been persecuted (b=.14, OR=1.15, S.E.=.12), controlling for the effects of number of houses, home ownership, education, ethnicity, and gender. The likelihood ratio of model fitting is 750.54 ($p<.01$). The likelihood ratio of test parallelism is 727.22 ($p<.01$).

In model 2, post migration factors on Asian immigrants' mental health status are added. The factors are transnationalism (including sending money back to parents living outside the U.S., sending money back to children living outside the U.S., travel plan to home country, voting in any elections held in countries of origin), age arrived in the U.S., acculturation level (including language proficiency, and length of residency) and social support.

Economic status has a positive effect on Asian immigrants' mental health status. Specifically, one more house Asian immigrants own decreases the likelihood for them have felt mentally worst all day long by 21% (b=-.23, OR=.79, S.E.=.87), controlling for the effects of all other variables examined in the model. The difference is not statistically significant. Compared to Asian immigrants who don't have their own houses, immigrants who own house(s) are 17% less likely have felt mentally worst all day long (b=-.19, OR=.83, S.E.=.97), controlling for the effects of all other variables examined in the model. The difference is not statistically significant. One year increase in education level

decreases the likelihood for Asian immigrants to have felt mentally worst all day long by 4% (b=-.04, OR=.96, S.E.=.03), controlling for the effects of all other variables examined in the model. The difference is not statistically significant.

When look at the differences across Asian sub ethnicities, compared to Chinese immigrants, Indian immigrants are 35% less likely to have felt mentally worst all day long (b= -.43, OR= .65, S.E.= .32), controlling for the effects of all other variables examined in the model. The difference is not statistically significant. Compared to Chinese immigrants, Korean immigrants are 9% more likely to have felt mentally worst all day long (b= .09 OR=1.09, S.E.= .46), controlling for the effects of all other variables examined in the model. The difference is not statistically significant. Filipino immigrants are 7% more likely to have felt mentally worst all day long than Chinese immigrants (b= .07, OR=1.07, S.E.= .33), controlling for the effects of all other variables examined in the model. The difference is not statistically significant. Compared to Chinese immigrants, Vietnamese immigrants are 77% less likely to have felt mentally worst all day long (b= -1.48, OR= .23, S.E.= .63, $p<.01$), controlling for the effects of all other variables examined in the model. The difference is statistically significant. Other Asian immigrants are 16% more likely to have felt mentally worst all day long than Chinese immigrants (b= .15, OR=1.16, S.E.= .30), controlling for the effects of all other variables examined in the model. The difference is not statistically significant.

Compared to Asian female, Asian males are 14% less likely to have felt mentally worst all day long (b= -.15, OR=.86, S.E.= .20), controlling for the effects of all other variables examined in the model. The difference is not statistically significant. In addition, in the full model, Asian immigrants who have been persecuted due to their race,

religion, or gender are 17% more likely to have felt mentally worst all day long compared to those who have not been persecuted (b=.16, OR=1.17, S.E.=.12), controlling for the effects of all other variables examined in the model. The difference is not statistically significant.

In the full model, transnational activities in general increase the likelihood for Asian immigrants to have felt depressed or sad, controlling for the effects of all other variables examined in the model. Specifically, Asian immigrants who have sent money back to their parents living outside the U.S. are 23% more likely to have felt mentally worst all day long (b=.21, OR=1.23, S.E.=.29), controlling for the effects of all other variables examined in the model. However, the difference is not statistically significant. Meanwhile, Asian immigrants who have sent money back to their children living outside the U.S. are 26% more likely to have felt mentally worst all day long (b=-.03, OR=.74, S.E.=.54), controlling for the effects of all other variables examined in the model. Asian immigrants who plan to travel back to home countries are 70% more likely to have felt mentally worst all day long (b=.53, OR=1.70, S.E.=.19, $p<.01$), controlling for the effects of all other variables examined in the model. The difference is statistically significant. Asian immigrants who have voted in elections held in their countries of origin are 7% more likely to have felt mentally worst all day long (b=.07, OR=1.07, S.E.=.41), controlling for the effects of all other variables examined in the model. The difference is not statistically significant.

In this model, age that Asian immigrants arrived in the U.S. does not predict the intensity of depression experience (b= -.00, OR=1.00, S.E.=.00), controlling for the effects of all other variables examined in the model. The difference is not statistically

significant. Unlike the overall immigrants group, one point increase in English proficiency increases the likelihood for Asian immigrants to have felt mentally worst all day long by 5% (b=.05, OR=1.05, S.E.=.16), controlling for the effects of all other variables examined in the model. The difference is not statistically significant. One year increase in staying in the U.S. slightly decreases Asian immigrants likelihood to have felt mentally worst all day long by 2% (b=-.02, OR=.98, S.E.=.02), controlling for the effects of all other variables examined in the model. The difference is not statistically significant. Compared to Asian immigrants who don't have social support, immigrants who have social support are 15% more likely to have felt mentally worst all day long (b=.14, OR=1.15, S.E.=1.06), controlling for the effects of all other variables examined in the model. However, the difference of social support is not statistically significant. The likelihood ratio of model fitting is 1244.85 ($p<.05$). The likelihood ratio of test parallelism is 245.98 ($p<.01$).

Table 5.9 and 5.10 present the results of the regression of Latino immigrants' mental health status with and without controls. Table 5.9 is the binary logistic regression analysis for the first indicator of the mental health status on ethnicity, gender, aged arrived in the U.S., socioeconomic backgrounds (including, number of houses, home ownership, and education), acculturation level (including language proficiency, length of residency), social support, and transnationalism (including remittance to parents, remittance to children, travel plan back to home country, and vote in local elections.

Table 5.9 Logistic Regression Estimated for Latino/Caribbean Immigrants' Experience of Sadness or Depression (N=3153)

	Model 1			Model 2		
	Coef.	S.E	OR	Coef.	S.E	OR
Number of Houses	.13	.43	1.13	-.12	.46	.88
Home Ownership	-.57	.47	.57	-.40	.52	.67
Education	-.02*	.01	.98	-.02	.02	.98
Colombian	.16	.27	1.18	.05	.31	1.05
Cuban	.84***	.23	2.33	1.04***	.25	2.82
Dominic Republican	.16	.23	1.18	.08	.27	1.08
El Salvadoran	.06	.16	1.06	.11	.18	1.11
Guatemalan	.30	.22	1.35	.32	.24	1.38
Haitian	-.63**	.29	.54	-.56*	.33	.57
Jamaican	-.05	.29	.95	-.31	.78	.74
Peruvian	.62**	.27	1.85	.65**	.29	1.91
Other	-.23	.19	.80	.15	.21	1.17
Male	-.52***	.11	.60	-.65***	.13	.52
Persecution	-.02	.07	.98	-.01	.08	1.00
Remittance_ Parents				.11	.22	1.12
Remittance_ Children				.62***	.23	1.85
Plan to Travel Back				.28**	.12	1.32
Vote in Home Country				.44	.31	1.55
Age of Migration				-.01	.01	.99
Language Proficiency				-.10	.09	.91
Length of Residency				.00	.01	1.00
Social Support				.69	.68	2.00
Constant	-1.04	.14	.36	-1.00	.31	.37
Likelihood Ratio	2249.49			1864.169*		

*. Coefficient significant at the 0.1 level (2-tailed).
**. Coefficient significant at the 0.05 level (2-tailed).
***. Coefficient significant at the 0.01 level (2-tailed).
Reference group is Mexican immigrant

Examining the results in Table 5.9, we can see that in general, socioeconomic status has a positive effect on Latino immigrants' mental health status except for the variable number of houses Latino immigrants have. Specifically, one more house Latino immigrants own increases the likelihood for immigrant to have experienced sadness or depression by 13% (b=-.13, OR=1.13, S.E.=.43), controlling for the effects home ownership, education, ethnicity, gender and persecution. Compared to those who don't

have their own houses, Latino immigrants who own house(s) are 43% less likely to have experienced sadness or depression (b=-.57, OR=.57, S.E.=.47), controlling for the effects of number of houses, education, ethnicity, gender, and persecution. However, none of the effects is statistically significant One year increase in education level decreases the likelihood for Latino immigrants to have felt depressed or sad by 2% (b=-.02, OR=.98, S.E.=.01, p<.01), controlling the effects number of houses, home ownership, ethnicity, gender and persecution experience. The difference is statistically significant.

When comparing different ethnicity, Mexican immigrants are used as the reference group. Compared to Mexican immigrants, Colombian immigrants are 18% more likely to have experienced sadness or depression (b=.16, OR= 1.18, S.E.= .27), controlling for the effects of all other variables in the model. The difference is not statistically significant. Cuban immigrants are 133% more likely to have experienced sadness or depression (b=.84, OR=2.33, S.E.= .23, p<.01) than Mexican immigrants, controlling for the effects of all other variables in the model. The difference is statistically significant. Compared to Mexican immigrants, Dominic Republican immigrants are 18% more likely to have experienced sadness or depression (b=.16, OR=1.18, S.E.= .23), controlling for the effects of all other variables in the model. The difference is not statistically significant. Compared to Mexican immigrants, El Salvadoran immigrants are 6% more likely to have experienced sadness or depression (b=.06, OR= 1.06, S.E.= .16), controlling for the effects of all other variables in the model. The difference is not statistically significant. Haitian immigrants are 16% less likely to have experienced sadness or depression (b=-.63, OR=.54, S.E.= .29, p<.05) than Mexican immigrants, controlling for the effects of all other variables in the model. The

difference is statistically significant. Compared to Mexican immigrants, Jamaican immigrants are 5% less likely to have experienced sadness or depression (b=-.05, OR=.95, S.E.= .29), controlling for the effects of all other variables in the model. The difference is not statistically significant. Peruvian immigrants are 85% more likely to have experienced sadness or depression (b=.62, OR=1.85, S.E.= .27, p<.05), compared to Mexican immigrants, controlling for the effects of all other variables in the model. The difference is not statistically significant. In addition, Other Latino immigrants are 20% less likely to have experienced sadness or depression (b=-.23, OR=.80, S.E.= .19) than Mexican immigrants, controlling for the effects of all other variables in the model. The difference is not statistically significant.

Compared to Latino females, Latino males are 40% less likely to have felt depressed or sad (b= -.52, OR=.60, S.E.= .11, p<.01), controlling for the effects of number of houses, home ownership, education, ethnicity and persecution experience. The difference is statistically significant. Latino immigrants who have been persecuted due to their race, religion, or gender are 2% less likely to have experienced sadness or depression compared to those who have not been persecuted (b=-.02, OR=.98, S.E.=.07), controlling for the effects of number of houses, home ownership, education, ethnicity and gender. However, the difference is not statistically significant. The likelihood ratio of model 1 is 2249.49.

In model 2, Economic status has a positive effect on Latino immigrants' mental health status. Specifically, one more house Latino immigrants own decreases the likelihood for immigrant to have experienced sadness or depression by 12% (b=-.12, OR=.87, S.E.=.46), controlling for the effects of all other variables in the model.

Compared to Latino immigrants who don't have their own houses, Latino immigrants who own house(s) are 33% less likely to have experienced sadness or depression (b=-.40, OR=.67, S.E.=.52), controlling for the effects of all other variables in the model. One year increase in education decreases the likelihood for Latino immigrants to have experienced sadness or depression by 2% (b=-.02, OR=.98, S.E.=.02), controlling the effects of all other variables in the mode. One point increase in English proficiency slightly deceases the likelihood for Latino immigrants to have experienced sadness or depression by 9% (b=--.10, OR=.91, S.E.=.09), controlling the effects of all other variables in the model.

In this model, Mexican is used as a reference group to see the comparison among different Latino sub ethnic groups since they are the largest group in the sample. When look at the differences across sub-ethnic groups, we can see from the table that compared to Mexican immigrants, Colombian immigrants are slightly more likely to have experienced sadness or depression, about 5% (b=-.05, OR=1.05, S.E.=.31), controlling for the effects of all other variables in the model. Cuban immigrants are significant more likely to have experienced sadness or depression, about 182% (b=1.04, OR=2.82, S.E.=.25, $p<.01$), controlling for the effects of all other variables in the model. Dominican Republican immigrants are 8% more likely to have experienced sadness or depression compared to Mexican immigrants (b=.08, OR=1.08, S.E.=.27), controlling for the effects of all other variables in the model.

Compared to Mexican immigrants, El Salvadoran are 11% more likely to have experienced sadness or depression (b=.11, OR=1.11, S.E.=.18), controlling for the effects of all other variables in the model. Guatemalan immigrants are 38% more likely to have

experienced sadness or depression compared to Mexican immigrants (b=.32, OR=1.38, S.E.=.24), controlling for the effects of all other variables in the model. Haitian immigrants are 43% less likely to have experienced sadness or depression compared to Mexican immigrants (b=-.56, OR=.57, S.E.=.33), controlling for the effects of all other variables in the model. Compared to Mexican immigrants, Jamaican immigrant are 26% less likely to have experienced sadness or depression (b=-.31, OR=.74, S.E.=.78), controlling for the effects of all other variables in the model. Peruvian immigrants are 91% more likely to have experienced sadness or depression compared to Mexican immigrants (b=.65, OR=1.91, S.E.=.29, p<.01), controlling for the effects of all other variables in the model. The difference is statistically significant. For all other Latino immigrants, they are 17%more likely to have experienced sadness or depression (b=.15, OR=1.17, S.E.=.21), controlling for the effects of all other variables in the model.

Compared to Latino female, Latino males are 48% less likely to have experienced sadness or depression (b= -.65, OR=.52, S.E.= .13, p<.01), controlling for the effects of all other variables examined in the model. The difference is statistically significant. In addition, in the full model, Latino immigrants who have been persecuted due to their race, religion, or gender does not differ from those who have no persecution experience in the likelihood to have experienced sadness or depression (b=-.01, OR=1.00, S.E.=.08), controlling for the effects of all other variables examined in the model.

As it reveals in the table, similar to the models for all immigrants, transnational activities in general increase the likelihood for Latino immigrants to have experienced sadness or depression, controlling for the effects of sub-ethnicity, gender, age arrived in the U.S., persecution experience, socioeconomic status, acculturation level and social

support. Overall, Latino immigrants who have sent money back to their parents living outside the U.S. are 12% more likely to have experienced sadness or depression (b=.11, OR=1.12, S.E.=.22), controlling for the effects of other variables in the model. Latino immigrants who have sent money back to their children living outside the U.S. are 85% more likely to have experienced sadness or depression (b=.62, OR=1.85, S.E.=.23, p<.01), controlling for the effects of all other variables examined in the model. The difference is statistically significant.

Latino immigrants who plan to travel back to home countries are 32% more likely to have experienced sadness or depression (b=.28, OR=1.32, S.E.=.12, p<.05), controlling for the effects of all other variables in the model. The difference is statistically significant as well. Latino immigrants who have voted in elections held in their countries of origin are 55% more likely to have experienced sadness or depression (b=.44, OR=1.55, S.E.=.31), controlling for the effects of all other variables in the model. The difference is not statistically significant.

Age arrived in the U.S. does not make slightly difference in terms whether Latino immigrants have experienced sadness or depression. One year increase in the age Latino immigrants arrived in the U.S. decreases their likelihood to have felt depressed or sad by 1% (b=-.01, OR=.99, S.E.=.01) controlling for the effects of all other variables in the model. Length of residency does not predict any differences in whether Latino immigrants have felt depressed or sad by 1% (b=-00 OR=1.00, S.E.=.01), controlling for the effects of all other variables in the model.

Compared to immigrants who don't receive social support, Latino immigrants who have social support are 100% more likely to have experienced sadness or depression

(b=.69, OR=2.00, S.E.=.68), controlling for the effects of all other variables in the model.

The likelihood ratio of this model is 1864.17 (p<.10).

Table 5.10 Ordered Logistic Regression Estimated for Latino/Caribbean Immigrants' Intensity of Depression (N=3153)

	Model1			Model 2		
	Coef.	S.E	OR	Coef.	S.E	OR
Number of Houses	.13	.42	1.14	-.14	.46	.87
Home Ownership	-.55	.47	0.58	-.35	.51	.70
Education	-.02	.01	0.98	-.02	.02	.98
Colombian	.17	.27	1.19	.06	.31	1.06
Cuban	.75***	.23	2.12	.93***	.25	2.53
Dominic Republican	.09	.23	1.09	.00	.27	1.00
El Salvadoran	.06	.16	1.06	.11	.18	1.12
Guatemalan	.33	.22	1.39	.34	.24	1.40
Haitian	-.71**	.30	0.49	-.56*	.33	.57
Jamaican	-.19	.30	0.83	-1.18	1.08	.31
Peruvian	.50*	.27	1.65	.54*	.29	1.72
Other	.27	.19	1.31	.11	.21	1.12
Male	-.54**	.11	0.58	-.68***	.13	.51
Persecution	.01	.07	1.01	.03	.07	1.03
Remittance_ Parents				.11	.22	1.12
Remittance_ Children				.68***	.23	1.97
Plan to Travel Back				.26***	.12	1.30
Vote in Home Country				.50***	.30	1.65
Age of Migration				-.01	.01	.99
Language Proficiency				-.10	.08	.90
Length of Residency				.00	.01	1.00
Social Support				.76	.66	2.14
Cut Point 1	1.39	1.18		-.60	1.86	
Cut Point 2	1.81	1.18		-.16	1.86	
Cut Point 3	2.31**	1.18		.33	1.86	
Cut Point 4	2.76**	1.18		.79	1.86	
Likelihood Ratio (Model-Fitting)	2006.06***			2863.91***		
Likelihood Ratio (Test Parellelism)	1961.38			2798.86		

*. Coefficient significant at the 0.1 level (2-tailed).
**. Coefficient significant at the 0.05 level (2-tailed).
***. Coefficient significant at the 0.01 level (2-tailed).

Table 5.10 is the result of the ordered logistic regression analysis for the effects of transnationalism, ethnicity, gender, age arrived in the U.S., persecution, socioeconomic status, acculturation, and social support on Latino immigrants mental health status, how often they have felt worst mentally. Model 1 includes socioeconomic background (including number of house, home ownership, education), social demographic information (ethnicity and gender), and persecution experience. In general, socioeconomic status has a positive effect on Latino immigrants' mental health status, expect the variable number of houses. However, none of the effects is statistically significant.

Specifically, one more house Latino immigrants owned increase the likelihood for them to have felt mentally worst all day long by 14% (b=.13, OR=1.14, S.E.=.42), controlling for the effects of home ownership, education, ethnicity, gender and persecution experience. Compared to those who don't have their own houses, Latino immigrants who own house(s) are 42% less likely have felt mentally worst all day long (b=-.55, OR=.58, S.E.=.47), controlling for the effects of number of houses, education, ethnicity, gender and persecution experience. One year increase in education level decreases the likelihood for Latino immigrants to have felt mentally worst all day long by 2% (b=-.02, OR=.98, S.E.=.01), controlling the effects of number of houses, home ownership, ethnicity, gender and persecution experience.

Compared to Mexican immigrants, Colombian immigrants are 19% more likely to have felt mentally worst all day long (b= .17, OR=1.19, S.E.= .27), controlling for all other variables in the model. The difference is not statistically significant. Compared to Mexican immigrants, Cuban immigrants are 112% more likely to have felt mentally

worst all day long (b=.75, OR=2.12, S.E.= .23, p<.01), controlling for all other variables in the model. The difference is statistically significant. Dominic Republican immigrants are 9% more likely to have felt mentally worst all day long (b=.09, OR=1.09, S.E.= .23), compared to Mexican immigrants, controlling for all other variables in the model. The difference is not statistically significant. Compared to Mexican immigrants, El Salvadoran immigrants are 6% more likely to have felt mentally worst all day long (b=.06, OR=1.06, S.E.= .16), controlling for all other variables in the model. The difference is statistically significant. Compared to Mexican immigrants, Guatemalan immigrants are 39% more likely to have felt mentally worst all day long (b= .33, OR=1.39, S.E.= .22), controlling for all other variables in the model. The difference is not statistically significant. Compared to Mexican immigrants, Haitian immigrants are 51% less likely to have felt mentally worst all day long (b=-.71, OR=.49, S.E.= .23, p<.05), controlling for all other variables in the model. The difference is statistically significant. Jamaican immigrants are 17% less likely to have felt mentally worst all day long (b=-.19, OR=.83, S.E.= .30), compared to Mexican immigrants, controlling for all other variables in the model. The difference is not statistically significant. Compared to Mexican immigrants, Peruvian immigrants are 65% more likely to have felt mentally worst all day long (b=.50, OR=1.65, S.E.= .27, p<.10), controlling for all other variables in the model. The difference is statistically significant. In addition, compared to Mexican immigrants, other Latino immigrants are 31% more likely to have felt mentally worst all day long (b=.27, OR=1.31, S.E.= .19), controlling for all other variables in the model. The difference is not statistically significant.

Compared to Latino female, Latino males are 42% less likely to have felt mentally worst all day long (b= -..54, OR=.58, S.E.= .11, p<.05), controlling for the effects of number of houses, home ownership, education, ethnicity and persecution experience. The difference is statistically significant. In addition, Latino immigrants who have been persecuted due to their race, religion, or gender are 1% more likely to have felt mentally worst all day long compared to those who have not been persecuted (b=.01, OR=1.01, S.E.=.07), controlling for the effects of number of houses, home ownership, education, ethnicity, and gender. The likelihood ratio of model fitting is 2006.06 (p<.01). The likelihood ratio of test parallelism is 1961.38.

The full model results show that Economic status has a positive effect on Asian immigrants' mental health status. Specifically, one more house Latino immigrants own decreases the likelihood for them have felt mentally worst all day long by 13% (b=-.14, OR=.87, S.E.=.46), controlling for the effects of all other variables examined in the model. The difference is not statistically significant. Compared to Latino immigrants who don't have their own houses, immigrants own house(s) are 30% less likely have felt mentally worst all day long (b=-.35, OR=.70, S.E.=.51), controlling for the effects of all other variables examined in the model. The difference is not statistically significant. One year increase in education level decreases the likelihood for Latino immigrants to have felt mentally worst all day long by 2% (b=-.02, OR=.98, S.E.=.02), controlling for the effects of all other variables examined in the model. The difference is not statistically significant. One point increase in English proficiency scale decreases the likelihood for Latino immigrants to have felt mentally worst all day long by 10% (b=-.10, OR=.90,

S.E.=.08), controlling for the effects of all other variables examined in the model. The difference is not statistically significant.

When look at the differences across Latino sub ethnicities, compared to Mexican immigrants, Colombian immigrants are 6% more likely to have felt mentally worst all day long (b= .06, OR=1.06, S.E.= .322), controlling for the effects of all other variables examined in the model. The difference is not statistically significant. Cuban immigrants are 153% more likely to have felt mentally worst all day long, compared to Mexican immigrants, controlling for the effects of all other variable examined in the model (b=.93, OR=2.53, S.E.=.25). The difference is statistically significant. Dominican Republican immigrants does not differ from Mexican immigrants in the likelihood of having felt mentally worst all day long, controlling for the effects of all other variables in the model (b=.00, OR=1.00, S.E.=.27). Compared to Mexican immigrants, El Salvadoran immigrants are 12% more likely to have felt mentally worst all day long (b= .11 OR=1.12, S.E.= .18), controlling for the effects of all other variables examined in the model. The difference is not statistically significant. Guatemalan immigrants are 40% more likely to have felt mentally worst all day long than Mexican immigrants (b= .34, OR=1.40, S.E.= .24), controlling for the effects of all other variables examined in the model. The difference is not statistically significant.

Compared to Mexican immigrants, Haitian immigrants are 43% less likely to have felt mentally worst all day long (b= -.56, OR= .57, S.E.= .33, p<.10), controlling for the effects of all other variables examined in the model. The difference is statistically significant. Jamaican immigrants are 69% less likely to have felt mentally worst all day long (b= -.1.18, OR= .31, S.E.= 1.08), controlling for the effects of all other variables

examined in the model. However the difference is not statistically significant. Compared to Mexican immigrants, Peruvian immigrants are 72% more likely to have felt mentally worst all day long (b= .54, OR= 1.72, S.E.= .29, p<.10), controlling for the effects of all other variables examined in the model. The difference is statistically significant. Other Latino immigrants are 12% more likely to have felt mentally worst all day long than Mexican immigrants (b= .11, OR=1.12, S.E.= .21), controlling for the effects of all other variables examined in the model. The difference is not statistically significant.

Compared to Latino female, Latino males are 49% less likely to have felt mentally worst all day long (b= -.68, OR=.51, S.E.= .13, p<.01), controlling for the effects of all other variables examined in the model. The difference is statistically significant. In addition, in the full model, Latino immigrants who have been persecuted due to their race, religion, or gender are 3% more likely to have felt mentally worst all day long compared to those who have not been persecuted (b=.03, OR=1.03, S.E.=.07), controlling for the effects of all other variables examined in the model. The difference is not statistically significant.

In the full model, transnational activities in general increase the likelihood for Latino immigrants to have felt depressed or sad, controlling for the effects of all other variables examined in the model. Specifically, Latino immigrants who have sent money back to their parents living outside the U.S. are 12% more likely to have felt mentally worst all day long (b=.11, OR=1.12, S.E.=.22), controlling for the effects of all other variables examined in the model. However, the difference is not statistically significant. Meanwhile, Latino immigrants who have sent money back to their children living outside the U.S. are 97% more likely to have felt mentally worst all day long (b=-.68, OR=1.97,

S.E.=.23, p<.01), controlling for the effects of all other variables examined in the model. The difference is statistically significant. Latino immigrants who plan to travel back to home countries are 30% more likely to have felt mentally worst all day long (b=.26, OR=1.30, S.E.=.12, p<.01), controlling for the effects of all other variables examined in the model. The difference is statistically significant. Latino immigrants who have voted in elections held in their countries of origin are 65% more likely to have felt mentally worst all day long (b=.50, OR=1.65, S.E.=.30, p<.01), controlling for the effects of all other variables examined in the model. The difference is statistically significant.

In this model, one year increase in the age that Latino immigrants arrived in the U.S. slightly decrease the likelihood of the intensity of depression experience by 1% (b= -.01, OR=.99, S.E.=.01), controlling for the effects of all other variables examined in the model. The difference is not statistically significant. Length of residency does not predict any differences how often Latino immigrants have felt mentally worst all day long (b=.00, OR=1.00, S.E.=.01), controlling for the effects of all other variables examined in the model. Compared to Latino immigrants who don't have social support, immigrants who have social support are 114% more likely to have felt mentally worst all day long (b=.76, OR=2.14, S.E.=.66), controlling for the effects of all other variables examined in the model. However, the difference of social support is not statistically significant. The likelihood ratio of model fitting is 2863.91 (p<.01).The likelihood ratio of test parallelism is 2798.86.

CHAPTER 6

DISCUSSION AND CONCLUSION

The specific aims of this study are to examine how the migration experience influences the mental health status of Asian and Latino immigrants. Both pre-migration experience and post-migration adaptation influence the mental health status of immigrants. Experiencing traumatic events and persecution leaves a long term negative impact on immigrants' mental health status. Leaving the home country, breaking original social ties, adapting to a new country and culture, and establishing new social network also require immigrants to make great adjustments, which may also cause stress and leave somatic symptoms on many immigrants (Al-Baldawi, 2002; Snyder, 1987; Espin 1987; Min, Moon, and Lubben, 2005). Using data from the New Immigrant Survey, this study focuses on the social environment of both sending countries and host countries to examine the factors that influence the mental health status of immigrants. In addition, a special focus of this study is to examine the concept "transnationalism" and to analyze how transnational activities affect Asian and Latino immigrants' adjustment to the new society and thus influence their mental health status.

Descriptive and multivariate analyses were performed using the New Immigrant Survey data. Results indicate that Asian and Latino immigrants in general are in fairly good mental health. Specifically, the analysis shows that only 13% of Asian and Latino immigrants have experienced sadness or depression. This rate is relatively lower than the national rate (17%) (Takeuchi et al., 1998). This is consistent with some previous findings. Vega et al (1998) find that foreign -born Mexican immigrants in California in general have lower rate of psychiatric disorder than U.S.-born Mexican Americans.

Takeuchi et al. (1998) also find that Chinese immigrants in Los Angles also have a relatively low rate of depressive symptoms. However, the results should be interpreted with caution. The results are from a self report survey of immigrants. It is likely immigrants may under report the mental problems they have. As it is explained in previous chapters, Asian immigrants are especially likely to hide their emotional troubles, due to cultural beliefs (Sue, 1994; Yeh and Inose, 2002; Tummala-Narra, 2001). In traditional East Asian cultures, there is a stigma against public admission of emotional problems (Prior, Wood, Lewis and Pill, 2003). Many Asian immigrants may be very reluctant to disclose their emotional problems. Therefore, the low rate of depression among immigrants in this sample could either be due to the good mental health status of immigrants or the underreporting of emotional problems among immigrants.

Several factors are examined in the analysis based on previous research and theories. Consistent with previous findings (Jenkins, 1991; Kandula et al., 2004), regression analysis of all Asian and Latino immigrants shows that previous experience of traumatic events/persecution does have a negative effect on all Asian and Latino immigrants' mental health. Immigrants who suffered from persecution due their race, gender, or religion are more likely to have had depression symptoms and more often to feel depressed and sad. As it is suggested by many previous studies (Jenkins, 1991; Takeuchi et al., 1998; Kandula et al., 2004), experience of traumatic events in original countries leave long term psychological effects on immigrants. Immigrants with such experiences are very likely to suffer from these early persecution or tortures, which result in many mental problems including depression later in their lives. In addition, the analysis in this study does show a significant difference between Asian and Latino

immigrants in terms of the influences of pre-migration persecution. Although the specific reason is unclear, pre-migration persecution has a greater negative effect on Asian immigrants' mental health status than on Latino immigrants'.

Previous research (Thoits, 1982; Kuo, 1995; Ghaffarian, 1998) shows inconsistent results about gender differences in mental health problems. In this study, the statistical results show that for Asian and Latino immigrants, female immigrants are more likely than males to feel sad and have depression. When examined by ethnic group, the results show a different pattern between Asian immigrants and Latino immigrants. Specifically, gender is a significant predictor of depression experience and depression intensity only for Latino immigrants. Asian female immigrants and male immigrants do not have any statistical differences in whether they have experienced depression or the intensity of their depression experience. This pattern is similar to many previous studies. Researchers (Takeuchi et al., 1998; Hurh and Kim, 1990) find that gender is insignificant in predicting depression among some Asian immigrants' sub-ethnic groups. On the other hand, studies of Latino immigrants' mental health status discover females are at greater risk to develop mental health problems (Thoits, 1982, Synder, 1987; Ghaffarian, 1998; Hiott et al. 2006).

Researchers (Takeuchi et al. 2007b) recognize that gender has played a very important role in the mental health status of immigrants. However, how gender affects their mental health status is yet under discussion (Takeuchi et al., 1998). The reason Latino women are more vulnerable to depression maybe attributed to the gender roles of women. Many Latino women have to go through the transition from domestic workers to social workers or hold both responsibilities at the same time. The shift increases their level of distress and could cause their mental problems (Ghaffarian, 1998). In addition,

Salgado de Synder (1987) points out that because many female immigrants come from the culture that emphasizes the dominant positions of males, they may have less power in the migration decision making process. They migrate to the United States with their family as involuntary immigrants. As a result, they are either not as fit physically and mentally as self-select/voluntary immigrants (Portes and Rumbaut, 2006) or they are forced to disengage from their family, social ties and all other social resources, which will result in later depression (Salgado de Synder, 1987; Frisbie, Cho and Hummer, 2001; Golding and Burman, 1990). However, since males and females have different gender roles, they might experience different types of stress. Research shows that although female immigrants' depression is associated with separation from original social ties, while male immigrants' depression is more associated with marginalization (Hiott et al., 2006). However, the data used in this study do not provide detailed information to differentiate stressors associated with different gender groups. Further research to examine the different stressors that male immigrants and female immigrants experience is necessary to better understand the mental health of males and females within different racial/ethnic groups.

Another very important factor associated with immigrants' mental health status is socioeconomic status. In this study, wealth and education level are analyzed as indicators of socioeconomic status in this study. In general, the results support the hypothesis that better socioeconomic status is associated with better mental health status. Specifically, higher educational level predicts a lower likelihood of experiencing sadness or depression and the intensity of depression for both Asian and Latino immigrants. Moreover, the effect of educational level is statistically significant for Latino immigrants in predicting

whether they have experienced depression or sadness before. This is consistent with previous research (Berry et al. 1987; Shen and Takeuchi, 1998; Eaton and Garrison, 1992; Ghaffarian, 1998), and suggests that educational returns differ across different ethnic groups (Johnson et al., 1995).

Immigrants with lower socioeconomic backgrounds are usually more likely to be exposed to various stressors, such as discrimination, prejudice, crimes, relative deprivation, hazardous working environment, unemployment, poverty and so forth (Baum, Garofaloa and Yali, 1999). These situations could create a sense of powerlessness, or helplessness. In addition, they have less access to health care and services, and less utilization of health care system which may also account for their poor mental health status (Williams and Collins, 1995). However, research (Williams and Collins, 1995) also points out that the effects of socioeconomic status on health status will diminish as socioeconomic status increases. The benefits of high income, education and so forth on mental health status will decrease for immigrants with high levels of socioeconomic status. In addition to the exposure to more stressors, immigrants with low socioeconomic status also have fewer resources reserved to buffer stressors to cope with stressful events (Baum. Garofaloa and Yali, 1999; Taylor and Seeman, 1999; Ghaffarian, 1998).

There are also limitations in the measurements of socioeconomic status in this study. Only education is used as indicator for SES, while the many of widely used measurements are not included in this study, such as income level, occupational status. Researchers (Williams and Collins, 1995) conclude that although education is a very stable indicator for socioeconomic status, compared to income, its association with health

outcomes is less significant than income. In addition, the return of education varies across different ethnic and gender groups. Therefore, it may not provide the accurate picture for different immigrants group. With no proper income and occupation information available in the data, the effects of socioeconomic status on mental health status could be biased or only reflects certain aspects of socioeconomic backgrounds. As a result, the results should be interpreted carefully that the effects of socioeconomic status on mental health status may be more significant.

In addition to using education as an indicator for socioeconomic status, home ownership and number of houses are also included in the study to examine the effects of wealth on mental health status. In the analysis, two indicators are found to have opposite effects on the mental health status of immigrants. On the one hand, home ownership is negatively associated with depression which is consistent with previous research that better economic status is positively associated with better mental status (Berry et al. 1987; Shen and Takeuchi, 1998; Eaton and Garrison, 1992; Ghaffarian, 1998). However, the number of houses has a negative effect on both Asian and Latino immigrants' mental health status. Owning more than one house may cause extra financial burden on immigrants and could be considered as a stressor.

According to the life course perspective, age of migration has an effect on their mental health status. Migration is a great transition in a person's life, and the stage when this transition occurs will have a long term-impact on immigrants' mental health (Elder, 1994; Elder, George, and Shanahan, 1996). For example, when immigrants come to the U.S. at older ages, they will usually face greater language barriers, more difficulties to adapt to the new culture and values of the host society, having fewer resources to deal

with stressors (Angel and Angel, 1992; Min, Moon, and Lubben, 2005; Portes and Rumbaut, 2006; Wilmoth, DeJong and Himes, 1997; Mui, 1996; Mui and Kang, 2006). On the other hand, young immigrants may experience identity crises caused by the cultural conflict and confusion if they come at the certain age to develop their own identities (Bhugra, 2004). Unlike previous research, are of migration is found to have little impact on the mental health status of immigrants in this study.

However, this does not necessarily indicate that age of migration has no effects on the mental health of Asian and Latino immigrants. The measurement of the variable may partially explain why no effect is found between age and depression. The variable measures the age when immigrants first arrived in the U.S. In some cases, and this does not necessarily indicate their ages of migration. They could come to the U.S. for short-term visit due to business or family reunion, and they may have several short visits before they finally migrate to the U.S. Most of the previous research (Angel and Angel, 1992; Min, Moon, and Lubben, 2005; Portes and Rumbaut, 2006; Wilmoth, DeJong and Himes, 1997; Mui, 1996; Mui and Kang, 2006; Bhugra, 2004; Yeh, 2003) indicates that the age of migration has an impact on immigrants' mental health status. Based on previous research mentioned above, two age groups seem to be at greater risks of developing mental problems. One is the teenage immigrants, those who migrate to the U.S. at their teens, the so called 1.5 generation. For young immigrants, especially young Asian immigrants, they are at the age to form their own identities and develop a coherent self with the influences of two competing cultures and values (Yeh, 2003). In addition to the young immigrants who are facing great challenge, old immigrants also face many stressors as explained earlier in the paper. Not only do old immigrants have more

difficulties to learn new language, adapt to new culture, they also have fewer resources and narrower social networks due withdrawing from labor market (Bhugra, 2004). However, little attention has been paid to the age group in-between. As a result, future research is suggested to further explore the relationship between age of immigration and mental health status to see if there is a U-shape association.

Acculturation is the process that immigrants acquire the language of the host society, adapt to the values, beliefs, and cultural practices of another culture (Gordon, 1964). It is a gradual change that occurs through the interaction with a different culture (Berry, 2005). Immigrants need to balance between two different and sometimes competing cultures. The acculturation process varies from fully abandoning one's own culture value, fully adapting the culture and values of host society, indiscriminately integrate two cultures, to strategically adapting the culture values, which do not contradict the cultures of their home countries (Berry, 2005). In some extreme cases, immigrants could fully reject the host culture and be marginalized by the dominant culture and society (Berry et al., 1987). Portes (1990) points out that the different outcomes are related to the specific social context that acculturation takes place.

Researchers (Vega et al., 1988,1998; Berry, 2005; Salgado de Synder, 1987; Shuval, 1982; Walden, 1998; Metha, 1998; Pang, 1998, Stokes et al., 2001) believe that acculturation is associated with stress for immigrants. For example, a lower level of acculturation is associated with lower level mastery and self-esteem and thus has a negative effect on mental health status on Mexican female immigrants (Vega, Kolody and Valle, 1988). On the other hand, there are also many studies that find that a high level of acculturation is associated with better mental health outcomes (Metha, 1998; Pang,

1998, Stokes et al., 2001). In addition, acculturation is usually accompanied by discrimination and immigrants usually lack the recourses to cope with stress (Salgado de Synder, 1987; Shuval, 1982; Walden, 1998).

Two variables are introduced to indicate different aspects of acculturation, English proficiency, and length of U.S. residency. The results in general support the view that a certain aspect of acculturation is positively associated with mental health. For all Asian and Latino immigrants, and each of the individual ethnic groups, length of residency has a very trivial effect on the mental health status of immigrants. On the other hand, English proficiency has no significant effect on depression and how often immigrants feel, for overall Latino and Asian immigrants, and each of the ethnic groups.

Although the effect of English proficiency is not significant, it should not be overlooked. The effect of English proficiency is rather indirect than direct. Some of the explanations are that using English can better facilitate the interaction, and help immigrants to integrate into the host society, seek economic opportunities, build up the new social networks in the host society, better use the health care services, or seek social support (Kuo, 1995; Johnson et al., 1995; Takeuchi et al, 1998; Bhugra, 2004; Takeuchi et al., 2007b). However, the effect of English proficiency varies across different ethnic groups. English may not be a barrier for Filipino immigrants because of their high levels of premigration English proficiency (Mossakowski, 2007). Further studies are suggested for better understanding how English proficiency may affect the mental health status of immigrants in general and across sub-ethnic groups.

Length of U.S. residency as an indicator does not predict the mental health status of Asian and Latino immigrants in this study. However, it should not be directly

generalized to the overall immigrants' population. Previous research does indicate an association between the two (Kuo, 1984; Takeuchi et al, 1998). Korean immigrants are found to have higher depression index than any other Asian sub ethnic group because they have stayed shorter than others (Kuo, 1984). The mental health of Chinese immigrants is also found to be related to length of residency (Takeuchi et al. 1998). The longer Chinese immigrants stayed in the U.S, the more likely they will have experienced depression.

Rumbaut (1985, 1989) finds that there is a U-Shaped curve association between length of residency and immigrants' mental health status among Southeast Asian refugee immigrants. He suggests that there may be euphoria in the first year, followed by the disappointment and depression in the second year and gradually increased satisfaction. And the adjustment is found to be more rapid among immigrants with higher socioeconomic backgrounds. Similar situations are also found among other immigrants' ethnic groups (Portes and Rambaut, 2006). As a result, future research may further explore the association between the length of residency and their mental health status.

However, as research (Portes, 1990) suggests, acculturation is the process that involves behavioral changes of immigrants due to interaction with different cultures. It is a multi-dimensional process which involves more than the two aspects analyzed in this study. There are other indicators of the level of acculturation such as ethnic identity, interpersonal network composition, personal values and beliefs, and the like (Richard, 1989; Meredith et al., 2000). Therefore this study only reflects the impact of certain aspects of acculturation on the mental health status of immigrants.

Scholars (Portes and Böröcz, 1989) also point out that in order to fully understand the impact of acculturation on immigrants' mental health status, characteristics of social contexts in which acculturation takes place should also be taken into account. To be more specific, the structural characteristics of the context of immigrants home countries, and the specific incorporation modes in the host society all matters to the study of acculturation. Future research could take into account these suggestions, focusing on a more accurate measurement of acculturation and how it affects the mental health status of immigrants.

Social support is suggested by previous research (Synder, 1987; Shuval, 1982; Gaines, 1998; Cochrane, 1983; Kuo, 1995; Kuo and Tsai, 1986) to have an influence on the mental health status of immigrants. Social support could help immigrants cope with stress and reduce the effect on psychological impairment (Kuo and Tsai, 1986). Results from this study suggest different effects of social support on mental health status across ethnic groups. Specifically, social support is positively associated with the intensity of depression for all Asian and Latino immigrants. It does not predict whether Asian or Latino immigrants have experienced sadness or depression.

The specific variable used to indicate social support in this study is whether immigrants belong to any organization that puts money together in case of an emergency. Putting money in organizations may bring extra economic strain on immigrants, and could be perceived as a resource loss at the individual level which could result in more distress (Hobfoll, 1989). Taylor and Seeman (1999) conclude that there are two types of social support, emotional and instrumental social support. The first one refers to the sense of being loved and cared that people received from others, which could boost their self-

concept and thus their mental health status. On the other hand, instrumental support refers to tangible help that people received from the others, including both financial and non financial helps. Both types of social supports are considered as resources that help people to deal with stresses (Taylor and Seeman, 1999). These resources function to reduce the negative effects of exposure to stressors, reduce the chances of being exposed to stressors, and counterbalance stressors (Wheaton, 1985; Pearlin, 1999). Resources play a critical role in helping people cope with stressors. In addition, both actual resources and people's access to resources matter to the mental health outcome (Hobfoll, 1989). People reserve resources to prepare for stressors so any loss of actually resources could also create psychological distress (Hobfoll, 1989). That may explain why this study finds that social support variables actually predicts more intense depression experience.

One concept that this study highlights is transnationalism and its relation with the mental health status of immigrants. Transnationalism is a concept introduced by scholars (Portes et al. 1999, 2007; Levitt and Schiller, 2004; Kivisto, 2001) to explain immigrants' trajectories of adaptation. Researchers (Smith 2006) believe that immigrants engaged in transnational activities will maintain a strong ethnic tie to their home country, and this ethnic tie will enhance their ethnic identities (Smith, 2006), help them maintain the social networks for both instrumental and emotional social support (Vega and Rumbaut, 1991; Portes and Washinton, 1993), and shelter immigrants from stress and discrimination in the host society (Murphy, 1973;, Noh and Avison, 1996).

In this study, four variables are used as indicators of transnationalism, remittance to parents, remittance to children, participating in voting in countries of origin, and travel plans back to home country in the following 12 months. Unlike precious research, all four

variables analyzed in the study predict poor mental health status for both Asian and Latino immigrants.

One aspect that previous research focuses on is how transnationalism is related with social networks and support (Smith, 2006; Murphy and Mahalingam, 2004). Murphy and Mahalingham (2004) explain that transnational activities connect immigrants with the communities in their home countries. And this active interaction solidifies their ties with social networks, and strengthens the support immigrants get from ethnic communities in their home countries. However, although frequent traveling and remittance to close family members increase immigrants' contact with them, it is not a direct measure of their ties to local ethnic communities. Antonucci and his colleagues (1998) point out that these activities may create more stress to immigrants. For instance, sending money to close family members in home countries may be a financial burden and can cause extra economic strain for immigrants, rather than be a symbol of economic autonomy (Murphy and Mahalingam, 2004).

Ethnic identity is particularly important to Asian and Latino immigrants because their ability to be accepted by the mainstream society is restricted by the racial statification of the host society (Gopaul-McNicol and Brice-Baker, 1997). Murphy and Mahalingam (2004) suggest that this subjective sense of belonging to one's own cultural system will make immigrants value their own cultural tradition, avoid being alienated from host counties, and protect them from perceiving themselves as being discriminated due to the racial stratification system, which is a stressor that greatly threats immigrants' mental health (Amaro, Russo, and Johnson 1987; Finch, Kolody, and Vega 2000; Kessler, Mickelson, and Williams 1999; Noh et al. 1999)

Ethnic identity is found to be positively associated with mental health status among immigrants, and considered as a critical coping resource for immigrants to deal with stress (Mossakowski, 2007). It could protect immigrants' mental health status by buffering the discrimination they encounter in daily lives (Noh et al., 1999). Researchers (Dinh et al., 2009; Mossakowski, 2003) believe that ethnic pride, collective self esteem, could boost positive self-concept and have positive influence on immigrants' mental health status.

There are also some different opinions in the study of transnationalism and immigrants' mental health. In their study, Murphy and Mahalingam (2004) also find that most of the West Indian immigrants that they study reside in ethnic enclaves. Therefore, it is unclear whether the social support, ethnic identity, and perceived discrimination are influenced mainly by the specific social context immigrants reside or transnational activities. In addition, Falicov (2007) points out that immigrants always experience relational stress due to the family separation if they have close family members stay in home countries. Immigrants who send remittance to parents and children are the ones that suffer from family separation and the relational stress. The negative effects of remittance to parents and children on mental health may be a spurious correlation. The results are caused by family separation rather than transnational activities.

There are some aspects of transnationalism left unexamined in this study due to the limitations of the data. Portes, Guarnizo and Landolt (1999) summarize the level of institutionalization of transnational activities. Behaviors such as sending money back to home countries, casual travels, and voting in countries of origins are considered as lower level of institutionalization. And since no previous research has focused on the

association between level of institutionalization of transnationalism and ethnic identity and social network, it is not clear the whether the level of institutionalization of transnationalism affect immigrants' mental health status.

In addition, Smith (2006) finds that immigrants who maintain transnational connections are also more engaged in religious organization, which might mediate their distress, and perceptions of inequality and discrimination, thereby enhancing their emotional well being. Further research is needed to examine the extent to which the perceptions of inequality and discrimination, and feeling of acceptance cause distress in transnational immigrants, and thus influence their emotional well being.

Murphy and Mahalingam (2004) conclude five factors that measure different aspects of transnationalism, and they are political and economic activities, social and cultural ties, financial and commercial ties, social and family-related ties, and social and family-related communication. They ask questions to measure how often they participate in the activities that reflect five aspects of transnationalism. The basic psychometric scale provides a more profound measurement of the concept transnationalism. Although their general conclusion is that transnationalism protect immigrants from perceiving stress, only certain aspects, such as social and cultural ties, financial and commercial ties, and social and family-related communication are related social support, and only social and family-related communication are related to ethnic identity and reducing stress. This is similar to what is found in this study, that remittance to close family member, voting, travel plans do not protect immigrants from mental health problems. However, due to the limitation of the data, it is unable to analyze whether those specific transitional activities

are associated with maintaining ethnic identities and getting social support from local communities in immigrants' home countries.

Last but not the least, this study examines the differences across sub-ethnic groups for both Asian and Latino immigrants. Results in this study suggest that there are ethnic differences in mental health status. Chinese immigrants are used as the reference group. From the analysis, there are no statistical significant differences across most of the Asian sub-ethnic group, except for Indian immigrants and Vietnamese immigrants. All other Asian sub-ethnic groups, except for Indian and Vietnamese immigrants, are at slightly more likely to have experienced sadness and depression and a more intense experience of depression, but no statistical significances are found in these differences. Indian immigrants and Vietnamese immigrants are less likely to have experienced sadness and depression, and have less intense experience of depression. Vietnamese immigrants in this sample seem to have best mental health status compared to all other Asian sub-ethnic groups.

For Latino immigrants, Mexican immigrants are used as the reference group. Most of the Latino sub-ethnic groups are more likely to have experienced depression and have more intense experience of depression compared to Mexican immigrants. Surprisingly, Cuban immigrants, Peruvian immigrants are among the groups that are most likely to have experienced depression and have a more intense experience of depression, while Haitian immigrants, in contrast, are least likely to have emotional problems.

The findings are contradictory to what previous research (Kuo, 1995; Porter and Washington, 1993; Shen and Takeuchi, 1998; Eaton and Garrison, 1992) may suggest.

Immigrant groups with high socioeconomic status, such as Chinese immigrants (Kuo, 1995), with better social resources and support, such as Cuban immigrants (Waddell, 1998), are more likely to have experienced emotional problems. While those immigrants which have been reported to be mostly from lower SES background or refugees, such as Vietnamese immigrants and Haitian immigrants are least likely to have had emotional problems.

One possible explanation may be relative deprivation (Olson et al., 1995; Marmot and Wilkinson, 2001). Relative deprivation is a "perception of personal deprivation independently of objective maltreatment" (Keith and Schafer, 1987; McLeod and Shanahan, 1993; Olsen et al, 1995, pg994). In health studies, relative deprivation is used to explain why high socioeconomic status is associated with more health problems (Marmot and Wilkinson, 2001). For immigrants with better education, income or resources, they view the dominant group with high socioeconomic status as their reference group and have very high expectations and aspirations for themselves. However, as minority immigrants, they are still restricted by the racial stratification system in terms of opportunities (Murphy and Mahalingham, 2004). Kuo (1976) summarizes that this discrepancy between immigrants' aspirations and actual achievement will lead to the so called goal-striving stress. Immigrants are therefore more likely to feel distressed and experience more depression episodes. Immigrants from more urbanized and industrialized societies are more likely to suffer from this type of stress (Vega et al., 1987). Similar findings are also presented by Vega and Rumbaut (1991) that for those who perceived limited opportunities immigrants, they tend to develop the sense of powerless which may result in distress. However, since no information is available on

immigrants' expectation or aspiration, it is not conclusive that relative deprivation causes certain immigrants traditionally with better socioeconomic status to have had more emotional problems.

Another factor that may cause the difference in mental health status across sub-ethnic groups is their different coping strategies. Kuo (1995) finds that unlike most East Asian immigrants (Chinese immigrants, Korean immigrants, and Japanese immigrants), Filipinos are focusing more on actively seeking strategies to solve the problems (problem-focused) than ignoring it (emotional-focused). The different coping strategies may result in different mental health status. As a result, studying immigrants' coping styles and strategies would help better understand the ethnic differences in terms of mental health status across Asian and Latino sub-ethnic groups.

This study also has several limitations. First, no causal relationship can be established because only the baseline information is included in the study. Just like cross-sectional data, all the information analyzed in this study is collected within a short time frame. Therefore, the information is static. It is impossible to establish a timeline between variables. No cause or effects can be analyzed between variables. It is also impossible for researchers to measure any changes over time to track the trend of certain phenomenon. With the second wave of the data yet to be released, longitudinal data would help to establish the causal relationship among the factors accountable for depression among immigrants.

Another limitation of the data is the missing values. In this data, certain sections such as migration history, assets and social variables are collected only within half of all interviewers. Interviewers are randomly assigned to two different groups and asked to

skip certain parts of the survey. Since the missing information is considered as missing completely at random, it will causes little or no biases (Allison, 1999). Listwise deletion is used to process the missing values to minimize the biases. However, since half of the survey populations are missing certain sections, it greatly limits the ability to run higher level of analysis to further analyze the relationships among all factors. It also limits the ability to analyze each sub-ethnic groups within Asian and Latino groups.

There are some limitations in the measurement of certain concepts and variables in this study. For instance, only education is used to measure immigrants' socioeconomic backgrounds. Although number of houses and home ownership are included as indicators of wealth, none of the above fully measures immigrants' economic status and cultural capital. Income and occupational status are two common used variables to measure individuals' socioeconomic status (Baum. Garofaloa and Yali, 1999; Taylor and Seeman, 1999; Ghaffarian, 1998). Acculturation is measured through the variable English proficiency and length of residency. Although the two variables are classic indicators of acculturation, there are other indicators such as cultural identification, primary language usage, social affiliations, value expression, interpersonal network composition and so forth (Mendoza, 1989). Inclusion of the above variables will provide better measurement of acculturation and better understanding of its influences on immigrants' mental health. For social support, only membership of help group is included due to the limitation of the data. It will be more accurate to include more specific support that immigrants' perceive, reserved, and have received in the analysis of how social support affects immigrants' mental health status. Last but not the least, for the concept that this study is interested the most, transnationalism, which involves various activities ranging from economic,

political, to social and cultural (Murphy and Mahalingham, 2004). Information on whether immigrants keep regular communication with their network (friends and families) and how much they are involved in local community activities in their home countries are very useful to measure their level of transnationalism and may shed some light on how it is related to the mental health status of immigrants through the mediating factors of ethnic identity, perceived discrimination and social support.

This study also sheds some light on future research. First, development of key concepts and theories is needed in the study of the mental health status of immigrants. For instance, research (Murphy and Mahalingam, 2004) has suggested that transnationalism is related to the mental health of immigrants through the mediating factors. However, current research is limited in how to define and measure transnationalism in empirical research. Portes and his colleagues (1989, 1997, 2007) have summarized the research on transnationalism and suggested future research directions. More empirical research is needed to test and further develop the concept.

In addition to sociological theories, scholars from other areas also provide some explanation in understanding immigrants' mental health status. For example, economists developed the concept of selective migration (Roy, 1951; Borjas, 1987; 1991). They argue that migration is a process influenced by self-selection. Migrants may not represent a random sample of the home country population. Instead, individuals with certain characteristics are more likely to migrate than others (Cattaneo, 2007; Chriswick, Lee and Miller, 2006). Those characteristics may include: education, age, wealth, ability, ambition, mental health and so forth. Therefore, immigrants tend to be different from those who do not migrate. They are the most fit ones physically and mentally since it is a

rationally calculated behavior, and only better health status, including mental health would minimize the cost of migration and maximize the expected return in the host society (Cattaneo, 2007). There is a positive selection in the migration process which results in the better mental health status of immigrants. Future studies may incorporate these different perspectives to develop a synthetic theory to account for the mental health status of immigrants.

Social and historical contexts should also be taken into account in order to better understand the mental health status of immigrants (Vega and Rumbaut, 1991; Ruiz 1990). Both the contexts of exit and contexts of reception, and their adaptation patterns need to be analyzed. In terms of context of exit, there are focuses on the development level of the emigration societies since immigrants from less developed and urbanized societies are less likely to suffer from a certain type (goal striving) of stress (Kuo, 1976). In addition, another focus of context of exit is the refugee and post traumatic stress disorder, which are very common in the mental health literature. There are many immigrants who came to the United States as refugees, escaping from war, tortures, massacres and so forth in their home countries. They are at greater risk to develop mental disorder compared to age-matched general populations in the host countries (Fazel, Wheeler, and Danesh, 2005). All the mental symptoms they develop are called post traumatic stress disorder, which involves fear, helpless, horror or major depression after individuals experience actual or threatened death and /or serious injury (APA, 1994). A lot of previous research (Lipsedge, 2001; Silove et al. 1998) shows that many of them develop mental disorder collectively due to exposure to politically motivated terror, torture or massacre。

Migration process varies from very smooth to extreme difficult (Rumbaut, 1985), depending on the economic and legal status of immigrants (Vega, Kolody and Valle, 1987). However, because researchers (Vega, Kolody and Valle, 1987) conclude that those who have traumatic experiences in the passage of migration are mostly refugees and illegal immigrants, it may fall into the studies of those two topics.

Most research on immigrants' mental health status focuses on the context of reception (Salgado de Synder, 1987; Kuo, 1995; Hovey and Magaña, 2000; Mui and Kang, 2006; Portes and Rumbaut, 2006; Smith, 2006). In addition to the factors examined above, there are other factors which are accountable for the mental health status of immigrants. Those factors include but are not limited to perceived health, religiosity, perceived discrimination, ethnic enclaves and the like. Perceived physical health is found to be very important in predicting immigrants' mental health status (Mui and Kang, 2006). Changes in perceived health, no matter improvement or decline, leads to changes in people's mental health states (Thoits, 1982). Improvement in perceived health requires individual to readjust to their lives, which leads to distress Research shows that poor perceived health is associated with poor mental health status, such as high level of depression and distress among immigrants, especially older immigrants (Black et al., 1998; Falcon and Tucker, 2000). Religiosity is suggested to be a very important predictor for mental health status. Dinh et al. (2009) conclude that religiosity serves as a mediator for acculturation and may be positive impact on mental health outcomes. Perceived discrimination is a very important social psychological factor that impact immigrants' health status (Finch, Kolody and Vega, 2000). Ethnic enclaves also have impact on mental health status of immigrants though the mediating factors of social

interaction and social network. Specifically, Kuo (1976) summarizes immigrants who live in the ethic enclave have less confrontation of different cultures, values, and racial stratification from the host society; while at the same time have more support from their immigrant fellows. These exclusive interactions with one's relatives foster social isolation via limiting immigrants contact with host society and creating sole dependence on a small group of ethnic peers. It will further limit immigrants' social resources and support, prevent them from establishing social network in the host society, affect their coping with stress, and may result in mental health problems.

In conclusion, mental health studies of immigrants are of great importance these days with more immigrants with different cultural and social background arriving in the United States. With the increasing attention on health care reform and the large immigrant population, their health status has raised a lot of concerns. For refugees who have experienced traumatic events that leave long term psychological marks and immigrants who have to face the pressure and stress to adapt to the host society, they are both at risk of developing mental health problems. Therefore, studies of their mental health status would shed some light on academic studies of ethnic relations and immigration research. In addition, it may help to provide better health service for immigrants.

REFERENCES:

Alba, Richard and Victor Nee. 2003. *Remaking the American Mainstream: Assimilation and Contemporary Immigration.* Cambridge: Harvard University Press.

Alker, Henry A. 1965. "Concept of Mental Health." *Philosophy and Phenomenological Research.* 25 (4): 534-543

Allison, Paul D. 1999. *Multiple Regression: A Primer.* Thousand Oaks. CA: Pine Forge Press.

Al-Baldawi, Riyadh. 2002. "Migration-related Stress and Psychosomatic Consequences." *International Congress Series.* 1241:271-278

Amaro, Hortensia, Nancy Felipe Russo, and Julie Johnson. 1987. "Family and Work Predictors of Psychological Well-being among Hispanic Women Professionals." *Psychology of Women Quarterly.* 11:505-21.

Amaro, Hortensia, Rupert Whitaker, Gerald Coffman, and Timothy Heeren. 1990. "Acculutration and Marijuana and Cocaine Use: Findings from HHANES 1982-84." *American Journal of Public Health.*80 (Supplement): 54-60.

Aneshensel, Carol S. 1992. "Social Stress: Theory and Research." *Annual Review of Sociology.* 18: 15-38.

Angel, Jacqueline L., and Ronald J. Angel. 1992. "Age at migration, social connections, and well-being among elderly Hispanics." *Journal of Aging and Health* 4:480-499.

Antonucci, Toni, Hiroko Akiyama, and Jennifer E. Lansford. 1998. "Negative Effects of Close Social Relations." *Family Relations.* 47(4):379-384

APA .1994. *DSM IV Diagnostic and Statistical - Manual,* 4th Edition. American Psychiatric Association: Washington, D.C.

Baum, Andrew, J. P. Garofalo, and Ann Marie Yali. 1999. "Socioeconomic Status and Chronic Stress: Does Stress Account for SES Effects on Health." *Annuals of the New York Academy of Science.* 868:131-144

Bean, Frank Bean and Marta Tienda. 1987 *The Hispanic Population of the United States (for the Committee for Research on the 1980 Census)*. NY: Russell Sage Foundation.

Berry, John W., Uichol Kim, Thomas Minde, and Doris Mok. 1987. "Comparative Studies of Acculturation Stress." *International Migration Review* 21:491–511

Berry, John W. 2005. "Acculturation: Living Successfully in Two Cultures." *International Journal of Intercultural Relations.*29(6): 697-712

Bhugra, Dinesh. 2004. "Migration and Mental Health." Acta Psychiatrica Scandinavica 109 (4) , 243–258

Black, Sandra A., Kyriakos S. Markides, and Todd Q. Miller. 1998. "Correlates of Depressive Symptomatology among Older Community-Dwelling Mexican Americans:" *The Hispanic EPESE, Journals of Gerontology: Series B: Psychological Sciences and Social Sciences*, 53B(4): S198-S208.

Blau, Francine. 1984. "The Use of Transfer Payments by Immigrants." *Industrial and Labor Relations Review* 37(2):222-39.

Borjas, George J. 1987. "Self-selection and the Earnings of Immigrants." *American Economic Review* 77: 531–553

Borjas, George J. 1991. "Immigration and Self-selection." in John M. Abowd and Richard Barry Freeman, (eds), *Immigration, Trade, and the Labor Market*, Pp. 29-76 Chicago: University of Chicago Press.

Borjas,George J. 1994. "The Economics of Immigration." *Journal of Economic Literature* 32:1667–1717.

Burnam, M.Audrey, Richard L.Hough, Marvin Karno, Javier I Escobar, and Cynthia A Telles. 1987. "Acculturation and Lifetime Prevalence of Psychiatric Disorder among Mexican Americans in Los Angeles." *Journal of Health and Social Behavior.* 28:89-102.

Cabezas Amado. Y. 1982. "Social Support: A Cross-Cultural Investigation," *In Pursuit of Wellness,* Vol. 2., San Francisco: California Dept. of Mental Health.

Carstensen, Laura L., Turk S. Charles. 1998. "Emotion in the Second Half of Life." *Current Directions in Psychological Science* 7: (5) 144-149.

Castles, Stephen, and Mark J. Miller. 1993. *The Age of Migration: International Population Movements in the Modern World*. New York: The Guilford Press.

Cattaneo, Cristina. 2007. "The Self-Selection in the Migration Process: What Can We Learn?" *LIUC Papers in Economics* No. 199 http://www.biblio.liuc.it/liucpap/pdf/199.pdf

Cervantes, Richard C., and Castro, Felipe.G. 1985. "Stress, Coping and Mexican American Mental Health: A Systematic Review." *Hispanic Journal of Behavioral Sciences*.7(1):1-73.

Chriswick, Barry R., Yew Liang Lee, and Paul W. Miller. 2006. "Immigrants' Language Skills and Visa Category." *International Migration Review* 40 (2):419-450.

Cochrane, Raymond and Mary Stope-Roe. 1981. "Psychological Symptom Levels in Indian Immigrants to England-a Comparison With Native English." *Psychological Medicine.* 11:319-327.

Cochrane, Raymond. 1983. *The Social Causation of Mental Illness*. London: Longman.

Dinh, Khanh T., Felipe Gonzalez, Jenn-Yun Tein, Su Yeong Kim. 2009. "Cultural Predictors of Physical and Mental Health Status among Mexican American Women: A Mediation Model." *American Journal of Community Psychology.* 43:35-48

Dohrenwend, Bruce P., Babara S. Dohrenwend. 1969.*Social Status and Psychological Disorder: A Causal Inquiry*. New York: Wiley.

Dohrenwend, Bruce P., Itshak Levav, Patrick E. Shrout, Sharon Scjwartz, Guedalia Naveh, Bruce G. Link, Andrew E. Skodol, and Ann Stueve. 1992. "Socioeconomic Status and Psychiatric Disorders: The Causation-Selection Issue." *Science*. 255:946-952.

Eaton, William W; Garrison, Roberta. 1992. "Mental Health in Mariel Cubans and Haitian Boat People." *International Migration Review* 26. 4 (100): 1395-1415.

Elder, Glen H., Jr. 1994. "Time, Human Agency and Social Change: Perspectives on the Life Course." *Social Psychology Quaterly.* 57:4-15

Elder, Glen, H Jr. Linda George, and Michael Shanahan. 1996. "Psychosocial Stress over the Life Course." Pp. 247-291 in *Psychosocial Stress: Perspectives of Structure, Theory, Life Course, and Methods,* edited by Howard A Kaplan. San Diego: Academic.

Espino, C. 1991. "Trauma and adaptation: The case of Central American children." in F. Ahearn & J. Athey (eds.), Pp. 106-124 *Refugee Children*. Baltimore: Johns Hopkins University Press.

Falcon, Luis. M., and Katherine L. Tucker. 2000". Prevalence and Correlates of Depressive Symptoms among Hispanic Elders in Massachusetts." *Journals of Gerontology: Series B: Psychological Sciences and Social Sciences.* 55B(2): S108-S116.

Falicov, Celia J. 2007. "Working with Transnational Immigrants, Expanding Meanings of Family, Community and Culture." *Family Process.* 46(2):157-173.

Fazel, Mina, Jeremy Wheeler and John Danesh. 2005. “Prevalence of Serious Mental Disorder in 7000 Refugees Resettled in Western Countries: A Systematic Review.” *The Lancet.* 365(9467):1309-1314

Flack, John., Hortensia Amaro, William Jenkins, Stephen Kunitz, Jerry Levy, Maxine Mixon, and Elena Yu. 1995. “Panel I: Epidemiology of Minority Health.” *Health Psychology, 14*:592–600.

Finch, Brian Karl, Bohdan Kolody, and William A. Vega. 2000. “Perceived Discrimination and Depression among Mexican-origin Adults in California.” *Journal of Health and Social Behavior.* 41:295-313.

Frisbie, W. Parker, Youngtae Cho, and Robert A. Hummer. 2001. "Immigration and the Health of Asian and Pacific Islander Adults in the U.S." *American Journal of Epidemiology.*153 (4):372-381

Gaines, Atwood D. 1998. “Mental Illness and Immigration.” in Sana Loue (eds.), *Handbook of Immigrant Health*. Pg. 407-422.New York: Plenum

Ghaffarian, Shireen. 1998. “The Acculturation of Iranian Immigrants in the United States and the Implications for Mental Health.” *Journal of Social Psychology* 138 (5): 645-654.

Golding, Jacqueline M., and M. Audrey Burman. 1990. “Immigration, Stress, and Depressive Symptoms in a Mexican American Community. “ *Journal of Nervous and Mental Disease.* 178: 161–171.

Gonzalez, Hector M, Mary N. Haan, and Ladson Hinton. 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.

Gopaul-McNicol, Sharon-Ann, Janet Brice-Baker. 1997. “Caribbean Americans. ” in Steven Friedman, (eds.) *Cultural Issues in the Treatment of Anxiety*. Pg.81-98. .New York: Guilford Press.

Gordon, Milton. 1964. *Assimilation in American Life.* New York: Oxford University Press.

Harker, Kathryn. 2001. “Immigrant Generation, Assimilation, and Adolescent Psychological Wellbeing.” *Social Forces* 79(3):969-1004.

Hobfoll, Stevan E. 1989. “Conversation of Resources: a New Attempt at Conceptualizing Stress.” *American Psychologist.* 44(3):513-524.

Hobfoll, Stevan E. 2001. “The Influence of Culture, Community, and the Nested-Self in the Stress Process: Advancing Conservation of Resources Theory.” *Applied Psychology*. 50(3):337-421.

Hoitt, Ann.,Joseph G. Grzywacz, Thomas A. Arcury, Sara A. Quandt. 2006. “Gender Differences in Anxiety and Depression among Immigrant Latinos.” *Families, Systems and Health.* 24(2):137-146.

Hovey, Joseph. D. and Cristina Magaña. 2000. “Acculturative Stress, Depression, and Suicidal Ideation in Mexican Immigrants.” *Cultural Diversity & Ethnic Minority Psychology*. 6(2): 134-151.

Hull, Diana. 1979. "Migration, Adaptation, and Illness: A Review." *Social Science and Medicine* 13A:25-36.

Hurh, Won Moo and Kwang Chung Kim. 1990. “Correlates of Korean Immigrants’ Mental Health”. *The Journal of Nervous and Mental Disease.* 178(11):703-711.

Jarvis, Edward. 1855. *Idiocy and lunacy in Massachusetts. Report of the commission on lunacy*. Boston: William White, Printer to the State. (Reprinted Cambridge: Harvard University Press, 1971).

Jenkins, J H. 1991. “A State Construction of Affect: Political Ethos and Mental Health among Salvadoren Refugees.” *Cultural Medicine and Psychiatry*. 15:139-165.

Johnson, Katrina W., Anderson, Norman B, Bastida, Elena, Kramer, B Josea, Williams, David, Wong, Morrison. 1995. “Macrosocial and Environmental Influences on Minority Health” *Health Psychology.* 14(7): 601-612.

Kaiser Family Foundation. 2000. Kaiser Commission on Medicaid and the Uninsured, Immigrants' Health Care: Coverage and Access. Washington: Kaiser Family Foundation.

Kaiser Family Foundation . 2004. Kaiser Commission on Medicaid and the Uninsured, Immigrants and Health Coverage: A Primer. Washington: Kaiser Family Foundation.

Kandula, Namratha R., Margaret Kersey, and Nicole Lurie. 2004. Assuring Health of Immigrants: What the Leading Health Indicators Tell Us. *Annual Review Public Health.* 25:357-376.

Kaplan, Mark S, and Gary Marks. 1990. “Adverse Effects of Acculturation: Psychological Distress among Mexican American Young Adults.” *Social Science of Medicine.* 31(12): 1313-1319.

Keith, Pat M. and Robert B. Schafer. 1987. "Relative Deprivation, Equity/Inequity, and Psychological Well-Being: Men and Women in One-and Two-Job Families." *Journal of Family Issues.* 8(2):199-211.

Kessler, Ronald C., Kristin D. Mickelson, and David R. Williams. 1999. "The Prevalence, Distribution, and Mental Health Correlates of Perceived Discrimination in the United States." *Journal of Health and Social Behavior.* 40:208-30.

Kivisto, Peter. 2001. "Theorizing Transnational Immigration: a Critical Review of Current Efforts." *Ethnic and Racial Studies* 24(4): 549-77.

Kuo, Wen H. 1976. "Theories of Migration and Mental Health: An Empirical Testing on Chinese-Americans." *Social Science Medicine.* 10:297-306.

Kuo, Wen H. 1984. "Prevalence of Depression Among Asian-Americans." *Journal of Nervous and Mental Disease* 172: 449-457.

Kuo, Wen H. 1995. "Coping with Racial Discrimination: the Case of Asian Americans." *Ethnic and Racial Studies* 18: 109-127.

Kuo, Wen H., and Yung-Mei Tsai. 1986. "Social Networking, Hardines and Immigrant's Mental Health." *Journal of Health and Social Behavior.* 27 (June): 133-149

Lee, A. and Carol Hall Ellenbecker. 1998 "The Perceived Life Stressors Among Elderly Chinese Immigrants: Are They Different from Those of Other Elderly Americans?" *Clinical Excellence for Nurse Practitioners*. 2, (2) 96-101

Levitt, Peggy, and Nina Glick-Schiller. 2004. "Transnational Perspective on Migration Conceptualizing Simultaneity." *International Migration Review* 38 (3): 1002-1040.

Lien, Pei-Te. 1997. *The Political Participation of Asian Americans.* New York: Garland Publishing, Inc.

Lien, Pei-te, M. Margaret Conway, Janelle Wong. 2004. *The Politics of Asian Americans: Diversity and Community.* New York and London: Routledge.

Lipsedge, Maurice. 2001. Commentary. *Advances in Psychiatric Treatment.* 7: 222-223

Marmot, Michael, and Richard G. Wilkinson. 2001. "Psychological and Material Pathway In the Relation Between Income and Health: A Response to Lynch et al." *British Medical Journal.* 332:1233-1236.

Massey, Douglas S. 1995. "The New Immigration and Ethnicity in the United States." *Population and Development Review.* 21 (3): 631-652

Massey, Douglas S. 2003. "Patterns and Processes of International Migration in the 21st Century." *Presented in theConference on African Migration in Comparative Perspective, Johannesburg, South Africa, 4-7 June, 2003*

McKelvey, Robert, John A.Webb, and Alice Mao. 1993. "Premigratory risk factors in Vietnamese Amerasians." *American Journal of Psychiatry*. 150:470–473.

McLeod, Jane D. and Michael J. Shanahan. 1993. "Poverty, Parenting, and Children's Mental Health". *American Sociological Review.* 58:351—366

Mehta, Sheila. 1998. "Relationship between Acculturation and Mental Health for Asian Indian Immigrants in the United States." *Genetic, Social, and General Psychology Monographs* 124 (1): 61-78

Mendoza, Richard H.1989. "An Empirical Scale to Measure Type and Degree of Acculturation in Mexican American Adolescents and Adults." *Journal of Cross-Cultural Psychology.* 22(4):372-385.

Meredith, Lisa S., Neil Wenger, Honghu Liu, Nancy Harada, Katherine Kahn. 2000. "Development of a Brief Scale to Measure Acculturation among Japanese Americans." *Journal of Community Psychology.* 28(1):103-113.

Min, Jong Won, Moon, A., & Lubben, James E. 2005. "Determinants of Psychological Distress over Time among Older Korean Immigrants and Non-Hispanic White Elders: Evidence from a Two-wave Panel Study." *Aging and Mental Health.* 9(3):210–222.

Mirowsky II, John and Catherine E. Ross. 1980. "Minority Status, Ethnic Culture, and Distress: A Comparison of Blacks, Whites, Mexicans, and Mexican Americans." *The American Journal of Sociology.*86(3): 479-495

Mirowsky, John and Catherine E. Ross. 1999. "Well-Being across the Life Course." in Allan V. Horwits and Teresa L. Scheid (ed) *A Handbook for the Study of Mental Health: Social Context, Theories, and Systems.* UK:Cambridge University Press.

Mossakowski, Krysia N. 2003. "Coping with Perceived Discrimination: Does Ethnic Identity Protect Mental Health?" *Journal of Health Social Behavior.* 44(September):318–331.

Mossakowski, Krysia. 2007. "Are Immigrants Healthier? The Case of Depression among Filipino Americans." *Social Psychology Quarterly* 70:290-304.

Mui, Ada. C. 1996a. "Correlates of Psychological Distress among Mexican, Cuban, and Puerto Rican Elders Living in the USA." *Journal of Cross-Cultural Grentology*.11(2):131-147.

Mui, Ada C. 1996b. "Depression among Elderly Chinese Immigrants: An Explanatory Study." *Social Work.* 41(6): 633-645.

Mui, Ada C. and Suk-Young Kang. 2006. "Acculturative Stress and Depression among Asian Immigrant Elders." Social Work. 51(3): 243-255.

Murphy, Eleanor J. and Mahalingham, Ramaswami. 2004. "Transnational Ties and Mental Health of Caribbean Immigrants." *Journal of Immigrant Health* 6(4): 167-178.

Nakanishi, Don, and James Lai. 2003. *National Asian Pacific American Political Almanac 2003_2004*. Los Angeles, CA: UCLA Asian American Studies Center Press.

Nicassio, P. M. 1985. "The Psychological Adjustment of the Southeast Asian Refugee An Overview of Empirical Findings and Theoretical Models." *Journal of Cross-Cultural Psychology.* 16:153–173.

NIH News. 2005. PTSD, Depression Epidemic Among Cambodian Immgirants. http://nih.gov/news/pr/aug2005/nimh-02b.htm

Noh, Samuel, Morton Beiser, Violet Kaspar, Feng Hou, and Joanna Rummens. 1999. "Perceived Racial Discrimination, Depression, and Coping: A Study of Southeast Asian Refugees in Canada."*Journal of Health and Social Behavior*. 40:193-207.

Noh, Samuel and William R. Avison. 1996. "Asian Immigrants and the Stress Process: A Study of Korean in Canada. " *Journal of Health and Social Behavior.* 37(2):192-206.

Olson, James M., Neal J Roese, Jennifer Meen, and D. Joyce Robertson. 1995. "The Preconditions and Consequences of Relative Deprivation: Two Field Studies." *Journal of Applied Social Psychology.*25(11):944-964.

Ong, Aihwa. 2003. *Buddha is Hiding: Refugees, Citizenship, the New America.* Berkeley: University of California Press.

Padilla, Amado M., Monica Alvarez, and Kathryn Lindholm. 1986. "Generational Status and Personality Factors as Predictors of Stress in Students." *Hispanic Journal of Behavior Sciences.* 8(3):275-288.

Pampel, Fred C. 2000. *Logistic Regression: A Primer (Quantitative Application in the Social Science).* California: Sage Publication

Pang, Keum Young Chung . 1998. "Symptoms of Depression in Elderly Korean Immigrants: Narration and the Healing Process." *Culture, Medicine and Psychiatry*. 22:93-122.

Park, Robert E. 1950. *Race and Culture*. Glencoe Ill: The Free Press

Pearlin, Leonard I.; Elizabeth G. Menaghan; Morton A Lieberman and Joseph T. Mullan. 1981. "The Stress Process." *Journal of Health and Social Behavior.* 22(4):337-356

Pearlin, Leonard I. 1999. "Stress and Mental Health: A Conceptual Overview." Pp. 161-175 in *A Handbook for the Study of Mental Health: Social Context, Theories, and Systems* edited by Allan V. Horwitz and Teresa L. Sheid. Cambridge, UK: Cambridge University Press.

Porter, J.R. and Washington, R.E. 1993. "Minority Identity and Self-Esteem." *Annual Review of Sociology,* 19**:**139-61 (1993).

Portes, Alejandro. 1990. "From South of the Border: Hispanic Minorities in the United States." in by V. Yans-McLaughlin (Eds.), *Immigration Reconsidered.* Pp. 160-184. New York: Oxford University Press.

Portes, Alejandro. 1997. "Immigration Theory for a New Century: Some Problems and Opportunities." *International Migration Review* 31(4): 799-825.

Portes, Alejandro, Cristina Escobar, Alexandria Walton Radford. 2007. "Immigrant Transnational Organizations and Development: A Comparative Study." *International Migration Research.*41(1):242-281

Portes, Alejandro and József Böröcz. 1989. "Contemporary Immigration: Theoretical Perspectives on Its Determinants and Modes of Incorporation." *International Migration Review* 23 (3): 606-630.

Portes, Alejandro. Luis E, Guarnizo and Patricia Landolt. 1999 "The Study of Tranationalism Pitfalls and Promise of An Emergent Research Tield." *Ethnic and Racial Studies.* 22 (2):217-237

Portes, Alejandro, and Rubitn G. Rumbaut. 2001. *Legacies: The Story of the Second Generation*. Berkeley: University of California Press.

Portes, Alejandro, and Rubitn G. Rumbaut. 2006. *Immigrant America: A Portrait*. Berkeley: University of California Press.

Prior, Lindsay, Fiona Wood, Glyn Lewis, and Roisin Pill. 2003. "Stigma Revisted, Disclosure of Emotional Problems in Primary Care Consultations in Wales." *Social Science and Medicine.* 56(10):2191-2200.

Roberts, Robert. E. 1980. "Prevalence of Psychological Distress among Mexican Americans."*Journal of Health and Social Behavior, 21*, 134–145.

Roberts, Robert. E., and Sally W. Vernon. 1983. "The Center for Epidemiologic Studies Depression Scale: Its Use in a Community Sample".*American Journal of Psychiatry, 140*, 41–46.

Rogler, Lloyd. H. 1989.*Hispanics and Mental Health*. Malabor, FL: R. E. Krieger.

Rogler, Lloyd H., Dharma E. Cortes, Robert G. Malgady. 1991. "Acculturation and Mental Health Status among Hispanics: Convergence and New Directions for Research." *American Psychology*. 46(6): 585-597.

Roy, Andrew D. 1951. "Some Thoughts on the Distribution of Earnings." *Oxford Economic Papers* 3:135–146.

Ruiz, Dorothy S. 1990. *Handbook of Mental health and Mental Disorder among Black Americans*. Westport, Connecticut: Greenwood.

Rumbaut, R. G. 1985. "Mental health and the refugee experience: A comparative study of Southeast Asian refugees." in T. C. Owan ed. *Southeast Asian Mental Health: Treatment, Prevention, Services, Training, and Research*, Pp. 433-86. Rockville, MD: National Institute of Mental Health

Rumbaut, R. G. 1989. "Portraits, patterns, and predictors of the refugee adaptation process." in D. W. Haines (eds.) *Refugees as Immigrants: Cambodians, Laotians and Vietnamese in America*, ed.. pp. 138-82. Totowa, NJ: Rowman & Littlefield.

Rumbaut, Ruben G. 1991. "The Agony of Exile: A Study of the Migration and Adaptation of Indochinese Refugee Adults and Children."in L. Frederick, J. Ahearn and J.L. Athey (Eds.), *Refugee Children: Theory, Research, and Services.* Pp. 53-91. Baltimore: Johns Hopkins University Press.

Salgado de Snyder, Nelly 1987. "Factors Associated with Acculturative Stress and Depressive Symptomatology among Married Mexican Immigrant Women." *Psychology of Women Quarterly.* 11: 475–488.

Salgado de Snyder, V. Nelly, Richard C. Cervantes, and Amado M. Padilla. 1990. "Gender and Ethnic Differences in Psychosocial Stress and Generalized Distress among Hispanics." *Sex Roles*. 22(7/8):441-453

Sassen, Saskia. 1989. "America's Immigration 'Problem.'" in Saskia Sassen (eds.), *Globalization and its Discontents: Essays on the New Mobility of People and Money*. Pps. 31-54. NY: The New Press.

Simon, Julian L. 1984. "Immigrants, Taxes, and Welfare in the United States." *Population and Development Review* 10(1): 55-70.

Smith, Robert Courtney. 2006. *Mexican New York: Transnational Lives of New Immigrants.* Berkeley: University of California Press.

Shen, Biing-Jiun and David T. Takeuchi. 2001. "A Structural Model of Acculturation and Mental Health Status among Chinese Americans." *American Journal of Community Psychology*. 29(3):387-418.

Shrout, Patrick E., Glorisa J. Canino, Hector R. Bird, Maritza Rubio-Stipec, Milagros Bravo, and M. Audrey Burnam. 1992. "Mental Health Status among Puerto Ricans, Mexican Americans, and Non-Hispanic Whites." *American Journal of Community Psychology.* 20(6):729-750.

Shuval, J. T. 1982. "Migration and stress." in L. Goldberger and S. Breznitz (Eds.), *Handbook of Stress : Theoretical and Clinical Aspects* Pp. 677–691. Free Press: London.

Stokes, Sandy Chen, Larry W. Thompson, Susan Murphy, and Dolores Gallagher-Thompson. 2001. "Screening for Depression in Immigrant Chinese-American Elders: Results of a Pilot Study." *Journal of Gerontological Social Work,* 36(1/2): 27-44.

Sue, Derald Wing. 1994. "Asian-American Mental Health and Help-Seeking Behavior: Comment on Solberg et al. (1994), Tata and Leong (1994), and Lin (1994)" *Journal of Counseling Psychology*. 41 (3):292-295.

Takeuchi, David.T., Rita Chi-Ying Chung, Keh-Ming Lin, Haikang Shen, Karen Kurasaki, Chi-Ah Chun, and Stanley Sue. 1998. "Lifetime and Twelve-Month Prevalence Rates of Major Depressive Episodes and Dysthymia Among Chinese Americans in Los Angeles." *American Journal of Psychiatry,* 155 (10), 1407-1414.

Takeuchi. David T., Margarita Alegria, James S. Jackson, David R. Williams. 2007a. "Immigration and Mental Health: Diverse Findings in Asian, Black, and Latino Population." *American Journal of Public Health.* 97(1):11-12.

Takeuchi, David T., Nolan Zane, Seunghye Hong, David H. Chae, Fang Gong, Gilbert C Gee. Emily Walton. Stanley Sue, and Margarita Alegìa. 2007b. "Immigration-Related Factors and Mental Disorders Among Asian Americans." *American Journal of Public Health.* 97(1): 84-90.

Tam, Wendy K. 1995. "Asians—A Monolithic Voting Bloc?" *Political Behavior*. 17: 223–49.

Taylor, Shelley E.; Teresa E Seeman. 1999. "Psychosocial Resources and the SES-Health Relationship." *Annals of the New York Academy of Sciences.* 896:210-225.

Taylor, Shelley E. and Teresa E. Seeman. 1999. "Psychosocial Resources and the SES-Health Relationship." *Annuals of the New York Academy of Science.* 868:210-225.

Tienda, Marta and Leif Jensen. 1986. "Immigration and Public Assistance Participation: Dispelling the Myth of Dependence." *Social Science Research* 15:372–400.

The Urban Institute. 2002. Key Findings from the 2002 National Health Interview Survey, Access to Care among Uninsured and Insured Children: Well-Child Checkups, Usual Source of Care and Unmet Needs. http://coveringkidsandfamilies.org/press/docs/2004UrbanFindings.pdf

Thoits, Peggy. A.1982. "Life Stress, Social Support, and Psychological Vulnerability: Epidemiological Considerations." *Journal of Community Psychology*. 10:341-362.

Tummala-Narra, Pratyusha. 2001. "Asian Trauma Survivors: Immigration, Identity, Loss, and Recovery." *Journal of Applied Psycoanalytic Studies.* 3(3):243-258

U.S. Bureau of the Census. 1990. *The Hispanic Population in the United States: March 1989 (Current Population Reports, Series P-20, No. 444).* Washington, DC: U.S. Government Printing Office.

U.S. Bureau of the Census. 2001a. *Census 2000 Redistricting Data (Public Law 94-171)*. Accessed at http://www.census.gov/clo/www/redistricting.html in March 2001.

U.S. Bureau of the Census. 2001b. *Report of the Executive Steering Committee for Accuracy and Coverage Evaluation Policy*. Released March 1, 2001.

U.S. Bureau of the Census. 2001c. Population Change and Distribution. *Census 2000 Brief*. Washington, DC. April 2.

U.S. Bureau of Census. 2002. http://www.census.gov/prod/2002pubs/p20-542.pdf

U.S. Bureau of the Census. 2006. http://www.census.gov/prod/2006pubs/p20-551.pdf

Vega, William and Kolody, B. 1985. The Meaning of Social Support and the Mediation of Stress Across Cultures. in William Vega & Manuel Miranda (eds)., *Stress and Hispanic Mental Health*. Rockville, MD: National Institute of Mental Health.

Vega, William A., Bohdan Kolody, Juan Ramon Valle. 1987. "Migration and Mental Health: An Empirical Test of Depression Risk Factors among Immigrant Mexican Women." *International Migration Review.* 21(3): 512-530.

Vega, William A., Bohdan Kolody, Ramon Valle. 1988. "Marital Strain, Coping, and Depression among Mexican-American Women." *Journal of Marriage and Family.*50 (2):391-403

Vega, William A. and Rubitn G. Rumbaut. 1991. "Ethnic Minorities and Mental Health." *Annual Review of Sociology* 17(35): 1-83.

Vega, William, Bohdan Kolody, Sergio Aguilar-Gaxiola, Ethel Alderete, Ralph Catalano, Jorge Caraveo-Anduaga.1998. "Life time Prevelance of DSM-III-R Psychiatric Disorders Among Urban and Rural Mexicans in California." *Archives of General Psychiatry.* 55:771-778

Vernon, Sallu. W., & Roberts, Robert. E. 1982. "Prevalence of Treated and Untreated Psychiatric Disorders in Three Ethnic Groups." *Social Science and Medicine*, 16, 1575-1582.

Waddell, B. 1998. "United States Immigration: A Historical Perspective." in Sana Loue (eds.), *Handbook of Immigrant Health*. New York: Plenum.

Wakefield, Jerome C. 1992. "The Concept of Mental Disorder: On the Boundary Between Biological Facts and Social Values." *American Psychologist*. 47(3):373-388.

Warheit, George. J.,William A. Vega, Joanne Auth, and Kenneth Meinhardt. (1985). Psychiatric Symptoms and Dysfunctions among Anglos and Mexican Americans: An Epidemiological Study. In J. R. Greenley (Ed.),*Research in Community and Mental Health* (pp. 3–32). London: JAI Press.

Wheaton, Blair. 1985. "Models for the Stress-Buffering Functions of Coping Resources." *Journal of Health and Social Behavior.* 26:352-364

William, Mark. 2001. "Survivors of Torture:Realities, Resposnsible Care, and Rehabilitation." *Journal of Applied Psychoanalytic Studies.*3(3):259-271

Williams, David R. and Chiquita Collins. 1995. "U.S. Socioeconomic and Racial Differences in Health: Patterns and Explanations." *Annual Review of Sociology*. 21: 349-386

Williams, David R., Rahwa Hale, Hector M. Gonzalez, Harold Neighbors, Raymond Baser, and James S. Jackson. 2007. "The Mental Health of Black Caribbean Immigrants: Results from the National Survey of American Life." *American Journal of Public Health.*97(1) 52-59

Wilmoth, Janet M., Gordon F. De Jong, and Christine L. Himes. 1997 "Immigrant and Non-immigrant Living Arrangements Among America's White, Hispanic, and Asian Elderly Population." *International Journal of Sociology and Social Policy*. 17 (9/10) : 57-82

Yeh, Christine and Mayuko Inose. 2002. "Difficulties and Coping Strategies of Chinese, Japanese, and Korean Immigrant Students" *Adolescence.* 37(145): 69-81

Yeh, Chiristine J. 2003. "Age, Acculturation, Cultural Adjustment, and Mental health Symptoms of Chinese, Korean, and Japanese Immigrant Youth. "*Cultural Diversity and Ethnic Minority Psychology*. 9(1):34-48.

Zuberi, Tukufu. 2001. "The Population Dynamics of the Changing Color Line." In Anderson, Elijah and Douglas S. Massey. (eds). *Problem of the Century: Racial Stratification in the United States.* New York: Russell Sage Foundation.