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The effects of socioeconomic status, social support, and acculturation on the mental and physical health among Korean American older adults in Chicago metropolitan area

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THE EFFECTS OF SOCIOECONOMIC STATUS, SOCIAL SUPPORT, AND ACCULTURATION ON THE MENTAL AND PHYSICAL HEALTH AMONG KOREAN AMERICAN OLDER ADULTS IN CHICAGO METROPOLITAN AREA

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ABSTRACT

The purpose of this study was to examine the way that Socioeconomic status (SES), social support, and acculturation may influence physical and mental health status of Korean American older adults. It was premised that SES, social support and acculturation are directly and/or indirectly related to the mental and physical health status of Korean American older adults manifested by respective symptoms. The following two objectives were established: 1) Explore the characteristics of Korean American older adults including socioeconomic status, acculturation level, social support, and physical and mental health status. 2) Assess direct and indirect effects of socioeconomic status, acculturation level, and social support on the mental and physical health status of Korean American older adults.

Though the social support construct itself did not correlate to the degree of health status in this study, some of observed indicators such as number of network contact, the degree of perceived and actual social support showed significant correlation with the degree of respondent's perceived physical health status. There was also a significant relationship between the social support indicators and mental health construct. Those who had social support available were less vulnerable to experiencing depressive symptoms. In addition, it was shown that some of socioeconomic and demographic characteristics of respondents were directly related to the mental health status of Korean American older adults.

Mental and physical health and the aging process of Korean American older adults appeared to be complicated with many factors. First of all they were old

immigrants who came to the United States relatively recently to unite with their

adult children. The majority of them were living apart from their children. Their

sense of self and satisfaction was greatly influenced by the quality of their

relationship with their children. Secondly, Korean American older adults were

living in a culturally and physically different environment with a number of barriers,

such as language, transportation, isolation, and loneliness. And finally, they lacked

appropriate socioeconomic resources and support systems.

CHAPTER 1

INTRODUCTION

1.1. Rationale

By all accounts, America is getting older. According to the U.S. Bureau of the Census (1991; 2001), in 1970 the median age of the U.S. population was 28 years; by 1990 and 2000, the median age had increased to 32 and 35.3 years respectively. At the same time the median age has increased, the number of people over 65 years of age has also escalated in the past 30 years from 20 million people in 1970 to 29.4 million people in 1986. In 2001, almost 35 million people were age 65 or over; 9 percent of the population was comprised of older adults in 1960, 12.4 percent, today, and by 2010, 15 percent of the population is projected to be older adults.

Growth of the elderly population in the U.S. includes a growing number of the elderly from ethnic minority groups. In 2000, 84 percent of people age 65 or older were non-Hispanic white, 8 percent were non-Hispanic black, 2.3 percent were non-Hispanic Asian, and less than 1 percent were non-Hispanic American Indian and Native Alaskan. Hispanic persons made up 5 percent of the older population (Administration on Aging, 2001). By 2050, the percentage of the older population that is non-Hispanic white is expected to decline from 84 percent to 64 percent. Hispanic persons are projected to account for 16 percent of the older population, 12 percent of the population is projected to be non-Hispanic black, and 7 percent of the population is projected to be non-Hispanic Asian and Pacific Islander (Federal Interagency Forum on Aging-related Statistics, 2000).

This changing composition of the older population calls for increased attention to the past experiences, the current status and needs, and future challenges of these minority

groups. In other words, this diversity raises issues such as appropriately responding to different social, cultural, economic, physical and mental needs of diverse ethnic elderly groups, and incorporating their culturally and historically different experiences into the aging process (Stanford & Torres-Gil, 1991).

Concerns have been expressed that minority older adults have not received appropriate public attention in research or practice in spite of their rapid growth in the United States. There has been substantial knowledge gaps regarding the state of minority older adults as a result of this paucity of research (Gibson, 1989; Jackson, 1989). Indeed, there remain numerous medical, biological, social, and psychological questions about minority older adults that remain unanswered, and which will have important public policy and research implications (LaVeist, 1995; Browne and Broderick, 1994). In addition, diversity among the minority elderly has not been considered in the area of studies on ethnic minority aging (American Psychiatric Association, 1994). When the population size of an ethnic group is small and the social status is not high, little research has been conducted on that ethnic group (Kang & Kang, 1995). When it comes to an ethnic elderly subgroup of a relatively small ethnic group, like Korean American older adults, the issue has received even less attention.

The number of Korean immigrants has increased rapidly in the past few decades. The 1970, 1980, 1990, and 2000 Census marked 70,000, 354,529, 815,447, and 1,076,872 Korean residents, respectively (U.S. Bureau of the Census, 1973;1983;1991; 2001). The Immigration Act of 1965 and social and political insecurity in the 1970s in Korea led to this dramatic increase in Korean immigration (Min, 1995). Although Korean American adults 65 years and older constituted only 4.2 percent of the total

Korean American population in 1990 (this number is relatively small compared to the number of older adults in US), continued immigration of Koreans to the United States and family reunification under current immigration policy are likely to increase their presence.

When an individual moves from one culture to another, many aspects of individuals are modified to accommodate information about and experiences within the new culture. This modifying process, generally called acculturation, varies according to their demographic, social and economic status, place of origin, pre-immigration occupation and education, traditional values, and socialization (Kessler-Harris & Yans-Mclaughlin, 1978). In addition, if this individual movement has happened in the name of international migration, it often brings about sudden and dramatic changes in many areas of an immigrant's life, such as living conditions, occupations, socioeconomic status, language use, family structure, and social networks. Furthermore, they will likely undergo stressful experiences in the host society, including cultural shock and social isolation, even though it was their voluntary migration from one culture to another (American Psychiatric Association, 1994; Gelfand, 1994).

Especially when an immigrant is an older person, adjustment to new culture will be very difficult. In this respect, older immigrants are relatively at a higher risk for psychiatric problems, such as adjustment disorders, depression, paranoia and anxiety because they have limited social and economic resources as well as cultural shock (Al-Issa, 1995; American Psychiatric Association, 1994). Thus, we may assume that many Korean American older adults who came to join their children without any prior preparation for major change in their lives are more likely to suffer from many emotional

difficulties caused by a significant loss of social status and ties with lifelong friends and relatives. Lack of individual resources, including transportation and appropriate language skills, also may accelerate isolation of Korean older adults from wider society. This maladaptation may result in serious mental problems, such as depression.

The mental illness experienced by Korean immigrants has been attributed to numerous stressors, including a lack of individual resources to cope with the stress and conflicts between old and new values, identity confusion, communication problems, and others. Studies on how Korean American older adults adapt to the new host culture have been conducted by focusing on revealing the mental health status of Korean American older adults (Hurh & Kim, 1990; Kiefer et al, 1985; Kuo, 1984; Lee, Crittenden, & Yu, 1996; Moon & Pearl, 1991; Pang, 1998; Yamamoto, Rhee, & Chang, 1994). Some of these studies have pointed out language barriers, cultural differences, and unfamiliarity with the American way of life, as some possible causes of multiple adjustment problems. Other studies further showed an individual's demographic characteristics, socioeconomic status, level of education, living arrangement, length of US residence, and other environmental factors, as possible causes of mental illness in Korean American older adults.

However, previous research has shown critical limitations in attempts to understand how Korean American older adults adapt to the new environment. First of all, researchers failed to address some important variables when they conducted research on the mental health status of Korean American older adults. For example, although many researchers suggest that people who are more involved in and committed to religion tend to enjoy better physical and mental health than individuals who are not as religious

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(Ellison, Boardman, Williams, & Jackson, 2001; Idler & Kasl, 1997, 1997a; Kraus, 1997; Krause & Tran, 1989; Musick, Koenig, Hays, & Cohen, 1998; Strawbridge, Shema, Cohen, Roberts, & Kaplan, 1998), religious involvement and participation as a source of social support among Korean American older adults was overlooked in previous studies.

Religion could be a critical source of social support over the course of one's life. Interaction with fellow church members can provide material and emotional support, information, advice, and many other benefits for the elderly. Thus, studying religious life of Korean American older adults may give us some clues when we try to understand the mental health status of elderly Korean Americans.

Second, previous studies did not adequately incorporate multiple factors, nor the relationships among these factors, that have been found to be significantly related to mental illness. According to Billings and Moos (1982, 1985), individual mental illness, such as depression, results from the interplay of several types of variables; such as the resources of people and their environment, stressful life events, and the individual's coping responses. The personal resources include all the resources available to individuals such as level of education, health status, and income. When referring to environmental resources, they include social support provided by friends, relatives, family members, and others within the individuals' social network (Billings & Moos, 1982, 1985). Previous studies have overlooked multiple relationships among the variables. They did not consider that there is unidirectional relationship and other relationships, such as bidirectional, reciprocal, mediating, or reversal relationships, among the variables.

Studies on the mental health status of Korean American older adults were a preliminary exploration of the process by which Korean American older adults were adjusting to their environment. Thus, they limited their studies to identification of various factors that led elderly immigrants to experience emotional difficulty, rather than investigating the relationships between those factors. In addition, very few comprehensive efforts have been made to empirically determine the degree of mental illness experienced by Korean American older adults. Those effects can be predicted from a set of theoretically based factors.

Finally, previous studies have generally taken a clinical approach, focusing their attention on the individual's maladjustment, and neglecting the social structural factors such as cultural adaptation and social support (Hurh & Kim, 1990). According to Wykle and Musil (1993), biological, psychological, and sociocultural factors act as multiple determinants of mental health adjustment in old age. It is important to specify the effects of social and cultural influences on the mental health of older adults. Further, the relationship between psychosocial and sociocultural factors, as they affect older adults' experience of mental health and mental illness in later life, needs to be considered.

Given the lack of incorporation of multiple factors associated with the studies of mental health of Korean American older adults, the purpose of this study is to propose and test a model for analysis of the mental health status of Korean American older adults. Based on the literature on acculturation and social support, this study assumes that mental health status of Korean American older adults is related to acculturative stress, social support and socioeconomic status. This study also shows that not only are these variables related to mental health, but also are linked together in ways that profoundly influence

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the well-being of Korean American older adults. It is evident that there is a need for studies balancing individual and social structural levels of analysis of the problems related to Korean American older adults' mental health. To move beyond the simple test of a direct relationship between acculturation and mental health status, such an integrative approach is critical in advancing a holistic understanding of the link between the broad sociocultural indicator of acculturation and the psychological state of individual adjustment.

Through analyzing the proposed model, this study shows how much Korean immigrant older adults suffer from mental illness, what kind of factors have impact on their mental status, and how these factors actually cause mental illness among Korean American older adults. Answers to these kinds of questions can help social workers develop and deliver effective services to their ethnic minority older adults who are suffering from mental illness.

1.2. Objectives

The purpose of this study is to examine the way that Socioeconomic status (SES), social support, and acculturation may influence physical and mental health status of Korean American older adults. It is premised that SES, social support and acculturation are directly and/or indirectly related to the mental and physical health status of Korean American older adults manifested by respective symptoms. The following two objectives are established:

1.   Explore the characteristics of Korean American older adults including socioeconomic status, acculturation level, social support, and physical and mental health status.

2.   Assess direct and indirect effects of socioeconomic status, acculturation level, and

         social support on the mental and physical health status of Korean American older

         adults.

1.3. Hypothesis

         Based on the review of related literature, the following hypotheses are established

in the proposed study through a structural model with various latent constructs:

H1:   The level of acculturation will be negatively associated with the degree of

         depression.

H2:   The degree of social support will be negatively associated with the degree of

         depression.

H3:   The level of SES will be negatively associated with the degree of depression.

H4:   The degree of social support has a buffering effect on the relationship between the

         level of acculturation and the degree of depression.

H5:   The degree of social support has a buffering effect on the relationship between the

         level of SES and the degree of depression.

H6:   The level of acculturation will be positively related to the degree of physical

         health.

H7:   The degree of social support will be positively related to the degree of physical

         health.

H8:   The level of SES will be positively associated with the degree of physical health.

H9:   The degree of social support has a buffering effect on the relationship between the

         level of acculturation and the degree of physical health.

H10:   The degree of social support has a buffering effect on the relationship between the

level of SES and the degree of physical health.

1.4. Significance of the Study

For many years, diverse conceptual and theoretical models have proposed to explore intrapsychic, cognitive-phenomenological, social, and behavioral aspects of mental health (Billings and Moos, 1985; Fry, 1993; Futterman, Thompson, Gallagher-Thompson, & Ferris, 1995; Pearlin, 1989; Wykle and Musil, 1993). However, there are only a few empirical studies that have attempted to test these models, taking into account the domains of variables included in the model. Further, due to a paucity of empirical studies on ethnic minority older adults, there is a knowledge gap in understanding their everyday of life. This study may be the one to bridge the gap by testing the model, taking into account some concerns of the model.

This study represents an effort to investigate the mechanism in which acculturation takes multiple pathways to exert influence on the mental health status among Korean American older adults. In addition, although this study is conducted on a particular ethnic group, it may also shed some light on the common experience shared by other immigrants and minority groups who are struggling to achieve integration of their identities into mainstream society.

This study provides valuable information on how Korean American older people experience aging, as well as psychological distress, in a new environment. In other words, this study will help to enhance understanding of individual differences in their methods of adaptation to culturally different environments through the use of personal and environmental resources. Importantly, study findings could help social workers develop planning interventions and deliver effective services to Korean American older

people, taking into account their individual differences and needs, along with their unique

experiences and status in the United States.

CHAPTER 2

REVIEW OF LITERATURE

In this chapter, some potential variables that are found to be significantly associated with the onset of mental health status are discussed. First, the importance of the impact of personal characteristics on health status is discussed. Second, definition of acculturation, and the relationship between acculturation and health status of minority individuals are explored. Third, the role social support on individuals' mental and physical wellbeing is addressed.

2.1. The Relationship between Socioeconomic and Demographic Characteristics and Health Status of Older Adults

Many research studies consistently suggest that an individual's socioeconomic status play an important role in maintaining good physical and mental health (Adler et al., 1994; Krause, Borawski-Clark, 1995; House, Kessler, Herzog, Mero, Kinney, & Breslow, 1991; Ostrove, Feldman & Adler, 1999; Williams, 1990). Eaton, Muntaner, Bovasso, and Smith (2001) insists that the relationship of socioeconomic status (SES) and demographic characteristics; including gender, age, marital status, and health status, is one of the most important aspects of social structure to mental life.

Studies on the relationship between gender and elder mental health suggest that women are at somewhat greater risk of mental health problems, particularly depression and anxiety (Dean, Kolody and Wood, 1990). Marital status of older adults is also a strong barrier to the symptoms of depression, especially for male widow (Lee, DeMaris, Bavin & Sullivan, 2001).

Having more income or wealth (Ostrove et al, 1999; Robert and House,

1996), more years of education (Ostrove et al, 1999), and a more prestigious job, as

well as living in stable and healthy neighborhoods (Aneshensel & Sucoff, 1996;

Roberts, Kaplan, & Shema, 1997), are factors that associated with better mental and

physical health status of older adults. For example, Eaton and his colleagues (2001)

explain that lower socioeconomic status can not only raise the risk for mental

disorder, but also prolong the duration of episodes of mental disorders through an

etiologic process possibly unrelated to causation. They also posit that mental

disorder may lead to downward social mobility, and hinder the attainment of the

socioeconomic status that might otherwise be expected.

Although research on socioeconomic and demographic characteristics, and

its association with mental health, has conceptualized and measured them in a

number of ways, the most commonly used indicators are income, education, and

occupation. Such indicators have sometimes been combined.

First, a social status variable, such as individual profession, contributes to

one's self-esteem, which is considered an important coping resource related to

health. Although personal occupation is a major component of socioeconomic

status and is consistently related to health outcome, it can only be assessed among

people who are in the paid labor force (Ostrove et al, 1999).

Second, economic security is crucial to the mental health and wellbeing of

older adults. Economic strain is associated with poor mental health (Moritz, Kasl

and Berkman, 1989), lower life satisfaction (Chappell and Badger, 1989; Revicki

and Mitchell, 1990), and depressive symptoms (Dean, Kolody and Wood, 1990;

Eaton, Muntaner, Bovasso, & Smith, 2001; Krause, 1991). Indeed, as House and

his colleagues (1991) found in a sample of 3,617 adults, socioeconomic status has

an impact on morbidity, functional status, and limitations in daily activities—

especially in later middle age and early old age. Further, Moritz, et al. (1989) show

that financial status may exert a powerful effect on the mental well-being of older

persons. In a study of the impact of living with a cognitively impaired elderly

spouse, they found that the men who perceived their financial support as inadequate

experienced more depressive symptoms. Job loss, retirement, or other economic

forces of older adults may jeopardize resources that enable elders to cope with a

variety of stressors.

Finally, level of education is considered an important factor in determining

people's health, as well as their self-rated health. People with higher levels of

education evaluate their health more positively than the less educated. They also

score higher on measures of physical functioning, and their death ratios are

significantly lower. Education probably affects health directly and indirectly by

strengthening a person's economic and psycho-social resources. For example, older

adults with lower education were found to have more financial problems and to be

more depressed than those with higher education (Krause, 1991). It is also reported

that education enables quick adaptation to changing social circumstances due to the

ability to rapidly employ the appropriate coping resources, including more efficient

use of health care services.

Some studies argue that economic status has a stronger influence on adults'

and older adults' health than level of education. The explanation for this

phenomenon is that the elderly people are no longer in need of education to determine their social position, and economic problems not only are a direct cause of stress, but also affect it indirectly by influencing nutrition, life-style, and dependence on others, especially on family members (Ostrove, Feldman & Adler, 1999). The literature suggests that both education and economic status have a direct and an indirect influence on the health of elderly people.

Socioeconomic and demographic variables reported in the literature as factors which affect health, can be viewed as personal resources, which either directly or indirectly help people to cope with stressors in all domains of life; including mental health-related problems. These factors may also underlie the apparent associations between gender and race and ethnicity with mental health because many elderly minorities are more likely to hold lower socioeconomic positions than their majority counter parts (Federal Interagency Forum on Aging-related Statistics, 2000; Williams and Wilson, 2001).

Many studies show the mental illness of ethnic minority elders is associated with their current socioeconomic and other personal characteristics. For example, Mills & Henretta (2001) found that language acculturation, the number of years of education, and the number of years of U.S residency, are significant factors that help to explain differences in self-reported levels of depressive symptoms among older Americans, Hispanics, and Whites. They concluded that those who are men, are married, have more education, and are in better health, have lower levels of depressive symptoms. Shen and Takeuchi (2001) also found that SES had a direct effect on the severity of depression from native-born Chinese Americans and

immigrants of Chinese descent residing in Los Angeles County, between the ages of 18 and 65 years. Although there have been many studies dealing with ethnicity, socioeconomic status, and psychological distress, there is very limited research on how these variables relate to the mental health of the ethnic minority older adults, especially to the Korean American older adults. Therefore, this study attempts to discover how such variables associated with mental health of Korean American older adults.

2.2. The Relationship between Acculturation and Health of Older Adults

Over the years, many scholars have shown different interests and controversies in regard to the relationship between individual health and acculturation. Does the acculturation alter the status of individuals? To answer this question, it is first necessary to define its concepts and dimensions, such as processes and modes, then to analyze its implication on human health.

2.2.1. Definition of Acculturation

Acculturation can be defined as the cultural changes in the original culture resulting from continuous, firsthand contact between two distinct cultural groups (Redfield, Linton, and Herskovits, 1936). Therefore, it requires the contact of at least two autonomous cultural groups, there must also be change in one or other of the two groups, which resulted from the contact (Berry, 1980).

Until late 1950s, most sociologists regarded acculturation as a group-level phenomenon. They conceptualized acculturation as a group process of assimilation and were interested in the context of a group and its relations (Gordon, 1964). Because of an increasing multidisciplinary approach to research and a shift in the

target cultures of interest to investigators, psychological acculturation at an individual level has been widely pursued (Olmedo, 1980; Berry & Kim, 1987; Birman, 1994; Gushue& Sciarra, 1995). At this level, acculturation refers to changes in the perceptions, attitudes, and cognition of the individual that accompany acculturation on the group level (Berry, 1980; Olmedo, 1980). Acculturation, in this study, is assumed to bring about changes in the individuals.

Indeed, when an individual moves from one's own culture to another, many aspects of individual are modified to accommodate information about and experiences within the new culture. Such modifications may be observed in a number of different domains, including attitudes, behavior, values, and sense of cultural identity (Ryder, Alden, & Paulhus, 2000). Then, the question becomes "how do we treat the relationship between inherited culture and host culture?"

2.2.2. Acculturation Process

According to Ryder, Alden & Paulhus (2000), two different levels of approach may be possible in the analysis of acculturation process. One approach, called, the 'unidimensional model,' is based on the principle that change in cultural identity may happen along a single continuum over the course of time (Suinn, Khoo, & Ahuna, 1995). In other words, acculturating individuals are seen as being in a process of relinquishing the attitudes, values, and behaviors of their culture of origin, and of adopting those of the new society at the same time (Ryder et al., 2000). In contrast, the other perspective, called the 'bidimensional model,' argues that the acculturation can be more completely understood when two different

cultural identities are seen as being relatively independent of one another. Thus, individuals do adopt new cultures along with their own cultural identity.

Acculturation has been viewed as a process, in most literatures, that is a series of phases that take place over time (Berry & Kim, 1988; Hurh & Kim, 1984; Luquis, 1995; Ryder et al., 2000; Suinn, et al., 1995). Berry and Kim (1988) elaborated five phases of the acculturation process, such as pre-contact, contact, conflict, crisis, and adaptation. These five phases indicate how an individual from an independent cultural group goes through changes in values and behaviors to adapt to the dominant cultural group. In the pre-contact phase, two independent cultural groups, each with a different set of customs, should exist. As the two different cultural groups meet and interact in the contact phase, some changes may occur to the two groups due to cultural and behavioral exchange. Although acculturation assumes mutual influence of the two contact cultural groups, cultural exchange usually flows from the dominant cultural group to the acculturating group. Thus, a conflict phase occurs as the non-dominant group experiences pressure to change its way of life (Berry & Kim, 1988).

If the non-dominant group or the individuals are not fully willing to change their way of life, conflict and tension heighten. This unwillingness to change lead to the crisis phase, in which a resolution for the conflict is necessary. As a consequence of crisis resolution the adaptation phase may occur, in which group relations are stabilized. This adaptation phase does not necessarily result in an adequate resolution of the conflict and crisis, or a reduction in stress, since adaptation shows a variety of types.

Berry (1980) identified four different modes of acculturation as ways of adaptation, such as assimilation, integration, separation, and marginalization. Assimilation implies the relinquishing of original cultural identity and the move into the dominant society. Gorden (1964) distingushed two kinds of assimilation. In cultural or behavioral assimilation, group or individual behaviors become more similar to those of the dominant culture. Structural assimilation refers to non-dominant groups' penetration into the social and economic systems of the larger society. However, Stanford and Torres-Gil (1991) viewed assimilation as a contrast to acculturation because the assimilating individual gives up the strengths of their original group identity.

Integration, in contrast to assimilation, refers to the maintenance of original cultural integrity along with the attempt to become an integral part of a dominant society (Zamanian, Thackrey, Starrett, Brown, Lassman, & Blanchard, 1992). A number of ethnic groups appear to belong to this type of acculturation as they become cooperative within a larger social system. Birman (1994) characterized integrated people as those who are most adaptively equipped with the skills to survive in the dominant culture, such as speaking English, so that they may represent the interests of their own group members. Integration is possible by some degree of structural assimilation, but by little cultural and behavioral assimilation (Gordon, 1964). This implies an ethnic culture's continuous evolution in interaction with other cultures, which are also in continuous evolution in interaction with other cultures.

Separation refers to self-imposed withdrawal from the larger society (Berry & Kim, 1988). When imposed by the larger society, separation is referred to as segregation. Thus, separation may result not only from the nondominant group's desire to maintain its own independent existence by not participating in the dominant society, but also from the dominant group's exercise of power to keep the nondominant group in its place, as in an ethnic ghetto or town (Berry & Kim, 1988). Birman (1994) characterized separation as high involvement in one's own culture and low involvement in the dominant culture, in terms of identity and behavior.

Finally, there are those who experience collective and individual confusion and anxiety. They are characterized by loss of cultural identity and non-participation in the larger society. They may feel alienation, marginality, and loss of personal identity. This mode of acculturation refers to marginalization as a group, or individuals (Berry & Kim 1988). In this mode, individuals do not keep in cultural and psychological contact with either their traditional culture or the dominant culture. This implies that marginalized people may find it difficult to receive support from their own group during the process of acculturation. In this regard, Lambert (1977) refers to marginalization as subtractive acculturation, while integration may be referred to as additive acculturation. However, Birman (1994) indicated that there are times, situations, and contexts when assimilation and separation, and not integration, are viable and preferable modes of acculturation.

2.2.3. Results of Acculturation

How does acculturation affect the individual's way of life? What kinds of changes may occur as a result of acculturation? Berry and Kim (1988) enumerated

four kinds of changes as the consequence of acculturation. First, physical change may take place as the result of change in the physical environment. Individuals experiencing acculturation are faced with a physically different environment such as new place, new form of housing, and different population density. Second, cultural changes may occur due to confrontation between their original political, economic, linguistic, and social systems, and those of the host society. Third, biological changes, including changes in physical health, may occur as the result of change in diet and nutritional factors, vulnerability to new disease, and a different environment, and interbreeding.

Indeed, the level of acculturation has a significant effect upon health status. According to Tran, Fitzpatrick, Berg & Wright (1996), less acculturated Hispanic older adults were found to experience higher rates of self-reported health problems than were those with higher levels of acculturation. Finally, psychological changes, such as changes in mental health status, are inevitable as people try to adapt to their new environment. For example, Tran et al., (1996) found that the socio-demographic backgrounds of Hispanic older adults influence their level of acculturation, and that level impacts their health status, stress, and psychological distress.

There are some studies that have been concerned about understanding the psychological impact of migration and acculturation on the individuals (Berry, 1980; Olmedo, 1980; Burnam, Hough, Karno, Escobar, & Telles, 1987). Usually researchers from this perspective have paid attention to the psychological consequences on an individual from the nondominant culture, patterns of stress

during the acculturation process, psychologically healthy strategies for adjustment, and so on.

Just as there are many variations in the forms of acculturative experience, there are also wide ranges of psychological characteristics that can be used to indicate the changes in individual's mental health. First of all, in regard to the implications of the five phases analysis for mental health, Berry & Kim (1988) pointed out that from the time of contact, stress and conflict may threaten the individual with psychological uncertainty and confusion. When such a conflict reaches identification crisis, overt behaviors, such as homicide, suicide, family and substance abuse, are noted in the acculturation group.

Thus, it is important to note that the kind of adaptation one achieves has an impact on the mental health status of the individual. It is assumed that those who are stuck in the conflict and crisis in one form or another are likely to show a lower mental health status compared to those who successfully manage the conflict and crisis with a variety of strategies. The relationship between acculturation and mental health is dependent on the acculturation phase one experiences, as well as on specific factors that affect each phase (Berry & Kim, 1988).

Hurh and Kim (1984) indicated that the first one or two years of the initial adaptive phase will be characterized by exigency because of a language barrier, unemployment or underemployment, social isolation, such as loneliness especially for the elderly people, and the general culture shock. This phase may become the most critical phase throughout the whole acculturation process, especially for older persons.

Berry and Kim (1988) also assumed that the mental health status of individuals may be associated with these four modes of acculturation. For example, those who are in a situation of marginalization may have poorer mental health than an individual who is integrated. In addition, a person, who seeks separation while most of his or her group members are seeking assimilation, may also have poor mental health. Among the four modes of acculturation, three modes; assimilation, integration, and separations represent different forms of adaptation; while marginalization implies that the individual in the marginalized situation experiences a highly stressful crisis. Thus, those who are in marginalization mode are expected to have the poorest mental health. In addition, individuals in the separation mode experience conflict to some degree since they resist being involved in both their own and dominant group relations. This conflict may lead them to have relatively poor mental health. Since assimilation implies cultural loss, integration, which refers to selective involvement in two cultural systems, may become the most supportive sociocultural base of the mental health of the individual.

Mental health is also likely to vary according to the voluntariness of migration, mobility, and the permanence of the acculturation experience. Immigrants may be viewed as migratory and relatively voluntary compared to refugees. Immigrants and refugees as migrant people may experience disruption of the traditional resources and social support networks that were available to them prior to migration. To the extent that they lack familiar social support systems, they may have a lower mental health status (Berry and Kim, 1987). Thus, some of the

losses due to immigration may surface as an immigrant begins to adapt to the new environment, affecting the individual's mental health (Gelfand, 1994).

Hurh and Kim (1984) illustrated the factors that affect the degree of acculturation of immigrants as follows: racial and cultural similarity between the host and the acculturating groups, sociodemographic characteristics of the two contact groups, the nature of immigrants' place of residence, proximity of homeland, mutual attitudes between the two contact groups, and length of immigrants' residence in the United States. Similarly, Fabrega (1969) indicated that there are several factors that may affect behavioral responses to acculturation as follows: mechanisms that facilitate or diminish the gap between the cultural systems, the degree of rigidity of and flexibility of each cultural system, the degree of compatibility between the two cultural systems, cultural mechanisms that allow for change resulting from the contact, ecological, demographic and political characteristics of the two contact cultures, and the nature of the relationship between the two cultures. These factors appear to indicate that characteristics of both the host and acculturating groups are associated with the acculturation process.

There are some psychological variables that were found to play a role in the mental health status of individuals experiencing acculturation. As mentioned, the mental health status of the individual varies depending on the acculturation phase the individual is in, and on the specific factors influencing the acculturation phase. In the pre-contact and the contact phase, knowledge of the new language and culture, prior experience of intercultural encounters, and attitudes toward acculturation affect the individual's functioning under acculturation stresses. One's

level of education and employment status, self-esteem, and cognitive style may play a significant role and has been associated with patterns of conflict resolution, personality characteristics, and educational level (Suinn, Richard-Figueroa, Lew, & Vigil, 1987).

Along with attitudes toward the various modes of acculturation mentioned earlier, the individual's sense of cognitive control over the acculturation process seems to influence the mental health of the individual. If individuals perceive the changes in the new milieu as opportunities, they may manage stress coming from the changes better than those who feel frustrated by them. The attitudinal and cognitive perspectives imply that it is not the cultural changes themselves that affect the individual's mental health, but how the individual perceives and deals with them (Berry & Kim, 1988).

2.2.4. Acculturation Experiences of Korean Americans

Although there has been very few research conducted in the process of acculturation that Korean Americans have experienced, the following research gives us some clues that we must pay attention to when we do research about Korean American older adults. Yu (1984) identified an increasing number of Korean immigrant youth experiencing tremendous difficulties in the adjustment process. She indicates that approximately 5 percent of the youth population do not resolve their problems and fall into criminal and anti-social behaviors. Oh (1989) also found that Korean immigrants' previous occupational status, pre- and post-immigration English education, and length of residence in the United States significantly influenced the overall quality of the sociocultural assimilation process

and economic performance. She also pointed out that among the intervening personal/demographic variables; religious affiliation, sex, marital status, and educational background, were shown to be significant factors influencing Korean immigrants' process of sociocultural assimilation and economic performance.

Rhee (1993) also examined the relationships between acculturation, length of residence in the United States, educational level, and the impact of domestic work and labor force participation, on the level of role stress and of depression levels of 122 married Korean women. The major findings of this study were: negative relationship between acculturation and depressive symptoms, a negative relationship between education in Korea and depression, an inverse relationship between the number of years in the United States and depressive symptoms, and a positive relationship between the presence of children under the age of 18 and multiple role strain (Rhee, 1993). In a study on Korean immigrants to Canada (Kim, 1984), variables which were most predictive of acculturative stress were identified. This study showed that those who use both Korean and the English languages less, who are not Christian, and who have lower education levels and higher scores on the marginalization mode of acculturation, were found to experience high stress.

Among these findings of acculturation-related variables, such as difference in cultural attitudes, language proficiency, length of residence in the United States, and educational level of Korean immigrants, can give us clues to understand some questions. Are these characteristics common phenomena to all Korean immigrants regardless of their age? Do these characteristics really impact the individual

acculturation process? What kinds of characteristics can be assumed to affect the mental health status of older adults?

Indeed, the topic of acculturation is a crucial one for ethnic minority persons, since the acculturation has been found to be associated with the individual's overall well being. Recently, although many studies are emerging in this field, understanding of Korean immigrants, especially knowledge of Korean American older adults, lags far behind their arrival.

2.3. The Relationship between Social Support and Health of Older Adults

Research on the relationship between social support and human health has more than two decades of history. The published research on social support has increased greatly in various fields, including sociology, epidemiology, clinical psychology, health service research, and social work. Despite such proliferation, there is still a lack of uniformity with regard to the conceptualization and definition of social support (House & Kahn, 1985; House, Umberson, & Landis, 1988; Winemiller, Mitchel, Sutliff, & Cline, 1993). As many researchers have identified, such problematic nature of social support measurement reflects a lack of consensus and clarity with respect to the social support construct, as well as its complex and multidimensional nature (Barrera, 1986; Cohen & Wills, 1985; Uchino, Cacioppo, & Kiecolt-Glaser, 1996).

2.3.1. Definition of Social Support

Social support has been variously defined as much as its diverse fields and a number of measurement tools have also been developed differently (Barrera, 1986; Cohen & Wills, 1985; Ell, 1984; House & Kahn, 1985; House, Umberson, &

Landis, 1988; Krause, 1989; Lin, Ye, & Ensel, 1999; Perlin, 1989; Thoits, 1982; Turner & Marino, 1994; Vaux, Riedel, & Stewart, 1987).

For example, Cassel (1976) and Caplan (1974) identified social support as a social tie when people cope with their crisis, life transition, and deleterious environment. Cobb (1976) saw social support as a stress-buffering property which have an ameliorative effect on health and social functioning. Cobb (1976) suggested that social support be conceived as information leading the subject to believe that: (1) he or she is cared for and loved, (2) he or she is esteemed and valued, and (3) he or she belongs to a network of communication and mutual obligation.

Johnson & Sarason (1979) referred to social support as "the degree to which individuals have access to social resources, in the form of relationships, on which they can rely" (p.155). Thoits (1982) defined social support as the degree to which a person's basic social needs, which include affection, esteem or approval, belonging, identity and security, are gratified through interaction with others. These needs may also be met by the provision of socioemotional aid.

Weiss (1974) proposed six provisions of social relationships: (1) attachment, provided by close affectional relationships, which give a sense of security and place, (2) social integration, provided by membership in a network of persons having shared interests and values, (3) opportunity for nurturing others, (4) reassurance of personal worth, (5) sense of reliable alliance, and (6) obtaining help and guidance. Weiss delineated these provisions of social relationship within their personal networks, such as single parents and those who recently moved in from distant areas (Furukawa, 1995). Antonucci (1990) understood social support as the concept,

which focuses on supportive social interactions that enable individuals to meet their goals and deal with the demands of their environment.

Barrera (1986) divided social support concepts and their operationalizations into three categories: social embeddedness, perceived social support, and enacted support. Social embeddedness means the connection that individuals have to significant others in their social environments. It can be measured by the presence of social ties or the use of an individual's social networks. Perceived social support refers to the person's cognitive appraisal of being reliably connected to others. Enacted social support also can be conceptualized as actions that others perform when they render assistance to a focal person by showing distinctions between these three measures of social support. Barrera reviewed social support related literatures to determine which social support concepts show positive or negative relationships to life stress and distress. In the field of social work, social support was sometimes defined as " the emotional support, advice, guidance, and appraisal, as well as the marital aid and services, that people obtain from their social relationships" (Ell, 1984, p.134).

Taken together, social support can be seen as a structural property such as being part of a community and a social network, or as a functional property such as a being instrumental or an expressive support.

2.3.2. Dimensions of Social Support

The dimensions of social support are various. A number of researchers have distinguished different aspects of social support. Many researchers suggest a conceptual distinction between functional or content dimensions of social support

and structural dimensions of support. Structural support refers to the existence, quantity, and types of connections within social relationships including; being part of a community, a social network, or having interpersonal ties (Berkman & Syme, 1979; Blazer, 1982; Cohen, 1988; House & Kahn, 1985; House, Robbins, & Metzner, 1982; Lin, et al, 1999; Cohen, 1988). In this case, the measurement includes the number of people in a social network, the role of network members in providing particular types of support, the number of organizations that people participate in, and activities that people engage in.

Functional support assesses the particular functions that social relationships may enact to cope with the stressful events of human beings. Therefore, functional support includes emotional or informational support that people received from their social network resources (Uchino, Cacioppo & Kiecolt-Glaser, 1996), or types of resources provided from the structure of person's social relationships; including instrumental or expressive support (Lin, et al, 1999).

2.3.3. Structural Aspect of Social Support

Two main perspectives were shown in the studies of structural aspect of social support. One aspect of studies have illustrated that structural effects tend to operationalize structural elements with demographic or social characteristics (Aneshensel, 1992). In this perspective, structure is understood in terms of socioeconomic statuses indicating social class and social standing (Turner, Lloyd, & Wheaton, 1995). And such structural positions trigger a cognitive capability to manage stress such as self-efficacy, self-esteem, and self-competence, etc.

Therefore, it is assumed that this cognitive capability provides both a buffer to stress and a protection against distress.

The other perspective emphasized individual locations in the social structure; such as a participation in community organizations, an involvement in social networks, and an immersion in intimate relationships (Berkman & Syme, 1979; Blazer, 1982; House et al., 1982; Lin, et al, 1999). According to this perspective, individual participation and their social relations enhance the likelihood of accessing support, which in turn provides the protective function against distress. This perspective stresses the investigation individual social networks.

In this respect, the researcher will stand on later perspective since it is important that a social network be considered the baseline indicator of social support, and social support cannot exist without the presence of others. Network characteristics are usually measured in terms of network size (the number of relationships an individual has), density (the level of interaction between network members other than the central individual), and frequency of interaction with the central individual; identity, sources of ties, geographic proximity, opportunity for reciprocal exchange of supports, and so on (Liberman, 1982; Lubben and Gironda, 1996). These are measures of the relationships within which the interaction occurs.

The existence and quantity of contacts with friends and relatives have also been found to relate to lower rates of psychological and physical disorders and mortality. Membership and attendance in church and participation in other voluntary organizations show positive relationships to an individual's well-being. In their mortality studies of broad community samples, Berkman & Syme (1979),

Blazer (1982), and House et al. (1982) found that people with low levels of social relationships have at least twice the risk of mortality from all causes than persons with moderate to high levels of relationships.

There is no consistent agreement about the relationship between ethnic minority elderly people and social support networks. Some researchers contend that ethnic minority elders may have stronger social support ties in respect to kinship ties, than do older whites (Kessler, 1979; Ulbrich, Warheit, & Zimmerman, 1989). On the contrary, the traditional support systems of some ethnic elderly groups may be challenged (Kiefer, Kim, Choi, Kim, Kim, Shon, & Kim, 1985). According to Vega, Kolody, and Valle (1987), one of the major stressors to immigrants is the disruption of family and other supportive ties and the break with a familiar social cultural system. In particular, new immigrant families often live separate, so that family support is frequently inadequate or absent for many Asian elderly individuals (Sakauye & Chacko, 1994). Thus, absence of family support could have a direct negative effect on the mental health status of those immigrants who lack formal or informal social support. For example, elderly Korean Americans, who came to the United States to unite with their children in an attempt to maintain the traditional system of the extended family, find that they have fewer kinship supports than they anticipated. Many of them are unable to live with their adult-children and may live in a community where Korean social support systems are not well established. Thus, many of them must rely on formal social support because traditional family support or caregiving is not available as expected (Koh & Bell, 1987; Lockery, 1991).

2.3.4. Functional Aspects of Social Support

The functional aspects of social support include communication and transaction activities serving a variety of needs. Researchers have proposed various functional dimensions and variations of social support (Barrera, 1986; Cohen & Wills, 1985; Dean, Kolody, & Wood, 1990; Ensel and Woelfel, 1986; George, 1989; Heller, Swindle, & Dusenbury , 1986; House, Umberson, & Landis, 1988; Lin, et al, 1986; Turner & Marino, 1994; Wethington & Kessler, 1986). Lin, Ye, & Ensel (1999) synthesized three major dimensions that can provide a useful way of getting a handle on such various variables. According to them, there are three kinds of functional dimensions of social support: (1) perceived versus actual support, (2) instrumental versus expressive (emotional) support, and (3) routine versus crisis (or non-routine) support.

Perceived versus actual or received support focuses on the subjective versus objective continuum of support (Cohen & Wills, 1985; Heller et al., 1986; Turner & Marino, 1994; Wethington & Kessler, 1986). Perceived support refers to individual perceptions about available support when people needed it. Perceived support sometimes means a person's appraisal whether it is adequate or not, and it also refers to quality of such support. Actual support refers to the nature and frequency of specific support transactions. Research evidence reveals a somewhat controversial relationship between the two supports. There is substantial agreement that the two dimensions of support are not highly correlated and show different patterns of association with distress (Barrera, 1986; George, 1989; Wethington & Kessler, 1986).

According to Wethington & Kessler (1986), perceived support is more important than received support in predicting adjustment to stressful life events. They also presented some evidence that the influence of received support may be mediated by perceived support in the analysis of a national survey of married adults aged between 21 and 65. Turner & Marino (1994) presented data on the distribution of social support and support resources across social class, marital status, age and gender, based on the hypothesis that epidemiology of perceived social support was found to correspond closely to the epidemiology of psychological distress and disorder. In general, findings have shown that perceived support is more effective in resisting distress.

Support can also be classified into emotional (expressive) and instrumental types (Dean, et al, 1990; Ensel & Woelfel, 1986; George, 1989; Lin, et al., 1999; Wethington & Kessler, 1986). Expressive support, sometimes called affective or emotional support (Lockery, 1991), involves the use of social relations to share sentiments, caring and concerns, seek understandings, vent frustration, companionship, and build up self-esteem (Dean, et al, 1990; Lin, et al., 1999). George (1989) suggests that expressive support should be more effective against distress, since it deals with psychological states. According to him, the psychological discomfort should be resolved with psychological support. Instrumental support is more tangible through concrete assistance such as transportation, information, financial aid, help with home chores, or other daily living tasks (Lockery, 1991). Ensel and Woelfl (1986) have shown that instrumental

support may be effective in meeting certain material needs such as financial assistance, child care, etc.

A third distinction is between routine and crisis (or non-routine) support (Lin, Dean, & Ensel, 1986). Routine support is the process by which support is received or perceived relative to routine, day to day activities such as child care, carpooling, and grocery shopping. In contrast, crisis support reflects the process by which support is received or perceived when an individual is confronted with a crisis situation such as a divorce or car accident. Research is rather scarce in actual examination of support meeting these needs. However, many measures of support contain both types of situations. For example, Lin, Woelfel, & Light (1986) examined support following an experience with an important life event. They found that both actual support and perceived support were both effective in reducing subsequent distress. Thus, there is some evidence that both actual and perceived supports are important in crisis situations.

There are other studies categorizing social support in different ways. For example, Barker, Morrow, & Mitteness (1998), divided social support into two groups—formal and informal supports. For them, informal social support is voluntarily provided by individual's network of family and friends who usually have no training for the provision of care and who undertake to provide a variety of services without direct recompense out of a sense of obligation, loyalty or love. On the contrary, formal support means the services provided by trained or paid professionals. As a complement to formal services without trained or paid staff,

informal social support is crucial to maintaining community residence for many frail elderly people.

2.3.5. Another Dimension of Social Support: Religious Involvement

Religious involvement and participation is another important source of informal social support among the elderly (Williams and Wilson, 2001). Religion is also a critical source of social support over the course of one's life. Interaction with fellow church members provides material and emotional support, information, advice, and spiritual benefits for the elderly in an informal way. Additionally, religious organizations play an important role in providing material and economic assistance to church members.

Moreover, religious participation appears to be more consequential for the quality of life and health of older persons compared to their younger counterparts. As physical functioning declines with age, congregation members often play a key role in providing emotional and instrumental support (Koenig, Hayes, George, Blazer, Larson, & Landerman, 1997). Religious beliefs can be an important source of hope and comfort, and can provide systems of meaning than can facilitate coping with stress, disability, and the loss of loved ones (Koenig, George, & Siegler, 1998). In dealing with the prospect of death, religious belief systems can also provide reassurance and perspective that enable many older adults to manage the fear and anxiety that may be associated with impending death.

Religion can serve these functions for the elderly of all races, but religion may be especially salient in the lives of the minority elderly. For example, research

has consistently found that levels of public and private religiosity are higher for blacks than whites (Levin, Taylor, & Chatters, 1994).

There is one important issue we should pay attention to when we look at social support measures. That is, while such dimensions have all appeared in the social support literature, seldom have investigators incorporated multiple dimensions and measures into a single study. A typical approach has been to examine one dimension, say between perceived and actual support, and to demonstrate, for example, that perceived support is more significantly associated with reduced distress. Even when multiple dimensions have been incorporated in a study, they are usually treated as separate support factors predicting distress, either as independent or mediating variables (George, 1989; Thoits, 1995).

2.3.6. Relationship between Social Support and Mental Health

How does social support affect the health status of older adults? Research on the relationship between social support and human health has examined more than two decades of history, and the areas of study are varied in psychological and physiological aspects as much as its duration (Cohen & Wills, 1985; Cappeliez & Flynn, 1993; Dean & Lin, 1977; Gentry & Kobasa, 1984; George, 1989; House et al., 1988; Krause, 1990; Lockery, 1991; Phifer & Murrel, 1986; Wheaton, 1985). Cohen and Wills (1985) proposed two major distinctive models that depict the relationship between social support and physical, mental, and social health outcomes; the buffering effects model and the main effects model. The buffering hypothesis states that social support improves an individual's health status by mediating the effects of stress. It posits that when periods of life stress occur, those

who have low levels of support will show more symptoms of poor health. The main effect model assumes that social support affects the individual regardless of the levels of stress experienced. Of course, there are other perspectives insisting negative effects of social support on human well-being (Lu, 1997). According to Lu (1997) in his 200 adult sample in Taiwan, giving and receiving help sometimes lead to negative effects on well-being.

However, the mainstream social support research studies have been largely focused on its beneficial effects on individual well-being. Holahan & Moos (1981) found that there was a negative relationship between social support and psychological maladjustment. They reported that decreases in social support over a one-year interval were associated with increased psychiatric symptoms. It was further confirmed that a small social network and a perception of inadequate social support are significant predictors of a high number of depressive symptoms at follow-up (George, Blazer, Hughes, & Fowler, 1989).

Indeed, though it can be argued that whether social support influences mental and physical health status directly or indirectly, most research studies have focused on its indirect influences in interaction with stress. Various forms of social support may provide stress-buffering effects which refer to minimizing the likelihood of an undesirable experience (Gentry & Kobasa, 1984; Lockery, 1991; Wasllsten, Tweed, Blazer & George, 1999; Wheaton, 1985). A buffering effect provided by strong social ties serve to reduce the susceptibility of an individual to stress related illness. Findings regarding social support and depression suggest that

low social support is strongly associated with subsequent depression, especially when it occurs in the presence of stressful life events.

Wasllsten et al., (1999) explore the buffering effect of social support on depressive symptoms in a community sample of the elderly with varying levels of disability. They found that social support mitigates the depressive effect of disability only when the network's efforts are appraised positively. The perceptions of one's social network include people who care for and have an interest in the disabled person's mental health rather than the actual amount of support provided. People who believe they receive help from emotionally supportive network members report fewer depressive symptoms.

Oxman & Hull (2001) tested the specific relationships among depression, activities of daily living (ADL) impairment, and social support components with 307 patients aged 60 and older from a multisite effectiveness trial of three treatments (antidepressant, placebo, and problem solving treatment for dysthymia or minor depression in primary care). They found impairment in ADLs was associated with subsequent increase in depression, a larger emotionally close network that made frequent visits was associated with subsequent increases in perceived support, and perceived support was associated with subsequent decreases in depression.

According to Phifer & Murrel (1986), social support and physical health are the two strongest predictors of the onset of depression. They found that social support has both a stress-buffering effect and direct effect on depressive symptoms. However, the mediating role of social support in stress-illness relationships was

found to occur only in circumstances in which the individual is exposed to high and chronic levels of stress (Gentry & Kobasa, 1984).

In addition, certain sources of social support appear to be more influential in mediating stress-related strain and illness in certain circumstances than are other sources. For example, Krause (1990) found that social support, especially a source of information, acted as a buffer against the onset of depressive feelings when stress is related to chronic financial difficulties. A wide range of sources of support are associated with more general health outcomes such as depression and somatic complaints. Adequate provision of social support has significant direct effects upon depression so that higher levels of social support are associated with lower levels of depression (George, 1989; Cappeliez & Flynn, 1993). Thus, social support may play a significant role in health maintenance during later life by buffering or reducing the deleterious effects of stressful life events on health (House et al., 1988). This implies that an elder with a nurturing social support network is more equipped to manage the stress associated with major health events as well as other stressful situations which is common in old age. Therefore, social supports may influence the onset, progress, and recovery from disease or illness (Cohen, 1988; Krause, 1990).

There are other studies showing the relationship between social support and mental and physical well being of ethnic minorities. For example, Chou & Chi (2001) examined the effects of stressful life events on change in depressive symptoms among the older people in Hong Kong. They found that social support moderated the influence of the exposure to the life events on depression. They found that six dimensions of social support—social network size, network

composition, social contact frequency, satisfaction of social support, instrumental

and emotional support, and helping others were associated with depressive

symptomatology, even after they controlled sociodemographic and functional

disability. They further found that social support from family is important from

elderly Chinese people in Hong Kong, and satisfaction with support is a more

important predictor of depression levels than other objective measures of network

relationships. They also found that material aid and instrumental support is more

important in preventing depression for elderly individuals in Hong Kong than

emotional support.

Aranda, Castaneda, Lee & Sobel (2001) investigated stress, coping response,

and social support variables as predictors of psychological distress among Mexican

American men and women. They tested gender differences in the rates of depressive

symptoms as well as differences in factors associated with depressive symptoms.

They found that although men and women did not differ significantly in terms of the

rate of depressive symptoms, they did differ in terms of the source of stress and

social support associated with depression.

There is not always consistent agreement about the relationship between

ethnic minority elderly people and social support networks. As already reviewed in

the previous section, some researchers contend that ethnic minority elders may have

stronger social support ties in respect to kinship ties than do older whites (Kessler,

1979; Ulbrich, Warheit & Zimmerman, 1989). On the contrary, the traditional

support systems of some ethnic elderly groups may be challenged (Kiefer et al.,

1985). According to Vega, Kolody, and Valle (1987), one of the major stressors to

immigrants is the disruption of family and other supportive ties and the break with a familiar social cultural system. In particular, new immigrant families often live separated so that family support is frequently inadequate or absent for many Asian elderly individuals (Sakauye & Chacko, 1994). Thus, absence of family support could have a direct negative effect on mental health status of those immigrants who lack formal or informal social support. For example, Korean American older people who came to the United States to unite with their children in an attempt to maintain the traditional system of the extended family find that they have fewer kinship supports than they anticipated. Many of them are unable to live with their adult-children and may live in a community where Korean social support systems are not well established. Thus, Many of them must rely on formal social support because traditional family support or caregiving is not available as expected (Koh & Bell, 1987; Lockery, 1991).

The provision of emotional support works most effectively for the older adults among the social supports provided (Auslander, 1996). This holds true for Korean American elderly people. Lee et al., (1996) found that emotional support for Korean American older persons showed a buffering effect on life stress, while instrumental support was not significant in mediating depressive symptoms among them. Sources of emotional support for Korean American elders are diverse and friends (among the non-kin ties) are particularly important sources of emotional support. This result indicates that adequate emotional support reduces the deleterious effects of life stress on the mental health status of Korean American older people. This study also implies that emotional support may be better predictor

of the mental health status of Korean American elderly people than instrumental support. In this respect, this study confirms that subjective assessments of social support are more strongly related to depression than are objective measures such as network size (George, 1989; Vega, Kolody, & Valle, 1987), and that various dimensions of social support are differentially important when psychological distress is concerned. One of the most successful efforts in the United States both to strengthen existing social support networks and to create new ones are the senior peer support and other self-help programs (Lubben & Girnda, 1996).

Though many research studies have shown that there are some relationships between mental and physical health, some questions are still waiting for further research. Most studies used limited statistical controls in the studies when they examine the relationship between social support and mental health function. The studies reviewed in this area are correlational studies in which potential associations with confounding variables may occur. For instance, social support may be correlated with some socioeconomic status, age, and other factors that may have direct influences on psychological function. Thus, we should figure out whether the variables are potential confounding variables or mechanisms by which social support has an association with health (Uchino, et al., 1996).

A second aspect that we need to consider when we study the relationship between social support and depression is that there are two possible aspects--positive and negative in social support. Most research, however, has focused on the positive aspects of social relationships. Therefore, we should note that the assessment of both positive and negative aspects of social relationship might be

helpful in clarifying the links between social support and depression (Lu, 1997;

Thoits, 1995; Uchino et al., 1996).

Recently, a few research studies (Lu, 1997) on social support show that

support networks may have deleterious effects on an individual if the support is

given unwillingly or without regard for the recipient's perceptions. In other words,

support may have negative results on people's health by upsetting them, it they feel

that the help is given grudgingly, or with nonreciprocal expectations.

For example, Lu, (1997) found that receiving and giving support had some

negative effects on well-being, although that impact was largely masked by the

personality traits of extraversion and social desirability. Negative interactions within

a support network have been associated with reduced satisfaction with the support

network and increased depression in the central individual of the network. It is

likely that being upset interferes with the effectiveness of the network in promoting

the patient's mental health by increasing the stress involved in the support

relationship.

The third aspect that the previous studies have overlooked is that the most

studies have focused on one aspect of social support only. In other words, studies

have either focused on the structural aspects of social support or on the functional

aspect of social support only. However, structural aspects and functional aspects of

social support are different phenomena and should be assessed and examined

(Barrera, 1986; House & Kahn, 1985; Thoits, 1995). How structural and functional

aspects of social support are related to one another has not often been studied. It is

possible that the number and structure of individuals' social ties matter less for

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perceptions of support than the possession of at least one tie that is close and confiding (Thoits, 1995).

Fourth, it is important to note that most studies on social support primarily focus on a micro level such as an individual or interpersonal level. They do not often view social support as a meso or macro level of structures and processes which promote social integration and perception of support (Thoits, 1995). As Felton & Shinn (1992), Heller (1989), and Maton (1989) point out, we need to find the possibility that meso or macro level of groups in social structure such as churches, neighborhood associations, and seniors' centers might have a function as a source of social support.

A final aspect is related to reverse causation in the relationship between social support and various outcomes. The effects on mental or physical health that are attributed to the influence of social network can be causally confounded with the effects that a person's health may have on the network. For instance, a social support network may have significant positive effects on a schizophrenic's condition. However, because of the difficulty of interaction with such a patient, network members may reduce the amount of contact they have with the patient, increase the number of negative interactions they experience with patient, or simply leave the network. This may decrease the healthful effects of the network on the persons' condition, as well as reduce the network size. In this way, the causal direction of relationship between social support and mental health is reversed, and poor mental health causes a decline in the beneficial effects and the size of the social support network.

According to Blazer (1983), few studies have considered the impact of depression on the social support network. Depressed individuals may weaken their ties to their social network over time because of the stress their symptom place on the network. This reversed relationship may be of more importance to the clinician during the course of therapy than the social origins of depression.

2.4. Mental and Physical Comorbidity

For many years, researchers and practitioners have found out that there are significant relationships between physical and mental illness among many older adults. For many older adults, the chronic strains associated with decline in health can induce stress responses such as depression. And mental illness such as depression in the older population is major health issue because of its adverse physical health effects, such as increased morbidity and functional limitations.

According to Penninx, Leveille, and Ferrucci (1999), the depression in older persons significantly increases the risk for subsequent incident ADL(Activity of Daily Living) and mobility disability. Several mechanisms have been assumed to explain the detrimental effect of depression on physical function among older persons. Depressed persons are more likely than non-depressed persons to engage in unhealthy behaviors, such as smoking, excessive alcohol intake, physical inactivity, and unhealthy eating habits, which may cause worsened health over time. Depression may also discourage persons from obtaining adequate medical attention and social support, which in turn may result in a decline in physical health (Penninx, Leveille, and Ferrucci, 1999).

Research studies suggest that depressive states are not only a common phenomenon among patients with various physical illnesses, such as arthritis, cancer, chronic lung disease, neurological disorders, and heart disease (Katon & Sullivan, 1990; Wells, Golding, & Burnam, 1988), but it also showed up in the physical activity such as ADL.

Wells, Golding, and Burnam (1988) found that there was 41 percent increase in the relative risk of having any recent psychiatric disorders relating to having a chronic medical disease. In other words, a higher prevalence of recent and lifetime psychiatric disorders among a general population with one or more of eight chronic medical conditions such as chronic lung disease, heart disease arthritis, cancer, hypertension, physical handicap, stroke, and other neurological conditions than among persons without any of the conditions.

Ostir, Markides, and Black (2000) found that positive affect, sometimes called 'emotional well-being,' is inversely related with incidence of ADL disability among older Mexican Americans. In other words, high positive affect act to promote a healthy lifestyle such as increased physical activity, participating in health screenings, and motivation of self-care. Similarly, those with high positive affect may act in ways to increase their social support, which beneficially protects health. The effects of emotional well-being could also be mediated via changes in physiologic systems such as immune function (Cohen and Herbert, 1996).

Badger, Collins-Joyce, and Donkor (2000) found that there were clear differences between depressed and non-depressed groups for physical health impairment, psychosocial resources, and functional abilities. Depressed older adults

had increased physical health impairment, including more sick days and hospitalizations, and greater disability in self-care tasks and instrumental activities of daily life than non-depressed older adults.

Pinquart (2001) meta-analyzed age-associated changes of an individual's overall sense of physical well-being, called 'subjective health,' and mental health in 180 studies from 1963 to 2000. He found that there was a strong association between subjective health and mental health in oldest-old samples. Bruce (2000) provides compelling evidence from epidemiological and clinical studies that has shown a real relation between depression and disability.

Rawson, Bloomer, and Kendall (1994) found that there are significant relationships between anxiety, stress, and depression and physical illness in a 184 undergraduate students.   Leibson, Garrard, Nitz, and Waller (1999) found that there is a significant association between depression and self-rated physical health. Barusch, Rogers and Abu-Bader (1999) interviewed 100 clients in a community based care program for low-income elderly at risk of nursing home placement to examine the relationship between physical illness and depression. They found that one –third of physically frail elders experience significant depression symptoms.

There are other studies that focused on the person's functional impairment rather than focusing on a person's physical disease (Lewinsohn, Hoberman, Teri, and Hautzinger, 1985; Zeiss, Lewinsohn, and Rohde, 1996). According to Lewinsohn et al (1985), personal disease will only be a risk factor for depression when disease results in functional impairment, and that impairment in the absence of disease is also a risk factor for depression. Zeiss et al (1996) tested this

prediction in a community-based sample of older adults followed longitudinally and found that functional impairment was a significant predictor of major depression, regardless of disease status. They further concluded that disease was not a significant predictor of major depression, nor did it interact with impairment to predict depression.

The co-occurrence of depression and chronic medical conditions especially among the elderly is not surprising. When accompanied by serious declines in functional capacity, chronic illness robs an individual of the ability to carry on his or her usual social functions and, consequently, places that person at elevated risk of depression (Berkman, Berkman, Kasl, Freeman, Leo, Ostfeld, Coroni-Huntly, & Brody, 1986). Meeks, Murrell, and Mehl (2000) found that different durations of depressive symptoms have different reciprocal relationships to self-reported health, in a prospective probability sample of 1,479 community-resident middle-aged and older adults. Though they failed to find strong reciprocal relationship between short-term period of depression and health, they found longer term depressive symptoms had a clear impact on health.

A couple of things should be considered when we study comorbidity of mental and physical health of older adults. As Bruce (2000) pointed out, despite multiple measures and varied samples, current researchers have not explained much about the mechanisms of this relation. In this respect, recent studies proposed a direction that future research may focus on (Miller, 2000; Shaffer, 2000). According to Miller (2000), the relationship between physical illness and mental illness, such as depression in older adults, is affected or most likely mediated by

additional factors. Thus, it is crucial to identify and understand this relation and

these additional factors if we expect continued progress in the advancement of

theoretical research, and practical knowledge of physical illness and mental illness

of older persons.

In addition, though the co-occurrence of physical illness and mental health

of older adults has been well established, we know little about the social and

cultural correlates of this phenomenon (Angel & Angel, 1995). In order to further

our understanding in this area, we should further focus on whether social and

cultural factors are affect on mental and physical comorbidity.

2.5. Proposed Model of Analysis

As reviewed earlier, many variables are related to the mental health status of

older persons. Socioeconomic status, acculturation, social support, and physical

health seem to more likely relate to the mental health of Korean American older

adults. Though there is a lot of research on factors related to mental illness, these

variables are rarely studied in combination with one another.

The proposed model of acculturation, social support, socioeconomic status,

physical and mental health status to be tested in this study is shown in Figure 1. This

model contains five latent variables—two exogenous variable and three endogenous

latent variables. In other words, this model contains two exogenous latent variables,

one mediating variable, and two outcome latent variables. In this model the circles

represent latent variables and the rectangles represent indicators (observed

variables). The one-way arrow between two variables indicates a postulated direct

influence of one variable on another. Variation and covariation in the endogenous variables are to be accounted for or explained by the exogenous variables.

The structural equation model in Figure 1 consists of a measurement and a structural model. A measurement model defines relations between observed variables and the latent variables. The structural model specifies the hypothesized structural relationships among latent variables which are not directly measured.

2.5.1. Measurement Model

For the socioeconomic status construct, six measured variables, such as education, marital status, religious affiliation, age, income, and sex were used. For the acculturation construct, The Vancouver Acculturation Scale and the length of US residents were developed to measure the construct of acculturation. For the physical health construct, perceived as well as objective physical health were measured. For the social support construct, community ties, social network, perceived crisis support, actual crisis support, perceived routine support, and actual routine support were measured.

Since depression has been found to be the most prevalent psychological disorder among the older population (Fry, 1986), a couple of depression scales were used to measure mental status of older adults subjects. The Geriatric Depression Scale (GDS; Yesavage, Brink, Rose, Lum, Huang, Adey, & Leirer, 1983) was used to distinguish older people with depression from those without depression. The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) was used to measure depressive symptomatology in the general population.
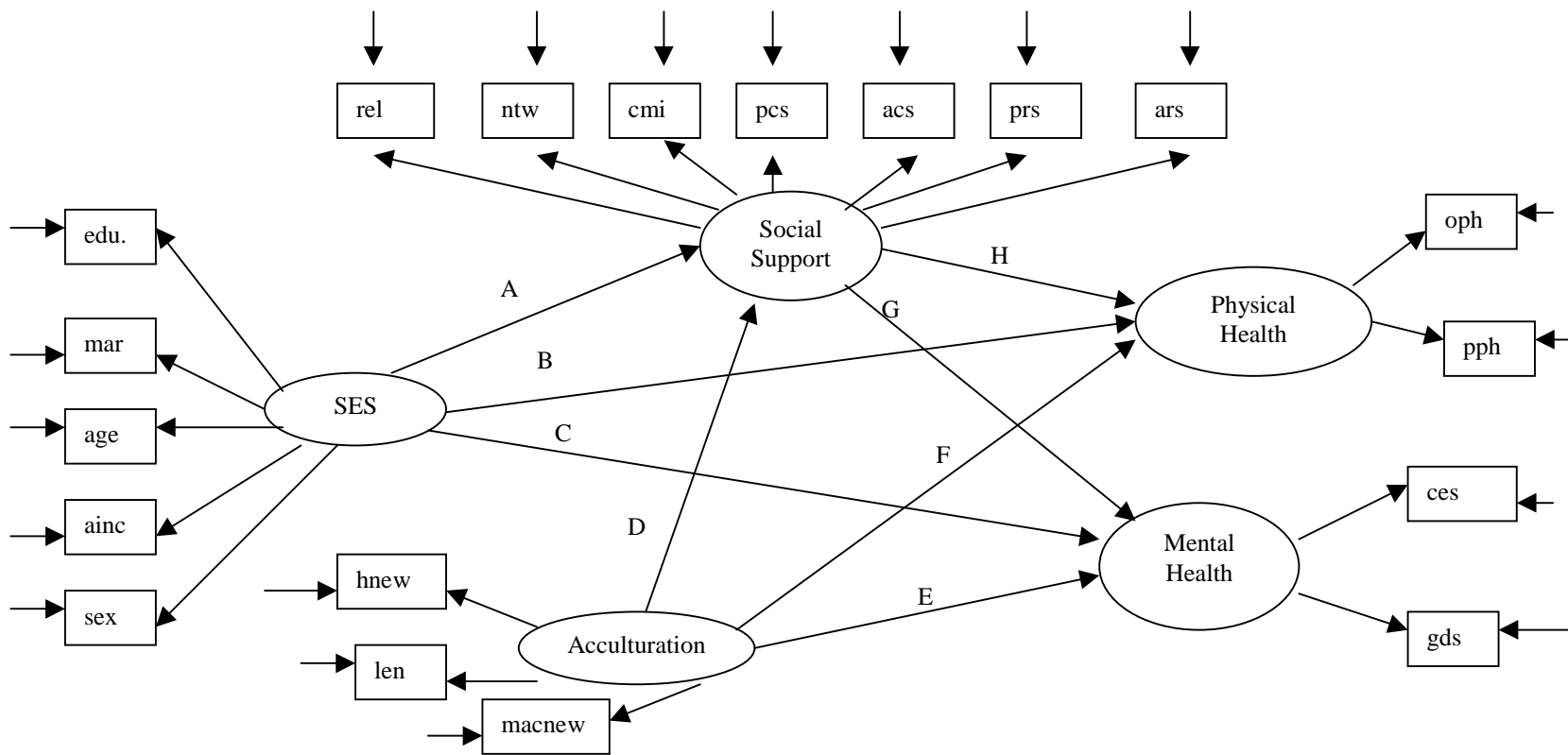
Figure 1. The Proposed Model to be tested

Note. edu: education; mar: marital status; age: age; ainc: income; rel: religious affiliation; via: Vancouver Index of Acculturation; len: length of residence; ces: Center for Epidemiologic Studies Depression Scale; gds: Geriatric Depression Scale; pph: perceived physical health; oph: objective physical health; cmi: community ties; ntw: social network; pcs: perceived crisis support; acs: actual crisis support; prs: perceived routine support; ars: actual routine support

2.5.2. Structural Model

Individual's socioeconomic status (SES) impacts on social support (path A), physical health status (path B), and mental health status (path C). The level of education is considered as an important factor in determining people's health, as well as their self-rated health. People with higher levels of education evaluate their health more positively than the less educated (path B). The data about gender and elder mental health also suggest that women are at somewhat greater risk for mental health problems, particularly depression (path C). Marital status is another barrier to the symptoms of depression for adults (path C). Economic security is crucial to mental health and well-being of older adults (path B & C).

The level of acculturation affects on mental health status (path E), physical health status (path F), and social support (path D). The level of acculturation has a significant effect upon health status. Less acculturated older adults can be found to experience higher rates of self-reported health problems than were those with higher levels of acculturation (path F). The socioeconomic backgrounds of older adults may influence their physical health status (path B), stress and psychological distress such as depression (path C).

The characteristics of personal social support influences physical health (path H), and mental health status (path G). A wide range of sources of support are associated with more general health outcomes such as depression and somatic complaints (path G). Adequate provision of social support has significant direct effects upon depression so that higher levels of social support are associated with lower levels of depression (George, 1989; Cappeliez & Flynn, 1993). Thus, social support may play a significant role in health maintenance during later life by buffering or reducing the deleterious effects of

stressful life events on health (House et al., 1988). This implies that an elder with a nurturing social support network is more equipped to manage the stress associated with major health events as well as other stressful situations which are common in old age. Therefore, social supports may influence the onset, progress, and recovery from disease or illness (Cohen, 1988; Krause, 1990).

Moreover, religious participation appears to be more consequential for the quality of life and health of older persons compared to their younger counterparts. As physical functioning declines in age, congregation members often play a key role in providing emotional and instrumental support (Koenig et al., 1997). The effects on mental or physical health that are attributed to the influence of social network can be causally confounded with the effects that a person's health may have on the network.

As many researchers concluded, an individual's mental illness is not only a common phenomena among persons with various physical illnesses such as arthritis, cancer, chronic lung disease, neurological disorders, and heart disease (Katon & Sullivan, 1990; Wells, et al., 1988), but is also common in their perceived physical health status. Therefore, an individual's physical and mental health status may relate to each other.

Some studies (Kuo, 1984; Lee et al., 1996; Pang, 1995; Hurh & Kim, 1990) on Korean American older adults have found that they are vulnerable to experiencing mental illness. However, these studies did not incorporate multiple factors that have been found to be significantly related to mental health status. This study proposed to develop and test a model for analysis of mental health status of Korean American older adults, due to the lack of incorporation of multiple factors associated with mental health in the studies on Korean American older adults. Based on the literature on acculturation and social

support, this study assumed that mental health status of Korean American older adults

would be related to level of acculturation, social support, physical health, and

socioeconomic status.

CHAPTER 3

METHODOLOGY

The primary purpose of this study was to test a proposed model of socioeconomic status, acculturation, social support and mental and physical health status of Korean American older adults in Chicago metropolitan area.

This chapter presents information regarding the procedures that were used in conducting the study. The methodology of the study is organized in the following sections: (1) research design, (2) population and sample, (3) instrumentation, and (4) data analysis.

3.1. Research Design

The purpose of this study was to explore some possible factors that impact on the mental and physical health status of Korean American older adults who are living in the Chicago metropolitan area. The study employed a causal structural explanatory design by using cross-sectional face-to-face interviews with semi-structured questionnaires. The cross-sectional studies have inherent problems because, typically their aim is to understand causal processes that occur over time, but their conclusions are based on observations made at only one time. However, they are effective in providing data on the characteristics of a sample or population (Grinnell, 1993).

3.2. Population and Sample

According to the US census Bureau, the Korean communities in the US have emerged into one of the largest Asian-Pacific groups. The Korean American population experienced remarkable growth increasing from 69,130 to 1,076,872 in 2000 (U.S. Bureau of the Census, 1991; 2001). The target population for this study was defined as

older adult Korean American. The accessible population was defined as Korean American older adults currently residing in the Chicago metropolitan area. Currently, 51,453 Korean Americans are living in the State of Illinois, 45, 371 (88.2 percent of 51,453) are living in Chicago Metropolitan area (U.S Bureau of Census, 2001). The total number of Korean American older adults age 65 and over are 3,483 in Illinois. 3,072 (88.2 percent of 3,483) are assumed as the total number of Korean American older adults in Chicago Metropolitan area.

In order to establish the frame of the accessible population, the researcher used the client lists provided by the Chicago Korean American Senior Center (CKASC). CKASC had a total of 2,800 (91 percent of total assumed number of Korean American older adults in Chicago metropolitan area) Korean American older adults as of April 30, 2002. Of them, 200 Korean American older adults age 65 and over were randomly selected, and were asked to participate in the study.

In order to be eligible for participation, respondents had to meet the following inclusion criteria: (1) they had to be of 65 years of age or older, (2) they had to currently live in the Chicago metropolitan area, (3) they had to identify themselves as Korean, and (4) they have to be able to speak the Korean language.

Data was collected at the participant's residence. A semi-structured face-to-face interview was employed to obtain demographic information and other necessary information. For the purpose of this study, all scales, questions, and other necessary documents were translated in Korean, and the accuracy of translation was verified by having the Korean language version of the scale backtranslated to English.

3.3. Instrumentation

Five different measures were used for data collection (see Appendix A). In the
first part, a Participant Profile Form, was an investigator designed instrument constructed
to obtain selected demographic and socioeconomic information about Korean American
older adults. Participant's age, gender, education, length of residence in US, income,
marital status, and religious affiliation are the variables that were asked.

In part two, acculturation level was asked by using the Vancouver Index of
Acculturation (VIA). The version of the VIA used in this study was a 20 item instrument
designed to measure the heritage and main stream dimensions of acculturation (Ryder,
Alden & Paulhus, 2000). VIA is an effective instrument for assessing the bidimensional
model in ethnic minorities with promising early evidence that it may serve the same
function for a host of ethnic groups. One of the important advantages of this instrument is
its brevity. Although bidimensional measurement has been criticized for its greater length
and complexity, the VIA demonstrates that the bidimensional model can be reliably
measured in several different ethnic groups with 10 pairs of straightfowrd items tapping
core aspects of cultural identity (Ryder, Alden & Paulhus, 2000). Nevertheless, quite a
little research has been done using this measurement. Using this measurement may,
therefore, increase the generalizability of bidimensional measurement.

Items were generated in pairs with regard to content area, with one item in each
pair referring to heritage culture and the other item referring to North American culture.
Each item was rated on a 9-point scale ranging from 'strongly disagree (1),' 'disagree
(3),' 'neutral/depends (5),' 'agree (7),' to 'strongly agree (9).' Examples of items
included "I enjoy social activities with people from the same heritage culture as myself"

and "I would be willing to marry a North American person." Thus, higher subscale scores represented higher levels of identification with the culture represented. The wording of certain items on the VIA was altered to reflect the Korean context of this study, specifically, each occurrence of 'heritage culture' to 'Korean culture,' and 'North American' to 'American.' Reliability of the VIA was assessed by means of the Cronbach alpa coefficient. Reliability of the VIA in this sample was quite different from Ryder, et al's study (2000). The heritage dimension was low internal consistent in the subjects (αs = .6321). The mainstream dimension, however, yielded relatively higher Cronbach alpha coeficient in the samples (αs=.7709).

In part three, social support structure and support functions were measured using Lin, Ye, & Ensel's (1999) 'Measurement of Support Structure,' and 'Measurement of Support Functions.' Two indicators were used to assess the structure of social support. The first indicator was community ties. This was measured by participation in community organizations. To a large extent, this measure reflected one's involvement in community activities (Lin, Ye, & Ensel, 1999). Therefore, to measure community ties, each respondent was asked to report the number of social clubs and organizations with which he or she was associated. These clubs and organizations extended into many life domains, including church-related groups, job-related associations, recreational groups, fraternal services, civic and political groups, and senior citizenship groups. Respondents were asked to number of organizations that they are involved with in each category. The total number of affiliated social clubs and organizations was used to capture the overall participation in organizations, indicating the strength of community ties (Appendix A).

For social network relations, the number of weekly contact was used as the measure of network size. Participants were asked to estimate how many people they came in contact with each week. Ten networks of people such as brother/sister, in-laws, other relatives, close friends, neighbors, co-workers, boss/supervisors, other acquaintances, helping professionals, and member of same group or club were used as the measurement.

Four indicators were used to assess the functional aspect of social support. Ten item lists of perceived crisis support measure were used. Participants were asked if they could get any help in ten hypothetical situations of crisis and emergency. The perception of support availability was measured on a three point scale: 3 = "yes," 2 = "yes but with difficulty," and 1 = "no."

Actual crisis support was measured by the same ten item list as the one used to measure perceived crisis support. However, in this scenario, the situations were actual instead of hypothetical. The ten items had three response categories: 3 = "yes," 2 = "yes, but with difficulty," and 1 = "no." The ten items were two types: instrumental and expressive.

Perceived routine support was measured in the same manner as perceived crisis support. Respondents were given ten hypothetical situations of routine needs and were asked if they could get help when they needed it. Three point scale: 3 = "yes," 2 = "yes, but with difficulty," and 1 = "no" to measure the availability of routine support was used.

Actual routine support was assessed with ten items depicting real situations where regular support might be sought. Again, the ten items have three response categories: 3 = "yes," 2 = "yes, but with difficulty," and 1 = "no." The ten items were two types:

instrumental and expressive. The alpha coefficients for the scales measuring perceived crisis support, actual crisis support, perceived routine support, and actual routine support were .79, .75, .84, and .77, respectively. These coefficients suggested reasonable internal consistency of each of the scales (Lin, Ye, & Ensel, 1999).

In the last part, two indicators were used to assess mental health status and the other two indicators were used to assess physical health status of Korean American older adults. The first indicator was to measure overall mental health status with the Geriatric Depression Scale (GDS; Yesavage et al., 1983) which consists of 30 binary items (yes/no) with internal consistency of .94. The second indicator was measured with the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) to measure depressive symptomatology. This 20 item self-report scale has been used for research in the general population. The possible range of scores is 0 to 60, with higher scores indicating more depressive symptoms. The internal consistency (alpha) ranged from .84 to .90. A score of 16 or greater is cited in the literature as defining a case of clinical depression.

Perceived physical health status was measured by a scale of 11 items selected from both OARS Multidimensional Functional Assessment Questionnaire and Services Supplement (Fillenbaum, 1988) and a Guttman health scale for the aged (Rosow & Breslau, 1966). The Cronbach's alph internal consistency coefficient of this scale was .81. Objective physical health as the last indicator was measured by the report of the number of illnesses the respondent is suffering from.

3.4. Data Analysis

Structural equation modeling (SEM) was used for data analysis to test whether a proposed model is plausible in the population. Examination of the structural model helps us to understand what factors are significantly associated with mental illness. In addition, the measurement model of SEM allow us to know what observed variables define the underlying construct, which, along with the factors found to be significant, would shed light on understanding individual differences in mental health among the study participants. In this respect, SEM helps to understand the research questions in terms of Korean American older adult's vulnerability to experiencing mental illness and their individual differences. The computer program LISREL 8.52 was used to analyze the data of the study.

A confirmatory factor analysis was performed through LISREL on the observed variables of each latent variable. Five factors model of Socioeconomic Status (SES), Social Support, Acculturation, Physical Health, and Mental Health, are hypothesized. There were two independent exogenous variables—SES and acculturation, and three dependent endogenous variables—social support, physical and mental health. The assumption of multivariate and univariate normality was evaluated through LISREL normality check. Significant degrees of skewness and kurtosis were found for several indicators, such as Ainc (skewness = 1.945, Kurtosis = 5.416), Cmi (skewness = 2.870, kurtosis = 17.802). There was no missing data in this study. Given that the data did not fulfill the multivariate normality assumption, maximum likelihood (ML) estimation method was used to estimate the parameters in the model. Table 1 also presents the correlations among all variables that were used in the model analysis.

The maximum likelihood (ML) estimation method was used to estimate the parameters in the model. Tests of significance of the estimated parameters (path coefficient) were set at .05 level for two tailed tests. The chi-square test was used to evaluate the hypothesized model and its improvement from the independence model. Other alternative model fit indices such as the Root Mean Square Error of Approximation (RMSEA), the Bentler Bonett Index or Normed Fit Index (NFI), the Goodness of Fit Index (GFI), and the Adjusted Goodness of Fit Index (AGFI) were used because of the limitation of chi-square test. Models with NFI, NNFI, GFI, and AGFI close to 1 are considered a good fit. The value RMSEA of less than .05 is indicative of the model being a reasonable approximation of the data (Raykov & Marcoulides, 2000).

Table 1

Correlations among Variables in the Model

Variable	Edu	Mar	Age	Ainc	Sex	Rep	Ntw	Cmi	Pcs	Prs
Edu										
Mar	.24**									
Age	.19*	.30**								
Ainc	.12	-.34**	-.06							
Sex	.34**	-.61	.01	.22**						
Rep	-.02	-.10	-.11	.02	.08					

Variable	Edu	Mar	Age	Ainc	Sex	Rep	Ntw	Cmi	Pcs	Prs
Ntw	-.05	.17*	-.05	.06	-.16*	-.04				
Cmi	.14	-.10	-.20**	.04	.12	-.14	.30**			
Pcs	-.01	-.07	-.16*	.15	.01	.00	.31**	.16*		
Prs	.06	-.18*	-.23**	.15	.10	.05	.41**	.14	.69**	
Acs	-.08	-.07	-.09	.03	.02	.01	.21**	.18*	.43**	.27**
Ars	-.06	-.12	-.15*	.07	.02	-.01	.38**	.14	.61**	.77**
Len	-.06	.22**	.29**	.02	-.24**	-.22	.05	-.02	.00	-.10
Hnew	-.18*	.04	.14	.07	-.05	.00	.02	.08	-.10	-.09
Macnew	.12	-.11	-.08	-.02	.11	.10	.04	-.01	-.09	-.09
Opha	-.08	.04	-.03	-.12	-.19*	.02	.14	-.11	-.09	-.05
Pph	.23**	-.22**	-.20**	.23**	.27**	-.07	-.08	.19*	.24**	.21**
Ces	-.05	.11	.15	-.09	-.12	.25	-.13	-.12	-.27**	-.32**
Gds	-.16*	.09	.10	-.14	-.08	.14	-.06	-.20*	-.21**	-.20*

Variable	Acs	Ars	Len	Hnew	Macnew	Opha	Pph	Ces	Gds
Acs									
Ars	.55**								
Len	-.01	-.10							

Variable	Acs	Ars	Len	Hnew	Macnew	Opha	Pph	Ces	Gds
Hnew	.02	-.08	.00						
Macnew	.08	.00	-.07	-.14					
Opha	-.08	-.07	.05	-.06	-.18*				
Pph	.10	.20*	-.10	-.20**	.09	-.49**			
Ces	-.02	-.20*	.10	.09	.09	.21**	-.28**		
Gds	-.06	-.21**	.01	.04	-.11	.38**	-.48**	.51**	

Note. Edu: Education; Mar: Marital status; Age: Age; Ainc: Annual household income; Sex: Sex; Rep: Religious Participation; Ntw: Number of social support network; Cmi: Community involvement; Pcs: Perceived crisis support; Prs: Perceived routine support; Acs: Actual crisis support; Ars: Actual routine support; Len: Length of residence; Hnew: The heritage acculturation sub-scale of Vancouver Index of Acculturation; Macnew: The mainstream acculturation sub-scale of Vancouver Index of Acculturation; Opha: Objective physical health; Pph: Perceived physical health; Ces: Center for Epidemiologic Studies Depression Scale (CES-D); Gds: Griatric Depression Scale

** Correlation is significant at the .01 level
* Correlation is significant at the .05 level

CHAPTER 4

FINDINGS

This chapter presents findings of each objective and hypothesis. The results are organized by the objectives.

4.1. Objective One

The first objective of the study was to explore the characteristics of Korean American older adults including the socioeconomic and demographic characteristics, the level of acculturation in the United States, the degree of social support, and the degree of physical and mental health.

4.1.1. Socioeconomic and Demographic Characteristics of Respondents

Five indicators were used to figure out respondent's socioeconomic and demographic characteristics. They were gender, educational level, marital status, annual household income, and age.

4.1.1.1. Gender of Respondents

One characteristic on which subjects were described was gender. Of the 170 respondents, 50 respondents (29.4%) were male, and 120 respondents (70.6%) were female (see Table 2).

4.1.1.2. Age of Respondents

Respondents were asked to indicate their date of birth. Age of respondent was calculated on the interview date. As shown in Table 3, the mean age for the Korean American older adults was 77.53 years ($SD = 6.16$), the youngest respondent was 65 years, the oldest was 91 years.

Table 2

Socioeconomic and Demographic Characteristics of Respondents: Gender

Gender	n	%
Male	50	29.4
Female	120	70.6
Total	170	100

Table 3

Socioeconomic and Demographic Characteristics of Respondents: Age

Age in Years	n	%
69 or less	20	12.0
70 – 79	87	51.0
80 – 89	61	36.0
90 or more	2	1.2
Total	170	100

4.1.1.3. Marital Status of Respondents

The majority (n = 102 or 60%) of the 170 Korean American older adults

respondents indicated they were living alone. Sixty-two of the respondents (36.5%)

reported that they were married. As shown in Table 4, about sixty-six percent ($\underline{n}$ = 41) of

married respondents were male older adults, and about ninety-two percent ($\underline{n}$ = 94) of

widowed respondents were female older adults in this study.

Table 4

Socioeconomic and Demographic Characteristics of Respondents: Marital Status

Marital Status	Number of Respondents (%)		
	Male	Female	Total
Married	41 (66.1)	21 (33.9)	62 (36.5)
Divorced	0 (0.0)	3 (100.0)	3 (1.8)
Separated	1 (33.3)	2 (66.7)	3 (1.8)
Widowed	8 (7.8)	94 (92.1)	102 (60.0)
Total	50 (29.4)	120 (70.6)	170(100.0)

4.1.1.4. Annual Family Income of Respondents

Study participants were asked to report their total annual household income. The

mean annual household income was $8,169.75. The lowest annual household income was

$2,160, and the highest annual household income was $24,000 (see Table 5).

Participants were also asked to report their income resources. The majority ($\underline{n}$ = 142 or

83.5%) of the 170 Korean American older adults indicated they have received

Supplementary Social Security Income (SSI) and other welfare benefits such as Food

Stamp and SSA. The mean annual SSI benefit was $5,321.12.   Of the 170 respondents,

about twenty-two percent ($\underline{n}$ = 38) of Korean American older adults have received a

Social Security (SSA) benefit. One interesting thing that the researcher found was more than half ($\underline{n}$ = 99 or 58.2%) of Korean American older adults have received monetary help from their adult children.

Table 5

Socioeconomic and Demographic Characteristic of Respondents: Income

Annual Income	$\underline{n}$	$\underline{\%}$
< $5,000	7	4.1
$5,000 - $9,999	124	72.9
$10,000 - $14,999	31	18.2
$15,000 - $19,999	7	4.1
≥$20,000	1	.6
Total	170	100

Sources of Income		
Supplemental Security Income (SSI)	142	83.5
Social Security (SSA)	38	22.4
Food Stamp	138	81.2
Children's Support	99	58.2

4.1.1.5. Educational Level of Respondents

Respondents were asked to indicate their highest educational year attained. The response category which was reported by the largest number of participants was

elementary level (n = 66 or 39%), and the category reported by the fewest respondents was graduate level (n = 1 or .6%). (see Table 6). More than half of the respondents (87 respondents) indicated either no formal or only elementary school education.

Table 6

Socioeconomic and Demographic Characteristics of Respondentss: Education

Education	Number of Respondents (%)		
	Male	Female	Total
No Formal Education	3 (14.3)	18 (85.7)	21 (12.4)
Elementary School	11 (16.7)	55 (83.3)	66 (38.8)
Middle School	12 (37.5)	20 (62.5)	32 (18.8)
High School	12 (38.7)	19 (61.3)	31 (18.2)
College	11 (60.0)	8 (40.0)	19 (11.8)
Graduate School	1 (100.0)	0 (0.0)	1 (.6)
Total	50 (29.4)	120 (71.6)	170 (100.0)

One interesting finding was that the number of male respondents who attended college or graduate school were almost three times more than the number of female respondents (24% vs. 7%). The majority of those who had either no formal education or elementary school education were female respondents (83.9 percent or 73 respondents out of 87 respondents). In this respect, social inequality for women can be detected among the respondents.

4.1.2. Acculturation Level of Respondents

To measure the acculturation level of respondents, they were asked by using the Vancouver Index of Acculturation (VIA). The version of the VIA used in this study is a 20 item instrument designed to measure the heritage and main stream dimensions of acculturation (Ryder, Alden & Paulhus, 2000).

As shown in Table 7, overall, most of respondents were more likely to agree to the Korean cultural dimensions ($\underline{M}$ = 7.6476, $\underline{SD}$ = .8118), which means most of respondents were rated on a 'agree (scale score 7)' in most of items. Most of them less likely to agree to the American cultural dimensions ($\underline{M}$ = 4.10, $\underline{SD}$ = 1.43), which means most of respondents were rated on 'disagree (scale score 3)' in most of items.

Table 7

Descriptive Statistics of VIA Items

Item	$\underline{M}$	$\underline{SD}$
The mean of total VIA Score		
VIA of Korean Cultural Dimension (Hnew)	7.64	.81
VIA of American Cultural Dimension (Macnew)	4.10	1.43

4.1.3. The Degree of Social Support

Two different aspects—structural and functional aspect of social support were measured from the Korean American older adults. As we can see from Table 8, most of Korean American older adults (n = 154 or 90%) were affiliated with at least one community based organization. Interesting thing was that about eighty percent of

respondents were involved in a church related group. This shows that religion may have

an important role in social support to many Korean American older adults.

Table 8

Community Involvement

Item	Yes	(%)	No
Church related group, such as committee, men's/women's group	80		20
Job-related association, such as business organization	2		98
Recreational group, such as golf club, women's club	29		71
Fraternal services, such as Lions	10		90
Civic-political group, such as Chamber of Commerce	2		98
Senior citizens group	22		78
Overall (having more than one affiliation)	90		10

Note. Numbers are percentage (eg. 90 percent of respondents answered they are involved in more than one group).

In regard to the size of the network which Korean American older adults have in a

weekly basis, the first three of the most frequent contacted networks of respondents were

their neighbor ($\underline{M}$ = 2.833, $\underline{SD}$ = 2.431), their children ($\underline{M}$ = 2.307, $\underline{SD}$ = 2.365), and their

close friends ($\underline{M}$ = 2.163, $\underline{SD}$ = 2.381). Overall, Korean American older adults in this

study have made about eight contacts each week (see Table 9). In regard to functional

aspects of social support, Korean American older adults participants in this study

perceived that they could get any help when they need it in most crisis and routine

situation (see Table 10).

Table 9

The Size of Social Network of Respondents

Contact Network	M	SD
With Neighbor	2.833	2.431
With Children	2.307	2.365
With Close Friends	2.163	2.381
Number of Total Contact	8.483	4.963

As shown in Table 10, four aspects of support showed higher mean score—perceived crisis support: 24.26; perceived routine support: 25.88; actual crisis support: 25.64; actual routine support: 27.41 (possible maximum score is 30), which means they perceive they would more likely to have someone if they need help from them. For example, eighty-seven percent of respondents (148) believed they could have someone to help them with a minor emergency around the house. Approximately seventy-five percent of total respondent (127) believed they could have someone to talk to about a serious problem they were having with their health. When the researcher asked whether they could get someone to help with their daily routine if they were not feeling well, most of respondents (81 percent) answered 'Yes.' Almost the same results were found when the researcher asked about whether the respondents were able to find someone to give help to them in an actual crisis and routine situation (see Table 10).

Table 10

Descriptive Statistics of Functional Aspects of Social Support

Social Support	M	SD	Alpha Coefficient
Perceived Crisis Support	24.26	4.79	.7882
Perceived Routine Support	25.88	4.72	.8429
Actual Crisis Support	25.64	2.90	.7485
Actual Routine Support	27.41	3.13	.7660

4.1.4. The Degree of Physical Health Status of Respondents

The number of physical illnesses that Korean American older adults have experienced from 1 to 15. As shown in Table 11, forty-seven respondents (27.7%) reported that they do not have any illness, whereas one hundred twenty three (72.4% of respondents) Korean American older adults are suffering from one to six different illnesses. The illnesses the respondents reported suffering from most are, in rank order, hypertension (40.6%), arthritis or rheumatism (34.7%), heart trouble (21.8%), stomach or intestinal disorders (19.4%), diabetes (18.8%), circulation trouble in arms or legs (10.6%), and others. They reported a variety of illnesses, including Parkinson's disease, fatigue, constipation, depression, malnutrition, language, and memory impairment.

4.1.5. The Degree of Metal Health Status of Respondents

Two indicators—GDS and CES-D Scale were used to assess mental health status of Korean American older adults.

Table 11

Physical Health Status of Respondents: Number of Disease

Number of Disease	n	%
No Disease	47	27.7
Having 1 – 2 Diseases	69	40.6
Having 3 – 4 Diseases	45	26.4
Having More than 5 Diseases	9	5.3

Table 12

Health Status of Respondents: Name of Disease

Disease	n	%
Hypertension	69	40.6
Arthritis or Rheumatism	59	34.7
Heart Trouble	31	21.8
Stomach or Intestinal Disorders	31	19.4
Diabetes	32	18.8
Circulation troubles in Arms or Legs	18	10.6
Other Diseases*	69	40.6

Note. Other diseases include Parkinson's disease, fatigue, constipation, depression, memory impairment, asthma, cancer, kidney disease.

As for the participants in this study, Korean American older adults scored from 2 to 33 in CES-D Scale. About twenty-nine percent (49) of the respondents scored higher than 16 which has been used to define a case of clinical depression. For GDS, the possible range of score is 0 to 30. The participants in this study scored from 0 to 25. Approximately 35.3 percent of the respondents (60) can be classified as mildly depressed in this study according to cut-off score which was used to classify patients under treatment in the study by Yesavage, et al. (1983).

Table 13

Degree of Depressive Symptoms by Gender and Marital Status

Scale	CES-D*		GDS**	
Gender	n	(%)	n	(%)
Male	12	(24.0)	15	(30.0)
Female	37	(30.8)	45	(37.5)
Total	49	(28.8)	60	(35.3)
Marital Status				
Married	17	(27.4)	17	(27.4)
Widowed	30	(29.4)	38	(37.3)

Note. * Respondents scored higher than 16 (clinically depressed). ** Respondents scored more than 11 (more than mildly depressed).

In addition, the female respondents were more depressed than male respondents measured by GDS and CES-D scale (see Table 13). The respondents who are widowed

were more likely depressed than the married respondents measured by GDS and CES-D scale.

4.2. Objective Two

The second objective was to assess whether the socioeconomic status, acculturation level, and social support, and the mental and physical health status of Korean American older adults are correlated with each other.

4.2.1. Analysis of Model Estimation

Maximum likelihood was employed to estimate free parameters of the hypothesized model. In older to evaluate the measurement model, estimates of standardized coefficients between the latent variables and observed variables, and squared multiple correlation (SMC) which indicates the proportion of variance accounted for by the latent variable, were examined.

Many estimates of standardized coefficients of the observed variables were significant according to t-test which is a ratio of an estimate to a standard error of estimate (A parameter is significant when the t-test value ($|t|$) is greater than 1.96). When SMC was examined, some observed variables, such as Ainc in the SES latent construct ($|t| = .76$), Len ($|t| = 1.61$), Hnew ($|t| = .04$), and Macnew ($|t| = 1.42$) in the Acculturation latent variable, Rep ($|t| = .05$), Cmi ($|t| = 1.61$) in the Social Support construct, were not high, which indicates that those variables were not well accounted for by their underlying construct. Therefore, Ainc, Len, Rep, and Cmi indicators were eliminated from the analysis. The rest of two indicators (Hnew and Macnew) in the Acculturation construct were used for further analysis.

To investigate the reason why the standardized coefficient of two acculturation scale were low, the researcher conducted a factor analysis of the data derived from responses to this scale to identify underlying construct in the data. The principal component analysis technique was employed. The number of factors to be extracted was set as one—meaning the rotation of the matrix was not a relevant procedure.

Table 14

Factor Analysis for the Heritage and Main Stream Acculturation Scale of VIA

Item	Factor Loading
Heritage Acculturation Scale	
Often behave in typical Korean ways (HF)	.736
Feel comfortable working with Korean person (HD)	.735
Enjoying Korean entertainment (eg., movie, music) (HE)	.720
Enjoying social activities with Korean person (HC)	.693
Interested in having Korean friends (HJ)	.676
Main Stream Acculturation Scale	
Enjoying social activities with Korean person (MACC)	.779
Interested in having Korean friends (MACJ)	.731
Feel comfortable working with Korean person (MACD)	.663
Enjoying Korean entertainment (eg., movie, music) (MACE)	.641

When the items in the heritage dimension of VIA scale and mainstream dimension of VIA scale were analyzed, the factor was confirmed. The loading for each of the items included in the factor are presented in Table 14.

Finally, five items (HF, HD, HE, HC, and HJ) were included in the Heritage Acculturation Scale indicator (Hnew), and four items (MACC, MACJ, MACD, and MACE) were included in the Mainstream Acculturation Scale (Macnew) for the analysis. Such rebuilding of new indicators, and the values of standardized coefficients of acculturation indicators were significant in the measurement model ($|t| = 2.540$ for Hnew, $|t| = 2.334$ for Macnew).

4.2.2. Testing Hypothesis

The purpose of this study was to examine the way that Socioeconomic status (SES), social support, and acculturation may influence physical and mental health status of Korean American older adults. Based on the review of related literature, the following ten hypotheses were established in the proposed study through a structural model with various latent constructs. To test the hypotheses, the researcher supposed ten hypothetical structural path models. These models were built to investigate whether the model fits well enough to be a useful approximation to the data.

4.2.2.1. Hypothesis One

The first hypothesis of the study was that the level of acculturation of Korean American older adults will be negatively associated with the degree of mental health status. In other words, a goal of this study was to gain a better understanding of the way that acculturation may influence mental health status represented by respective symptoms. Thus, it was proposed that acculturation was related to the mental health

status. The main focus of the first hypothesis was on the pathway through which acculturation contributes to mental health status, either positively or negatively. To confirm the relationship between two latent constructs, acculturation (Accult) and mental health constructs were included in the model.

The chi-square test proved that the first hypothesized model was not enough to explain the data well (chi-square value p-value = .002). Other indices also suggested that the model explained the data poorly (RMSEA= .218, NFI = .858, NNFI = .164, and AGFI = .738). The data was not consistent with the model, therefore, the researcher tried to investigate other alternative models. In this step, two indicators of acculturation latent construct, such as Hnew and Macnew, were included with mental health construct, and tested whether the alternative model fit the data well. However, the chi-square test and other indices proved the model did not sufficient to explain the data well.

4.2.2.2. Hypothesis Two

The second hypothesis of the study was that the degree of social support will be negatively associated with the degree of depression. In other words, a goal of this study was to gain a better understanding of the way that social support may influence mental health status represented by respective symptoms. Thus, it was proposed that social support was related to the mental health status. The main focus of the second hypothesis was on the pathway through which social support contributes to mental health status, either positively or negatively. To confirm the relationship between two latent constructs, social support (Ssupport) and mental health (Mhealth) constructs were included in the model.

The chi-square test proved that the second hypothesized model was not enough to explain the data well (chi-square p-value = .0001). Other indices also suggested that the model explained the data poorly (RMSEA= .176, NFI = .843, NNFI = .777, and AGFI = .750). Due to the data not fitting well, the researcher tried to investigate any alternative model fit. In this step, five indicators of social support latent construct were included with mental health construct, and tested whether the alternative model fit the data. The chi-square test proved that the second hypothesized model fit well enough to be a useful approximation to the data (chi-square p-value = .0768). Other indices also suggested that the model fit the data fairly well (RMSEA = .081, NFI = .983, NNFI = .951, GFI = .986, and AGFI = .902).

Structural relationship of the model was examined by considering the path between five observed variables (Ntw, Pcs, Prs, Acs, and Ars) of Social Support latent construct and Mental Health latent construct. According to the results, some of the social support indicators may affect the severity of depressive symptoms. For example, higher amount of perceived crisis support, perceived routine support, and actual crisis support may relieve the depressive symptoms (standardized coefficient = -.21, -.21, -.12, p<.01) Other indicators were not found to have a significant direct effect on the depression (standardized coefficient = .02 for Number of social network, .07 for actual routine support).

4.2.2.3. Hypothesis Three

The third hypothesis of the study was that the level of SES will be negatively associated with the degree of depression. In other words, a goal of this study was to gain a better understanding of the way that Korean American older adult's level of

socioeconomic status may influence mental health status represented by respective symptoms such as depression. Thus, it was proposed that individual SES was related to the mental health status. The main focus of the third hypothesis was on the pathway through which individual SES contributes to mental health status, either positively or negatively. To confirm the relationship between two latent constructs, socioeconomic status (SES) and mental health (Mhealth) constructs were included in the model.

The chi-square test proved that the third hypothesized model was acceptable (chi-square p-value = .0461). Other indices also suggested that the model fit the data well (NFI = .932, GFI = .988). In this step, only two indicators (Edu and Age) of SES latent construct were included in the model with mental health construct.

The structural relationship of the model was examined by considering the path between SES latent construct and mental health latent construct. According to the results, the level of SES may affect the severity of depressive symptoms. In other words, a higher level of SES may relieve the depressive symptoms (standardized coefficient = -.20 p<.01) .

4.2.2.4. Hypothesis Four

The fourth hypothesis of the study was that the degree of social support had a buffering effect on the relationship between the level of acculturation and the degree of depression. In other words, a goal of this study was to gain a better understanding of the way that acculturation may influence mental health status as represented by respective symptoms through social support. Thus, it was proposed that acculturation was related to the mental health status as well as social support. To confirm the relationship among three latent constructs, acculturation (Accult), social support (Ssupport) and mental health

(Mhealth) constructs were included in the model. The chi-square test proved that the

fourth hypothesized model was not enough to be a useful approximation to the data (chi-

square p-value = .0001). Other indices also suggested that the model fit the data poorly

(RMSEA= .125, NFI = .832, NNFI = .811, and AGFI = .814). In other words, this model

may not be a reasonably good approximation of the data. Due to the data not fitting well,

the researcher tried to investigate alternative models. In this step, all indicators of each of

the two latent constructs (acculturation and social support construct) were included with

two indicators of mental health construct, and tested whether the alternative model fit the

data well. However, the chi-square test and other indices proved the model was not

enough to be a useful approximation to the data.

4.2.2.5. Hypothesis Five

The fifth hypothesis of the study was does the degree of social support had a

buffering effect on the relationship between the level of SES and the degree of

depression? In other words, a goal of this study was to gain a better understanding of the

way that the level of socioeconomic status of Korean American older adults may

influence mental health status represented by respective symptoms through the social

support. Thus, it was proposed that individual SES level was related to the mental health

status as well as social support. To confirm the relationship among three latent

constructs, socioeconomic status (SES), social support (Ssupport) and mental health

(Mhealth) constructs were included in the model. The chi-square test proved that the

fifth hypothesized model did not fit well (chi-square p-value = .0001). Other indices also

suggested that the model fit the data poorly (RMSEA= .152, NFI = .803, NNFI = .737,

and AGFI = .777). In other words, this model may not represent a reasonably good

approximation of the data. Due to the data not being consistent with the model, the researcher tried to investigate any alternative models. In this step, all indicators of each two latent constructs (SES and social support construct) were included with two indicators of mental health construct, and tested whether the alternative model fit the data well. The chi-square test and other indices proved the model was not enough to explain the data well.

4.2.2.6. Hypothesis Six

The sixth hypothesis of the study was that the level of acculturation of Korean American older adults will be positively associated with the degree of physical health. In other words, a goal of this study was to gain a better understanding of the way that acculturation may influence physical health status. Thus, it was proposed that acculturation was related to physical health status. The main focus of the sixth hypothesis was on the pathway through which acculturation contributes to physical health status, either positively or negatively. To confirm the relationship between two latent constructs, acculturation (Accult) and physical health (Phealth) constructs were included in the model.

The chi-square test proved that the first hypothesized model fit well enough to be a useful approximation to the data (chi-square p-value = .0991). Other indices also suggested that the model fit the data fairly well (NFI = .955, NNFI = .808, GFI = ,992, and AGFI = .920).

A structural relationship of the model was examined by considering the path between acculturation construct and physical health latent construct. According to the results, acculturation level may affect the perceived level of physical health status of

Korean American older adults (standardized coefficient = .21, p<.01) . As hypothesized, the relationship between the Acculturation latent variable and the Physical Health construct was found to be significant in this study.

4.2.2.7. Hypothesis Seven

The seventh hypothesis of the study was that the degree of social support will be positively associated with the degree of physical health status of Korean American older adults. In other words, a goal of this study was to gain a better understanding of the way that social support may influence physical health status. Thus, it was proposed that social support was related to physical health status. The main focus of the seventh hypothesis was on the pathway through which social support contributes to physical health status, either positively or negatively. To confirm the relationship between two latent constructs, social support (Ssupport) and physical health (Phealth) constructs were included in the model.

The chi-square test proved that the seventh hypothesized model was not enough to explain the data well (chi-square p-value = .0001). Other indices also suggested that the model fit the data poorly (RMSEA= .160, NFI = .836, NNFI = .769, and AGFI = .776). Due to the model not fitting the data well, the researcher tried to investigate any alternative models. In this step, five indicators of social support latent construct were included with physical health construct, and tested whether the alternative model fit the data well. The chi-square test proved that this hypothesized model fit well enough to be a useful approximation to the data (chi-square p-value = .259). Other indices also suggested that the model fit the data fairly well (RMSEA = .044, NFI = .989, NNFI = .984, GFI = 991, and AGFI = .938).

A structural relationship of the model was examined by considering the path between five observed variables (Ntw, Pcs, Prs, Acs, and Ars) of social support latent construct and physical health latent construct. According to the results, some of the social support indicators, such as perceived crisis support and actual routine support, were related to the degree of perceived physical health status (standardized coefficient = .20, .12, p< .01).

4.2.2.8. Hypothesis Eight

The eighth hypothesis of the study was that the respondent's level of SES will be positively associated with the degree of physical health status. In other words, a goal of this study was to gain a better understanding of the way that Korean American older adult's level of socioeconomic status may influence the degree of physical health status. Thus, it was proposed that individual SES was related to physical health status. The main focus of the eighth hypothesis was on the pathway through which individual SES contributes to physical health status, either positively or negatively. To confirm the relationship between two latent constructs, socioeconomic status (SES) and physical health (Phealth) constructs were included in the model.

The chi-square test proved that the eighth hypothesized model was not acceptable in explaining the data well (chi-square p-value = .0014). Other indices also suggested that the model fit the data poorly (NFI = .829, AGFI = .705). Due to the model not fitting the data well, the researcher tried to investigate any alternative models. In this step, two indicators (edu and age) of SES latent construct were included with physical health construct, and tested whether the alternative model fit the data well. The chi-square test

and other fit indices proved, however, the model was not enough to be a useful approximation of the data.

4.2.2.9. Hypothesis Nine

The ninth hypothesis of the study was that the degree of social support had a buffering effect on the relationship between the level of acculturation and the degree of physical health. In other words, a goal of this study was to gain a better understanding of the way that acculturation may influence physical health status through the social support. Thus, it was proposed that acculturation was related to the physical health status as well as social support. To confirm the relationship among three latent constructs, acculturation (Accult), social support (Ssupport) and physical health (Phealth) constructs were included in the model. The chi-square test proved that the ninth hypothesized model was not enough to explain the data (chi-square p-value = .0001). Other indices also suggested that the model fit the data poorly (RMSEA= .113, NFI = .825, NNFI = .804, and AGFI = .832). In other words, this model may not be representative of reasonably good approximation of the data. Due to the model not fitting the data well, the researcher tried to investigate any alternative models. In this step, all indicators of each two latent constructs (acculturation and social support construct) were included with two physical health construct, and tested whether the alternative model fit the data well. The chi-square test and other indices proved the model was not enough to be a useful approximation to the data.

4.2.2.10. Hypothesis Ten

The tenth hypothesis of the study was that the degree of social support had a buffering effect on the relationship between the level of SES and the degree of physical

health. In other words, a goal of this study was to gain a better understanding of the way that the level of socioeconomic status of Korean American older adults may influence physical health status through the social support. Thus, it was proposed that individual SES level was related to the physical health status as well as social support. To confirm the relationship among three latent constructs, socioeconomic status (SES), social support (Ssupport) and physical health (Phealth) constructs were included in the model. The chi-square test proved that the tenth hypothesized model was not enough to fit the data well (chi-square value = .0001). Other indices also suggested that the model fit the data poorly (RMSEA= .113, NFI = .825, NNFI = .804, and AGFI = .832). In other words, this model may not represent a reasonably good approximation of the data. Due to the model not fitting the data well, the researcher tried to investigate alternative models. In this step, all indicators of each two latent constructs (SES and social support construct) were included with two physical health construct, and tested whether the alternative model fit the data well. The chi-square test and other fit indices proved the model was not enough to be a useful approximation to the data.

CHAPTER 5

CONCLUSIONS, AND DISCUSSION

There are two main purposes of this study. First, this study explored the characteristics of Korean American older adults including socioeconomic status, acculturation, social support, and physical and mental status. Second, this study investigated direct and buffering effects of socioeconomic status, acculturation level, and social support on the mental and physical health status of Korean American older adults. Based on the findings of this study, the following conclusions were derived:

1.   There are major socioeconomic and demographic characteristics of the Korean American older adults included in the study. Their mean age was 77.53 years. In this study, the 70 –79 age group (87) was the largest age group—more than four times larger than the 69 or less age group and more than forty times larger group than the 90 or more age group. About three to four out of ten Korean American older adults respondents reported that they are living with their spouse. In other words, over half of Korean American older adults were living alone. This result was quite different from the general older adults in the U.S. Currently, over half (55%) the older noninstitutionalized persons lived with their spouse in 2002 (Administration on Aging, 2001).

A widely held perception is that Asian Americans are a 'successful minority,' or 'model minority' because, as a whole, they are better educated and better off financially than other ethnic minority groups (Braun and Browne, 1998). The result of this study does not support this perception any more. As shown in previous chapter, more than half of the respondents indicated that they did not receive either formal or only elementary school education. Further, a little less than three quarters of respondents (120, 70.5 %)

are 'poor' or 'near-poor,' living with below the poverty line--currently $8,860 (US

Department of Health and Human Services, 2002). They heavily depend on the welfare

benefit from the government such as Supplemental Security Income (SSI) and Food

Stamp.

Another finding in regard to the characteristics of socioeconomic status was the

respondent's education. It was found that there was a difference in educational

attainment between the male and female respondents. Male respondents (one out of four

male respondents) who attended college or graduate school degree were almost three

times more than the female respondents (one out of ten female respondents). The

majority of those who had either no formal education or elementary school education

were female respondents. In this respect, educational inequality for women can be

detected among Korean American older adults.

2.   In regard to the level of acculturation, most of Korean American older adults were

more likely to agree with the Korean cultural dimensions, and less likely to agree the

American cultural dimensions. As previous research studies (Yu, 1984; Oh, 1989; Rhee,

1993), most of Korean American older adults are less likely to acculturated to the United

States.

3.   In regard to the degree of social support, most of Korean American older adults

were affiliated in at least one community based organization. An interesting thing was

that about eighty percent of respondents were involved in a church related group. This

shows that religion may have an important role in social support to many Korean

American older adults. Korean American older adults in this study also have made about

eight contacts with their neighbor, their children, and their close friends on a weekly

basis. Korean American older adults were more likely to respond that they could get help when they needed it in a routine and crisis situation. They also responded that they got help when they needed it in an actual routine and a crisis situation.

4.　　　In regard to the degree of physical health status, most of Korean American older adult respondents had at least one chronic condition and many have multiple conditions. As shown in previous chapter, more than a quarter of respondents reported that they do not have any illness, whereas more than seven out of ten Korean American older adults are suffering from one to six different illnesses. The most frequently occurring conditions per 100 older adults in this study were hypertension (40), arthritis or rheumatism (35), heart trouble (22), stomach or intestinal disorders (19), diabetes (19), circulation trouble in arms or legs (11), and others. Compared to chronic diseases that the US general older person's had in 1999 survey (Administration on Aging, 2001), Korean American older adult respondents were more likely to have stomach, internal disorder, or diabetes related chronic conditions. In this case, special attention regarding the validity of objective physical health variables, which was used in this study, should be carefully considered since these variables may not reflect all of diseases that the respondents had due to other reasons.

5.　　　The respondents of this study show they are highly depressed .The CES-D score of Korean American older adults ranged from 2 to 33. Two out of three respondents scored higher than 16, which has been used to define a case of clinical depression. For GDS, the score of respondents were from 0 to 25. Approximately one in three respondents can be classified as mildly depressed in this study. These scores on the depression scales among the respondents indicated a higher probability of experiencing

depression among Korean American older adults than average American older adults. An estimated 6 percent of Americans ages 65 and older in a given year, or approximately 2 million of the 34 million adults in this age group in 1998, have a diagnosable depressive illness (National Institute of Mental Health, 2001).

6.	When the measurement model of this study was examined, some indicators had high loadings and SMCs on the latent variable and other indicators had relatively low loadings and very low SMCs. First of all, as for the SES construct, the four indicators used in this study showed moderately high loadings and SMCs, implying that the four indicators representing the underlying construct fairly well. Among the four indicators, education and age indicators were relatively high loadings and SMCs as to compared to annual income, marital status and gender.

Second, though both length of residence in the United States and the VIA index were significant indicators, they were not strong components of acculturation construct when their relatively low loadings and low SMCs were considered. Especially the acculturation variable raises some concern about measurement. As Lee et al. (1996) found little variability in the acculturation level among Korean American older adults, so did this study. When VIA was used as a major factor in measuring acculturation level of Korean American older people, we cannot expect much variation among them.

In addition, some of the participants of this study were born and grew up in Korea and came to the United States as old immigrants. They brought to the United States their life-long norms and values, which would not change as much as the length of residence in the United States increased. As Hurh and Kim (1984) characterized the acculturation process of Korean American people as " adhesive adaptation," we may regard Korean

American older adults as a homogeneous with regard to their attitude toward acculturation in terms of preferences of language, music, movie, food, ethnic identity, and interaction. Although the VIA was designed to encompass various cultural dimensions and validity for using it with Asians (Ryder, et al., 2000), the VIA does not appear to be valid for using with Korean American Older adults. Thus, developing other acculturation constructs should be undertaken in order to appropriately measure their acculturation level.

Length of residence in the United States can be understood in the same way as the VIA level. Increase in the length of residence was supposed to be a way of measuring acculturation level to the older adults in terms of language fluency and subsequent access to the main stream culture. The majority of the respondents indicated that language is the most difficult barrier in every day of life in the US. They could not socialize with other ethnic elders, although they have great desire to interact with other ethnic groups as they live in heterogeneous senior apartment complexes in an urban city. Some of the respondents were afraid of using public transportation since they can not speak English. Lack of English language ability appears to affect their daily life greatly, as they cannot understand whether a printed material is, for example, a bill or just an advertisement flier. This difficulty did not improve as length of residence increased.

Third, all indicators on the social support construct showed high loadings and high SMCs except the religious participation. This suggests that perceived and actual supports from informal social relationships are important aspects of social support whether or not they are in crisis situation (Lockery, 1991). Since the social support is measured based on the report of the perceived quality of interpersonal relationships,

including both affective and instrumental assistance, this study supports that subjective assessment of social support plays a crucial role in measuring social support (George, 1989). Finally, all indicators on the physical and mental health construct showed high loadings and high SMCs. This suggests that CES-D, GDS, Perceived and objective physical health scale are important aspects of mental and physical health status.

7.   When ten structural relationships among the latent variables were examined, four hypothesized relationships (Hypothesis 2, 3, 6, and 7) were supported in this study. First of all, physical and mental health status of respondents is assumed to correlated with the perceptions of social support. It was found in previous studies that people in better health report they have more social support (Auslander, 1996: Lubben & Girobda, 1996). Though the social support construct itself does not correlate to the degree of health status in this study, when the researcher investigated alternative models by considering the path between five observed variables of social support construct, some of observed indicators such as number of network contact, the degree of perceived and actual social support show significant correlation with the degree of respondent's perceived physical health status.

Importantly, this study implies that the level of financial assistance and the amount of contact with their family members, such as their adult children influences the respondents' perception of the social support. As the majority of Korean American elders live apart from their adult children, their perception of support from their children may be determined by how often their children visit them or how often the children make phone calls to them as a way to express caring. Therefore, those who have more visits and phone calls, from their children feel more comfortable than their other counter parts.

8.   As postulated in the model, there was also a significant relationship between the social support indicators and mental health construct. Those who have social support available are less vulnerable to experiencing depressive symptoms. This finding is consistent with other studies that perception of social support is a significant predictor of mental health status of people, and those perceptions of inadequate support are associated with increased psychiatric symptoms (Holahan & Moos, 1981; Billings & Moos, 1982; George et al., 1989).

For the majority of Korean American older adults, the amount of contacts with their children was very important to enhancing their well being. Therefore, the relationship between their children and themselves appears to be the major factor affecting their mental health status as they do not have other close relatives or resources to rely on. When the older individuals were well respected by their children, they were greatly satisfied with their life.

9.   It was shown that some of socioeconomic and demographic characteristics of respondents were directly related to the mental health status of Korean American older adults. For example, the respondents with higher educational level tended to manifest less severe depressive symptoms. In addition, as many research studies (Dean et al., 1990; Eaton, et al., 2001; Mills & Henretta, 2001) have shown, female respondents were shown to have somewhat higher depressive symptoms than the male respondents shown in this study. The respondents who are widowed also were more likely depressed than the married respondents measured by GDS.

10.   Other hypotheses, however, did not show any relationship among the latent constructs.   First of all, buffering effects of social support (Cohen & Wills, 1985;

Lockery, 1991) were not supported in this study. Instead, the direct effects of social support were well explained in the hypothesized models. Second, highly acculturated respondents were expected to maintain strong social relationships between their neighbors, friends, and children. Hence, they were expected to reduce the susceptibility of an individual to physical and mental illness. The buffering effect of social support between mental and physical health status was not found in this study. Rather, this study only shows the direct effect between some social support indicators and physical and mental health status.

As described so far, mental and physical health and the aging process of Korean American older adults appeared to be complicated with many factors. First of all they were old immigrants who came to the United States relatively recently to unite with their adult children. The majority of them were living apart from their children. Their sense of self and satisfaction was greatly influenced by the quality of their relationship with their children. Secondly, Korean American older adults were living in a culturally and physically different environment with a number of barriers, such as language, transportation, isolation, and loneliness. And finally, they lacked appropriate socioeconomic resources and support systems. In short, personal factors such as SES and group factors such as social support influence the aging process and its health consequences among Korean American older adults. Those personal and group factors should be taken into account when intervention or services are designed and provided to meet their individual differences and needs.

CHAPTER 6

IMPLICATIONS

Based on the conclusions and discussions the researcher has shown in previous chapter, the following implications for research and interventions were derived.

6.1. Implications for Future Research

One concern may be raised regarding measurement tools that were used in this study. As the researcher pointed out in a previous chapter, little variability was found in the acculturation level among Korean American older adults, as in another study (Lee et al., 1996). When VIA was used as a major factor in measuring acculturation level of Korean American older people, there was not much variation among the participants.

Most of the participants of this study were born and grew up in Korea and came to the United States as old immigrants. They brought to the United States their life-long norms and values which would not change as length of residence in the United States increased. Thus, their level of acculturation may not change at all. As Hurh and Kim (1984) characterized the acculturation process of Korean American people as " adhesive adaptation," we may regard Korean American older adults as a homogeneous with regard to their attitude toward acculturation in terms of preferences of language, music, movie, food, ethnic identity, and interaction. Although the VIA scale was designed to encompass various cultural dimensions and validity for using it with Asian (Ryder, et al., 2000), this scale did not appear to be valid for using with Korean American older adults. Thus, developing other acculturation construct should be undertaken in order to appropriately measure their acculturation level.

The other concern is related to the buffering effect of social support between acculturation and mental and physical health status. No significant buffering effect of social support may be interpreted so that there may exist some extraneous factors, such as an individual personality and coping strategies that the older people have (Shen & Takeuchi, 2001). As many research studies (Chou & Chi, 2001; Pearlin, Menaghan, Lieberman, & Mullins, 1981) pointed out, negative or stressful life events during their life-time history can be another factors which affect the mental and physical health status of older adults. This possible scenario may generate other hypotheses for future research attempting to unravel the relationship among acculturation, social support, and mental and physical health status.

As indicated by previous investigators (Fry, 1986; Lewinsoohn et al., 1985), the causes of physical and mental well being in older adults are complex and diverse. Given the unique circumstances in which Korean American elders are situated as described above, the causes of mental and physical deterioration among them are assumed to be multiple and unusual. Thus, future research may need to understand more about the complexity of older people's situation. In other words, many different approaches with various factors and methods needs to be combined into the study with an ethnic minority elderly people.

6.2. Implications for Practice Interventions

Interventions for Korean American older adults can be provided on many different levels. As the majority of this study's respondents experience stress resulting from living in a culturally and a linguistically different environment, using bilingual volunteers, who come from same ethnic environment, appears to be helpful for resolving

their daily concerns. Volunteers can provide services, including translation and interpretation into Korean language, making phone calls, giving a ride, and so on. Having a sense that they have someone to rely on a daily basis will be therapeutic.

Korean American social service agencies such as Chicago Korean American Senior Center, Korean American Community Services and civic organizations such as Chicago Korean American Chamber of Commerce concerned with the well-being of Korean American elders may be able to play a key role in recruiting, training, and providing volunteers to Korean American older adults. There are two local Korean television stations, two local Korean radio stations, and three local newspapers in the Chicago metropolitan area. Joint efforts from such media can enhance the outcomes by driving a campaign for recruiting volunteers from Korean community.

Use of volunteers will be beneficial to both Korean American older adults and volunteers themselves in terms of intergenerational interaction. Korean American elders might feel relieved from daily concerns and distress, while volunteers learn Korean heritage from them. Such intergenerational interaction may help to reduce the intergenerational gap in the different values, beliefs, and behaviors held by each generation, which is expected to strengthen solidarity between the generations.

Using peer group support such as 'friendly visiting services' might be one way to use volunteers to provide practical assistance to Korean American older adults. The role of the friendly visiting volunteer is to visit a senior who is usually physically or socially isolated. The senior may want someone to talk to, or perhaps with whom to go for walks. Friendly visiting for seniors provides in-home support to seniors in the community through trained volunteers. This service includes: companionship and friendship, support

and encouragement, social outings, advocacy, sharing resources information, giving transportation service, and assistance with shopping.

The volunteers' weekly visits and telephone contacts with the older adults help to prevent feelings of loneliness and isolation by providing support and companionship. This helps seniors to maintain independent living in their own homes for as long as possible, and provides a mutually supportive and stimulating social relationship for both the senior and the volunteer.

Peer volunteers appear to be an important resource to Korean American elders as they have held common values and beliefs as well as experienced the same historical events. These same experiences may facilitate sharing and understanding each other regarding their concerns, and talking to a peer supporter may be therapeutic to Korean American older adults.

Service providers should identify community strengths and existing services. They should know about value of utilizing existing organizational structure, such as churches, to provide services and to link informal and formal sources of help. In this respect, the Korean church appears to serve as the most valuable resource for Korean American elders to rely on. Currently, there are one hundred ninety-six Christian churches, three Catholic churches, and six Buddhist temples in the Chicago metropolitan area (The Korea Central Daily, 2001). For recent immigrant older adults, the ethnic church plays an important role in terms of providing fellowship, maintaining the Korean cultural tradition, and providing social services for church members and the Korean community as a whole (Hurh & Kim, 1984; Min, 1992). Given the fact that the majority of this study's respondents (80% of total study participants) attend a Korean church and

seek help from church members and ministers, Korean churches and ministers may be utilized to serve as a counseling resource to them.

There may be many issues that can be raised in a professional social work arena. First of all, social work service agencies should be located in near where the clients are living and it should be easily accessible. Otherwise, transportation should be easily available. Currently most of social service agencies for Korean Americans are located in the city of Chicago only. Therefore, they have not had an opportunity to branch out and to meet all the needs of seniors who are living in suburban areas. Recent statistic shows that the numbers of Korean Americans in the suburbs have rapidly been increasing over the last ten years. Currently, more than 22 thousands of Korean Americans are living not in the city of Chicago, but in the Suburban Chicago area (US Bureau of Census. 2001).

Unfortunately, however, there is only one Korean social service agency to serve Korean American older adults in the suburban area. As a result, older adults who are living far from the agency have had difficult experiences in their everyday life due to their limited English proficiency. For example, most of the seniors do not have clear understanding about social benefits that they maybe eligible for, and therefore, they maybe compounded by the lack of knowledge. As a social service provider, agencies need to understand older adults better in order to find resources that are more appropriate for them. Providers also need to know what their needs are, and how they can help them. Providers should help older adults, who have been neglected or marginalized or have not felt the programs rarely accessible, so that their rights can be served. For the purpose of meeting variety of Korean older people's unmet needs in that area, developing outreach services is the most critical one.

Second, in regard to service planning, services should adhere to the cultural integrity of Korean American elder's life styles. For example, as shown in previous chapter, Korean American older adult respondents were more likely to have stomach, internal disorder, or diabetes related chronic conditions. Therefore, the nutrition programs should include appropriate ethnic foods, and nursing homes should offer culturally sensitive recreation program. Developing those program and other cultural program such as Korean traditional dancing class and English language learning program (ESL) make Korean American older adults feel better.

Third, as a direct service provider, staff should include bilingual, bicultural, and/or indigenous workers, or translators who are culturally sensitive, who are convey respect and who use personalized outreach method to establish trust and rapport in the agency. Finally, social and health care assistance is of particular concern. Cultural and language difficulties, physical isolation, and lower income, along with structural barriers to service accessibility, contribute to their underutilization of health and social services. Efforts must continue to modify services to be more responsive to the particular needs of Korean American older adults. It is also important that the medical and insurance forms, newsletters, descriptions of services and programs, eligibility of all programs including government benefit program such as SSI, Medicaid, and Food Stamps and so on should be bilingual. The overall significance of this study can not be overstated in terms of its positive impact on the lives of the subjects studied.

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APPENDIX A: QUESTIONNAIRE

Part I. Participant Profile &Demographic Information (Total 13 Items)

Subject_____   ID_____

Interviewer_____   Date_____

I am going to ask you some questions about your background. Please respond to each question.

1. Sex   (1) Male   (2) Female

2. Date of Birth   _____/_____/_____ (Month/Day/Year)

3. Marital status
       (1) Never married (2) Married   (3) Widowed   (4) Divorced
       (5) Separate   (6) Not answered

4. Living arrangement
   (a) Residential type: (1) Senior rent apt. (2) Rent house (3) Own house
                    (4) Own apt.
   (b) Living with: (1) Spouse (2) Alone (3) Spouse & Children (4) Children
                    (5) Relatives

5. Education Level
       (1) No formal education   (2) Primary school (6 years)
       (2) Middle school (9years)   (4) High school (12 years)
       (5) College and above

6. Citizenship status
       (1) American citizen   (2) Permanent resident   (3) Others

7. How long have you been here in the USA?   _____ year(s)

8. Could you tell me your approximate total household income for the last year?
       $ _____ / month, $ _____/year

       (1) Less than $ 4,430 _____
       (2) $ 4,430 ≤, and < $ 8,860 _____
       (3) $ 8,860 ≤, and < $ 17,720 _____
       (4) $ 17,720 ≤, and < $ 35,440 _____
       (5) more than $ 35,440 _____

Part II. Vancouver Index of Acculturation (VIA) (20 Items)

Subject_____   ID_____

Interviewer_____   Date_____

    Please answer each question as possible by circling one of the numbers to the right of
    each question to indicate your degree of agreement or disagreement.
Many of these questions will refer to your heritage culture, meaning the culture that has
influenced you most (other than North American culture). It may be the culture of your
birth, the culture in which you have been raised, or another culture that forms part of your
background. If there are several such cultures, pick the one that has influenced you most
(e.g., Irish, Chinese, Mexican, Black). If you do not feel that you have been influenced by
any other culture. Please try to identify a culture that may have had an impact on previous
generations of your family.

Please write your heritage culture in the space provided. _____

Use the following key to help guide your answers:

     1   2   3   4   5   6   7   8   9

Strongly disagree, Disagree, Neutral/Depends, Agree, Strongly agree

1. I often participate in my heritage cultural traditions.
     1   2   3   4   5   6   7   8   9

2. I often participate in mainstream North American cultural tradition
     1   2   3   4   5   6   7   8   9

3. I would be willing to marry a person from my heritage culture
     1   2   3   4   5   6   7   8   9

4. I would be willing to marry a North American person
     1   2   3   4   5   6   7   8   9

5. I enjoy social activities with people from the same heritage culture as myself
     1   2   3   4   5   6   7   8   9

6. I enjoy social activities with typical North American people
     1   2   3   4   5   6   7   8   9

7. I am comfortable working with people of the same heritage culture as myself
     1   2   3   4   5   6   7   8   9

8. I am comfortable working with typical North American people
       1   2   3   4   5   6   7   8   9

9. I enjoy entertainment (e.g., movies, music) from my heritage culture
       1   2   3   4   5   6   7   8   9

10. I enjoy North American entertainment (e.g., movies, music)
       1   2   3   4   5   6   7   8   9

11. I often behave in ways that are typical of my heritage culture
       1   2   3   4   5   6   7   8   9

12. I often behave in ways that are 'typically North American.'
       1   2   3   4   5   6   7   8   9

13. It is important for me to maintain or develop the practices of my heritage culture
       1   2   3   4   5   6   7   8   9

14. It is important for me to maintain or develop North American cultural practices.
       1   2   3   4   5   6   7   8   9

15. I believe in the value of my heritage culture
       1   2   3   4   5   6   7   8   9

16. I believe in mainstream North American values
       1   2   3   4   5   6   7   8   9

17. I enjoy the jokes and humor of my heritage culture.
       1   2   3   4   5   6   7   8   9

18. I enjoy typical North American jokes and humor
       1   2   3   4   5   6   7   8   9

19. I am interested in having friends from my heritage culture
       1   2   3   4   5   6   7   8   9

20. I am interested in having North American friends
       1   2   3   4   5   6   7   8   9

Part III. Measurement of Social Support Structures

Community Ties

Do you belong to one or more of the following clubs or organizations?
1. Church-related group, such as board/standing committee, men's/women's group, voluntary service (choir, usher)?
2. Job-related association, such as business/professional organization, labor union?
3. Recreational groups, such as bowling league, women's club, card club, golf club?
4. Fraternal services, such as Mason's or Eastern Star Service Club (Lions or Rotary), Hospital Auxiliary?
5. Civic-political groups, such as Parent-Teachers Association, Political Party Club, Chamber of Commerce?
6. Senior citizens group, please specify?
7. Other groups, please specify?

Social Networks

In atypical week, how many of the following people do you come in contact with? By contact, we mean either face to face or by phone. Give us your best guess.

1. Brother/sister
2. In-laws
3. Other relatives
4. Close friends
5. Neighbors
6. Co-workers
7. Boss/supervisor
8. Other acquaintances
9. Helping professionals
10. Member of same group or club

Measurement of Support Functions

<div align="center">Perceived Crisis Support</div>

I would like to present you with some hypothetical situations. I want to knows if you could get help or assistance with the following emergencies if you needed it. Remember these are hypothetical situations. Please use the following response categories:

 (3). Yes.   (2). Yes, with difficulty.   (1). No.

If you needed it, could you get:
1. Someone to lend you money to pay an important bill that was past due?
    (3). Yes.   (2). Yes, with difficulty.   (1). No.

2. Someone to help you with a minor emergency around the house (i.e., broken water pipe/clogged drain)?
    (3). Yes.   (2). Yes, with difficulty.   (1). No.

3. Someone to lend you a car for an emergency situation?
    (3). Yes.   (2). Yes, with difficulty.   (1). No.

4. Someone to help you deal with a medical emergency like an injury to a child or spouse?
    (3). Yes.   (2). Yes, with difficulty.   (1). No.

5. Someone to watch the house or kids if you got called away for an emergency?
    (3). Yes.   (2). Yes, with difficulty.   (1). No.

6. Someone to talk to about a serious problem you were having at wok?
    (3). Yes.   (2). Yes, with difficulty.   (1). No.

7. Someone to talk to about the death of a someone close to you?
    (3). Yes.   (2). Yes, with difficulty.   (1). No.

8. Someone to talk to about serious problems you were having with your husband/wife or closed friend?
    (3). Yes.   (2). Yes, with difficulty.   (1). No.

9. Someone to talk to about a serious problem you were having with your health?
    (3). Yes.   (2). Yes, with difficulty.   (1). No.

10. Someone to talk to about something that was seriously affecting your life?
    (3). Yes.   (2). Yes, with difficulty.   (1). No.

Actual Crisis Support

I would like to look at some real situations with you. I want to know if you ACTUALLY got help or assistance with the following emergency situations the last time you needed it. Remember these are real situations. Please use the following response categories.

(3) Yes   (2) Yes, with difficulty   (1) No

If you needed it, could you get:
1.Someone to lend you money to pay an important bill that was past due?
      (3) Yes   (2) Yes, with difficulty   (1) No

2. Someone to help you with a minor emergency around the house (i.e., broken water pipe/clogged drain)?
      (3) Yes   (2) Yes, with difficulty   (1) No

3. Someone to lend you a car for an emergency situation?
      (3) Yes   (2) Yes, with difficulty   (1) No

4. Someone to help you deal with a medical emergency like an injury to a child or spouse?
      (3) Yes   (2) Yes, with difficulty   (1) No

5. Someone to watch the house or kids if you got called away for an emergency?
      (3) Yes   (2) Yes, with difficulty   (1) No

6. Someone to talk to about a serious problem you were having at wok?
      (3) Yes   (2) Yes, with difficulty   (1) No

7. Someone to talk to about the death of a someone close to you?
      (3) Yes   (2) Yes, with difficulty   (1) No

8. Someone to talk to about serious problems you were having with your husband/wife or closed friend?
      (3) Yes   (2) Yes, with difficulty   (1) No

9. Someone to talk to about a serious problem you were having with your health?
      (3) Yes   (2) Yes, with difficulty   (1) No

10. Someone to talk to about something that was seriously affecting your life?
      (3) Yes   (2) Yes, with difficulty   (1) No

Perceived Routine Support

I would like to present you with some hypothetical situations. I want to know if you could get help or assistance in the following areas on a regular basis if you needed it. By regular, I mean at least 2-3 times a week. Remember, these are hypothetical situations. Please use the following response categories:

    (3) Yes.   (2) Yes, with difficulty.   (1) No.

1. Someone to lend you money to pay bills or help you get along?
    (3) Yes.   (2) Yes, with difficulty.   (1) No.

2. Someone to help in doing things around the house (i.e., cooking, cleaning)?
    (3) Yes.   (2) Yes, with difficulty.   (1) No.

3. Someone to give you a ride to some place you had to go (shopping, post office, airport)?
    (3) Yes.   (2) Yes, with difficulty.   (1) No.

4. Someone to help with your daily routine if you were not feeling well?
    (3) Yes.   (2) Yes, with difficulty.   (1) No.

5. Someone to watch your house (care for plants/pets) while you were away?
    (3) Yes.   (2) Yes, with difficulty.   (1) No.

6. Someone to talk to about something that was bothering you?
    (3) Yes.   (2) Yes, with difficulty.   (1) No.

7. Company when you felt lonely or just wanted to talk?
    (3) Yes.   (2) Yes, with difficulty.   (1) No.

8. Someone to talk to about a small argument you had with your husband/wife or closed friend?
    (3) Yes.   (2) Yes, with difficulty.   (1) No.

9. Someone to make you feel good, loved, or cared for?
    (3) Yes.   (2) Yes, with difficulty.   (1) No.

10. Someone to talk to about a serious of disappointment or bad days?
    (3) Yes.   (2) Yes, with difficulty.   (1) No.

Actual Routine Support

I would like to look at some real situations with you. I want to know if you ACTUALLY got help or assistance in the following areas the last time you needed it. Remember these are real situations. Please use the following response categories to give me your answer:

      (3) Yes   (2) Yes, with difficulty   (1) No

1. Someone to lend you money to pay bills or help you get along?
      (3) Yes   (2) Yes, with difficulty   (1) No

2. Someone to help in doing things around the house (i.e., cooking, cleaning)?
      (3) Yes   (2) Yes, with difficulty   (1) No

3. Someone to give you a ride to some place you had to go (shopping, post office, airport)?
      (3) Yes   (2) Yes, with difficulty   (1) No

4. Someone to help with your daily routine if you were not feeling well?
      (3) Yes   (2) Yes, with difficulty   (1) No

5. Someone to watch your house (care for plants/pets) while you were away?
      (3) Yes   (2) Yes, with difficulty   (1) No

6. Someone to talk to about something that was bothering you?
      (3) Yes   (2) Yes, with difficulty   (1) No

7. Company when you felt lonely or just wanted to talk?
      (3) Yes   (2) Yes, with difficulty   (1) No

8. Someone to talk to about a small argument you had with your husband/wife or closed friend?
      (3) Yes   (2) Yes, with difficulty   (1) No

9. Someone to make you feel good, loved, or cared for?
      (3) Yes   (2) Yes, with difficulty   (1) No

10. Someone to talk to about a serious of disappointment or bad days?
      (3) Yes   (2) Yes, with difficulty   (1) No

Part IV. Physical Health Scale (Total 12 Items)

Subject_____   ID_____

Interviewer_____   Date_____

I am going to ask you some questions about your background. Please respond to each question.

1. Are you healthy enough to go out to a movie, to church or a meeting, or to visit friends?
    (1) seldom/never (2) sometimes (3) usually

2. Are you healthy enough to walk up and down stairs to the second floor?
    (1) seldom/never (2) sometimes (3) usually

3. Are you healthy enough to walk half a mile (about eight blocks)?
    (1) seldom/never (2) sometimes (3) usually

4. Are you healthy enough to do heavy work around the house, like shoveling snow or washing walls?
    (1) seldom/never (2) sometimes (3) usually

5. How would you rate your overall health at the present time?
    (1) poor (2) fair (3) good (4) excellent

6. Is your health now better, about the same, or worse than it was five years ago?
    (1) worse (2) about the same (3) better

7. Compared to your friends and acquaintances, your health is
    (1) worse (2) about the same (3) better

8. How much do your health troubles stand in the way of your doing the things you want to do?
    (1) a great deal (2) a little (some) (3) not at all

9. How is your eyesight (with glasses or contacts)?   (1) totally blind (2) poor (3) fair (4) good (5) excellent

10. How is your hearing (without hearing aid)? (1) totally deaf (2) poor (3) fair (4) good (5) excellent

11. Do you regularly participate in any vigorous sports such as hiking, jogging, tennis, biking, or swimming? (1) no (2) yes

12. Do you have any of the following illness at the present time? (Check if answered 'yes')

_____ Arthritis or rheumatism   _____ Glaucoma
_____ Asthma   _____ Emphysema or chronic bronchitis
_____ Tuberculosis   _____ High blood pressure
_____ Heart trouble   _____ Circulation trouble in arms or legs
_____ Diabetes   _____ Ulcers (of the digestive system)
_____ Other stomach or intestinal disorders   _____ Liver disease
_____ Kidney disease   _____ Cancer or Leukemia

Part V. Mentall Health Scale (Total 2 Scales)

Subject_____   ID_____

Interviewer_____   Date_____

Geriatric Depression Scale (Total 30 Items)

I am going to ask you how you felt over the past week. Please respond to each question
with either 'yes' or 'no.' (Check either one of them)

1. Are you basically satisfied with your wife?	Yes	No
2. Have you dropped many of your activities and interests?	Yes	No
3. Do you feel that your life is empty?	Yes	No
4. Do you often get bored?	Yes	No
5. Are you hopeful about the future?	Yes	No
6. Are you bothered by thoughts you can't get out of your head?	Yes	No
7. Are you in good spirits most of time?	Yes	No
8. Are you afraid that something bad is going to happen to you?	Yes	No
9. Do you feel happy most of time?	Yes	No
10. Do you often feel helpless?	Yes	No
11. Do you often get restless and fidgety?	Yes	No
12. Do you prefer to stay home, rather than going out and doing new things?	Yes	No
13. Do you frequently worry about the future?	Yes	No
14. Do you feel you have more problems with memory than most?	Yes	No
15. Do you think it is wonderful to be alive now?	Yes	No
16. Do you often feel downhearted and blue?	Yes	No
17. Do you feel pretty worthless the way you are now?	Yes	No
18. Do you worry a lot about the past?	Yes	No
19. Do you find life very exciting?	Yes	No
20. Is it hard for you to get started on new projects?	Yes	No
21. Do you feel full of energy?	Yes	No
22. Do you feel that your situation is hopeless?	Yes	No
23. Do you think that most people are better off than you are?	Yes	No
24. Do you frequently get upset over little things?	Yes	No
25. Do you frequently feel like crying?	Yes	No
26. Do you have trouble concentrating?	Yes	No
27. Do you enjoy getting up in the morning?	Yes	No
28. Do you prefer to avoid social gatherings?	Yes	No
29. Is it easy for you to make decision?	Yes	No
30. Is your mind as clear as it used to be?	Yes	No

Note. 1, 5, 7, 9, 15, 19, 21, 27, 29, & 30 say N, others say Y count 1 point for each
depressive answer. 0-10 = normal; 11-20 = mild depression; 21-30 = moderate or severe
depression.

Center for Epidemiological Studies Depression Scale (CES-D) (Total 20 Items)

Subject_____   ID_____

Interviewer_____   Date_____

Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week.

   (0) rarely/none of the time (less than 1 day)
   (1) some/ a little of the time (1-2 days)
   (2) occasionally/a moderate amount of time (3-4 days)
   (3) most/all of the time (5-7 days)

Response

1. I was bothered by things that usually don't bother me	0 1 2 3
2. I did not feel like eating; my appetite was poor	0 1 2 3
3. I felt that I could not shake off the blues even with help from my family or friend	0 1 2 3
4. I felt I was just as good as other people	0 1 2 3
5. I had trouble keeping my mind on what I was doing	0 1 2 3
6. I felt depressed	0 1 2 3
7. I felt that everything I did was an effort	0 1 2 3
8. I felt hopeful about the future	0 1 2 3
9. I thought my life had been a failure	0 1 2 3
10. I felt fearful	0 1 2 3
11. My sleep was restless	0 1 2 3
12. I was happy	0 1 2 3
13. I talked less than usual	0 1 2 3
14. I felt lonely	0 1 2 3
15. People were unfriendly	0 1 2 3
16. I enjoyed life	0 1 2 3
17. I had crying spells	0 1 2 3
18. I felt sad	0 1 2 3
19. I felt that people dislike me	0 1 2 3
20. I could not get "going"	0 1 2 3

APPENDIX B: INFORMED CONSENT

<u>INFORMED CONSENT</u>

1. Study Title: "The Effects of Socioeconomic Status, Social Support, and Acculturation on the Mental and Physical Health among Korean American Older adults in Chicago Metropolitan Area"

2. Performance Site: School of Social Work
   Louisiana State University and Agricultural and
   Mechanical College

3. Investigators: The following investigators are available for questions about this study, M-F, 9:00 a.m. – 4:30 p.m.

   Principle Investigator: Shinyeol Kim, M.A., M.S.W. 773-478-8851
   Supervising Professor: Dr. Brij Mohan 225-578-1345

4. Purpose of the Study: The purpose of this study is to get information on how you, as immigrant older adults, adapt to a culturally different environment.

5. Subject Inclusion: Korean American older adults, 65 years and older, living in the Chicago metropolitan area.

6. Number of subjects: 200

7. Study Procedures: Subjects will spend approximately 40 minutes. During the interview, you will be asked to respond to the questions, such as your gender, whether you are married or not, how much education you completed. You will be also asked to respond how your health is, how do you feel about American culture as well as Korean culture, what kinds of social supports you have received from family members and friends, and how you feel about yourself.

8. Benefits: This study will contribute to enhancing people's understanding about how Korean American older adults, as an ethnic minority elderly group, experiencing aging in a culturally different environment. This study will also help service providers and policy makers concerned with well being of the ethnic minority elderly design or provide programs and services for them.

9. Risks: The survey will not ask any questions that cause any physical risks or long term discomforts. You will not experience any adverse effects by participating in the study. The only study risk is that some people might feel some what uncomfortable while talking about problems related to immigration. Should that happen the

investigator will pause the interview, allowing the respondent to feel comfortable again.

10. Right to Refuse: Participation in the study is strictly voluntary. Subjects may or choose not to answer any particular questions without any consequences.

11. Privacy: The information in the study records will be kept confidential. Data will be stored securely, with only ID codes attached, and will be made available only to investigator conducting the study unless you specifically give permission in writing to do otherwise. No reference will be made in oral or written reports which could link you to the study.

I have read and understand the above information. I have received a copy of this form. I agree to participate in this study.

Subject's signature_____ Date _____

Investigator's signature _____ Date _____

* The informed consent from in Korean will be provided to the subjects.

VITA

Shinyeol Kim was born in Jeon Ju, Korea (ROK). He obtained a Bachelor of Art degree in Korean philosophy in 1988 from Sung Kyun Kwan University, and Master of Art degree in sociology in 1992 from Sung Kyun Kwan University. He also obtained a Master of Social Work degree in 1996 from Washington University at Saint Louis. He will receive the degree of Doctor of Philosophy in social work from Louisiana State University in December, 2002. He is currently living in the city of Chicago, Illinois, with his wife and daughter.