THE INFLUENCE OF ACCULTURATION, RELIGIOSITY, AND FORGIVENESS

STYLE ON THE GENERAL HEALTH OF KOREAN AMERICANS

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

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ON GENERAL HEALTH OF KOREAN AMERICANS

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ABSTRACT

INFLUENCE OF ACCULTURATION, RELIGIOSITY, AND FORGIVENESS STYLE

ON GENERAL HEALTH OF KOREANS

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The current study investigated the psychometric utility of several psychological
instruments for the Korean population and explored the relationship between
acculturation, religiosity, unforgiveness, forgiveness style, and general health of Koreans.
Confirmatory Factor Analyses (CFA) were conducted to investigate the appropriateness
of the Religious Commitment Inventory-10 (RCI-10), the Transgression-Related
Interpersonal Motivations Scale – 12-Item Form (TRIM-R and TRIM-A), the Rumination
about an Interpersonal Offense Scale (RIO), the Decisional Forgiveness Scale (DFS), and
the Emotional Forgiveness Scale (EFS) with collected data from 273 Korean Americans
and Koreans. Several instruments required item adjustments to meet CFA criteria.
Mulitiple regression analyses indicated that factors of unforgiveness were the most direct
and consistent predictors of health, and acculturation and religious commitment also were
associated with health status.

DEDICATION

I dedicate this dissertation work to my parents, Juyul and Youngsook Chong with a special feeling of gratitude for how they dedicated me to God and provided me with what I needed for the sake of the glory of God.

I also dedicate this dissertation to my family. My loving wife, Sangkyung has been and will always be beside me encouraging by the best spiritual, emotional, and nutritional supports. My three precious and adorable children, Gyu-won, Gyu-min, and Gyu-eun, have been there as they were, filling me full of love that provided the power and energy to proceed forward.

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I will always appreciate Dr. Fernando Garzon for his faithful work as my committee chair (actually he was my mentor, faithfully mentoring me with his godliness). He always encouraged me to do well in my primary job as a good husband and daddy for my family prior to the dissertation work while he was diligently pushing me to the limit and completion. Most of all, he prayed for me in our meetings and over the phone whenever I needed a spiritual involvement throughout the dissertation work.

Dr. Everett L. Worthington was a blessing to me. I had the privilege to adapt many significant theories from his invaluable works for the theoretical foundations of my dissertation. He provided wonderful academic insights and great feedbacks on my dissertation drafts which made my dissertation to where it is now. Beyond that, he inspired me with some interesting ideas on many of his other theories which can be used for future research on Korean population.

Dr. John C. Thomas, as my committee member, carefully read the dissertation drafts and gave essential feedbacks. His humbleness made me behold the shining glory of God, and he became a role model of a teacher.

I cannot forget Dr. Dan Mitchell for he employed me as his instructional assistant through the time when I was in the doctoral program. He allowed me to work as his assistant even though he knew that I was rather learning than working although I was supposed to work rather than to learn only. He is a role model to me especially for his integrity, and it was a great privilege assisting him.

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CHAPTER ONE: PROBLEM

This study has two parts of intent. First, through confirmatory factor analysis, it tests the factors that several U.S. religious measures are theorized to be loaded on with a new population – Koreans. The Religious Commitment Inventory – 10 (RCI-10), the Transgression-Related Interpersonal Motivations Scale – 12-Item Form (TRIM-R and TRIM-A), the Rumination About an Interpersonal Offense Scale (RIO), the Decisional Forgiveness Scale (DFS), and the Emotional Forgiveness Scale (EFS) are tested by conducting Confirmatory Factor Analyses. Second, it investigates the influence of acculturation, religious commitment, and forgiveness style on the self-reported health of Koreans by Multiple Regression Analyses.

In this chapter, background and intent of the study are explained with hypotheses commenced. Also, assumptions and delimitations are acknowledged, and the terms used in the current study are defined. The organization of the remaining chapters is also introduced.

Background to the Problem

When, in the counseling room, Korean persons complain about their marital conflicts, family problems, work difficulties, and other issues, they often acknowledge that a common underlying problem concerns their inability to forgive. I have encountered challenges in helping these clients resolve their conflicts through forgiveness, which has

led to much disappointment. Though familiar with some of the major current forgiveness models, I believe that more understanding is needed about the role of particular forgiveness styles in the mental and physical health of Koreans. Such knowledge could ultimately improve the clinical care of this population. In order to link forgiveness and the health of Koreans, however, the counselor also needs in-depth insight into the unique cultural and religious characteristics of this population.

Increasing Korean American Population

Generally speaking, a growth of population may give the society the need of understanding the people. For an effective understanding, religious and cultural values of the population need to be acquired. In this regard, gaining knowledge about Korean culture and religiosity is becoming more important in the United States. The Korean population who immigrates to the United States has been growing rapidly for the last 30 years. The population of Korean Americans across the country was 8,568 in 1940, and it increased up to 69,130 in 1970, which is an 806.84% growth during those 30 years (Census, 1940, 1970, 1980, 1990, & 2000). In the year 2000, the population became 1,076,872, which is 15.6 times larger than that in 1970 (Census, 1940, 1970, 1980, 1990, & 2000). Finally, Korean population became 1,251,092 in 2004, or 10% of the Asian population in the United States (Census, 2007). Such an accelerated growth rate for the Korean population in the country may exploit efforts to understand their religiosity and culture, along with how these influence their health.

Protestant Church as a Major Religious Influence for Korean Americans

Contrary to what some might imagine Korean Americans are predominantly
Protestant Christian. Seventy to eighty percent of Korean immigrants in the United States
identified themselves as Christians in the late 1980s (Hurh & Kim, 1990; Kang, 1992).
Korean American church attendees seek to meet their religious needs, and also, to benefit
from the social and psychological support they experience in coping with the stress of
immigration. Most Koreans regard church as one of the most important place to find and
build friendships, and many Korean American churches are evangelical fundamentalist
groups (Kang, 1992). Parishioners want their Korean church leaders to be reliable and
accountable to resolve or maintain their spiritual, social, political, and even economic
matters. The people prefer the church where they can find such church leaders when
choosing a church to attend (Kang, , 1992). Korean immigrants tend to depend on such a
"warm" support by their church groups.

Cultural Uniqueness and Forgiveness Style of Koreans Americans

The indigenous Korean population tends to closely relate to the collectivistic
worldview. Worthington et al., (in press) classified two prominent forgiveness styles that
appear closely linked to cultural worldview: The emotional forgiveness style, which is
most commonly valued in individualistic cultures like the U.S., and the decisional
forgiveness style, which is most commonly valued in collectivistic societies like that of
Korea. It can be hypothesized that Korean people who immigrate to the United States
will increasingly become more individualistic than Koreans in Korea as they become

gradually more acculturated. Consequently, more acculturated Korean Americans are likely to transit to a more individualistic and emotional style in forgiveness.

Thus, the counselor encounters a heterogeneous Korean population in the U.S., with individual differences in cultural worldview, religiosity, and forgiveness style. These differences may directly impact a Korean client's mental and physical health status. More research therefore is needed to provide greater insight into the uniqueness of Korean population and how this uniqueness impacts their physical and mental health.

Purpose of the Study

Indigenous and immigrated Koreans may vary in worldview and forgiveness style (Sandage & Williamson, 2005). These, along with their religious characteristics, may be associated with their mental and physical health status. As Koreans gradually acculturate into American culture, they may become more individualistic and emotional in forgiveness. These emerging characteristics are hypothesized to positively impact their health. Involvement in Korean American Protestant churches also may predict better health. Therefore, this study explores the relationship between acculturation, religious commitment, unforgiveness, forgiveness style and self-reported physical and mental health in the Korean population (indigenous and immigrated).

Research Questions

In this study, the following questions are explored.

Research Question 1:

Will the RCI, DFS, EFS, TRIM-12 (including TRIM-R and TRIM-A), and RIO be useful instruments for the Korean population? If this is the case, then the psychometric data and factor structure of each instrument will be consistent with psychometric and factor structure data of each instrument for the U.S. population.

Research Question 2:

Will acculturation be positively related with physical and emotional health for Korean Americans? If this is the case, there will be a positive association between acculturation level, which is indicated by behavioral tendency and cultural value in a foreign culture and physical and mental health status. With a consistency to the hypothesis, the more assimilated to American culture are likely to be healthier than those with more separated from the host culture.

Research Question 3:

Will religious commitment be positively related with physical and emotional health for Korean Americans? If this is the case, there will be a positive association between religious commitment level (the degree to which a person adheres to his or her religious values, beliefs, and practices and uses them in daily living) and physical and mental health status. Consistent with the hypothesis, the more religiously committed participants are likely to be healthier than those who are less religiously committed.

Research Question 4:

Will unforgiveness and forgiveness style predict physical and emotional health for Korean Americans? If this is the case, there will be an inverse correlation between unforgiveness and physical/emotional health, and a positive association between emotional style of forgiveness and physical and emotional health status. With a consistency to the hypothesis, the more emotionally forgiving Korean Americans are likely to be healthier than those who are less emotionally forgiving.

Assumptions and Delimitations

Several assumptions are present in the current study. These will be identified, along with rationales for still doing the study.

Several of the instruments, which are used in the current study (Religious Commitment Inventory-10, RCI; Emotional Forgiveness Scale, EFS; Decisional Forgiveness Scale, DFS, Transgression-Related Interpersonal Scale – 12 Form, TRIM-12; Rumination About an Interpersonal Scale, RIO) have been psychometrically normed for the U.S. individualistic culture. One assumption is that the instruments will provide worthwhile data for the collectivistic Korean culture. This assumption will be tested through performing a confirmatory factor analysis on these instruments.

Sometimes, highly conservative U.S. Christians will respond to questions in a manner that reflects what they think they "should" feel or think instead of what they really think and feel. The Korean sample we are collecting is expected to be highly

religious. It is assumed that the highly religious survey participants will be sufficiently honest in their responses to the religiosity and forgiveness – related instruments (RCI, DFS, EFS, TRIM-12, and RIO). However, the anonymous nature of the survey may help limit this concern. Also, the religious instruments used have some research with highly religious populations, which will help mitigate this concern as well.

Beyond that, the survey design is not a representative sample of the indigenous Korean population or the Korean American population. The convenience sample design is still appropriate due to the limited knowledge of the indigenous Korean Christian and Korean American populations found in the literature. The particular sample gathered will be informative regarding Protestant Christian Koreans and is strengthened through the use of several church samples. While the results still must be viewed with caution, the lack of a comprehensive database in order to gather a representative randomly selected sample of Protestant Korean Christians nevertheless makes the convenience sample study worthwhile.

Furthermore, the measurement of physical and mental health status is based entirely on a self-report instrument. Other medical measures (blood pressure, immune system functioning measures, etc.) would be appropriate to accurately assess each participant's true health status. For this, the anonymous nature of the survey and the lack of grant funding for such measures make the addition of medical testing unfeasible. Self-report survey studies are common starting points in research to investigate populations in which there is a limited knowledge base.

Definitions of Terms

The following definitions operationalize various terms for their functional use in the current study. Some terms may contain diverse meanings from a variety of perspectives. By defining these, the current researcher's understandings of the terms are clarified.

Health

Many dimensions such as fat intake, body weight, and blood pressure, are considered when health status is generally checked. There should be more than just these however to prevent a partial understanding of a person's health status or to identify possible influences on one's current health status. This is because the human is understood to be holistic, which includes intangible dimensions as well as physical ones. The World Health Organization [WHO] defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity", which has not been amended since 1948 (WHO, 1948, WHO definition of Health). Ware, Konsinski, and Keller (1996) indicate that the physical dimension of health is classified into physical functioning, role-physical, and bodily pain; mental health is divided into vitality, social functioning, and role-emotional. These dimensions of health have been confirmed with reliability in the populations from European countries and Japan, and also, as of 1998, these studies had been replicated in more than a dozen countries (Fukuhara, Bito, Green, Hsiao, & Kurokawa, 1998; Gandek, Ware, Aaronson, Alonso, Aplone, Bjorner, et al., 1998; Gandek, Ware, Aaronson, Apolone, Bjorner, Brazier, et al., 1998).

The universal definition of health and the physical and mental dimensions mentioned above will be considered as the health indicators for the population of Koreans and Korean Americans in the current study. The actual measurement of the physical and mental health dimensions however will be through a self-report instrument (see Chapter 3, methodology).

Acculturation

Acculturation often has been equated with de-ethnicizing and incorporation of immigrants or minorities into the mainstream (Messias & Rubio, 2004). This is not always the case. While acculturation involves the task of settling into the mainstream of a new society, an immigrant may retain his or her original culture in becoming bicultural. The degree of ease in such an outcome depends on whether an immigrant's native culture is primarily in conflict against or compatible with a new culture. Acculturation in the U.S. in particular is defined as a social pressure which makes ethnic minorities attempt their adjustment to White American traditions, especially in the dimensions of economy and politics (Zane & Mak, 2003). The immigrants' preferences in this matter determine their forms of acculturation.

There are four major styles of acculturation: integration, assimilation, separation, and marginalization (Berry, 1997). These will be defined below.

The *integration* form of acculturation is essentially becoming bicultural. The individual attains a meaningful social network with a new society while still keeping

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traditional activities and social networks. In this status of acculturation, individuals are comfortable in both old and new societies.

If one does not want to relate to his/her own indigenous culture while seeking interaction with the dominant society, the acculturation style of the person is called *assimilation*. In this form, the person is more comfortable with the new society and chooses to discard original cultural practices.

In contrast, *separation* is a form of acculturation in which immigrants are more comfortable with their traditional culture and they are reluctant to participate in the social networks or activities from a new society.

In the *marginalization* form, the immigrants feel alienated from both cultures. They do not feel meaningfully connected to either.

Finally, one can be in-between integrated and separated as the person builds a majority culture social network. As such, a person can be on a continuum between the integrated and separated forms of acculturation.

Forgiveness

There have been plenty of attempts to define forgiveness (Enright & Fitzgibbons, 2000; McCullough, 2000). Recent reviews exploit practical agreeements by researchers on what forgiveness is (Worthington, 2005) and what it is not. Forgiveness is not excusing, condoning, pardoning, or justifying (Enright & Gassin, 1992; Worthington, 2005; Worthington, Witvliet, Pietrini, & Miller, 2007). Most of all, forgiveness is understood cogntively, emotionally, and behaviorally as the following.

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Forgiveness is defined from the aspects of mental dimensions. Cognitively, forgiveness is emerging positive thoughts such as wishing the offender's well-being; emotionally, replacing negative emotions such as anger, hatred, and resentment with neutral and eventually positive emotions toward the offender; and behaviorally, ceasing revengeful behavior and even loving the offender (Enright & Gassin, 1992). In other words, the forgiving process involves decreasing resentment-based cognition, emotion, and motivation (Worthington, 2005). Worthington (2001) signifies forgiveness as an emotional change and notes that forgiveness involves:

the emotional replacement of (1) hot emotions of anger or fear that follow a perceived hurt or offense, or (2) unforgiveness that follows ruminating about the transgression, by substituting positive emotions such as unselfish love, empathy, compassion, or even romantic love (p. 32).

Accordingly, forgiving requires emotional motivation, because forgiveness involves a motivational redirection from less negative motivation to more positive toward the transgressor (McCullough, Fincham, & Tsang, 2003). While the behavioral relinquishment of revenge or avoidance may be a part of forgiveness, decreasing negative emotions such as anger needs to be accompanied with increasing positive emotions like sympathy for forgiveness.

While forgiveness in a western culture in many cases involves an emotional change, people from an oriental ethnic group generally attempt to forgive decisionally with a volitional change (Sandage & Williamson, 2005). Regarding the two different manners of forgiveness, forgiveness is understood by its two styles: decisional and

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emotional forgiveness (Worthington, 2005). Decisional forgiveness occurs in an interpersonal context where people often value social well-being rather than personal well-being (Sandage & Williamson, 2005). *Decisional forgiveness* is defined as a behavioral intention to resist an unforgiving stance and to respond in other ways than unforgiving behavior toward a transgressor (Worthington, 2005). *Decisional forgiveness* is defined, another way, as a behavioral intention statement to act in ways toward an offender that are more positive and less negative. In other words, decisional forgiveness is a decision to change one's behavioral intentions to eliminate revenge and avoidance (Hook, Worthington, & Utsey, 2009).

On the other hand, *emotional forgiveness* involves replacing negative unforgiving emotions with positive other-oriented emotions (Worthington, 2001). Emotional forgiveness is an internal experience of emotional change. It is not a decisional control of behavior or any alternatives of reducing unforgivneness (Worthington et al., 2007). Emotional forgiveness, rather, involves psycho-physiological changes, and it has more direct health and well-being consequences (Worthington et al., 2007) while decision-based forgiveness does not always result in a decrease of emotional pain and hurt. That is because deciding to change one's behavior does not necessarily reduce feelings of bitterness (DiBlasio, 1998; Worthington, 2006).

In contrast to forgiveness, *unforgiveness* is understood as "a complex combination of delayed negative emotions toward a person who transgressed personal boundaries" (Worthington & Scherer, 2004, p. 386). When a transgression occurs, the victim immediately experiences emotions of anger and/or fear (Worthington & Scherer, 2004).

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Such negative emotions can remain unresolved, with rumination adding to the hurt person's sense of unforgiveness (Worthington & Scherer, 2004). Worthington (2001) notes that reducing unforgiveness only is often confused with forgiveness. However, emotional forgiveness might include also the increase of postive emotions (Worthington & Wade, 1999) and decisional forgiveness might include prosocial behavior towards the offender. Decisional forgiveness changes one's intentions about how one wants to behave, but the person might not be able to follow through on the intentions because (a) the offender is no longer available (i.e., having moved out of the area, divorce or death might have occurred) or (b) the offender perpetrates another offense, which changes the victim's experience before he or she is able to follow through on the intentions. Furthermore, forgiveness is distinguished from reconciliation, which is regarded as a potential result from forgiveness (Enright & Gassin, 1992; Worthington & Wade, 1999). Forgiveness is not reconciliation, excusing, condoning, pardoning, or justifying (Enright & Gassin, 1992; Worthington, 2005, 2006; Worthington et al., 2007). Instead, emotional forgiveness is equated with the replacement of the negative emotions of unforgiveness, such as resentment, bitterness, hostility, hatred, anger, and fear, with positive, other-oriented emotions, such as empathy, sympathy, compassion, or love (Worthington, Sandage, & Berry, 2000; Worthington & Wade, 1999).

Therefore, while there are different types of forgiveness such as decisional and emotional forgiveness, forgiveness is a changing-over time task toward a full forgiveness. A full emotional forgiveness is understood as a fulfilment of emotional replacement of

"negative, unforgiving stressful emotions with positive, other-oriented emotions" (Worthington, 2006, p.17).

Religious Commitment

A religion is perceived as a formal structure of a religious institution while spirituality is a preferred term for describing individual religious experiences (Hill, Pargament, Hood, McCullough, Swyers, Larson et al., 2000). Spiritual persons rather than religious ones tend to be independent from others, emphasizing personal beliefs, whereas religious people are likely to "engage in traditional forms of worship such as church attendance and prayer, holding institutional beliefs" (Hill et al., 2000, p. 61). Interestingly, most people are both religious and spiritual at the same time (Zinnbauer, Pargament, Cole, Rye, Butter, Belavich et al., 1997).

Religion is defined as "an organized system of beliefs, practices, rituals, and symbols designed (a) to facilitate closeness to the sacred or transcendent (i.e., God, higher power, or ulimate truth/reality) and (b) to foster an understanding of one's relationship and responsibility to others in living together in a community" (Koenig, McCullough, & Larson, 2001, p. 18).

On the other hand, religiosity involves thinking, feeling, and behavior in accordance to doctrinal beliefs, which are endorsed in a religious institution (Hill, et al., 2000; Zinnbauer, et al., 1997). Religiosity is comprehended from various aspects: religious service attendance, salience, denomination, prayer, Bible study, and religious activities (Johnson, Li, Larson, & McCullough, 2000). Religiosity can be understood as

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tendency, patterns, or characteristics of an individual in relation to religious commitment (Johnson et al., 2000), and religious commitment reflects degree or level of religiosity.

People with intrinsic religiosity are motivated to think, feel, and behave in accordance to their religious beliefs while "searching for the sacred" (Allport & Ross, 1967, p. 21). In contrast, extrinsically religious people have religious interests only in order to achieve goals for their own sake such a non-sacred goal as increasing social support for better social or health status (Allport & Ross, 1967). In the current study, religiosity is not divided into intrinsic and extrinsic dimensions, but is understood as tendency, patterns, or characteristics of an individual in relation to religious commitment (cf., Johnson, Li, Larson et al., 2000). Accordingly, religious commitment as a term is explored further below.

Religious commitment indicates how much a person is involved in his or her religion (Koenig et al., 2001). Specifically, a religiously committed person is supposed to "adhere to his or her religious values, beliefs, and practicies and use them in daily living" (Worthington et al., 2003, p. 85). In other words, religious commitment indicates the amount of time spent in private religious involvement, religious affiliation, the activities of religious organization, and importance of religious beliefs, which are practiced in intrapersonal and interpersonal daily living (Worthington, Wade, Hight et al., 2003; McCullough & Larson, 1999).

Religious commitment can be divided into two subforms: intrapersonal and interpersonal religious commitment. Intrapersonal religious commitment has some similarities with intrinsic religiosity and involves personal valuing of beliefs and faith in

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the sacred while interpersonal religious commitment is engaged with behavioral intention for religious activities (Worthington et al., 2003). Like intrinsic and extrinsic religiosity, intrapersonal and interpersonal religious commitment are not completely distinct.

Due to the number of variables measured in the current study (acculturation, forgiveness style, etc.), the various aspects of religiositywill be measured in terms of religious commitment.

First/1.5/Second Generations

First generation generally refers to Korean immigrants to the United States, who are born in Korea and immigrated to America after they have been influenced by Korean culture during their younger age.

In contrast, even though one immigrated to the U.S. after being born in Korea, a person can be regarded as 1.5 generation if the person immigrated at an early childhood age to America. The designation 1.5 generation is common in the literature on Asian Americans (e.g., Lee, Sobal, & Frongillo, 2003). Researchers vary in defining the specific age range for "early childhood" in describing the 1.5 generation.

Finally, 2nd generation refers to those who were born in the U.S. with at least one parent who was born in Korea. When 1.5 and 2nd generations are not differentiated in studies, 2nd generation commonly includes the 1.5 generation.

Organization of Remaining Chapters

In the next chapter, the current researcher claims the merit of the inquiry by presenting the theoretical literature review. The literature review deals with the three independent variables of acculturation, forgiveness style, and religious commitment, which are suggested commonly as potential predictors of a better health status. The method for conducting the study follows in chapter 3. The methods chapter describes the planned exploratory survey study with information on the recruitment of prospective respondents, psychological instruments, research procedure, and data analysis method of the research design.

Summary

As the population of Korean Americans increases, this ethnic group in the United States needs to be studied regarding their mental and physical health. A large portion of Korean population in the U.S. is involved in religion, including especially Protestant Christianity, which is assumed to influence their living patterns. Also, acculturated Korean Americans are less likely to display a collectivistic forgiveness style, which may predict their management of negative emotions. Therefore, this study hypothesizes that the health status of Korean Americans is associated with their acculturation level, forgiveness style, and religious commitment level.

CHAPTER TWO: LITERATURE REVIEW

This study has two parts of intent. First, through confirmatory factor analysis, it tests the factors that several U.S. religious measures are theorized to be loaded on with a new population – Koreans. The Religious Commitment Inventory – 10 (RCI-10), the Transgression-Related Interpersonal Motivations Scale – 12-Item Form (TRIM-R and TRIM-A), the Rumination About an Interpersonal Offense Scale (RIO), the Decisional Forgiveness Scale (DFS), and the Emotional Forgiveness Scale (EFS) are tested by conducting Confirmatory Factor Analyses. Second, it investigates the influence of acculturation, religious commitment, and forgiveness style on the self-reported health of Koreans by Multiple Regression Analyses.

For the purpose of investigating the association between acculturation, forgiveness style, religious commitment, and health status in the Korean American population, this chapter theoretically explores for their relationships.

This chapter presents selective and analytical summaries of the literature on the relationships between acculturation and health, forgiveness style and health, and religious commitment and health. This inquiry of the three relationships above explores theories for general populations to inquire about the patterns found in the population of Korean Americans.

Acculturation and Health of Koreans

This section deals with theories on the relationship between acculturation and health, unidimensional and bidimensional acculturation process models, and acculturation factors influencing health for Korean immigrants.

Theories on the Relationship between Acculturation and Health

Acculturation may not be always a positive or negative factor for health (Lee et al., 2000). Several theories show their inconsistency in describing the effects of immigration on health. These theories include *selective immigration* (Organista, Organista, & Kurasaki, 2003), *negative effect of immigration* (Trimble, 2003), and *acculturation and health* (Im & Yang, 2006). Briefly, the underlying assumption of *selective immigration* theories is that the people who migrate to a quite new environment should tend to be physically and mentally more resilient than those who do not migrate because they dare to immigrate even though immigration is a stressful challenge (Im & Yang, 2006; Organista et al., 2003). In contrast, the theory of *negative effect of immigration* on health assumes that immigration is a stressful task, which may bring a new set of health risks (Im & Yang, 2006; Trimble, 2003). The theories of *acculturation and health* suggest that the more acculturated the immigrants going into a new country are, the healthier they are as the level of acculturation is percieved as the same as a health-related outcome (Im & Yang, 2006). Thus, some of these acculturation-health theories contain assumptions that are positive for the process while other theories contain

negative assumptions regarding immigration's impact on health. These theories will be described further below, along with pertinent research on Koreans.

Selective Immigration and Health

According to the theory of selective immigration and health, immigration is a type of natural selection; immigrants are likely to be a healthier group of people than those who do not even think about immigration, or do not attempt to live in a new society although wanting to (Organista et al., 2003). The group of people who are able to decide to and implement migration, therefore, tend to be willing and able to respond to the countless possible health risks of migration such as physical and emotional stress, and lessened accessibility to medical care (Messias & Rubio, 2004). Some studies, such as Cho, Ahn, and Jung (2001), indicate support of the assumption that immigrating Korean people are likely to be healthier in some ways compared to non-immigrators.

Cho and associates (2001) suggest that there are positive effects of immigration on health in some cases. These researchers studied the health status of the two groups of Koreans in Korea and the United States, who were 25 years old and above by comparing and analyzing their expected life span, death rate, and major causes of death. The authors collected the data from Korea National Statistical Office (1997), whose annual statistical report gives the result of census and death rate, and from the census bureau of the United States (1990). They found that Korean-Americans in the US keep their health better than Koreans in Korea. Their analysis indicated that immigrant men's expectancy for their remaining years of life was five years longer than those in Korea, and Korean women in

the US were expected to live 10 years more than those in Korea. Regardless of gender or age group, mortality rates in Korea were about two times higher than in the US. Their differences in socioeconomic status were signified by their education level. The percentage of those with the college and graduate education in the US was about four times higher as in Korea (see Table 1).

According to the study, the most significant cause of death for Korean Americans was in the disease group of Neoplasm while problems of the digestive system, such as diseases of the liver, were the most frequent cause of death in Korea. This does not necessarily mean that higher education is a significant factor of fatal disease. People with higher education tend to regard themselves as healthier than lower educated people and complain less about disabled mobility (c.f., Cho, Frisbie, & Nam, 2000). Rather, the above implies that a larger percentage of highly educated people are seen in the population of Korean Americans as opposed to Koreans (c.f., LeClere & Biddlecom, 1994). Cho et al.'s comparison between those two different groups of Koreans concludes that Korean Americans may be generally healthier than Koreans. It is not certain if it is because immigrating Koreans already have had healthy life patterns before their immigration, or that they changed their life patterns for improved health after immigration. Considering the high risk of liver diseases in Korea, caused by excessive drinking, it can be confirmed that health is closely related to health behavior.

Table 1

Compared with Koreans and Korean Americans by Mortality, Education, and Major Diseases

	Koreans	Korean Americans
Mortality	8.3% of total population	4.5%
High Education (B.A. and above)	10% of the dead	52%
Neoplasm	34.87% of the dead	44.16%
Diseases in the digestive system	11.79% of the dead	4.47%

Note. Both of the Koreans and Korean Americans were 45-64 years old. Adapted from Cho, et al., 2001.

Negative Theory of Relationship between Immigration and Health

The theory of negative effect of immigration on health predicts that immigration should harm health because increased health risk factors are regarded as being unavoidable in the immigration process. New living conditions, foreign social and political conditions surrounding the immigration process, social isolation, cultural conflicts, poor social integration, role changes, identity crises, low socioeconomic status, and racial discrimination are cited as potential risk factors (Messias & Rubio, 2004). Statistics have shown that the Korean ethnic group tends to receive less medical servcies than other Asian ethnic groups such as Japanese and Chinese in the United States (Kim, Jeong & Lee, 2006; Jeong & Bk, 2006). Korean Americans are known as a race or ethnic group with one of the highest percentages lacking health insurance, which may be attributable to a high rate of self-employment in the population of Korean Americans (Shin, Han, & Kim, 2007; Ryu, Young, & Park, 2001).

It is suggested that health and health behaviors deteriorate as immigrants get more acculturated to US culture (Marmot, Adelstein, & Bulusu, 1984). However, it seems to be impossible to confirm this observation for Korean Americans because a strong desire to adapt to the US culture may function to offset the health deterioration process. For example, in the case study of Im and Yang (2006), two out of four Korean immigrant women have their connection with their church communities, which were associated with their voluntary intention of immigration. These two cases attributed their church communities as valuable sources of social emotional support. According to the case study, the women with a social network such as church are likely to be provided with job opportunities and intimate interpersonal relationship, hope for better future, relief from stress, and fervor to live. Alternately, the women in the other two cases, who did not initiate or volunteer to immigrate abroad tended to be vulnerable to stress in the immigrating process with lack of such a social support.

Optimistic Theory of Relationship between Immigration and Health

It may be assumed that the more acculturated immigrants tend to be healthier than the less acculturated as the level of acculturation is regarded as a desired health-related outcome of immigration (Im & Yang, 2006). Hurh and Kim (1990) studied 334 Korean adult male immigrants in the Chicago area to examine whether the length of time in which they stay in the US is positively related to the level of their health status. The results of the study indicate that the respondents initially experienced some degree of health problems in the first stage of adjustment into the new society. After that, their

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health status generally became better though they experienced a health stagnation stage. According to their study, Korean immigrants' mental health may become highly vulnerable in 1-2 years after their immigration. After the early stage of their immigration life, their mental health steadily gets better until their eleventh to fifteenth years beginning to live in the US. In other words, for Korean American males, mental well-being may generally increase as they live for a longer time in the US. Nevertheless, the length of time of residence in the host society does not seem to be consistent as a factor for acculturation because, in many cases, Korean Americans are bicultural regardless of the time length of residence (Lee, Sobal, & Frongillo, 2003).

Unidimensional vs. Bidimensional Acculturation Process Models for Korean Americans

There are two acculturation process models, which are generally present in the literature: the single-continuum model and the two-cultural matrix model (Keefe & Padilla, 1987). Some theories use different terms for the same concepts. For example, some suggest two models of acculturation by dimensionality: unidimensional models and bidimensional models (Nguyen, Messe, & Stollak, 1999; Bourhis, Moise, Perreault, et al., 1997). The single-continuum model and unidimensional model share the assumption that relatively simple linear adaptation to a new culture occurs as exposure to the old culture is diminished. In these models, the degree of exposure to the host society is positively related with the extent to which immigrants obtain the new values from the host culture, and negatively related to how they lose all aspects of the old society eventually. Korean Americans are mostly bicultural and these models are not compatible to the population (cf., Jang, Kim, Chiriboga, et al, 2007). This will be explained below.

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Unlike the single-continuum or unidimensional model, the two-culture matrix model (Berry, 1980, 1992, 1997) and bidimensional model commonly assume that immigrants are capable of accepting two different cultural values. This concept is consistent with pluralism because in these models, immigrants retain some sociocultural domains of their old society while accepting those of a new society simultaneously. Studies suggest that the bidimensional model is more appropriate in describing the acculturation of Korean Americans than the unidimensional model (Jang, Kim, Chiriboga, et al., 2007; Lee, Sobal, & Frongillo, 2003; Lee, Sobal, & Frongillo, 2000). Lee, Sobal, and Frongillo's (2003) typological study on the acculturation of Korean Americans will serve as an example.

Lee et al. (2003) examined whether a unidimensional or bidimensional model better explains acculturation of Korean Americans. The authors studied Korean American adults who were 17 years and above to find the characteristics of their acculturation. Most of the respondents are bicultural, who are maintaining their consumption of both American and Korean ethnic domains such as mass media, and foods. Remarkably, many out of the separated acculturation group were participating in American religious activities. Age at which the respondents arrived at the US is one of the significant exogenous variables in forming their acculturation style. The 1.5 and 2nd generations as born in the US are both assimilated with the American culture while the 1st generation who arrived at the US in their adult stage is either separated or integrated. Yet, the 1.5 and 2nd generations are retaining Korean domains like Korean food consumption for example. Therefore, across the acculturation forms and, at the same time, the inferred

ages, all the groups are analyzed to be in the bidimensional (or bicultural) acculturation

status in the study. In other words, they were maintaining their own traditional domains

although also pursuing American activities and social networks. Table 2 describes these

results.

Table 2

Comparison of Assimilated, Separated, and Integrated Groups by Generation, Comfort
level and Counterpart Domains, and Age of Arrival at the U.S.

Acculturation Forms	Assimilated Group	Separated Group	Integrated Group
Major Generation	1.5 & 2nd generations	1st generation	1st generation
Comfortable Domain	Mostly comfortable with American society	Mostly comfortable with Korean ethnic society	Comfortable with both American and Korean societies
Age when arriving at US	Early stage of their life	Later adult stage	Early adult stage
Consumption of Counterpart Domain	Retaining Korean domains by Korean food consumption	Maintaining American domains by American mass media consumption and religious activities	Consumption of both part domains
		Bicultural acculturation	

Note. 1.5 generation refers to Korean Americans who were born in Korea and immigrated
to the U.S. at early stage of their life (by age 12 or younger) with at least one Korean-
born parent; 2nd generation refers to those who were born in the U.S. with at least one
parent who was born in Korea. With no distinction between the two, the second-
generation Korean Americans includes the 1.5 generation (Lee, et al., 2003; partly quoted
for a general definitinon, Min & Kim, 2005, p. 265). Also, all the three groups of
acculturation forms were indicated bicultural. Adapted from the study of Lee, et al. (2003)

Lee, Sobal, and Frongillo (2000) studied bicultural Korean Americans to observe their health behaviors. Their study indicates that bicultural men are least likely to smoke among bicultural, acculturated, and traditional males. Also, acculturated and bicultural women are more likely to smoke than traditional women. Furthermore, higher acculturation is related to light physical activity, but not to vigorous physical activity according to Lee et al. (2000). Among Korean Americans, acculturation components vary in their relationships with health, considering that acculturation is a multidimensional process (cf., Berry, 1997; Berry, 1992).

Acculturation Factors Influencing Health for Korean Immigrants

The acculturation into the US can be a very stressful settling process if Koreans experience financial strain, poor English proficiency, social isolation, and/or lack of social support (Messias & Rubio, 2004). The influence of such stress factors seems to be maximized when immigrants are more vulnerable to them. For example, elderly immigrants are more likely to experience health problem such as depression because they often are more physically and mentally sensitive to a new environment. Acculturation stress is correlated with depression, grief, low income, illness, and weakening family support (Genlfand & Yee, 1991). In the case of elderly people, the causes of acculturation stress that may be associated with high depression levels include the followings: the perception of a cultural gap with their adult children, stressful life events, religiosity, dependence on adult children, etc (Mui & Kang, 2006; Jang, Kim & Chiriboga, 2006). For middle aged Korean American women, acculturative stress is suggested to be one of

the major factors for depressive symptoms with some other factors, including low self-esteem and poor socioeconomic status (Shin, 1994). Across the age and gender groups, the factors that contribute to a lower level of health in the process of acculturation may include social isolation, cultural conflicts, identity crises, low socioeconomic status, and racial discrimination (cf., Messias & Rubio, 2004). Furthermore, health related behavior such as smoking is indicated to be a harmful factor of acculturation for physical health in Korean Americans (An, Cochran, Mays, & McCarthy, 2008; Hill, Hovell, Lee, et al., 2006; Hofstetter et al., 2004; Ji et al., 2005; Ma, Tan, Toubbeh, & Su, 2003). Also, dietary intake or food consumption may be a factor for health status in the process of acculturation (Lee, Sobal, & Frongillo, 1999; Park, Murphy, Sharma, et al., 2005).

When one notes that more acculturated individuals appear to have better health (Berry & Kim, 1988; Jang, Kim, & Chiriboga, 2006), it may suggest that the bicultural or integrationist acculturation strategy between the values of their traditional and host societies is associated with the factors for better health (Berry, 1998). If so, the advantageous factors for promoting health, which percolate through the western culture for oriental populations such as Korean Americans, need to be identified.

Summary

Generally, the association between acculturation and health may be positive in some cases while negative in others. The inconsistency of the two variables' association may be due to some of the dimensions of acculturation such as gender, age, self-esteem, generation, socioeconomic status, residence time length, health behavior, and pre-

acculturation health status. For Korean Americans, the patterns of health behavior, most of all, appear a remarkable factor for health in the current study while the mediators between acculturation and health in Korean Americans needs to be more directly studied in the future.

The acculturation of Korean Americans is described as bidimensional rather than unidimensional. In other words, Korean Americans are likely to be bicultural in acculturation style, and tend to keep their own traditions and simultaneously to acquire the host society's cultural values. Accordingly, they may be obtaining or losing their traditional and new health behavior at the same time. Obviously, active learning of the host society's healthy life patterns such as regular exercise and lower salt intake may positively impact on health.

Finally, two dimensions of acculturation may substantially affect health status: the severity of stress given to the immigrants in the process of acculturation; and the individuals' physical and mental resilience. Korean Americans with resilience, who voluntarily or actively get into their foreign or non-traditional society, tend to experience better health from immigration and acculturation. If the immigrants are willing to adapt to the new environment, severe stress experienced in the process of immigration is often effectively overcome. Then, it is questioned whether psychological resilience of a person can be promoted under a foreign country with a new value system.

With a proposition that being acculturated may provide chances to take up the host society's worldview, Korean immigrants may thus adjust to the American worldview. The Western worldview including individualism in the U.S. may challenge Korean

Americans to de-emphasize or even abandon their collectivism when they learn

individualism. In the next section, the impact of the new value system on health in

Korean Americans is studied in terms of forgiveness style.

Forgiveness Style and Health

In this section, the relationship between forgiveness style and health is

investigated. Korean Americans' forgiveness style is hypothesized as reflecting a

decisional forgiveness style rather than an emotional forgiveness one, and their forgiving

tendency is based on their collectivistic worldview. For a specific understanding of their

forgiveness style, their conflict resolution patterns are briefly reviewed at the end of this

section.

Association between Forgiveness and Health

The association between forgiveness and health has been studied actively in

recent years, and the studies indicate that forgiveness is positively associated with health

in direct and/or indirect ways (e.g., Enright & Fitzgibbons, 2000; Harris & Thoresen,

2005; Lawler-Row, Karrenmans, Scott, & Edlis-Matityahou, 2008; Lawler, Younger,

Piferi, et al., 2005; McCullough, Exline, & Baumeister, 1998; McCullough, Pargament,

& Thoresen, 2000; Worthington, 1998; Worthington, Sandage, & Berry, 2000;

Worthington & Scherer, 2004; Worthington et al., 2007). There are example studies

indicating the direct or indirect relationship between forgiveness and health as following.

Studies suggest that forgiveness is negatively correlated with poor health habits, such as alcohol and cigarette use (e.g., Seybold, Hill, Neumann, & Chi, 2001). People with a higher score of forgiveness exhibit several indications of good health, including lower anxiety, anger and depression, and low white blood cell counts (Seybold, Hill, Neumann, & Chi, 2001). Also, some studies indicate that forgiveness is beneficial for health by the effect of decreasing anger (e.g., Lawler-Row, Karrenmans, Scott et al., 2008). Lawler-Row et al. (2008) indicates that forgiveness is negatively associated with *anger-out*, which means outbursting anger expression. Both trait and state forgiveness are significantly associated with lower heart rate (Lawler-Row et al., 2008). In the study of Witvliet, Phipps, Feldman, and Beckham (2004), military veterans diagnosed with PTSD were studied to assess mental and physical health correlates of dispositional forgiveness and religious coping responses. The study indicated that the severity of depression, anxiety, and PTSD sympoms is related to forgiving oneself and others. The significant associations between difficulty forgiving oneself and others and difficulties in mental health are consistent with other research in individuals without PTSD (e.g., Toussaint, Williams, Musick, & Everson, 2001).

The beneficial effects of forgiveness on health may vary depending on the contexts or factors surrounding the offense such as severity of offense, the absence of physical abuse, or non-repeated offense (McCullough, 2000). The key concept of forgiveness regarding its consistency of postive health effects is that forgiveness promotes health through reducing unforgiveness and creating positive emotional experiences (Harris & Thoresen, 2005).

Mostly when forgiving involves emotional change, the influence of forgiveness on health may be positive (Worthington, 2006; Worthington, Witvliet, Pietrini, & Miller, 2007). There are studies that indicate the association between emotional forgiveness and positive health outcomes. For example, Lawler, Younger, Piferi, Jobe, Edmondson, and Jones (2005) studied 81 community adults (Caucasian: 93%; African American: $n=3$; other ethnic: $n=3$) to assess the relationship of forgiveness (state and trait forgiveness) to health. The participants of their study answered questionnaires and were interveiwed about a time of hurt or betrayal. During their interview and a recovery period, their heart rate and blood pressure were recorded. The authors hypothesized that spirituality, social skills, negative affect, and stress should be expected to mediate the relationship between forgiveness and health. . The results of the study indicated that the strongest mediators for both state and trait forgiveness was negative affect. Reduction in negative affect significantly mediated between forgiveness and health (Lawler, Younger, Piferi, Jobe, Edmondson, & Jones, 2005).

For another example, Lawler-Row, Karrenmans, Scott, Edlis-Matityahou, and Edwards (2008) examined the relationship between forgiveness, anger management style, and health in 114 psychology students. Each of the participants answered questionnaires and were interviewed while wearing a cuff for heart rate measurement. The interview was about their past experience in which they were upset, angry, annoyed, or hurt by one or both of their parents. The results of the study suggest that forgiving individuals tend to be assertive and to express their feeling of anger honestly using a calm voice to the offender. Such assertive anger management in a situaton of being offended was associated with

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less physically affected symptoms. In contrast, *anger-out*, outbursting angry expression to the offender, was associated with more physical sympoms. It is inferred from their study that, for health, intrapersonal resolution of negative emotions may need to occur before an interpersonal encounter with an offender (cf., Worthington, 2005).

Worthington and his colleagues emphasize the emotional dimension of forgiveness regarding associated health benefits of forgiving (Worthington et al., in press; Worthington & Scherer, 2004; Worthington et al., 2007). Worthington et al. (2007) reviewed the literature about whether forgiveness is associated with change in the peripheral and central nervous system of the human brain. Their study suggests that emotional forgiveness involves psychophysiological changes, and it has more consequences on health and well-being. Emotional forgiveness is more likely to overcome negative affect and stress reactions by cultivating positive effect than decisional forgiveness (Worthington et al., 2007).

In summary, for a promotion of health, an emotion-focused coping process needs to occur by resolving negative emotions which may affect health (Worthington, 2006; Worthington & Scherer, 2004). The current research suggests that emotional forgiveness involves a change of emotion from negative to postive. As positive emotions contribute to a good health status, forgiveness involving an emotional change may impact positively on health.

Beyond that, regarding forgiveness and its relationship with worldview, emotional forgiveness is rooted in individualism while decisional forgiveness is understood to predominate in a collectivistic worldview (Sandage & Williamson, 2005). Decisional

forgiveness is generally experienced in a collectivistic cultural context, and therefore, collectivism and forgiveness needs to be more directly studed in the oriental ethnic groups (cf., Hook, Worthington, & Utsey, 2009). Research on collectivistic forgiveness appears insuffient. Research on people from eastern cultural contexts on their forgiveness style is important.

Impact of Collectivism on Forgiveness

Collectivism is a cultural pattern in which people perceive themselves and even others as connected to one another belonging to a group, and their behavioral motivation is generated from, first, social well-being followed by personal well-being according to this definition:

A social pattern consisting of closely linked individuals who (a) see themselves as connected with the social group in which they are members; (b) are motivated primarily by the social norms and duties of their collective; (c) place more importance on collective goals than their own personal goals; and (d) emphasize their connectedness to other members of the collective (Hook, Worthington, & Utsey, 2009, p. 6).

Collectivism is also defined as a social pattern in which individuals highly value social connectedness and obligations, giving priority to family or group goals over their own personal goals (Sandage & Wiens, 2001). Studies have shown that collectivism impacts forgiveness style (e.g., Hook, Worthington, & Utsey, 2009; Sandage & Williamson, 2005). For example, Sandage and Williamson (2005) conducted a review

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study on forgiveness in cultural contexts, which compared between western and eastern

cultural difference in understanding forgiveness. Their study suggest that the people who

employ collectivism rather than individualism show a decisional forgiveness style. Table

3 below contrasts the impact of collectivistic and individualistic worldviews on several

aspects of forgiveness.

Table 3

Comparison of Individualistic and Collectivistic Worldviews in Relation to Forgiveness

Factor viewed	Individualistic worldview	Collectivistic worldview
View of self	Independent, self-reflexive	Interdependent, socially embedded
View of relationships	Exchange/contractual	Communal/covenantal
Primary face concern*	Self-face	Other-face and self-face
Forgiveness and reconciliation	Sharply distinct	Closely related
Value of self-forgiveness	High	Low
Central goal of forgiveness	Personal well-being	Social well-being
Primary tools for forgiveness	Professional psychotherapy, self-help resources, and individual coping skills	Communal mediators/healers, narratives, rituals, and symbols

Note. *Face concern refers to a social credit of reputation. Quoted from Sandage & Williamson (2005, p. 45)

According to Sandage and Williamson (2005), collectivists view themselves as

interdependent, and their relationships as communal unlike individualists, who are

independent (c.f., Sandage & Wiens, 2001). Also, collectivists have face concern for

others as well as for themselves while individualists have self-face concern. Collectivists

put priority on social well-being before individual well-being when they set a central goal

of forgiveness (Sandage & Wiens, 2001). When collectivists attempt to forgive, they tend

to reconcile with offenders for the purpose of achieving a social harmony rather than individual resolvement of emotional hardship (Sandage & Wiens, 2001). Collectivists tend to employ a strategy of repairing interpersonal relationships when they forgive because they value their connectedness with other members of their social group (Hook, Worthington, & Utsey, 2009). Hook, Worthington, and Utsey (2009) note three propositions on a collectivistic forgiveness model as following:

Proposition 1: Collectivists will view forgiveness as antithetical to revenge.

Proposition 2: Collectivistic forgiveness focuses more on making a decision to forgive that is motivated by social harmony than on achieving emotional forgiveness.

Proposition 3: Collectivistic forgiveness will occur within a broad context of social harmony, reconciliation, and relational repair (pp. 9-15).

The main attributes of collectivistic forgiveness include minimizing conflict and maintaining social harmony, and making a decision to forgive the offender with lack of emotional peace (Worthington et al., in press). While individualistic forgiveness makes a personal resolvement of negative emotions (Sandage & Wiens, 2001), collectivistic forgiveness is a decision to repair an interpersonal relationship for social harmony (Hook, Worthington, & Utsey, 2009). The two constructs do not always occurs separately. In case of bicultural individuals, they employ both collectivistic and individualistic worldviews and related forgiveness styles (Sandage & Williamson, 2005).

Collectivistic Forgiveness of Koreans

The minority ethnic groups including Asia and South Africa in the the United States are found to be collectivistic in their worldview (Oyserman, Coon, & Kemmelmeier, 2002). In contrast, European Americans in the United States are highly individualistic in comparison to the eastern ethnic groups (Coon & Kemmelmeier, 2001; Gaines et al., 1997). Also, among Asians, one ethnic group is more collectivistic than another. For example, the Chinese reported their level of collectivism higher and of individualism lower than Koreans and Japanese did in the study of Oyserman, Coon, & Kemmelmeier, 2002.

Park, Lee, and Song (2005) suggest that Koreans are collectivistic. They conclude this based on their examination of the differences in use of apologies in Korea and the U.S.. The researchers conducted six studies. In their first study, they collected unsolicited email advertising messages for one month and found contained apologies in the emails. There were 7 emails containing some form of apology (e.g., "We are sorry for anything that may cause you inconvenience.") out of 234 American email advertising messages. In contrast, 74 out of 177 Korean email advertising messages were found to have apologies (e.g., "I am sorry for sending you this email without your prior approval."). The results indicate that Koreans are more likely to use apologies than Americans.

Their second study attempted to find whether apologies are effective in Korean email advertising messages. For this, 288 undergraduate students from a college in the US and from one in Korea, participated in the 2 (Korean vs. American cultures) $\times$ 5 (no apology and four types of apologies) between subject design study. The results of the

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study failed to find significant differences in culture or in types of apologies. Their hypothesis that apologies are more effective in Korea than in the U.S. was not supported in the study.

Their third and fifth studies were similar to the second study in method and hypothesis. In the third study, the results did not indicate that inclusion of apologies in email advertising messages may increase response rates more for Koreans than for Americans. Their fifth study also fail to conclude that apologies are effective in email advertising messages better for Koreans than for Americans.

To examine whether Koreans used apologies more habitually than did Americans, their fourth study asked 280 Americans and 382 Korean undergraduate students to freely write anything in a blank box, inserted in the place of apology of an email advertising message. Only two of the Koreans and none of the Americans filled the blank box with apology, which means that there was no significant difference in habitual tendency of apology between the two cultures.

In their sixth study, the researchers found that Koreans tend to follow the in-group preference. Participants from the U.S. and from Korea in the study were asked to play the role of a worker for a CD and DVD seller and to compose an advertising message given an example, which contains an apology. The study used 2 (no apology vs. apology example) × 2 (Koreans vs. Americans) between subject design. For the participants with apology-included example, the researchers devised the composing instruction for preventing the participants from easily following or copying the example of apology. Among Koreans, 40 of 146 (27.4%) who received the apology-included example wrote

some form of apology in their advertising message whereas 2 of 138 (1.45%) without

apology-included example included apology in their messages. On the other hand, among

the Americans, 7 of 116 (6%) with the apology-included example included apology while

none of 136 (0%) with no apology example wrote apology in their messages. Although

only 27.4% of the Koreans included apology in their message, it is contrasted with 6% of

the Americans comparing with those Koreans who included apology. The six studies

(Park, Lee, & Song, 2005) generally suggest that Koreans are more likely to use apology

than Amerians.

As an Asian culture, Korean traditions involves a collectivistic worldview in some

ways. Korean traditional culture is viewed as an interpersonal relationship-oriented

society, based on Confucianism, which does not consider individuals as independent

entities (Greenfield & Cocking, 1994). Their personal values are linked to others in the

interrelated society, and social relations are an expansion of family relationship, which is

highly valued as even prior to "me" (Mayday & Szalay, 1976). Such Korean's

collectivistic worldview is mainly formed in the relationship between mother and child

(Greenfield & Cocking, 1994). Korean mothers are not self-interested persons pursuing

their own independent goals, and they see their children as extensions of themselves

(Greenfield & Cocking, 1994).

The collective familial relationship of Koreans may extend the concept of

relatedness into other social groups besides family (Greenfield & Cocking, 1994). A key

concept of relatedness, *uri* ("we")-responsibility indicates a collectivistic view of

interpersonal relationships in Koreans (Kim, 2007). The word, *Uri,* refers to an belonging

group, which is relevent to "our" or "we" in English. Koreans frequently use the word prefering to *na* or *nae*, which means "me" or "my". For instance, "our family" instead of "my family" with the sense of a collective moral responsibility (cf., Kim, 2007). While Korean collectivism, therefore, playes a positive role of promoting a moral responsibility, the social pressure on an indivudual for fulfillment of a moral duty can cause suppressed negative emotions (Pang, 1990). Unfulfilled personal expectations and avoidance of confrontation with such negative emotions as anger, sadness, misery, grudges, and hostility may be a cause of *Hwabyung*, which is a unique traditional Korean mental syndrome (Pang, 1990). Considering the uniqueness of the Korean traditional collectivism, the association between collectivism and a decisional forgiveness style of Koreans should be directly investigated for a future study (Oyserman, Coon, & Kemmelmeier, 2002).

Summary

Individualists see themselves as independent from their societies and they are oriented to be served by the social groups for their own sake. In contrast, collectivists see themselves as closely interrelated to other people in their social groups and it is prior for them to serve their social groups before themselves. Individualists tend to employ an emotional forgiveness style while collectivists tend to be decisional in their forgiveness style. Although no empirical data has confirmed the relationship between Koreans and decisional forgiveness style before, it is theorized that Korean ethnic group tends to have collectivistic worldview and decisional forgiveness style. Also, westernized Koreans can be individualistic or simutaneously both collectivistic and individualistic as bicultural. In

other words, like other oriental ethnic groups, Koreans may be likely to forgive for the purpose of social harmony while emotional unforgiveness remains. Therefore, it may be easy for collectivistic Koreans to experience negative impact of unresolved emotions on physical and emotional health. On the other hand, as Koreans receive the influence of the Western culture from the US regardless of where they live (through satellite TV, movies, etc.), they can become bicultural (c.f., Sandage & Williamson, 2005). For Korean Americans, especially who are active in experiencing the individualistic culture, the cultural influence from less collectivistic and more individualistic may change their forgiveness style from decisional to emotional (Sandage & Williamson, 2005).

Religious Commitment and Health

This section examines the positive and negative impact of religious commitment on health. Positive influences include social support, effective stress coping, and a pro-virtue constellation. Negative influences include certain religious beliefs that harmfully impact health behaviors or potentially increase vulnerability to depression, unrealistic expectations for self and/or others, and conceptualizations of God that are primarily harsh and judgmental. Finally, the conceptualizations of health by some major Korean traditional religions including Confucianism, Buddhism, and Shamanism, and by Christianity are dealt with to examine their understanding of health in terms of religion.

Positive Impact of Religious Commitment on Health

McCullough and Larson (1999) compared differences in religious affiliations (including no religious affiliation) for depression prevalence in their review study involving the U.S. population. Remarkably, no religious affiliation appears strongly associated with depression, and the difference between people with a religious affiliation and those with no affiliation is observed to be substantially significant (McCullough & Larson, 1999). While there were some differences in the prevalence of depression across the religions, religious people are less likely to have depressive symptoms than the non-religious (McCullough & Larson, 1999). The researchers reported that prevalence of depression in Jews was generally found to be about 1.5 to 2.0 times as high as in non-Jews such as Catholics and Protestants. Specifically, Eastern European Jews are reported to be at risk of depression. Also, the authors suggest that Jewish men in a more traditional Jewish community (in a comparison between New Haven and Los Angeles) tend to avoid alcohol use or dependency, but their avoidance of alcohol use seems not associated with less depressive symptoms (McCullough & Larson, 1999). The relationship between Catholicism and depression was observed to be inconsistent across the reviewed literature in the study of McCullough and Larson (1999). Also, as a major denomination of Korean Protestant church, Pentecostal beliefs need to be studied further to find its clearer causal effects on depression with rigorously controlled third variables such as age, sex, race, socioeconomic status, etc (McCullough & Larson, 1999).

Koenig, McCullough, and Larson (2001) reviewed the literature about the relationship between religious involvement and mental and physical health. According to

them, religious people are more likely to have greater hope or optimism about their future with greater purpose and meaning of life than non or less religious ones are. Also, participation in religious activities may predict better adpatation to stressful situations such as bereavement. Religious communities may provide social support which may decrease the level of lonliness, and less depression, fewer suicides, less anxiety were related to religious involvement (Koenig, McCullough, & Larson, 2001). Furthermore, religious commitment may be associated with less alcohol and drug abuse with less social crime, and also the results of marital satisfaction and stability, which is related to religious involvement, promote the children's mental health (see Figure 1).

According to Koenig, McCullough, and Larson's (2001) description of religion's effects on physical health, background factors such as genetic, ethnic, and socieconimic influences affect religious outcomes, which include childhood training, values, character and adult decisions. Directly and indirectly, then, religion and its outcomes influence on mental health, social support, and health behaviors. These three factors may affect stress hormones, immune system, nervous system, and medical and nutritional care for oneself. Negative consequences of these factors may cause infection, cancer, and other diseases (see Figure 2).
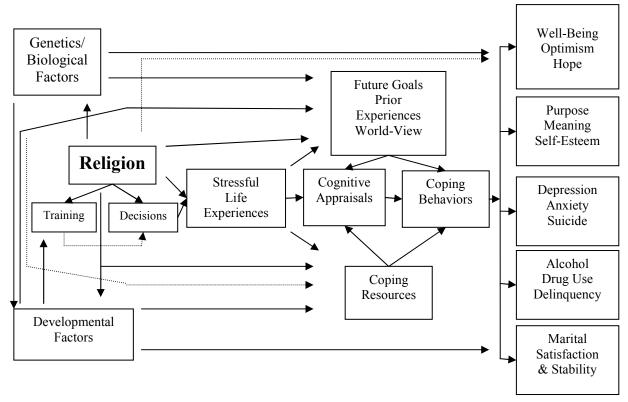
Figure 1. Religion's Effect on Mental Health. Quoted from Koenig, McCullough, and Larson (2001, p.224)

Genetic susceptibility, Gender, Age, Race, Education, Income

Children Training

Adult Decisions

Values & Character

Adult Decisions

Religion

Mental Health

Social Support

Health Behaviors

Stress Hormones

Immune System

Automatic Nervous System

Disease Detection & Treatment Compliance

Smoking High Risk Behaviors Alcohol & Drug Use

Infection

Cancer

Heart Disease

Hypertension

Stroke

Stomach & Bowel Dis.

Liver & Lung Disease

Accidents & STDs*

*Sexually Transmitted Diseases

Figure 2. Theoretical Model of Koenig on how religion affects physical health. Adapted from Koenig, McCullough, & Larson (2001, p.388)

Even though there have been researches that indicate the clear association between religious commitment and better health status, the reasons for the association appear unclear so far. Seeman, Dubin, and Seeman's (2003) review of the literature reported three potential physiological mechanisms involved in religiosity or spirituality's association with health status in Judeo-Christians. These include that first, religion may help people have lower blood pressure (c.f., Seeman, Dubin, & Seeman, 2003); second, religiosity is associated with lower low-density lipoprotein (LDL) levels and higher high-density lipoprotein (HDL) levels; and third, immune functions appear to be better with more religious involvement (Seeman, Dubin, & Seeman, 2003).

Worthington and his colleagues noted three potential psychosocial mediators of the positive relationship between religion and health: social support in organized religion, effective stress coping, and promoted dispositional *pro-virtue constellation* (Worthington, Berry, & Parrot, 2001). These are explored below.

Social Support

Social support refers to possible health-promoting social relationships (Cohen, Gottlieb, & Underwood, 2000). Specifically, social support can buffer the negative effect of stress by reducing plasma levels of the stress hormome, cortisol, which increases blood pressure, and weakens immune capability (Aukst-Margetic & Margetic, 2005). Social support experienced through church attendance may play a mediating role between religious involvement and mortality. Other mortality mediators include age, gender, race-ethnicity, physical health, and health behaviors like exercising and nonsmoking (McCullough, Larson, Hoyt, et al., 2000; Powell, Shahabi, & Thoresen, 2003).

For Korean Americans, social support from church is perhaps even more significant for their well-being because the church provides them with social services such as English-speaking assistance (Kaugh, 1999). Wong, Yoo, and Stwart (2005) asked fifty two Chinese (*n*=29) and Korean (*n*=23) immigrants, who were 63 through 89 years old, questions about social support including "Do you need help with translation services? … Who would you rely on for help?"; "In what situations have you been where you have asked for help from friends, neighbors, your church, Chinese/Korean senior association, the government?"; "What do you do if you feel lonely or depressed or stressed out?" On these questions, church attenders among the research participants, unlike those who were

not belonged to church, commonly mentioned like: "I always pray if I am unhappy, if it doesn't work, I will come to church and talk to other Christians." Talking with other people in the church, therefore, gives them a way of coping with negative feelings such as loneliness, depression, or stress with prayer to God. The supplied social relationships by the church are understood to offer emotional relief from negative emotions, and emotional support with a sense of love and belonging (Wong, Yoo, & Stewart, 2005).

Effective Stress Coping

Pargament (1997) suggests four stress coping mechanisms: *preservation*, *re-valuation*, *re-construction*, and *re-creation*. First, when a person insists to continue on the same pathways to achieve his or her significant goals, which are also preserved by him or her even with a threat against his/her forbearing means and goals, he or she is using a *preservation* strategy. In case of a religious person who has been regularly supported by his or her church group and other supportive social networks in a constructive direction of life before a traumatic experience, the person needs to restore his methods and goals of life by preserving them.

Second, if a person tries to find a newly set goal due to a situation under which he or she has to deal with, the coping mechanism the person practices is called *re-valuation*. For instance, a woman experienced loss of her first son and she needs to "let her son go" to overcome such a severe stressful situation. In other words, her suicidal desire, which has been made by the lost meaning of her life, needs to be transformed into a constructive

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one such as taking care of her second son's life, who is grieving over his only brother's death.

Third, when the means for achieving a significant goal are sought to be changed while embracing the same goal, the person is coping with the stressful situation by *re-construction*. If a layperson has been serving others and burnt out with his religious belief that sacrificial service for others is an important way of being loved by God, he or she needs to reconstruct his or her unrealistic beliefs from "conditional love of God" into "unconditional love."

Fourth, a *re-creation* strategy tries to change both the goals and pathways. For example, forgiveness is a religious coping method of re-creation in which those who have suffered from injustice can transform their desire for relief from the pain of unforgiveness to understanding and acceptance. At the same time, forgiveness offers opportunities of breaking the cycle of unforgiving pain.

Pargament (1997) notes that Frankl's logotherapy is religious because every person does not create meaning of life but *discover* it. This may infer that religious people tend to seek the reason of their existence, which provides with a pro-life motivation while the non-religious may easily desire a destructive destination of life under a stressful situation in which his or her sought temporal value is lost. Also, an altruistic person can be moral but not religious if he or she tries to purify himself or herself by good works without a relationship with the Sacred, according to Pargament's (1997) definition of religion: "a search for significance in ways related to the sacred" (p.32). The moral person needs to be related with a loving and forgiving Sacred for being

religious so that he can achieve the goal of obtaining "significance," which means a human's ultimate meaning of life, feeling worthy enough to be accepted by the sacred (McGee, 1998).

Finally, a stressful situation can be regarded as a crisis in which a person experiences a chance to decrease the possibility for achieving a personal goal. Personal goals may be, in most cases, related to one's search for significance. Coping with stress, therefore, may be effective when the stressors are dealt with in relation to the sacred. As stress is created by culture and societies, an interaction with a stressor may produce another stressful situation because the person is already a part of the society (Pargament, 1997). Therefore, if the person seeks a meaningful value and its achieving methods in the relationship with the sacred, he or she would be more transcendent from the temporal values and may be less likely to experience stress.

Pro-Virtue Constellation and Health Behavior

Religious faith involves beliefs, values, and behavior. Accordingly, a highly religious individual is likely to internalize values on the basis of religious beliefs which are personally important (Worthington et al., 2001). Many of these religious values may reflect a prosocial attitude, which impacts the religious person's experience of interpersonal stress (Worthington et al., 2001). Worthington et al. (2001) suggest that religiosity is associated with pro-virtues such as self-control, desire for peace, love, empathy, and forgiveness. As forgiveness, especially, is a factor of religion for better mental and physical health (see previous section on forgiveness), unforgiveness is regarded as a significant factor of acute stress, which may cause negative health effects

including weakened immune system (Worthington et al., 2001). Compassion has also been identified as a prosocial virtue and has been found to be a mediator between intrinsic religiosity and psychosocial health, including depressive symptoms (Steffen & Masters, 2005).

As long as religious scriptures, the foundation of beliefs, give positive descriptions for health, religion will likely motivate healthy living. Koenig et al. (2001) presented postive factors for mental and physical health found from religious scriptures, which have descriptive phrases like "health to your body and nourishment to your bones" (Proverbs 3:8 NIV), "health to a man's whole body" (Proverbs 4:22 NIV), and "you may enjoy long life" (Deuteronomy 6:1-2). With such promoted positive health behavior, religious individuals are anticipated to live healthier and longer lives.

Specifically, religious beliefs that emphasize the importance of a holy lifestyle or righteousness are associated with lower rates of cigarette smoking and predict more rapid recovery from hip fractures (Koenig, 1997). Religiosity has been found to have direct and indirect effects on drinking because religion can help people reduce alcohol use through instilling negative beliefs about drinking (Galen & Rogers, 2004). These beliefs may influence mental health through encouraging health behavior such as avoidance of smoking, alcohol comsumption, drug use, poor diet, and physical risk in general (Hamburg, Elliott, & Parron, 1982).

Church participation is positively associated with the immigrants' mental well-being and with better health behavior also for Korean people (Hurh & Kim, 1990). Kim, Yu, Chen, Kim, Brintnall, and Vance (2000) studied 104 Korean American men and 159

women to examine the association between smoking behavior and religion. All of the respondents were immigrants who lived in the Chicago, Illinois area for an average of 8 years. The Korean American men and women were 40 to 69 years of age and were interviewed with the Cancer Control Supplement Questionnaire of the NHIS (National Health Interview Survey: United States, 1987; cf., Kim, Yu, Chen, Kim, Brintnall, & Vance, 2000). In the survey, about 82% of the male respondents and 78% of the females reported themselves as Protestant or Catholic. Non-Christian males with less than 10 years of residency in the U.S. were more likely to be current smokers. Also, across the genders and the years of residence in the U.S., non-Christian or those with no religion were 16.6 times more likely to be current smokers. The researchers also found that current smoking was associated with the current use of alcohol. The results of the study, therefore, suggest that the religion of Christianity and a longer residency in the U.S. are factors for reducing smoking, which also may lead to less alcohol use in Korean Americans (Kim, Yu, Chen, Kim, Brintnall, & Vance, 2000).

Negative Effects of Religion on Health

Although the literature previously mentioned supports a positive health role for religion, negative aspects also exist. For example, harmful religious beliefs against childhood immunizations were reported by researchers (e.g., Conyn-van Spaendonck, Oostvogel, et al., 1996; Etkind, Lett, MacDonald, et al., 1992; MMWR, 1991; Novotny, Jennings, & Doran, 1988; Rogers, Gindler, Atkinson, et al., 1993). The religious groups who refused virus vaccinations, such as the Old Order Amish and Orthodox Reformed

church, experienced infectious diseases including measles, pertussis, rubella (German measles), and polio virus at higher rates. Similarly, Jehovah's Witnesses commonly have the religious belief that eternal salvation cannot be fulfilled once they receive another person's blood, and therefore, they reject blood transfusions even under fatally emergent situations (Koenig et al., 2001). Beyond that, people with dysfunctional expositions of religious scriptures may have an obstinate belief that a divine cure cannot be substituted for a medical care, may possibly worsen their bad health status (Koening et al., 2001).

Highly orthodox religious beliefs in some religions such as Islam were found to be associated with authoritarianism, which may negatively influence mental health because of their emphasis on righteousness (Koenig et al., 2001). As a result of over-emphasis on righteousness, unrealistic self expectations may lead to guilt feelings (Koenig et al., 2001) and cause depression, fear of impending divine punishment, religious doubt, or religious passivity (Seeman, Dubin, & Seeman, 2003). At the same time, people with high expectations of righteousness in others are likely to judge strictly and estrange those persons who do not appear to be righteous to them. Such a judging attitude may not promote a good mental health status or be conducive to building a supportive social network (Koenig et al., 2001).

In summary, negative health effects of religion occur first, when expositions of the religious scriptures are made in a dysfunctional manner which leads to harmful beliefs regarding medical treatment and, second, when God is perceived primarily as a punishing God. This produces feelings of guilt which may mediate between religiosity and depression, (Koenig et al., 2001). Alternatively, believing in a loving and forgiving

God rather than an punishing-only God may lead to a positive influence of religion on health status.

Religious Beliefs Influencing Health in Korean Americans

Persons can say they are Christian and attend church, but if they are still quite extrinsic in their religiosity, they can be perceived as not religiously committed. Likewise, though some people do not endorse a particular religion, they can still be influenced indirectly by the traditional religious or philosophical beliefs embedded in the culture. For Korean people, their traditional religions such as Shamanism, Buddhism, and Confucianism, may be major influences on their worldview and values (Cho, 1999).

Shamanistic understandings of health are based on the belief that fortune and misfortune are caused by a spritual power. In the Korean traditional religion, typically *Mudang,* who is usually a women, acting as an intercesor between a god and a human, holds rituals called *gut,* which are supposed to exorcise evil spirits. Evil spirits are believed to cause misfortune including illness. Accordingly, Shamanism proposes a spiritual resolution for health maladies through rituals for recovery from diseases (Do, 1988).

Buddhism was founded by an spiritual teacher of ancient India, whose name was Siddhartha Gautama. He is believed as the Awakened One, whose teaching is able to ultimately end the cycling of suffering and rebirth. Buddhism teaches that there is "ultimate potential" in every body's mind to find "ultimate truth," and peace of mind. These may be obtained by proper spiritual disciplines and practices such as meditation

(Do, 1988, pp. 25-26). Buddhism as practiced in Korea, however, differs from a pure philosophical form and includes "all sorts of superstitions and rituals" (Do, 1988, p. 26) because Korean Buddhism has been blended with Shamanism.

Finally, Confucianism was developed from the teachings of Confucius, who was a Chinese philosopher. Confucianism, as a philosophical and ethical system, defines social roles for each person in society. In Korea, the ethical code had its central value on self-cultivation, which was traditionally "only applicable to *yangban* (aristocrat men) excluding both women and *sangnom* (servant class men)" (Son, 2006, p. 329). For example, Confucianism reinforced women's submissive role to men, which may affect their psychological health status in Korea (Son, 2006). Son (2006) believes that Confucianism lies at the center of inequitable Korean societal expectations on women. These expectations, he posits, may foster a sense of shame and low self-esteem in Korean women.

Confucianism mixes with Korean ancestor worship in proposing *shin*, which means a god, that is "the 'ghost' or spiritual energy that arises out of the dead" (Lee, 1999, p. 18). The belief in this spiritual energy leads to worship and sacrificial rituals for the dead as "Confucian elements" are mixed with Korean Buddhism and Shamanism (Cho, 1999, p. 60).

The Korean ethnic group in the U.S. is involved in the Protestant church more actively than any other Asian American group (Hurh & Kim, 1990). Seventy to 80% of Korean immigrants in the U.S. are reported Christians or church attendees (Kang, 1992). A common saying states, "When two Japanese meet, they set up a business firm; when

two Chinese meet, they open a Chinese restaurant; and when two Koreans meet, they establish a church" (Hurh & Kim, 1990, p. 20). No matter what Koreans believed in their traditional context of Korean society, once they immigrate to the U.S., their religious beliefs may be easily influenced by the religions of American culture including the Korean American Protestant church.

Most of the research on Koreans and their religiosity's role in health has focused on patients with life-threatening diseases such as cancer and AIDS (Rippentrop, 2005). Few studies exist in other areas. To understand the characteristics of the Korean ethnic group in regard to their Chrstianity and its relationship with health, Park and Murgatroyd (1998) examined the relationship between intrinsic-extrinsic relgious orientation and depression for Korean Americans. In the study, 95 Korean Americans, who were members of four different Korean churches responded as the sample. The participants were 30 to 53 years of age and had lived in the U.S. for 29 years or less. The researchers used the Allport-Ross Religious Orientation Scale and the Beck Depression Inventory to investigate the assoication between the two variables, type of religious motivation (intrinsic vs extrinsic) and depression. In their comparison between intrinsic and extrinsic religiosity, the church members with intrinsic religious orientation were less likely to report depressive symptoms than those with extrinsic religious orientation. On the other hand, the church members with extrinsic religious oriention were less likely to show their depressive symptoms when they were lower educated and divorced (Park & Murgatroyd, 1998).

Lee (2007) studied 145 older adults (44 out of 69 Koreans and 37 out of 76 Chinese identified themselves as Protestants) to examine the association between their religiosity and well-being. The researchers measured the elderly people's religion, spirituality, daily experiences, spiritual coping, and religious support with Brief Multidimensional Measures of Religiousness and Spirituality (MMRS; National Institute of Age/Fetzer Institute, 1999). Among the religious and spiritual factors, social and religious supports were significantly associated with less depression for the Korean respondents with the factor of higher education. In other words, it is inferred that Korean Americans with higher education who are given religious support from peer church members are less likely to have depression. Interestingly, higher life satisfaction was found in Chinese who practiced greater forgiveness, used more religious coping strategies, and received more religious support. In contrast, though found at the first step of the regression analysis, Korean ethnicity and low levels of education were indicated as the significant predictiors of depression.

Korean immigrants' church involvement is a way of life, and the church provides them with a home away from their motherland (Hurh & Kim, 1990). Such a warm social and psychological support is suggested as a predictor of effective coping with life stress in the process of immigration as religiosity may be a stress coping resource (Park & Murgatroyd, 1998; Mui & Kang, 2006). Also, the level of education is indicated to be an important predictor of health status for Korean American Protestants in particular.

Summary

Current research suggests that religiosity may positively impact mental and physical health through enhanced social support, increased stress coping, and the formation of a pro-virtue value constellation. Alternatively, some religious beliefs can produce harmful effects. Such beliefs include a demand for divine healing without medical intervention and refusal of medically-needed blood transfusions. Unrealistic religious standards for self and others, and a conceptualization of God as predominantly judging may also may lead to harmful effects.

Buddhism, Shamanism, and Confucianism are religious and philosophical strands that can influence both religious and nonreligious Koreans. Protestant Christianity likewise has recently been rising in the country. When Koreans immigrate to the U.S., it appears they readily embrace Christianity. Finally, studies on the relationship between religiosity and health for Korean Americans are limited. The association between religiosity and health outcome in the population of healthy people has been somewhat overlooked; thus, the need for such research is one impetus for the current study.

CHAPTER THREE: METHODS

This study has two parts of intent. First, through confirmatory factor analysis, it tests the factors that several U.S. religious measures are theorized to be loaded on with a new population – Koreans. The Religious Commitment Inventory – 10 (RCI-10), the Transgression-Related Interpersonal Motivations Scale – 12-Item Form (TRIM-R and TRIM-A), the Rumination About an Interpersonal Offense Scale (RIO), the Decisional Forgiveness Scale (DFS), and the Emotional Forgiveness Scale (EFS) are tested by conducting Confirmatory Factor Analyses. Second, it investigates the influence of acculturation, religious commitment, and forgiveness style on the self-reported health of Koreans by Multiple Regression Analyses.

In other words, this study is expected to begin answering the following questions: Will the RCI, DFS, EFS, TRIM-12 (including TRIM-R and TRIM-A), and RIO be useful instruments for the Korean population? Will acculturation be positively related with physical and emotional health for Korean Americans? Will religious commitment be positively related with physical and emotional health for Korean Americans? Will unforgiveness negatively predict and forgiveness style positively predict physical and emotional health for Korean Americans?

In this chapter, the method of this study is described in terms of research design, selection of participants, instrumentation, research procedure, and data processing and analysis, with which answering to the study questions can be more accurate.

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Research Design

A survey design was utilized to examine relationship between acculturation, religious commitment, forgiveness style, and general health. For this study, the independent variables were acculturation, religious commitment, forgiveness style, and the dependent variable was health status. A multiple regression analysis or a structural equation modeling procedure was conducted to investigate the influence of acculturation, religious commitment, and forgiveness style on the self-reported health of Koreans. Also, confirmatory factor analysis investigated whether the factors identified in U.S. samples for the following measures were consistent for the Korean population: the Decisional Forgiveness Scale (DFS), the Emotional Forgiveness Scale (EFS), the Transgression-Related Interpersonal Motivations Scale – 12-Item Form (TRIM-12), the Rumination About an Interpersonal Offense Scale (RIO) and the Religious Commitment Inventory – 10 (RCI-10).

Selection of Participants

For testing the factors of the instruments for the Korean American population, Koreans from the United States and Korea were targeted. Also, those Koreans were studied for a comparison of their differences in acculturation, forgiveness style, religious commitment, and health status. Korean Americans from all regions of the United States, and Koreans from some parts of South Korea were recruited. The restriction for the sampling was only to the age of 18 years old and above. Snowball sampling was applied

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for more participants by encouraging the participants to invite their acquaintances, which made the sample larger. Participants were those who self-identified as Korean females or males with any kind of career in any socioeconomic situation, who spoke Korean or/and English, age 18 and above. Non-Korean adult MA and PhD students in counseling served as a comparative sample to the Korean adult sample in case of any need. As anticipated, primarily Protestant Koreans participated in the survey, though other religions also occurred in the sample. This was because the major contact method was through Korean churches, which was believed to be the most effective recruiting way for the researcher.

Table 4

Comparison of the Participants' Gender

Gender	N	Percent
Male	87	31.9
Female	147	53.8
Not answered	39	14.3
Total	273	100.0

The data was collected from 273 participants that were reduced from the total number of 374 respondents when those with missing values were deleted. The participants were at the age of 18 or above who were found in the e-mailing lists owned by the Korean Students Fellowships of Liberty University, of Virginia Polytechnic Institute and State University and of University of Virginia, Kangnam Joongang Baptist Church (KJBC) in Republic of Korea, and other anonymous non-profit organizations.

This sampling was associated with snowball sampling in which potential participants were encouraged to take the survey through their acquaintances such as friends and relatives.

Table 5

Comparison of Religion of Participants

Religion	N	Percent
Protestant Christianity or Evangelical	236	86.4
Catholicism	5	1.8
Buddhism	3	1.1
No religion	7	2.6
Other	22	8.1
Total	273	100.0

Table 6

Comparison of Living Country of Participants

Living country	N	Percent
Korea	35	12.8
The United States	221	81.0
Other	1	.4
Not answered	16	5.9
Total	273	100.0

Table 7

Comparison of Time Length of Participants' Residence in US

Living time length in US	N	Percent
Less than 1 year	13	4.8
1-2 years	7	2.6
3-5 years	35	12.8
6-10 years	58	21.2
11 years or more	102	37.4
Not answered	58	21.2
Total	273	100.0

Table 8

Comparison of Generation of Participants

Generation	N	Percent
Never lived in US	9	3.3
1st generation immigrant	169	61.9
1.5 generation*	18	6.6
2nd generation**	5	1.8
Other	10	3.7
Not answered	62	22.7
Total	273	100.0

Note. *1.5 generation: born in Korea but lived almost whole life in US, **2nd generation: born in US with 1st gen parents

Table 9

Comparison of Age of Participants

Age	N	Percent
19	4	1.5
20	5	1.8
21	5	1.8
22	6	2.2
23	2	.7
24	3	1.1
25	3	1.1
26	2	.7
27	4	1.5
28	3	1.1
29	3	1.1
30	9	3.3
31	2	.7
32	7	2.6
33	8	2.9
34	5	1.8
35	12	4.4
36	10	3.7
37	9	3.3
38	4	1.5
39	4	1.5
40	16	5.9
41	3	1.1
42	4	1.5
43	9	3.3
44	9	3.3
45	8	2.9
46	5	1.8
47	4	1.5
48	4	1.5
49	11	4.0
50	10	3.7

51	1	.4
52	5	1.8
53	11	4.0
54	8	2.9
55	5	1.8
56	4	1.5
57	5	1.8
58	2	.7
59	2	.7
60	2	.7
61	1	.4
62	3	1.1
64	1	.4
68	1	.4
69	1	.4
72	1	.4
92	1	.4
Not Answered	26	9.5
Total	273	100.0

Instrumentation

Participants responded to a demographic data sheet, the Korean American

Acculturation Scale (KAAS), Religious Commitment Inventory (RCI-10), and a general

health inventory (SF-12v2). Then, they described a personally hurtful experience and

responded to a set of forgiveness-related questionnaires. This last procedure was repeated

3 times. The measures used included the Decisional and Emotional Forgiveness Style

inventories (DFS, EFS), the Transgression-Related Interpersonal Motivations Scale – 12-

Item Form (TRIM-12) and the Rumination About an Interpersonal Offense Scale (RIO).

The Korean American Acculturation Scale

The Korean American Acculturation Scale (KAAS; Lee, 2004) describes acculturation characteristics and patterns of Korean Americans. KAAS subscales measure behavioral tendency with cultural value (two subscales; Behavior Acculturation, Cultural Value). The 15 item subscale of Behavior Acculturation consists of two dimensions: *Usage* and *Social Contact* whereas the 18 item subscale, Cultural Value, consists of three dimensions: *Collectivism, Success,* and *Self-control*. All response sets are based on a 5-point Likert-type scale (1 = *strongly disagree* to 5 = *strongly agree*). All items in subscale of Behavior Acculturation had factor loadings of .61 or above, and all items in the subscale of Cultural Value Acculturation had factor loadings of .48 or above. Cronbach's alpha for factors of Usage was .91 and of Social contact was .82 in Behavior Acculturation subscale while for Collectivism factor was .73, for Success was .77 and for Self-Control was .70 in the subscale of Cultural Value Acculturation. Typical items in the subscale of Behavior Acculturation include, "I read books in Korean" from the dimension of *usage*, and "My family cooks Korean foods" from the dimension of *social contact*. The subscale of Cultural Value Acculturation has items including, "One should follow the role expectations of one's family (parents, siblings)," from the dimension of *collectivism*, "Failure in work brings shame to the family" from *success*, and "the ability to control one's emotions is a sign of strength" from *self-control*.

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The Ethnic Orientation Scale

The Ethnic Orientation Scale (EOS; Lee, 2004) addresses Korean Americans' acculturation styles such as assimilation, integration, marginalization, and separation. EOS dimensions measure Korean group orientation and Other-group orientation by describing participants' knowledge of membership to their ethnic group and other groups with value and emotional attachment to the groups. From the results of participants' response to 5-point Likert-type scale (1 = *strongly disagree* to 5 = *strongly agree*), participants who scored at or above the medians on both dimensions (Korean Orientation, Median=3.90; Other-Group Orientation, Median=3.80) are classified as integration; participants who scored below the median on both dimensions are classified as marginalization. If participants scored at or above the median on Korean group orientation but below the median on Other-group orientation, they are classified as separation; participants who scored below the median on Korean group orientation but at or above the median on Other-group orientation are classified as assimilation. All items in the dimension of Korean group orientation had factor loadings of .59 or above, and in Other-group orientation, the factor loadings were .74 or above. The item of "I feel it would be better if I were not a Korean." did not load on the factor structure. Alpha reliabilities of Korean group orientation and Other-group orientation factors were .87 and .84. The typical items of EOS include "I have a sense of being a Korean" in the dimension of *Korean Orientation*, and "I like to meet and know people other than Koreans" in *Other-Group Orientation*.

The Religious Commitment Inventory-10

The Religious Commitment Inventory-10 (RCI-10; Worthington, Wade, & Hight, 2003) describes the level of one's religious commitment. That is, it is used to assess the degree to which a person adheres to his or her religious values, beliefs, and practices and uses them in daily living. RCI subscales measure intrapersonal religious commitment with 6 items, and interpersonal religious commitment with 4 items. Thus, RCI-10 consists of a total of 10 items rated on a five-point scale from 1 = *Not at all true of me* to 5 = *Totally true of me*. All items of Intrapersonal religious commitment had factor loadings of .59 or above and those of Interpersonal religious commitment had factor loadings of .62 or above. The coefficient alphas were .93 for the full scale, .92 for Intrapersonal Religious Commitment, and .87 for Interpersonal Religious Commitment. A Pearson correlation coefficient for intercorrelation between the two subscales indicated them highly correlated, $r(154) = .72$. Typical items include, "My religious beliefs lie behind my whole approach to life" and "I spend my time trying to grow in understanding of my faith" from the Intrapersonal subscale, and "I enjoy working in the activities of my religious organization" and "I enjoy spending time with others of my religious affiliation" from the Interpersonal subscale.

The SF-12 Health Survey-Version 2.0

SF-12 Health Survey-Version 2.0 (SF-12 v2; Ware, Kosinski, & Dewey, 2002) describes the level of physical and mental health. SF-12 v2 subscales are the Physical Health Composite Scale (PCS) and Mental Health Composite Scale (MCS), and PCS and

MCS subdomains include Generanl Health, Physical Functioning, Role Functioning (Physical), Bodily Pain, Vitality, Role Functioning (Emotional), Mental Health, and Social Functioning.

SF-12 v2 has scores over the lifespan and the scores vary for different age groups as PCS scores tend to decrease with age while MCS scores tend to increase. SF-12 v2 classifies age groups into six categories: Age 18-34; 35-44; 45-54; 55-64; 65-74; 75 and over . The age-specific mean difference score, therefore, is used for an individual's health status because it would be invalid to compare an individual's health level with another from a different age group by their raw scores. The reliability coefficients for PCS was .89 and that for MCS was .86. across age and gender. The lowest reliability for PCS was .84 of the 18 to 44 age group, and that for MCS was .82 of the 65+ age group among all the age and gender groups (see other studies using the Korean version of SF-36 and SF-8 such as Chin, Song, Lee, Lee, Kim, et al, 2008; Eum, Li, Lee, Kim, Paek, Siegrist, et al., 2007; Rhee, Shin, Lee, Yu, Kim, Kim, et al., 2005; Song, Yang, Song, Han, Moon, & Ku, 2008).

SF-12 v2 consists of the 12-items, among which 10 items are rated by five-level response categories, for example, from *1 = Excellent to 5 = Poor*, while 2 items are by three-level response categories, for example, from *1 = Yes, limited a lot* to *3 = No, not limited at all*. Typical items of SF12 v2 include, "In general, would you say your health is excellent, very good, good, fair or poor?" from the dimension of general health, "Are you now limited in moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf?" from Physical Health Composite Scale, and "During the past 4

weeks, how much of the time have you had any of the following problems with your

work or other regular daily activities as a result of any emotional problems (such as

feeling depressed or anxious)? Accomplished less than you would like, all of the time,

most of the time, some of the time, a little of the time, or none of the time." from Mental

Health Composite Scale.

The Decisional and Emotional Forgiveness Scales

The Decisional Forgiveness Scale (DFS; Worthington, Hook, Witvliet et al., in

press) describes the level of decisional style of forgiveness in one specific situation and is

used to assess state forgiveness. The instructions for the DFS used in this study are as

follows: The next series of questions ask you to think about an event in which a person

who has hurt you in some way. It is best to choose an event about which you don't yet

have complete peace. Think of your current intentions toward the person who hurt you.

Indicate the degree to which you agree or disagree with the following statements. DFS

subscales actually measure intentions of social attitudes (two subscales; Prosocial

intention, PSI, Inhibition of negative intention, INI). The DFS thus consists of 8 items

relating to a specifically chosen transgression with items rated from *1 = strongly disagree*

to 5 = strongly agree. This yields a range of scores 4 to 20 (Prosocial Intentions; PSI)

and 4 to 20 (Inhibition of Negative Intentions; INI). Higher scores indicate more

decisional rather than emotional inclination to forgive. The coefficient alphas for the DFS

and subscales were .83 for the full scale, .78 for Prosocial Intentions, and .83 for

Inhibition of Harmful Intentions. A Pearson correlation coefficient was calculated and

determined that Prosocial Intentions was moderately correlated with Inhibition of Harmful Intentions, r (398) = .46, $p < .01$ (Worthington et al., in press). The items include, "I will not try to help him or her if he or she needs something" and "If I see him or her, I will act friendly" from Prosocial Intention subscale, and "I intend to try to hurt him or her in the same way he or she hurt me" and "I will try to get back at him or her" from Harmful Intention subscale.

The Emotional Forgiveness Scale (EFS; Worthington et al., in press) describes the level of emotional style of forgiveness in one specific situation and is used to assess state forgiveness. For the current study, identical instructions to those of the DFS occur for this scale. The EFS subscales actually measure positive and negative emotions (two subscales; presence of positive emotion, PPE, Absence [Reduction] of negative emotion, ANE). EFS thus consists of 8 items relating to a specifically chosen transgression with items rated from *1 = strongly disagree to 5 = strongly agree*. This yields a range of scores 4 to 20 (Presence of Positive Emotion; PPE) and 4 to 20 (Absence of Negative Emotion; ANE). Higher scores indicate more emotional than decisional inclination to forgive. The coefficient alphas for the EFS and subscales were .81 for the full scale, .85 for the presence of Positive Emotions, and .78 for the Reduction of Negative Emotions. A Pearson correlation coefficient was calculated to determine that Presence of Positive Emotions was moderately correlated with Reduction of Negative Emotions, r (399) = .32, $p < .01$ (Worthington et al., in press). The items include, "I care about him or her" and "I feel sympathy toward him or her" from Presence of Positive Emotion subscale, and "I no

longer feel upset when I think of him or her" and "I'm bitter about what he or she did to me" from Reduction of Negative Emotions subscale.

The Transgression-Related Interpersonal Motivation Scale – 12-Item Form

The Transgression-Related Interpersonal Motivation Scale – 12-Item Form (TRIM-12; McCullough, Rachal, Sangdage, Worthington, Brown, & Hight, 1998) describes the level of avoidance and revenge toward a transgressor. TRIM-12 includes 12 items, which are rated from *1 = strongly disagree to 5 = strongly agree*. The two subscales of TRIM-12 are Avoidance Motivations (AM or TRIM-A; 7 items) and Revenge Motivations (RM or TRIM-R; 5 items), and Cronbach's alpha for Avoidance Motivations was ranged from .86 to .94, and for Revenge Motivations, .90. The items include "I'd keep as much distance between us as possible." and "I'd live as if he/she doesn't exist, isn't around." for AM; "I'll make him or her pay." and "I wish that something bad would happen to him/her." for RM.

The Rumination About an Interpersonal Offense Scale

The Rumination About an Interpersonal Offense Scale (RIO; Wade, Vogel, Liao, & Goldman, 2008) measures the level of "state … rumination defined as the repetitive cognitive rehearsal about a specific past interpersonal offense" (pp. 421-422) describing the degree of negative mental outcomes of the event. RIO consists of 6 items relating to a specific interpersonal transgression, which are rated from *1 = strongly disagree to 5 = strongly agree*. Higher scores indicate more rumination about a specific offense. Internal

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reliabilities were above .90 through three samples, and factor loadings were .78 and above except one item (.52 and .57 for the two samples), "I try to figure out the reasons why this person hurt me." Other than this, the items include, "I can't stop thinking about how I was wronged by this person." And "The wrong I suffered is never far from my mind."

Demographics

The demographics questionnaire includes a total of sixteen questions. It collects information of participants such as gender, pregnancy, marital status, religion, income, educational attainment, birth place, current resident country, current resident religion of the United States, ethnicity, time length of residency in the United States, generation, age, physical disability, enrollment in Liberty University, and enrolled program of Liberty University. The directory of the demographic questioning leads the participants into several domains of socioeconomic, ethnic, and educational status such as Korean, Korean American, or Non-Korean; male or female; pregnant female or non-pregnant female; first, 1.5, or 2nd generation Korean; younger, middle-aged, or senior; physically disabled or not; and Liberty graduate student or non-Liberty graduate student. For this study has health status as the dependent variable, some of the questions of the SF-12 ask about the mobility of the participants, especially pregnant women, because they need to be classified as outliers.

Translation, Back Translation, and Pilot Test

The RCI-10, DFS, EFS, TRIM-12, and RIO are used for other ethnic groups such as Caucasians. They were translated from English into Korean language and verified as accurate by a former English translator who worked for the Korean government. Once the scales were translated from English into Korean language, they were translated back to English by another translator, who had never studied in the major of psychology or counseling. No major difference was found between the Korean translation and the verifying English translation. A pilot test on at least 20 Koreans also confirmed the utility of these translations. The pilot test was given to a small Korean church sample with the researcher present to answer any questions and to debrief participants. A half of the pilot test sample took the original English survey and the other half of them took the Korean translation version of the survey. These two different language groups were compared to find if there were any problems by taking questions from the participants right away.

Research Procedures

After receiving approval from the Liberty University Institutional Review Board, the pilot test described above was implemented. Following any needed translation or instructional adjustments, the instruments were posted on a secured website (surveymonkey.com) and made available in paper copy form.

Two ways were implemented for collecting the anonymous study sample. First, the researcher emailed survey invitations to the researcher's acquainted church leaders

and the people who were listed in the obtained sets of e-mail addresses from the above-noted churches, schools and other organizations, while the hard copies of the survey were sent to the people who were able to facilitate the survey in person for the members and students of their organizations (the facilitators were briefly educated for effective administration of the survey by phone and email). Second, the directly or indirectly contacted participants were encouraged to forward the invitation to students, family and other acquaintances in Korea and the United States.

Completing and submitting the online survey was a self-explanatory process requiring no prior knowledge of surveys or technology beyond normal internet use. Participants receiving the survey by email were asked to mark their responses by just clicking on the choice. The survey website was set up for only the intended participants to log in with the study's password, which were given to them with the invitation. The survey did not ask for personally identifying information such as participants' names or addresses. Consent information was shown on the introductory screen, along with contact information for the researcher and the Liberty University Institutional Review Board in case they have questions. After their consent, the online versions of instruments were presented.

Unlike the online survey format, the paper survey was presented to the possible participants through the researcher's designated facilitators. These facilitators were trained in how to explain informed consent, administer the survey, and answer common questions. The facilitators also had access to the researcher's cell phone number in case additional questions emerge. The facilitator explained the informed consent information

and the paper survey also showed this information on page 1. Participants may have kept

this page in case questions arise at a later time. The researcher's contact information

along with the contact information of the Liberty University Institutional Review Board

was included in page 1. After explaining the informed consent, the participants were

given the questions of the instruments (KAAS, EOS, RCI-10, SF-12 v2 and the set of

forgiveness-related instruments (DFS, EFS, TRIM-12, and RIO) were given to be

responded to 3 times, followed by the demographic questions. Specifically, the

participants described one hurtful event and complete the forgiveness-related instruments.

Then, they described another hurtful event and again complete the forgiveness-related

instruments (this time focused on the second incident), and finally, they described a third

hurtful incident and complete the forgiveness-related measures. Also, for both online and

paper format of the survey, the DFS, EFS, TRIM-12, and RIO were administered after all

the other instruments in order to control for any possible effect of emotional arousal that

may have been generated from recalling a personal hurt experience. As a protective

measure, mental health referral information was included at the end of the survey and in

the informed consent document. The survey took about 30 minutes for a participant to

complete on line or in a hard copy.

Data Processing and Analysis

When the targeted sample number was collected, the collected data was put in

Excel file and transferred to SPSS. When an expected sample was collected (n=More

than 300), the sample was to divided into 2 parts for analysis, testing the hypothesized

model and refining it in the first sample, and then retesting the model in the second

sample. Ideally, collecting enough church participants for the first sample (n = about 150),

the model may be refined in the church sample, and then tested in the non-church sample

(n = about 150), or vice versa. However, out of 273, 236 participants were from church,

and so this analysis was omitted. Below, each research question noted in chapter 1 is

stated and converted into a null hypothesis, followed by the alternate hypothesis. After

each alternate hypothesis, the statistical analyses to be used to investigate the alternate

hypothesis will be described. When a research question generates more than one

hypothesis, the hypotheses will be labeled "A," "B," "C," etc.

Research Question 1: Will the RCI, DFS, EFS, TRIM-12 (including TRIM-R and

TRIM-A), and RIO be useful instruments for the Korean population? If this is the case,

then the psychometric data and factor structure of each instrument will be consistent with

psychometric and factor structure data of each instrument for the U.S. population.

Consequently, two hypotheses emerge from research question 1.

Null Hypothesis A: Internal consistency reliability for the RCI, DFS, EFS, TRIM-12,

RIO and their subscales will be insufficient for the Korean population.

Alternate Hypothesis A: Internal consistency reliability for the RCI, DFS, EFS, TRIM-12,

RIO and their subscales will be acceptable for the Korean population.

Statistical Method of Analysis for A: Coefficient Alphas will be performed on each

noted scale and subscale.

Null Hypothesis B: There will be no consistent factor structure for the Korean population

with the RCI, DFS, EFS, TRIM-12, and RIO compared to the U.S. population.

Alternate Hypothesis B: A consistent factor structure with the Korean population will be

found with the RCI, DFS, EFS, TRIM-12, and RIO compared to the U.S. population.

Statistical Method of Analysis for B: A confirmatory factor analysis will take place on

the RCI, DFS, EFS, TRIM-12, and RIO for the Koreans present in the sample. Due to the

proprietary nature of the SF12v2, no confirmatory factor analysis will be done on it.

Research Question 2: Will acculturation be positively related with physical and

emotional health for Korean Americans? If this is the case, there will be a positive

association between acculturation level, which is indicated by behavioral tendency and

cultural value in a foreign culture and physical and mental health status. With a

consistency to the hypothesis, the more assimilated to American culture are likely to be

healthier than those with more separated from the host culture.

Null Hypothesis A: There is no difference between health status level of Korean

Americans who are more assimilated to American culture and those who less assimilated.

Alternate Hypothesis A: More assimilated acculturation by Korean Americans increases

their likelihood of having better health status.

Null Hypothesis B: There is no difference between health status level of Korean

Americans who have assimilation or integration acculturation styles and those who have

separation or marginalization acculturation styles.

Alternate Hypothesis B: Assimilation and integration acculturation styles of Korean

Americans increases their likelihood of having better health status than separation and

marginalization.

Statistical Method of Analysis for B: A regression analysis will be computed on the

predictor variable of acculturation with the criterion variable of physical and mental

health status. The total scores in the instruments are used to analyze the data for any

association between those variables. The KAAS measures how much the sample stays

acculturated in the Korean culture, and it is hypothesized that the psychometric levels of

KAAS and SF-12 are inversely correlated.

Research Question 3: Will religious commitment be positively related with physical and

emotional health for Korean Americans? If this is the case, there will be a positive

association between religious commitment level (the degree to which a person adheres to

his or her religious values, beliefs, and practices and uses them in daily living) and

physical and mental health status. Consistent with the hypothesis, the more religiously

committed participants are likely to be healthier than those who are less religiously

committed.

Null Hypothesis: There is no difference between health status level of Korean Americans

who are more committed religiously and those who less committed religiously.

Alternate Hypothesis: More religious commitment in Korean Americans increases their

likelihood of having better health status.

Statistical Method of Analysis: A regression analysis will be computed on the predictor variable of religious commitment with the criterion variable of physical and mental health status. Positively related as in the question would suggest a correlation.

Research Question 4: Will unforgiveness and forgiveness style predict physical and emotional health for Korean Americans? If this is the case, there will be a negative correlation between unforgiveness and physical/emotional health and a positive association between an emotional style of forgiveness and physical and emotional health status. With a consistency to the hypothesis, the more emotionally forgiving Korean Americans are likely to be healthier than those who are less emotionally forgiving.

Null Hypothesis: There is no difference between health status level of Korean Americans who are more emotionally forgiving and those who display unforgiveness and are less emotionally forgiving.

Alternate Hypothesis: Korean Americans who more emotionally forgive have the increased likelihood of having better health status compared to those exhibiting unforgiveness and a less emotionally forgiving style.

Statistical Method of Analysis: A regression analysis or a Structural Equation Modeling process will be computed on the criterion variable of forgiveness style with the dependent variable of physical and mental health status. The scores of forgiveness style are obtained from the total scores of EFS, DFS, and RIO, and also TRIM-A and TRIM-R as separate scores. Analyzing the closeness (e.g., a close person or a stranger) to the transgressor by Avoidance and Revenge levels will reduce any statistical errors. For example, if a

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transgressor is a stranger and rarely encountered after the transgression, the score of

TRIM-A is not valid because the hurt person does not even have a chance to avoid and/or

revenge the transgressor. The emotional forgiveness style will be resulted to be identified

when the score of EFS is high while the scores of RIO, TRIM-A, and TRIM-R are low.

On the other hand, the decisional forgiveness style will be present when the score of EFS

is low. As each of the scales are measured for three times, the mean score of the total

score for each of the scale is the parameter for analysis. For the cases of having only one

or two hurt event(s), the analysis regards the missing values as the mean scores across the

hurt events. Also, the forgiving levels that are indicated by TRIM-R, TRIM-A and RIO

needs to be inversed for the consistency with those of EFS and DFS because the items of

EFS and DFS are positive for forgiving.

Ethical Aspects

Referral information to mental health resources will be provided in case any

participant becomes distressed in completing this study. Maintaining tasks for the

confidentiality of the subjects will include doing a "test run" of the online website to

make sure the survey website is able to be accessed only with log-in name and password.

The survey never includes a chance to specify the personally identifying information

(such as names or their particular organizations). The collected data will be stored in the

researcher's computer system with password protection. Any printed hard copies of the

data will be coded and stored in a separate locked container from the codebook (which

will also be stored in a locked container). No people other than the investigator and the

faculty sponsor will have the accessing code to the data. In any written report of the data (such as the dissertation, conference paper, or article submission), all results will be described in group-fashion. In other words, no results specific to an individual will be reported in such a way as to suggest the person's identity.

Summary

For testing the factors of the religious instruments for the Korean Americans, and also for investigating the relationship between acculturation, forgiveness style, religious commitment, and health status, a survey design was used for the study in the Korean and Korean American adult populations. Non-Korean Liberty graduate students were also invited to participate in the study for a more valid comparison according to the acculturation level in the American culture (the non-Korean sample was not included in the data in the current study). For a larger size of the sample, the participants were encouraged to refer their acquaintances to the anonymous survey. After data collection, the data was analyzed through a confirmatory factor analysis for the forgiveness style instruments and religious commitment scale for the Korean and Korean Americans. This analysis made it more accurate to analyze the collected data for the correlation between the independent variables of acculturation, forgiveness style, and religious commitment, and the dependent variable of health status.

CHAPTER FOUR: RESULTS

This study has two parts of intent. First, through confirmatory factor analysis, it tests the factors that several U.S. religious measures are theorized to be loaded on with a new population – Koreans. The Religious Commitment Inventory – 10 (RCI-10), the Transgression-Related Interpersonal Motivations Scale – 12-Item Form (TRIM-R and TRIM-A), the Rumination About an Interpersonal Offense Scale (RIO), the Decisional Forgiveness Scale (DFS), and the Emotional Forgiveness Scale (EFS) are tested by conducting Confirmatory Factor Analyses. Second, it investigates the influence of acculturation, religious commitment, unforgiveness, and forgiveness style on the self-reported health of Koreans by Multiple Regression Analyses.

Prior to conducting the primary statistical analyses, the data were checked for missing data, outliers, and normality. A total of 374 cases in the initial data were collected and 101 cases had large amounts of missing data, which were deleted from the analysis. After deleting these cases, the mean substitution was used to correct for some amount of additional missing data (less than 4 % per measurement construct) among the measurement scales excepting forgiveness related questionnaires.

Research Question One: Usefulness of the Instruments for the Korean Population

Research question #1: Are the RCI-10, TRIM-R, TRIM-A, RIO, DFS, and EFS useful instruments for the Korean population? If this is the case, then the psychometric data and the factor structure of each instrument will be consistent with psychometric and factor structure data of each instrument for the U.S. population. Therefore, it is hypothesized that internal consistency reliability for the RCI-10, TRIM-R, TRIM-A, RIO, DFS, and EFS and their subscales are sufficient or acceptable for the Korean population. The SF-12 was not examined due the proprietary nature of the instrument. This instrument has previous psychometric research supporting its use with the Korean population (e.g., Mui, Kang, Kang, & Domanski, 2007)

The collected data were first analyzed to investigate the reliability of the various instruments for the Korean sample for the first research question. Confirmatory factor analyses for obtaining reliability were taken place on the RCI-10, DFS, EFS, TRIM-12, and RIO for the Koreans present in the sample. Two analysis methods were adapted for obtaining the reliabilities of the scales: the Goodness of Fit of the CFA models using the Comparative Fit Index (CFI; Bentler, 1990) and the root mean square error of approximation (RMSEA; Steiger, 2000), and Reliability Analysis. An acceptable model fit is defined as following: CFI ($\geq$.90) and RMSEA ($\leq$.08) for the goodness of fit evaluation.

Estimated Reliability of RCI-10

The mean RCI-10 total score was 38.9 (SD = 9.31, see Table 14). This is

comparable with the mean score obtained by Worthington et al. (2003) for American

university students (M=33.7, SD=12.5). However, Protestants (n=140 out of 213) in

Worthington and his colleagues' study have shown similar mean total score (M=37.9,

SD=10.3). The item means are ranging from 3.15 to 4.29 and the standard deviations are

close to 1.20 (Table 30). The inter-item correlations are all positive while the item #10 is

slightly low in correlation with some other items (Table 31). Most of the inter-item

correlations were at least .50. There were a few that were lower and several that were

much higher while the last item had many that are lower than .50. The strongest

correlation was between Item 5 and 7 (r=.87). It is generally suggested that the Korean

Americans' performance was consistent on these items. The average inter-item

correlation is .64 with values ranging from .44 to .87. The largest correlation is about 2

times larger than the smallest correlation. The variance of the inter-item correlations

appears to be small at .011. All the items had correlations with total scores (.61 and

above). The values of *R-square* of the items would be .473 for the item, which had the

least multiple coefficient level (Table 15). Coefficient alpha of .944 is reported, and only

Item 10 was reducing the reliability in a slight extent (.002). This is almost the same as

coefficient alpha obtained by Worthington et al. (2003) for the client sample (*alpha*=.95).

F ratio is 74.162 with a probability of lower than .001. This indicates that there is a

significant amount of variation among the ten items in the scale (Table 16). A split-half

reliability analysis was computed and had another supportive result in RCI-10's

reliability (Table 17). After the ten items were split into two equal part (Part 1: item 1 ~5; Part 2: item 6~10), a correlation was computed to be .864, which indicates a high consistency between the two halves. Applying the equal-length Spearman-Brown formula, to the entire scale of ten items, resulted in a reliability estimate of .927, which is high and supporting the internal consistency of RCI-10.

Table 10

Factor loadings resulted from one factor CFA for RCI-10 with all 10 items

Item variable	Standardized factor loading
Item 1	.783
Item 2	.702
Item 3	.852
Item 4	.848
Item 5	.899
Item 6	.813
Item 7	.922
Item 8	.808
Item 9	.734
Item 10	.587

Note. Fit indices: X^2=282.342, DF=35, CFI=.896, RMSEA=.161

The goodness of fit of the CFA model for RCI-10 was evaluated using CFI and RMSEA. The analyses examined both the one factor and the two factor model without method factor revealed a poor fit for both (One factor: X^2=282.342, DF=35, CFI=.896, RMSEA=.161; Two factor: X^2=281.752, CFI=.897, RMSEA=.161) (Table 10). For obtaining a good fit, the one factor model was analyzed after removing Item 10, which was considered the lowest factoring item. This resulted in a slightly poor fit indices (CFI=.915; RMSEA=.160). The score of CFI was acceptable but RMSEA was not with absence of Item 10. Furthermore, one factor model was analyzed again removing Item 1,

2, 9, and 10 for this time. The score of CFI, at this time, resulted in a good fit index

(CFI=.965) while the other index became better (RMSEA=.148) (Table 11). In

comparison among Chi-square, CFI, and RMSEA by different methods, it is suggested

that RCI-10 is most reliable for the Korean population when the item 1, 2, 9, and 10 are

removed (Table 12). Several item combinations were attempted utilizing CFA. However,

none revealed acceptable fit indices (Table 12).

Table 11

Factor Loadings of RCI-10 with Item 1, 2, 9, and 10 Removed

Item variable	Standardized factor loading
Item 3	.805
Item 4	.864
Item 5	.929
Item 6	.816
Item 7	.938
Item 8	.775

Note. X^2=62.444, DF=9, CFI=.965, RMSEA=.148

Table 12

Fit Indices for Different Item Modifications of RCI-10

Model	X^2 (df)	CFI	RMSEA
1. All 10 items in two factors	281.752 (35)	.897	.161
2. All 10 items in one factor	282.342 (35)	.896	.161
3. Item 10 removed	216.052 (27)	.915	.160
4. Item 1, 2, 9, 10 removed	62.444 (9)	.965	.148
5. Item 3, 4, 5 removed	102.122 (14)	.928	.152
6. Item 1, 3, 5 removed	101.875 (14)	.931	.152
7. Item 1, 3, 5, 6 removed	75.815 (9)	.932	.165
8. Item 1, 3, 4, 5 removed	64.820 (9)	.942	.151

Table 13

Statistical Summary of the Items of RCI-10

	Mean	Minimum	Maximum	Range	Variance
Item Means	3.890	3.151	4.289	1.138	.132
Item Variances	1.304	1.042	1.697	.655	.054
Inter-Item Correlations	.638	.440	.875	.434	.011

Table 14

Scale Statistics of RCI-10

Mean	Variance	SD	N of Items
38.90	86.685	9.310	10

Note. SD=Standard Deviation

Table 15

Item-Total Statistics of RCI-10

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 1	35.21	71.248	.777	.666	.938
Item 2	35.31	69.651	.705	.576	.942
Item 3	35.14	69.287	.858	.767	.934
Item 4	34.61	71.966	.790	.727	.937
Item 5	34.65	70.280	.830	.824	.935
Item 6	34.69	72.002	.768	.686	.938
Item 7	34.69	69.741	.865	.830	.934
Item 8	35.05	68.954	.800	.677	.937
Item 9	35.03	71.722	.736	.602	.939
Item 10	35.75	71.667	.611	.473	.946

Table 16

Analysis of Variance for RCI-10

		Sum of Squares	df	Mean Square	F	Sig
Between People		2357.819	272	8.668		
Within People	Between Items	324.307	9	36.034	74.162	.000
	Residual	1189.447	2448	.486		
	Total	1513.754	2457	.616		
Total		3871.573	2729	1.419		

Note. Grand Mean = 3.89

Table 17

Reliability Statistics of RCI-10

Cronbach's Alpha	Part 1	Value	.912
	Part 2	Value	.887
		Correlation Between Forms	.864
Spearman-Brown Coefficient		Equal Length	.927

Note. Part 1 includes the items of 1, 2, 3, 4, 5, and Part 2 includes the items of 6, 7, 8, 9, 10

Estimated Reliability of TRIM-R

The item means are ranging from 1.60 to 1.98 with the standard deviations ranging from 1.15 to .88 (Table 18). The inter-item correlations are all positive (r= .613 and above, see Table 19). The strongest correlation was between Item 2 and 3 (r=.80). It is generally suggested that the Korean Americans' performance was consistent on these items. The scale mean is 8.75 with a standard deviation of 4.11 (Table 22), and the item variance is ranging from .67 to 1.32 (Table 20). The average inter-item correlation is .70 with values ranging from .61 to .80. The largest correlation is about 1.3 times larger than the smallest correlation, and the variance of the inter-item correlations appears to be small at .004. All the items had correlations with total scores (.73 and above, see Table 21). The values of *R-square* of the items would be .549 for the item with the least multiple coefficient score. Coefficient alpha of .917 is reported, and none of the items was reducing the reliability (Table 21). *F*-ratio is 19.70 with a probability of less than .001. This indicates that there is a significant amount of variation among the five

items in the scale (Table 23). A split-half reliability analysis was computed and had

another supportive result in TRIM-R's estimated reliability (Table 24). After the five

items were split into two equal part (Part 1: item 1~3; Part 2: item 3~5), a correlation was

computed to be .823, which indicates a high consistency between the two halves (Table

24). Alpha coefficients of Part 1 (*alpha*=.882) and Part 2 (*alpha*=.820) were both high.

Applying the equal-length Spearman-Brown formula, to the entire scale of ten items,

resulted in a reliability estimate of .903, which is high and supporting the internal

consistency of TRIM-R. The goodness of fit of the CFA model for TRIM-R was

evaluated using CFI and RMSEA. The analysis revealed a good fit indices (CFI=.992,

RMSEA=.077), which also supports the reliability of TRIM-R (Table 25).

Table 18

Item Statistics of TRIM-R

Item	M	SD	N
Item1	1.75	.904	268
Item2	1.75	.967	268
Item3	1.98	1.150	268
Item4	1.60	.817	268
Item5	1.66	.882	268

Table 19

Inter-Item Correlation Matrix of TRIM-R

	1	2	3	4	5
1: Item 1	-				
2: Item 2	.700	-			
3: Item 3	.662	.801	-		
4: Item 4	.635	.704	.642	-	
5: Item 5	.613	.781	.725	.697	-

Table 20

Summary Item Statistics of TRIM-R

	Mean	Minimum	Maximum	Range	Variance
Item Means	1.750	1.601	1.981	.381	.021
Item Variances	.904	.668	1.322	.654	.064
Inter-Item Correlations	.696	.613	.801	.188	.004

Table 21

Item-Total Statistics of TRIM-R

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 1	7.00	11.610	.733	.549	.908
Item 2	7.00	10.558	.867	.759	.881
Item 3	6.77	9.789	.811	.682	.898
Item 4	7.15	12.015	.752	.580	.906
Item 5	7.09	11.382	.804	.669	.895

Table 22

Scale Statistics of TRIM-R

Mean	Variance	Std. Deviation	N of Items
8.75	16.945	4.116	5

Table 23

Analysis of Variance for TRIM-R

		Sum of Squares	df	Mean Square	F	Sig
Between People		904.850	267	3.389		
Within People	Between Items	22.291	4	5.573	19.701	.000
	Residual	302.109	1068	.283		
	Total	324.400	1072	.303		
Total		1229.250	1339	.918		

Table 24

Reliability Statistics of TRIM-R

Cronbach's Alpha	Part 1	Value	.882
	Part 2	Value	.820
		Correlation Between Forms	.823
Spearman-Brown Coefficient		Equal Length	.903
		Unequal Length	.906

Note. Part 1 includes the items 1, 2, 3, and Part 2 includes the items 3, 4, 5.

Table 25

Standardized factor loadings of the items from TRIM-R

Item	Standardized Factor loadings
Item 1	.778
Item 2	.923
Item 3	.867
Item 4	.788
Item 5	.855

Note. Fit indices: Chi-square = 13.077, Degrees of freedom = 5, CFI=.992, RMSEA=.077

Estimated Reliability of TRIM-A

The item means are ranging from 2.13 to 2.75 and the standard deviations are

from 1.16 to 1.36 (Table 26). The inter-item correlations are all positive (r= .674 and

above, see Table 27). The strongest correlation was between Item 1 and 2 (r=.81). It is

generally suggested that the Korean Americans' performance was consistent on these

items. The scale mean is 16.67 with the standard deviation of 7.74 (Table 30) and the

item variance is ranging from 1.35 to 1.85 (Table 28). The average inter-item correlation

is .75 with values ranging from .67 to .81. The largest correlation is about 1.2 times larger

than the smallest correlation. The variance of the inter-item correlations appears to be

small at .002. All the items had correlations with total scores (.81 and above). The values

of *R-square* of the items would be .69 for the item, which had the least multiple

coefficient level (Table 29). Coefficient alpha of .953 is reported, and none of the items

was reducing the reliability (Table 29). *F*-ratio is 32.23 with a probability of less

than .001. This indicates that there is a significant amount of variation among the seven

93

items in the scale (Table 31). A split-half reliability analysis was computed and had

another supportive result in TRIM-A's reliability (Table 32). After the seven items were

split into two equal part (Part 1: item 1~4; Part 2: item 4~7), a correlation was computed

to be .86, which indicates a high consistency between the two halves. Also, alpha

coefficients of Part 1 (*alpha*=.927) and Part 2 (*alpha*=.922) were both high. Applying the

equal-length Spearman-Brown formula, to the entire scale of ten items, resulted in a

reliability estimate of .925, which is high and supporting the internal consistency of

TRIM-A. The goodness of fit of the CFA model for TRIM-A was evaluated using CFI

and RMSEA. The analysis revealed a moderately good fit (CFI=.938, RMSEA=.171)

(Table 33). The score of CFI was acceptable but RMSEA was not. For obtaining better fit

indices, the data of TRIM-A was analyzed again removing Item 2, 6 and 7. The score of

CFI, at this time, resulted in a good fit index (CFI=.991) while the other index became

better (RMSEA=.114) (Table 34). Several item combinations were attempted utilizing

CFA. However, none revealed better fit indices than the item combination removing 2, 6

and 7 (Table 34).

Table 26

Item Statistics of TRIM-A

Item	M	SD
Item 1	2.25	1.250
Item 2	2.27	1.290
Item 3	2.75	1.359
Item 4	2.64	1.285
Item 5	2.32	1.217
Item 6	2.13	1.161
Item 7	2.31	1.186

Note. M=mean, SD=Standard Deviation

Table 27

Inter-Item Correlation Matrix of TRIM-A

	1	2	3	4	5	6	7
1: Item 1	-						
2: Item 2	.812	-					
3: Item 3	.733	.760	-				
4: Item 4	.741	.750	.775	-			
5: Item 5	.680	.674	.695	.793	-		
6: Item 6	.754	.778	.694	.755	.779	-	
7: Item 7	.703	.720	.680	.780	.802	.810	-

Table 28

Summary Item Statistics of TRIM-A

	Mean	Minimum	Maximum	Range	Max/Min	Variance	N of Items
Item Means	2.382	2.131	2.749	.618	1.290	.050	7
Item Variances	1.566	1.347	1.848	.501	1.372	.029	7
Inter-Item Correlations	.746	.674	.812	.138	1.204	.002	7

Table 29

Item-Total Statistics of TRIM-A

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 1	14.42	44.453	.830	.722	.946
Item 2	14.40	43.760	.845	.758	.945
Item 3	13.92	43.451	.812	.689	.948
Item 4	14.03	43.514	.866	.765	.943
Item 5	14.35	44.880	.827	.739	.947
Item 6	14.54	45.110	.859	.767	.944
Item 7	14.37	45.039	.842	.753	.945

Table 30

Scale Statistics of TRIM-A

Mean	Variance	Std. Deviation	N of Items
16.67	59.849	7.736	7

Table 31

Analysis of Variance for TRIM-A

		Sum of Squares	df	Mean Square	*F*	Sig
Between People		2205.872	258	8.550		
Within People	Between Items	77.741	6	12.957	32.233	.000
	Residual	622.259	1548	.402		
	Total	700.000	1554	.450		
Total		2905.872	1812	1.604		

Note. Grand Mean = 2.38

Table 32

Reliability Statistics of TRIM-A

Cronbach's Alpha	Part 1	Value	.927
	Part 2	Value	.922
		Correlation Between Forms	.860
Spearman-Brown Coefficient		Equal Length	.925
		Unequal Length	.926

Note. Part 1 includes the items 1, 2, 3, 4, and Part 2 includes the items 4, 5, 6, 7.

Table 33

Factor loadings of the items of TRIM-A

Item	Factor loadings
Item 1	.852
Item 2	.863
Item 3	.831
Item 4	.875
Item 5	.838
Item 6	.888
Item 7	.858

Note. Fit indices: Chi-square = 125.537, Degrees of freedom = 14, CFI=.938, RMSEA=.171

Table 34

Fit Indices for the Different Item Modifications for TRIM-A

Model	Chi-square	CFI	RMSEA
All 7 items	125.537 (14)	.983	.171
Item 2, 6, 7 removed	9.051 (2)	.991	.114
Item 2, 5, 6 removed	10.427 (2)	.989	.124
Item 2, 5, 7 removed	11.457 (2)	.988	.132
Item 2, 5 removed	44.636 (5)	.964	.171

Estimated Reliability of RIO

The item means are ranging from 2.24 to 3.10 and the standard deviations are

from 1.03 to 1.20 (Table 35). The inter-item correlations are all positive while the item #4

is relatively low in correlation with the other items (r= .246 and above, see Table 36).

Most of the inter-item correlations were at least .50. There were a few that were lower

and several that were much higher while the item #4's correlations with all the other

items are lower than .50. The strongest correlation was between Item 2 and 3 (r=.767). It

is generally suggested that the Korean Americans' performance was consistent on these

items. The scale mean is 14.89 with the standard deviation of 5.21 (Table 39), and the

item variance is ranging from 1.06 to 1.46 (Table 37). The average inter-item correlation

is .56 with values ranging from .246 to .767. The largest correlation is about 3.1 times

larger than the smallest correlation. The variance of the inter-item correlations appears to

be moderately small at .039. All the items with exception of Item 4 had correlations with

total scores (.71 and above). The values of *R-square* of the items would be .565 for the

item, which had the least multiple coefficient level with exception of Item 4 (Table 38).

Coefficient alpha of .879 is reported, and with deletion of Item 4, the coefficient alpha

would be higher at .918. Item 4 was reducing the reliability (Table 38). *F-* ratio is 48.118

with a probability of less than .001. This indicates that there is a significant amount of

variation among the six items in the scale (Table 40). A split-half reliability analysis was

computed and had another supportive result in RIO's reliability (Table 41). After the six

items were split into two equal part (Part 1: item 1~3; Part 2: item 4~6), a correlation was

computed to be .729, which indicates a high consistency between the two halves. Also, alpha coefficient of Part 1 (.878) was higher than Part 2 (.722). Applying the equal-length Spearman-Brown formula, to the entire scale of ten items, resulted in a reliability estimate of .843, which is high and supporting the internal consistency of TRIM-A. The goodness of fit of the CFA model for RIO revealed a slightly good fit and acceptable (CFI=.970, RMSEA=.113). Item 4 was found to be the weakest factor, so Item 4 was removed for the second analysis, which did not result in a significant difference from the first analysis with all 6 items (Table 43). The third CFA for RIO was conducted after removing Item 3 because removing this item made the most significant improvement among the all items, and it was found to be the best fit (CFI=.980, RCSEA=.096). In short, RIO still has a strong reliability even though Item 4 of RIO is reducing the reliability of the scale while it is suggested that removing Item 3 should make RIO a best fit to the Korean population (Table 43).

Table 35
Item Statistics of RIO

Item	Mean	Std. Deviation	N
Item 1	2.33	1.030	270
Item 2	2.24	1.121	270
Item 3	2.42	1.130	270
Item 4	3.10	1.208	270
Item 5	2.46	1.072	270
Item 6	2.34	1.035	270

Table 36

Inter-Item Correlation Matrix of RIO

	1	2	3	4	5	6
1: Rio1	-					
2: Rio2	.643	-				
3: Rio3	.709	.767	-			
4: Rio4	.255	.246	.299	-		
5: Rio5	.645	.615	.764	.372	-	
6: Rio6	.657	.598	.759	.309	.758	-

Table 37

Summary Item Statistics of RIO

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	2.481	2.244	3.100	.856	1.381	.098	6
Item Variances	1.212	1.061	1.458	.398	1.375	.023	6
Inter-Item Correlations	.560	.246	.767	.521	3.124	.039	6

Table 38

Item-Total Statistics of RIO

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 1	12.56	19.549	.724	.565	.853
Item 2	12.64	18.989	.712	.608	.854
Item 3	12.47	17.886	.841	.770	.831
Item 4	11.79	21.894	.341	.140	.918
Item 5	12.43	18.654	.799	.678	.840
Item 6	12.55	19.111	.775	.664	.844

Table 39

Scale Statistics of RIO

Mean	Variance	Std. Deviation	N of Items
14.89	27.202	5.216	6

Table 40

Analysis of Variance for RIO

		Sum of Squares	df	Mean Square	*F*	Sig
Between People		1219.573	269	4.534		
Within People	Between Items	131.833	5	26.367	48.118	.000
	Residual	737.001	1345	.548		
	Total	868.833	1350	.644		
Total		2088.407	1619	1.290		

Note. Grand Mean = 2.48

Table 41

Reliability Statistics of RIO

Cronbach's Alpha	Part 1	Value	.878
	Part 2	Value	.722
		Correlation Between Forms	.729
Spearman-Brown Coefficient		Equal Length	.843
		Unequal Length	.843

Note. Part 1 includes the items 1, 2, 3, and Part 2 includes the items 4, 5, 6.

Table 42

Factor loadings of the items of RIO

Item	Factor loadings
Item 1	.783
Item 2	.794
Item 3	.924
Item 4	.364
Item 5	.845
Item 6	.839

Note. Fit indices: Chi-square = 40.035, Degrees of freedom = 9, CFI=.970, RMSEA=.113

Table 43

Comparisons of Chi-square, CFI, and RMSEA by different methods of CFA for RIO

Model	Chi-square	CFI	RMSEA
All 6 items	40.035 (9)	.970	.113
Item 4 removed	32.157 (5)	.973	.141
Item 3 removed	17.612 (5)	.980	.096

Estimated Reliability of DFS

The item means are ranging from 2.958 to 4.427 and the standard deviations are from .76 to 1.289 (Table 44). The inter-item correlations are all positive but most of the inter-item correlations were below .50. While there were a few that were much higher than .50. The strongest correlation was between Item 4 and 6 (r=.844). It is generally suggested that the Korean Americans' performance was not consistent on these items. The scale mean is 31.107 with a standard deviation of 5. 383 (Table 48) and the item variance is ranging from .578 to 1.662 (Table 46). The average inter-item correlation

is .360 with values ranging from .029 to .844. The largest correlation is about 28.6 times larger than the smallest correlation. The variance of the inter-item correlations appears to be slightly high at .050. All the items had correlations with total scores (.173 and above). The values of R-square of the items would be .085 for the item, which had the least multiple coefficient level (Table 15). Coefficient alpha of .793 is reported, and Item 5 and 8 were reducing the reliability. F- ratio is 93.553 with a probability of less than .001. This indicates that there is a significant amount of variation among the eight items in the scale (Table 49). A split-half reliability analysis was computed and had another result in RCI-10's reliability (Table 50). After the eight items were split into two equal part (Part 1: item 1 ~4; Part 2: item 5~8), a correlation was computed to be .667, which indicates a moderately high consistency between the two halves. Applying the equal-length Spearman-Brown formula, to the entire scale of ten items, resulted in a reliability estimate of .800, which is high and supporting the internal consistency of DFS. The goodness of fit of the CFA model for DFS was evaluated using CFI and RMSEA (Table 51). This analysis revealed a poor fit (CFI=.829, RMSEA=.173). In this first CFA with all the 8 items, Item 5 and 8 were found to be the weakest factors, and the second CFA was conducted after removing these items, which resulted in a good fit model indices (CFI=.938, RMSEA=.188) while RMSEA was still above .1 (Table 52). In attempts to remove any redundant factoring, several item combinations were attempted utilizing CFA. As a result, only one method revealed a better fit index of RMSEA removing the reversed coded items of 2, 4, 6 and 7 (CFI=.904, RMSEA=.127). Also, removal of Item 5, 6 and 7 made a relatively good fit model (Table 52).

Table 44

Item Statistics of DFS

Item	Mean	Std. Deviation	N
Item 1	4.4269	.76003	260
Item 2	3.7423	1.14867	260
Item 3	3.3346	1.09030	260
Item 4	4.2654	.90193	260
Item 5	2.9577	1.28930	260
Item 6	4.3692	.83955	260
Item 7	3.9462	1.18427	260
Item 8	4.0654	1.10087	260

Table 45

Inter-Item Correlation Matrix of DFS

	1	2	3	4	5	6	7	8
1: Item 1	-							
2: Item 2	.502	-						
3: Item 3	.293	.436	-					
4: Item 4	.747	.491	.314	-				
5: Item 5	.109	.144	.433	.139	-			
6: Item 6	.714	.499	.354	.844	.189	-		
7: Item 7	.469	.603	.567	.550	.252	.567	-	
8: Item 8	.163	.029	.101	.097	.196	.175	.106	-

Table 46

Summary Item Statistics of DFS

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.888	2.958	4.427	1.469	1.497	.270	8
Item Variances	1.110	.578	1.662	1.085	2.878	.141	8
Inter-Item Correlations	.360	.029	.844	.815	28.614	.050	8

Table 47

Item-Total Statistics of DFS

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 1	27.7731	22.107	.554	.428	.761
Item 2	28.1500	23.410	.313	.218	.807
Item 3	27.1615	25.510	.173	.085	.825
Item 4	26.6808	23.809	.619	.606	.760
Item 5	27.3654	21.677	.559	.445	.760
Item 6	26.8423	22.604	.648	.764	.750
Item 7	26.7385	22.665	.701	.748	.746
Item 8	27.0423	20.960	.675	.549	.740

Table 48

Scale Statistics of DFS

Mean	Variance	Std. Deviation	N of Items
31.1077	28.977	5.38301	8

Table 49

Analysis of Variation for DFS

		Sum of Squares	df	Mean Square	*F*	Sig
Between People		938.123	259	3.622		
Within People	Between Items	491.977	7	70.282	93.553	.000
	Residual	1362.023	1813	.751		
	Total	1854.000	1820	1.019		
Total		2792.123	2079	1.343		

Note. Grand Mean = 3.8885

Table 50

Reliability Statistics of DFS

Cronbach's Alpha	Part 1	Value	.756
	Part 2	Value	.541
		Correlation Between Forms	.667
Spearman-Brown Coefficient		Equal Length	.800
		Unequal Length	.800

Note. Part 1 includes the items1, 2, 3, 4, and Part 2 includes the items 5, 6, 7, 8.

Table 51

Factor loadings of the items of DFS

Item	Factor loadings
Item 1	.807
Item 2	.609
Item 3	.451
Item 4	.911
Item 5	.201
Item 6	.889
Item 7	.662
Item 8	.195

Note. Chi-square = 183.550, Degrees of freedom = 20, CFI=.829, RMSEA=.173

Table 52

Fit Indices for the Different Item Modifications of DFS

Model	Chi-square	CFI	RMSEA
All 8 items	183.550 (20)	.829	.173
Item 5, 8 removed	53.218 (5)	.938	.188
Item 4, 5, 8 removed	70.231 (5)	.876	.219
Item 4 removed	122.799 (14)	.817	.169
Item 2, 4, 6, 7 removed	10.788 (2)	.904	.127
Item 5, 6, 7 removed	31.355 (5)	.930	.139

Estimated Reliability of EFS

The item means of EFS are ranging from 2.525 to 3.517 (Table 55). The inter-item correlations are all positive with exception of the correlation between Item 1 and 5 (r=-.031). Most of the inter-item correlations were below .50 while there were a few that were much higher than .50 (Table 54). The strongest correlation was between Item 6 and 8 (r=.786). It is generally suggested that the Korean Americans' performance was not

consistent on these items. The scale mean is 24.293 with a standard deviation of 5. 549 (Table 57), and the item variance is ranging from 1.010 to 1.381 (Table 46). The average inter-item correlation is .313 with values ranging from -.031 to .786. The variance of the inter-item correlations appears to be slightly high at .043. All the items had correlations with total scores (.272 and above). The values of *R-square* of the items would be .208 for the item, which had the least multiple coefficient level (Table 56). Coefficient alpha of .786 is reported, and Item 4 was reducing the reliability (Table 56). *F-* ratio is 37.156 with a probability of less than .001. This indicates that there is a significant amount of variation among the eight items in the scale (Table 58). A split-half reliability analysis was computed and had another result in EFS's reliability (Table 59). After the eight items were split into two equal part (Part 1: item 1 ~4; Part 2: item 5~8), a correlation was computed to be .653, which indicates a moderately high consistency between the two halves. Applying the equal-length Spearman-Brown formula, to the entire scale of ten items, resulted in a reliability estimate of .790, which is slightly high and moderately supporting the internal consistency of EFS.

The goodness of fit of the CFA model for EFS was evaluated using CFI and RMSEA. The analysis revealed a poor fit with all the eight items (CFI=.525, RMSEA=.272) (Table 60). For a better set of fit indices, several item combinations were analyzed, and the model removing Item 5 and 7 was revealed as a best model fit with the data (CFI=.894, RMSEA=.145) (Table 61). According to these results, EFS is suggested not acceptable for Korean Americans.

Table 53

Item Statistics of EFS

	Mean	Std. Deviation	N
Item 1	2.9498	1.17524	259
Item 2	3.1274	1.05800	259
Item 3	3.1197	1.10546	259
Item 4	3.2355	1.00509	259
Item 5	3.5174	1.08312	259
Item 6	2.5637	1.08495	259
Item 7	3.2548	1.08045	259
Item 8	2.5251	1.16570	259

Table 54

Inter-Item Correlation Matrix of EFS

	1	2	3	4	5	6	7	8
1: Item 1	-							
2: Item 2	.255	-						
3: Item 3	.100	.351	-					
4: Item 4	.417	.132	-.012	-				
5: Item 5	-.031	.348	.612	.069	-			
6: Item 6	.475	.400	.270	.247	.292	-		
7: Item 7	.096	.375	.643	.080	.698	.313	-	
8: Item 8	.534	.348	.207	.314	.223	.786	.229	-

Table 55

Summary Item Statistics of EFS

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.037	2.525	3.517	.992	1.393	.118	8
Item Variances	1.201	1.010	1.381	.371	1.367	.015	8
Inter-Item Correlations	.313	-.031	.786	.817	-25.111	.043	8

Table 56

Item-Total Statistics of EFS

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 1	21.3436	24.699	.404	.415	.778
Item 2	21.1660	24.511	.493	.258	.763
Item 3	21.1737	24.338	.480	.487	.765
Item 4	21.0579	26.946	.272	.208	.794
Item 5	20.7761	24.407	.487	.571	.763
Item 6	21.7297	22.896	.648	.651	.737
Item 7	21.0386	23.874	.545	.576	.754
Item 8	21.7683	22.721	.604	.657	.743

Table 57

Scale Statistics of EFS

Mean	Variance	SD	N of Items
24.2934	30.797	5.54953	8

Table 58

ANOVA of EFS

		Sum of Squares	df	Mean Square	*F*	Sig
Between People		993.212	258	3.850		
Within People	Between Items	214.008	7	30.573	37.156	.000
	Residual	1485.992	1806	.823		
	Total	1700.000	1813	.938		
Total		2693.212	2071	1.300		

Note. Grand Mean = 3.0367

Table 59

Reliability Statistics of EFS

Cronbach's Alpha	Part 1	Value	.513
		N of Items	4
	Part 2	Value	.745
		N of Items	4
		Total N of Items	8
		Correlation Between Forms	.653
Spearman-Brown Coefficient		Equal Length	.790
		Unequal Length	.790

Note. Part 1 includes the items 1, 2, 3, 4, and Part 2 includes the items 5, 6, 7, 8.

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Table 60

Factor loadings of the items of EFS

Item	Factor loadings
Item 1	.571
Item 2	.450
Item 3	.322
Item 4	.360
Item 5	.341
Item 6	.883
Item 7	.363
Item 8	.862

Note. Fit indices: Chi-square = 423.376, Degrees of freedom = 20, CFI=.525, RMSEA=.272

Table 61

Fit Indices for the different item modifications of EFS

Model	Chi-square (df)	CFI	RMSEA
All 8 items	423.376 (20)	.525	.272
Item 5, 7 removed	60.134 (9)	.894	.145
Item 5, 7, 8 removed	44.474 (5)	.808	.170
Item 5, 6, 7 removed	36.900 (5)	.853	.153

In summary, the results of reliability analyses and the goodness fit of the CFA models on the instruments of RCI-10, TRIM-R, TRIM-A, RIO, DFS, and EFS suggest that the reliability coefficients of the scales were generally acceptable and useful for the Korean population. Specifically, RCI-10, TRIM-R, and TRIM-A were suggested to be

highly reliable while DFS and DFS were moderately reliable due to many of the items, which were reducing the reliabilities of the scales. RIO had a high reliability though one item had a low correlation with the other items and reducing the reliability of the scale. Goodness of Fit modeling characteristics revealed the following. TRIM-R appeared acceptable for the Korean population based on both CFI and RMSEA criteria; RCI-10, the TRIM-A, and DFS are questionable since the RMSEA never met the criterion established; RIO with item 3 removed may be acceptable; and the EFS appeared unacceptable because both the CFI and RMSEA criteria were not met.

Research Question Two: Impact of Acculturation on Health

Research question #2: Is acculturation positively related with physical and emotional health for Korean Americans? If this is the case, there is a positive association between acculturation level, which is indicated by behavioral tendency and cultural value in a foreign culture and physical and mental health status. With a consistency to the hypothesis, the more assimilated to American culture are likely to be healthier than those with more separated from the host culture.

After analyzing correlation between age and health, which was found with no significant correlation (see Table 70), a hierarchical multiple regression analysis was computed on the predictor variable of acculturation with the criterion variables of physical and mental health status. In the order with which the variables were input in the Multiple Regression analysis, the subscales of KAAS was input first because acculturation was regarded to impact more indirectly on health than the other independent variables, religious commitment and forgiveness style. In Step 1, the analysis with acculturation input as the only the independent variable on the dependent of health suggests that the coefficient of multiple determination (R^2) between the variables of Acculturation and Health was .097, and collectivism and self-control as acculturation factors, were presented as significant predictors of health.

The total scores in the instruments were used to analyze the data for the association between those variables. The KAAS measures how much the sample stayed acculturated in the Korean culture, and it was hypothesized that the psychometric levels of the KAAS and the SF-12 were inversely correlated. Also, the four categories of the

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ethnic orientation style by the EOS were used to discover any relationship between the level of assimilated acculturation into the non-Korean culture and health.

In Step 1, self-control is most significantly impact on health among all acculturation factors including usage, social contact, collectivism, success, and self-control (β=.202). In Step 2 where another predictor variable of religious commitment was included in the analysis, collectivism (β=-.215) was the most powerful factor of acculturation for health. In Step 3 where the unforgiveness factors including Trim-R, Trim-A, and Rio were accumulated to Step 2, the regression score of collectivism increased from -.215 to -.222 as the significant factor, while that of self-control decreased from .195 to .183. However, in Step 4 with EFS and DFS accumulated to Step 3, the regression level of collectivism was reduced to -.219 while that of self-control was remained the same score of .183. Across the models, collectivism and self-control were the main factors of acculturation for health with little change in their levels. Finally, collectivism was negatively associated with health while self-control was positively impacting on health. Also, by EOS, assimilation (β=.018 and above) across Step 2, 3, and 4, was more likely to positively predict health than other ethnic orientation styles including integration and marginalization. Marginalization was compared among the 4 styles of ethnic orientation to be the most negative style in relationship with health indicated with β score of -.118 at most across all four models (see Table 62).

Table 62

Regression coefficients between the predictor variables of acculturation, religious commitment and forgiveness style and the criterion variable of health in four steps of Multiple Analysis

	Step and variables		B	SE B	95% CI	β	R^2 (ΔR^2)
Step 1	Acculturation	Usage	-.142	.156	-.45, .166	-.092	
		Social Contact	.364	.209	-.05, .775	.180	
		Collectivism	-.392	.150	-.69, -.096	-.198*	
		Success	-.301	.231	-.76, .154	-.091	
		Self-control	.639	.226	.19, 1.084	.202**	.097
Step 2	Acculturation	Usage	-.100	.155	-.41, .206	-.065	
		Social Contact	.334	.207	-.07, .741	.165	
		Collectivism	-.425	.150	-.72, -.131	-.215**	
		Success	-.357	.232	-.81, .099	-.108	
		Self-control	.618	.228	.17, 1.07	.195**	
	Rlgs. Cmmt.	Intrapersonal RC	-.284	.145	-.57, .00	-.233	
		Interpersonal RC	.565	.218	-.13, .99	.309*	.124 (.026*)
Step 3	Acculturation	Usage	-.077	.152	-.37, .22	-.050	
		Social Contact	.321	.203	-.08, .72	.159	
		Collectivism	-.438	.148	-.73, -.15	-.222**	
		Success	-.134	.235	-.60, .33	-.041	
		Self Control	.580	.222	.14, 1.01	.183*	
	Rlgs. Cmmt.	Intrapersonal RC	-.369	.145	-.65, -.08	-.303*	
		Interpersonal RC	.606	.213	.19, 1.02	.331**	
	Unforgiveness	TrimR	-.188	.832	-1.83, 1.45	-.020	
		TrimA	-.413	.657	-1.71, .88	-.057	
		Rio	-2.117	.643	-3.38, -.85	-.237**	.187 (.064**)
Step 4	Acculturation	Usage	-.076	.152	-.37, .22	-.049	
		Social Contact	.334	.204	-.07, 74	.165	
		Collectivism	-.432	.149	-.72, -.14	-.219**	
		Success	-.087	.238	-.56, .38	-.027	
		Self Control	.580	.223	.14, 1.02	.183*	
	Rlgs. Cmmt.	Intrapersonal RC	-.385	.145	-.67, -.02	-.316**	
		Interpersonal RC	.591	.214	.17, .51	.323**	
	Unforgiveness	TrimR	.348	.965	-1.55, 1.48	.037	
		TrimA	-.041	.720	-1.46, .84	-.006	
		Rio	-2.021	.658	-3.32, -.50	-.226**	

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Forg. Style	DFS	1.070	1.256	-1.40, 2.16	.094	
	EFS	.721	1.043	-1.33, 1.69	.063	.193 (.006)

Note. Criterion variable = Health; CI = confidence interval; *p<.05, **p<.01

Table 63

Regression coefficients between the predictor variables of acculturation, religious commitment and forgiveness style and the criterion variable of health in three steps of Multiple Regression Analysis with item adjustments of RCI-10, TRIM-A, and RIO

Step and Variable		B	$SE\ B$	95% CI	B	$R^2\ (\Delta R^2)$
Step 1						
Acculturation	Usage	-.090	.144	-.373, .194	-.057	
	Social Contact	.317	.190	-.057, .691	.152	
	Collectivism	-.400	.139	-.673, -.126	-.204**	
	Success	-.339	.212	-.756, .078	-.103	
	Self-Control	.683	.203	.283, 1.08	.225**	.075
Step 2						
Acculturation	Usage	-.091	.144	-.375, .192	-.058	
	Social Contact	.319	.190	-.056, .693	.153	
	Collectivism	-.402	.139	-.676, -.128	-.205**	
	Success	-.331	.213	-.750, .089	-.100	
	Self-Control	.664	.208	.254, 1.07	.219**	
Religious Commitment	Relgs. Cmmtmt.	.028	.064	-.098, .154	.026	.076 (.001)
Step 3						
Acculturation	Usage	-.074	.141	-.350, .203	-.047	
	Social Contact	.298	.186	-.068, .664	.143	
	Collectivism	-.384	.138	-.655, -.113	-.196**	
	Success	-.124	.216	-.550, .301	-.038	
	Self-Control	.594	.204	.192, .996	.196**	
Religious Commitment	Relgs. Cmmtmt.	-.008	.068	-.142, .126	-.008	
Unforgiveness	Revenge	-.352	.776	-1.88, 1.17	-.037	
	Avoidance	-.174	.542	-1.24, .894	-.024	
	Rumination	-2.035	.620	-3.25, -.814	-.223**	.134 (.059**)

Note. ** p<.01

Research Question Three: Impact of Religious Commitment on Health

Research question #3: Is religious commitment positively related with physical and emotional health for Korean Americans? If this is the case, there will be a positive association between religious commitment level (the degree to which a person adheres to his or her religious values, beliefs, and practices and uses them in daily living) and physical and mental health status. Consistent with the hypothesis, the more religiously committed participants are likely to be healthier than those who are less religiously committed.

In addition to Model 1, religious commitment was input because it was believed that religious commitment should be less directly impacting on health than forgiveness while acculturation should be correlated with religious commitment and religious commitment should be more directly influencing on health than acculturation as a mediator between acculturation and forgiveness. In Model 2, the analysis of the regression between the two independent variables of Acculturation and Religious Commitment and health suggests that Model 2 is more coefficient than Model 1 with an increased *R-square* at .124, but still not significant while collectivism and self-control were the significant factors for health among the factors from the two constructs, acculturation and religious commitment.

First of all, out of 273, 196 were recommended to take the survey by church or religious organization (76.3% of valid sample, see Table 65). Mean differences were compared to investigate correlation between Survey Recommender and religious commitment to see whether there was religious influence of Survey Recommender such

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as church on the participants' responding to the questionnaire of religious commitment (Table 64). The results of the analysis of variance suggest that the three recommenders of the survey including Church or other religious organization, Non-profit organization excepting church or other religious organization, and Friend had no significant difference in the mean scores of religious commitment to each other while "Other" facilitator had a significant difference from the other Survey Recommenders (Table 64).

Table 64

Comparisons of the mean differences of Survey Recommender

Variable	Mean Difference	Std. Error	Sig.
Non-profit organization (excepting church or a religious organization)	-3.38	2.20	.126
Friend	-2.00	2.25	.374
Other	7.07[*]	2.02	.001

Note. DV=Religious Commitment; Reference = Church or religious organization; *p < .05

The hierarchical multiple regression analysis was computed on the predictor variable of religious commitment with the criterion variable of physical and mental health status. In Step 2, Interpersonal Religious Commitment (Interpersonal RC) was resulted to be significantly associated with health (β=.309). In Step 3 and 4, the significant regression of Intrapersonal Religious Commitment was shown, and with DFS and EFS in Step 4, Intrapersonal Religious Commitment became more significantly associated with health (β=-316) while Interpersonal Religious Commitment was steadily impacting on

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health across Model 3 (β=.331) and 4 (β=.323). Positively related was Interpersonal

Religious Commitment with health while negatively related was Intrapersonal Religious

Commitment (Table 62).

Table 65

Comparison of Survey Recommender

Recommender	N	Percent
Church or religious organization	196	71.8
Non-profit organization (excepting church or a religious organization)	19	7.0
Employed company	1	.4
Friend	18	6.6
Other	23	8.4
Not answered	16	5.9
Total	273	100.0

Research Question Four: Impact of Unforgiveness and/or Forgiveness Style on Health

Research question #4: Is unforgiveness and/or forgiveness style predicting physical and emotional health for Korean Americans? If this is the case, there is a positive association between unforgiveness and/or emotional style of forgiveness and physical and emotional health status. With a consistency to the hypothesis, the more reduced unforgiveness and/or emotionally forgiving Korean Americans are likely to be healthier than those who are less reduced unforgiveness and/or emotionally forgiving.

A regression analysis was computed on the independent variable of forgiveness style with the dependent variable of physical and mental health status. The scores of unforgiveness and forgiveness style were obtained from the mean scores of the mean scores of each of the three hurt incidents' total scores of each RIO, TRIM-A, TRIM-R, EFS, and DFS. The effects of pre and post-incident closeness (e.g., a stranger, impossible to encounter again, conflictual, or harmonious) to the transgressor by Avoidance and Revenge levels were controlled before the multiple regression analysis was conducted because they could reduce any statistical errors. The emotional forgiveness style was resulted to be identified with the score of EFS high, and unforgiveness was identified with the scores of TRIM-R, TRIM-A, and RIO when they are high. On the other hand, the decisional forgiveness style is present according to the score of DFS. This does not mean that the DFS score is high. For the cases of having only one or two hurt event(s), the analysis regarded the missing values as being omitted when obtaining the mean scores across the hurt events.

At first in Step 3, the factors of unforgiveness were input to Step 2 because it was believed that unforgiveness may mediate between religious commitment and forgiveness style. In Step 3, Intrapersonal Religious Commitment (β=-.303) and Interpersonal Religious Commitment (β=.331) became significant when RIO was added into the model as a significant predictor of health at the β score of -.237. In this model, the results of the analysis accumulated with the variables of Trim-R, Trim-A, and Rio into Model 2 suggest that the newly included variables gave significant effects on health with an elevated R-square at .187. Also, the R-square difference between Model 2 and Model 3 is significantly larger than that of Model 1 and Model 2, which suggests that unforgiveness indicated by TRIM-R, TRIM-A, and RIO is a main predictor elevating the impacts of the independent variables on health. The results of the hierarchical multiple regression analysis suggest that RIO was significantly associated with health in Model 3 (β=-.237) and Model 4 (β=-226) while other factors of forgiveness were not (see Table 62).

In Step 4, DFS and EFS were added to Step 3 for more legitimate specification of the effects of forgiveness styles. With both measurements of emotional and decisional forgiveness styles, it was expected to find both of the effects from emotional and decisional forgiveness. Most of all, the reason why these forgiveness scales were input at the last turn was that difference in forgiveness style was expected to be the most direct and powerful impact on health. In Step 4, the five factors for health including Collectivism, Self-Control, Intrapersonal Religious Commitment, Interpersonal Religious Commitment, and RIO remained the same significant predictors of health as in Step 3. The coefficient of multiple determination in Step 4 was scored at .193, which was not

significantly changed from that of Step 3. The *R-square* difference between Step 3 and

Step 4 is not significant but still more effects with emotional and decisional forgiveness

on health. Any significant differentiation between the two forgiveness styles of emotional

forgiveness and decisional forgiveness was not suggested by the input of EFS and DFS.

However, rumination indicated by RIO was found to be the significantly negative

influence on health status as a variable of unforgiveness so that unforgiveness is

suggested to directly impact on health status in a negative way.

Also, the situations of transgression that were described by the severity of their

experienced hurt (Hurt Severity), their closeness with the transgressors before and after

the events (Pre-Closeness and Post-Closeness), and the time duration since the events

happened to them (Duration) were also analyzed to find out any effect on their

forgiveness. Among the possible situational factors, the closeness with transgressor after

the hurt experience (Post-Closeness) was suggested to be the significant factor for all the

forgiveness related scales (see Table 66 and Table 67).

Summary

The results of reliability analyses on the RCI-10, TRIM-R, TRIM-A, RIO, DFS,

and EFS suggest that the reliability coefficients of the scales were generally acceptable

and useful for the Korean population. The TRIM-R, and TRIM-A were suggested to be

highly reliable while RCI-10 and RIO were moderately reliable. DFS and DFS were

weakly reliable due to many of the items which reduced the reliabilities of the scales. The

reliability of RCI-10 was confirmed but its weakest four items including Item 1, 2, 9, and

10 were removed for a better reliability. RIO had a high reliability though one item (Item 3) decreased the goodness of model fit of RIO. The multiple regression analysis was conducted two different times before and after the four items of RCI-10 and the one item of RIO were removed (c.f., Table 62 and Table 63). There was no significant difference between these two different multiple regression analyses.

Throughout the regression models, the effects of the ethnic orientation style were also analyzed categorically. A regression analysis for this matter was included in the hierarchical multiple regression analysis to find out the differences among the effects of the four ethnic orientation styles including Separation, Integration, Assimilation, and Marginalization. Finally, without the effects of forgiveness in Model 1 and 2, Marginalization was negative in comparison to Separation with significant β scores of -.145 and -.129. These results suggest that in comparison to the participants who were acculturated and stayed in Korean culture (Separation), those who were not acculturated in either Korean or American cultures (Marginalization) were most significantly and negatively different in their cultural and religious factors for health (Table 68).

When unforgiveness, however, related factors were added, EOS differences were not making any significantly different impact on health (Table 68). This suggests that when unforgiveness is involved, the ethnic orientation style is not any longer a predictor of health status. In other words, no matter how they are ethnically oriented, once they are experiencing an emotional hurt that leads to unforgiveness, their health status is being influenced by such a response.

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In short, a multiple regression analysis was conducted by four models in which the independent variables were computed in the order of acculturation, religious commitment, unforgiveness, and forgiveness style to see their coefficient regression levels with the criterion of health status. As hypothesized, factors of unforgiveness were the most direct and consistent predictors of health, and acculturation and religious commitment also were associated with health status. The subscales of each construct were influencing on health in different ways, and it is suggested that the constructs were partially impacting health status in the variable sets. These results are more specifically discussed in the next chapter.

Table 66

Means, Standard Deviations, and Correlations for Hurt Severance, Pre-Closeness, Post-Closeness, Duration, Trim-R, Trim-A, Rio, DFS, and EFS

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Hurt Severity	3.61	1.04	-								
2. Pre-Closeness	3.23	.74	.02	-							
3. Post-Closeness	2.63	.84	-.08	.18**	-						
4. Duration since hurt	45.64	52.44	.17**	-.03	-.14*	-					
5. TRIM-R	8.80	4.18	.15*	-.07	-.28**	-.05	-				
6. TRIM-A	16.82	7.84	.19**	-.11	-.57**	.04	.61**	-			
7. RIO	14.92	5.28	.36**	.03	-.16*	-.02	.43**	.43**	-		
8. DFS	31.09	5.41	-.08	.08	.38**	.05	-.71**	-.64**	-.41**	-	
9. EFS	24.19	5.60	-.23**	.14*	.42**	-.04	-.60**	-.68**	-.49**	.61**	-

Note: * p < .05; ** p < .01

Table 67

Comparison of Post-Closeness

Post-closeness	N	Percent
Impossible/hard to encounter again	57	20.9
Negative & Conflictual	37	13.6
Neutral between Conflictual and Harmonious	109	39.9
Positive and Harmonious	61	22.3
Not answered	9	3.3
Total	273	100.0

Table 68

Significance in EOS group difference among Separation, Integration, Assimilation, and Marginalization

Variable	Step 1	Step 2	Step 3	Step 4
Marginalization	-.145*	-.129*	-.121	-.118

Note. DV= Health; Reference = Separation; * p<.05

Table 69

Correlation between Decisional Forgiveness and Self-Control

Variable	M	SD	1	2
1. DFS	3.83	.69	-	
2. Self-Control	16.10	2.29	.150*	-

Table 70

Correlation between age and health

Variable	M	SD	1	2
1. Age	41.08	11.85	-	
2. Health	43.01	6.96	-.028	-

Note. No significance found

CHAPTER FIVE: SUMMARY, CONCLUSONS, AND RECOMMENDATIONS

This study had two parts of intent. First, through confirmatory factor analysis, it tested the factors that several U.S. religious measures are theorized to be loaded on with a new population – Koreans. The Religious Commitment Inventory – 10 (RCI-10), the Transgression-Related Interpersonal Motivations Scale – 12-Item Form (TRIM-R and TRIM-A), the Rumination About an Interpersonal Offense Scale (RIO), the Decisional Forgiveness Scale (DFS), and the Emotional Forgiveness Scale (EFS) were tested by conducting Confirmatory Factor Analyses. Second, it investigated the influence of acculturation, religious commitment, and forgiveness style on the self-reported health of Koreans by Multiple Regression Analyses.

In this chapter, a brief summary of the study's major findings is presented, and then these findings and their implications are discussed in the conclusion section. The chapter ends with a discussion of the limitations and suggestions for the future research.

Summary

This study utilized a quantitative survey method, confirmatory factor analysis, and Multiple Regression Analysis to investigate the reliabilities of the measuring instruments and the relationship between the predictors of acculturation, religious commitment, unforgiveness, and forgiveness style, and the criterion variable of health status for the Korean American population. Primary findings for the confirmatory factor analysis will be summarized first, followed by findings for the Multiple Regression Analysis.

In the Confirmatory Factor Analysis, some of the six psychometric instruments are had adequate psychometric and factorial characteristics for the Korean population while the others are questionable or unacceptable. One subscale of the Transgression-Related Interpersonal Motivations Scale – 12-Item Form, the Revenge Motivations subscale (TRIM-R) was acceptable while the Avoidance Motivations subscale (TRIM-A) displayed an adequate coefficient alpha and CFI; however, its RMSEA score never reached criterion level, even with item adjustments. The Religious Commitment Inventory-10 exhibited similar results as the TRIM-A. The RIO likewise had similar results; however, its RMSEA was closer to criterion with one item (item 3) removed. Lastly, CFA results did not support the utility of the Decisional Forgiveness Scale (DFS) and Emotional Forgiveness Scale (EFS) for the Korean population.

In the Multiple Regression Analysis, three of four predictors (acculturation, religious commitment, and unforgiveness) are suggested to indirectly or directly influence health. Unforgiveness had direct effects on health while acculturation and religious commitment had indirect effects. Religious commitment had more direct effects on unforgiveness than acculturation did. Psychometric and confirmatory factor analysis characteristics of the DFS and EFS may help explain the lack of influence for the forgiveness style predictor variable.

Conclusions

In this section, the hypotheses and key findings are connected to the extant literature. First, the utility of the psychological instruments investigated will be

considered for the Korean population. Next, findings for the acculturation variable's influence on health will be considered in light of the literature. Religious commitment results will then be connected to the literature, and the findings for unforgiveness and forgiveness style will follow. Implications, limitations, and recommendations will conclude the dissertation.

Usefulness of the Psychometric Instruments

Several psychological instruments previously investigated with U.S. populations were found to have adequate factorial characteristics to be useful with the Korean population. TRIM-R is useful while RCI-10, TRIM-A, and RIO had a few items that were not useful for the Korean population. These instruments can be adapted for usage with the Korean population through these item adjustments. Lastly, the EFS and DFS appeared to need significant work to be useful with the Korean population.

Acculturation and Health of Korean Americans

The Korean sample in this study contained a broad spectrum in terms of acculturation level. More cases of the sample preferred to use Korean language and to meet Korean people rather than to use English and to spend time together with non-Korean people in their daily lives. Out of 273, 221 (81%) answered that they lived in the United States while 35 (13%) participants reported as residents of South Korea. Some of them were more collectivistic, more self-controlling, and/or more traditional in Korean values of success in study and job achievements. Some others, on the other hand, were

less collectivistic, less self-controlled, and/or less traditional in Korean values of success. That means the ways of language usage and social contact were typical in the indigenous Korean population, but there were within-group differences in attitude and worldview. Accordingly, the within-group differences in the attitude and worldview were found to generate differences in health status.

Most of all, collectivism and self-control were the chief acculturation factors influencing health status. Their collectivism was negatively impacting their health no matter how the conditions of their religiosity and interpersonal relationships were influencing their lives. On the other hand, self-control was positively influencing health status in any religious and interpersonal situations. These findings are consistent to the empirical literature as following. The people with higher collectivism may be motivated by their belonging social groups such as family, church, and work more than by their own self interests (Sandage & Wiens, 2001). Accordingly, they may tend not to take care of their matters for their own sake but for others, which may affect their health. In contrast, self-control was helping health in the results, which is also consistent with the literature as following. The items of self-control from the measurement of KAAS questioned how much they control their emotions; how much they have humility; and how much they show-off in their interpersonal relationships. Failure in controlling emotions and/or a lack of humbleness may easily cause interpersonal conflicts, which may reduce the chances of obtaining social support. As social support was earlier studied as a factor for better health (e.g., Cohen, Gottlieb, & Underwood, 2000; Koenig, McCullough, & Larson, 2001), the

results for the current study support the suggestion that self-control may be a positive predictor of health.

Additionally, the Korean Americans had four kinds of ethnic orientation styles including Separation (more Korean orientation and less non-Korean), Integration (more Korean orientation and more non-Korean), Assimilation (less Korean and more non-Korean), and Marginalization (less Korean and less non-Korean). The results of the study suggest that the Korean Americans who were acculturated with Korean culture and/or the host culture are found to be healthier than those who are little acculturated into either Korean or non-Korean traditional culture. In other words, the people who are staying outside of the both cultures are less likely to have a good health than those who are involved in Korean and/or non-Korean cultures. This result is consistent with the reviewed literature (e.g., Berry, 1998; Messias & Rubio, 2004).

It was earlier said that when Korean Americans are acculturated in a bidimensional rather than unidimensional manner, they may be obtaining or losing their traditional and new health behavior at the same time. Obviously, active learning of the host society's healthy life patterns such as regular exercise and lower salt intake may positively impact on health. In this regard, the immigrants with the acculturation form of marginalization may be less likely to keep their traditional health behavior and also to obtain new health behavior. Such life tendencies may be more likely to affect their health status than obtaining or losing their traditional and new health behavior simultaneously.

Interestingly, the current study's results suggest that language usage, social contact, and success were not significant factors for health while collectivism and self-

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control were found to be significant. Acculturation, therefore, is suggested to partially impact health status. This finding appears to go against some of the predictions of the literature (e.g., Messias & Rubio, 2004). However, this also indicates that there were within-group differences by the ethnic orientation style mentioned above. The more social contacts Koreans have without being socially isolated, the better their health status is, no matter what ethnic group the people they meet belong to because social contacts provide them with social supports. Also, the items of success asked the participants whether their motivations for educational and job achievements are for the sake of parents and family. These are also about their collectivism because they pursue their social achievements for obtaining social credits toward their family. Again, there may be within-group differences. Success can be a negative factor for health because it is supposed to be correlated with collectivism. However, it can be also a positive factor because one may be successful in education and career thanks to the powerful motivations from family. Lee's (2007) study suggested that among the religious and spiritual factors, social and religious supports were significantly associated with less depression for the Korean respondents with higher education. In Lee (2007)'s study, it was also suggested that Korean Americans with higher education who are given religious support from peer church members are less likely to have depression. Low levels of education were indicated as the significant predictiors of depression in the study.

In short, the results about the relationship between acculturation and health are generally consistent with the literature review. Some of the factors (usage, social contact, and success) seemed not to impact health status but they are explained by within-group

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differences. Collectivism and self-control were found to be the two direct predictors for health in acculturation. In other words, the Korean Americans who tend to suppress their negative emotions for the sake of other people are less likely to have a better health status, and those who control their positive emotions for others and themselves are more likely to have a better health.

Religious Commitment and Health of Korean Americans

In the literature review, religious commitment was hypothesized to be a predictor for a better health status because of its three factors including social support (Kaugh, 1999; Wong, Yoo, & Stewart, 2005), effective stress coping (Pargament, 1997), and promotion of health behavior (Galen & Rogers, 2004; Hurh & Kim, 1990; Kim, Yu, Chen, Kim, Brintnall, & Vance, 2000; Worthington et al., 2001). Intrapersonal religious commitment was believed to make opportunities of effective stress coping (Pargament, 1997) and promotion of health behavior with pro-virtues such as self-control and forgiveness (Worthington et al., 2001).

The results of the current study, however, suggested intrapersonal religious commitment was a negative predictor for health. This result appears to be contradictory to the literature. Yet, Koenig et al. (2001) noted that negative health effects of religion occur, first, when expositions of the religious scriptures are made in a dysfunctional manner which leads to harmful beliefs regarding medical treatment; second, when God is perceived primarily as a punishing God. In other words, intrapersonal religious commitment, which involves religious beliefs, religious commitment can be a negative

predictor for health if a conceptualization of God is predominantly judging and punishing. Such a religious belief in God who is punishing produces feelings of guilt which may mediate between religiosity and depression (Koenig et al., 2001). Alternatively, believing in a loving and forgiving God rather than an punishing-only God may lead to a positive influence of religion on health status. As religiosity is involved in understanding who God is, it is inferred that Koreans' conceptions about God may be negatively influencing their health. Many of the Korean Americans may have in mind the features of God as punishing rather than forgiving because Koreans have been influenced by the Korean traditional religions such as Shamanism, Buddhism, and Confucianism in understanding God. With this proposition, intrapersonal religious commitment is not necessarily positively impacting health status. Of course, this is only a possible interpretation of the result. No specific measure investigating the sample's beliefs about God was administered. The questionable psychometric characteristics of the RCI-10 for the Korean population may have contributed to the result as well. Lastly, the constructs themselves (intrapersonal and interpersonal religious commitment) may not be appropriate since they were developed for individualistic societies rather than the collectivistic culture of the Korean population.

In a comparison between intrinsic and intrapersonal religious orientation, the questions from the subscale of Intrapersonal Religious Commitment in RCI-10 are similar to those of Allport-Ross Religious Orientation Scale (ROS; Allport & Ross, 1967) in exception of the following two items: "Quite often I have been keenly aware of the presence of God or the Divine Being."; "If I were to join a church group, I would prefer

to join (1) a Bible Study group, or (2) a social fellowship." These two items from the intrinsic religious orientation as a subscale of ROS are not included in RCI-10, and RCI-10 is not asking about what they believe in or what religious principles they follow while ROS is. Therefore, it is not reckoned that the intrapersonal religious level of the sample in the current study indicated the extent to which they believe in a loving God instead of a punishing God. This suggests that Intrapersonal Religious Commitment as a subscale of RCI-10 was not typical in questioning intrinsic religious orientation. Therefore, a higher score in Intrapersonal Religious Commitment does not mean a higher level of intrinsic religious commitment in the current study.

It was also hypothesized that interpersonal religious commitment is likely to be compensated with social relationships by the church, which offer emotional relief from negative emotions, and emotional support with a sense of love and belonging (Wong, Yoo, & Stewart, 2005). This proposition is consistent with the result of the current study. Also, interpersonal religious commitment was found to be significant in its impact on health regardless of the effects of unforgiveness. Interpersonal religiosity involves in practice of social activities within the church involved circumstances. The roles of the church for the Korean Americans presented in the literature review are giving opportunities mainly of interpersonal interactions for emotional supports and arranging job opportunities, which may be involved in helping their health directly and/or indirectly. Koenig, McCullough, and Larson's (2001) study supports these suggestions. According to their study, religion provides stress coping resources such as social support, which may decrease the level of loneliness, lower depression, reduce suicides, and decrease anxiety

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(Koenig, McCullough, & Larson, 2001). Furthermore, religious commitment may be associated with less alcohol and drug abuse, with less social crime, and also the results of marital satisfaction and stability promote the children's mental health. Directly and indirectly, then, religion and its outcomes influence health status by promoting effective stress coping, social support and health behaviors according to the literature. These three factors are also involved with acculturation as mentioned in the previous section. In short, the more religious the Korean Americans are, the better health they tend to have.

Forgiveness and Health of Korean Americans

Collectivism was negatively associated with health status. According to the literature (e.g., Worthington & Scherer, 2004; Worthington et al., 2007), collectivistic forgiveness was hypothesized to be negative in influencing health. In other words, decisional forgiveness found in collectivistic populations does not improve health. Collectivism influences forgiveness to be more decisional than emotional (Hook, Worthington, & Utsey, 2009). For a promotion of health, an emotion-focused coping process needs to occur by resolving negative emotions, which may affect health (Worthington, Witvliet, Pietrini, & Miller, 2007). As only decision making to forgive without emotional change was suggested to be insufficient to positively impact health (Worthington & Scherer 2004), the influence of collectivism on the forgiveness style was hypothesized to be negative and on unforgiveness positive. In the present study, self-control and DFS are correlated (Table 69), and DFS and EFS are highly correlated. Decisional forgiveness is found not to be against health but neutral or positive because

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EFS is accompanied with DFS while DFS is not necessarily accompanied with EFS. Therefore, emotional forgiveness is suggested to more directly impact on health status. Accordingly, assessing the level of emotional forgiveness by unforgiveness-related measures is a more imperative way to figure out the relationship between forgiveness and health.

In the literature review, unforgiveness was defined as "a complex combination of delayed negative emotions toward a person who transgressed personal boundaries" (Worthington & Scherer, 2004, p. 386). When a transgression occurs, the emotions the victim immediately experiences are anger and/or fear (Worthington & Scherer, 2004). Such negative emotions can remain unresolved with rumination adding to the hurt person's sense of unforgiveness (Worthington & Scherer, 2004). As an indicator of unforgiveness, rumination about the experience of transgressions was found to be the most significant predictor of health status in the current study. This suggests that unforgiving emotions may affect health status, which is consistent with the literature (Worthington, Witvliet, Pietrini, & Miller, 2007).

Therefore, the Korean Americans who tend to repeatedly recall their hurt experiences are likely to have worse health than those who do not. Revenge or avoidance was not found to be significantly impacting health. Revenge and avoidance are interpersonal behavioral reactions to a hurt experience while rumination is an intrapersonal reaction. Given the Korean emphasis on interpersonal social harmony, revenge is discouraged and avoidance might bring unwanted community attention to the relationship with the offender. In such a situation, rumination appears the safest cultural

strategy to retain an offense. As collectivistic individuals tend to reconcile behaviorally rather than emotionally forgive the transgressor according to the literature (e.g., Hook, Worthington, & Utsey, 2009), negative emotions may stay in mind even though these emotions do not lead to revenge or avoidance of the transgressor. Yet, such decisional intents to move toward emotional forgiving should lead such persons toward forgiveness even though negative emotions may remain. With these negative and positive influences, the self-reported levels of revenge and avoidance, which are expected to impact health status, would not be consistent indicators of emotional condition for acculturated Koreans.

Finally, it is concluded that the people who tend to forgive only in decisional manner may or may not be healthier than those who stay in unforgiveness with little positive emotions such as love. Sometimes over time, however, behavioral exchange theory may begin influencing decisional forgiveness. The person's reconciling, positive behaviors towards the offender may make the person begin to exchange negative emotions such as resentment with positive emotions; the people who have advanced away from unforgiveness with little remaining negative emotions against the transgressor, may be less influenced by the event of transgression than those who still experience negative emotions and more rumination about the transgression.

Implications, Limitations, and Recommendations

There are implications, limitations, and recommendations from the current study.

Implications

The results of the current study suggest that the Korean population often exhibits collectivism which may affect their health status in a negative manner. Self control, as reflected in emotional control, humility, and showing-off tendencies, was suggested to predict health status in a positive manner. When Koreans are transgressed by a person and ruminate over the hurt experience, it may harm their health. From these results, some implications are suggested for counseling practice as following.

When counseling a Korean person, the counselor should assess the client's acculturation level, self-control, and rumination tendencies. An acculturation assessment is essential to provide an understanding about whether the person is operating from a collectivistic or individualistic worldview. The level of self-control by emotional control, humility, and show-off tendency may give a hint about the person's patterns of interpersonal relationship, which may predict a possibility of getting social support from others.

Most importantly, when a Korean person presents with a high level of collectivism, he or she may be predisposed to ruminate about a transgression even if an action of reconciliation was reportedly implemented with the transgressor. This is because the unforgiveness behavior of revenge goes against the collectivistic culture. Therefore, assessing for the presence of rumination about an offense is a critical activity in counseling a Korean. When rumination is present, specific cognitive behavioral intervention strategies should be implemented to reduce this harmful tendency.

Limitations

Recruiting participants was a difficult task in the current study for the following reasons: Korean Americans are a minority; a big sample was needed to have better statistical power; the questionnaires asked about three different hurt experiences; for proper comparison, the study needed samples from both Korea and the United States; and the best possible way to recruit such a big sample was through churches, but this compromised the religious diversity of the sample. A qualitative research method is recommended such as case study, which may minimize the need of a bigger sample size. The current study dealt with acculturation of the sample and had needed Korean and Korean Americans for a wider range of acculturation levels. For more people from both countries, snowball sampling was used, yet, it was generally restricted into the people who were acquainted with the researcher directly due to the length and emotional contents (forgiveness related questionnaires) of the survey even though compensations were suggested for the survey participation.

Recommendations

The best way to recruit participants is believed to take advantage of the networks of both non-profit and profit social groups when a study tries to find out any difference between those who religious and not religious. However, it is a dilemma when a researcher wants the social networks from non-profit and profit groups, he or she will learn that most cases of social networks are from the Korean churches for the population. Therefore, as far as the subjects of study are exploratory and the sample is from a

minority population about which few studies have been done, a qualitative method would be effective. If a researcher still prefers a quantitative method, or the nature of a study requires this method, a briefer survey is recommended, which may lessen the imposition for recruiting more participants and the risk of incomplete response to the survey and data missing.

In this study, the predictors of health including acculturation, religious commitment, unforgiveness, and forgiveness style were input according to their expected impacts on health. The results were consistent with the expectations in the differences of their effect levels. The most direct impact among the predictors was rumination with negative emotions, and religious commitment was suggested as a mediator between acculturation and forgiveness. These results may be explained by the dimensions of *macrolevel* and *microlevel*. Acculturation may be regarded as an influence from macro-level (Lee, 2004) while religious commitment and forgiveness may be found among "micro interpersonal interaction factors" (Lee, 2004, p.159). As the factors in macrolevel may influence the individuals in a broader dimension of the society, acculturation is suggested to be an indirect factor for an individual's personal conditions including demographic situations and health status. On the other hand, religious commitment and forgiving tendency as microlevel factors may impact more personally and directly the individual's personal situations and health. Therefore, research for Korean population is recommended to be done by the social and personal dimensions for the future studies.

In this study, to measure the population's unforgiveness and forgiving style more accurately, the survey questionnaires could not help asking the participants for recalling

three different other experiences of hurt event. The data analysis on each of the measurements for the three times of transgression experiences was complicating because many cases had only one or two different sets of the questionnaires and the mean of the mean scores was required to be obtained for one representative score of each scale. Also, each construct had factors for health, some of which were positive, some others were neutral or negative within one construct. Consequently, the inconsistent factoring for health from each of the predictors was separated individually by subscales for more specific and accurate analysis. Therefore, on the basis of the current results, studying one construct at a time as a predictor of health status or another construct as the criterion such as religious commitment, is recommended for more specific and in-depth research.

In conclusion, the Korean population as a minority in the foreign culture is expected to experience stress due to cultural adjustment problems, a socioeconomic transition, etc. Beyond such outer conditions, one's inner characteristics including worldview and behavioral patterns have been found as significant factors for his or her social well-being. Furthermore, social support can be obtained most effectively from the church, but without an appropriate understanding of God, their religious commitment may not be consistent to facilitate their holistic well-being.

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APPENDIXES

Appendix A: Survey Invitation for Korean-Speaking Koreans or Korean Americans

친애하는 _____님께

안녕하세요. 현재 리버티 대학교에서 박사과정 중에 있는 정우현 이라고 합니다. 저는 가존 박사님과 함께 현재 국내 및 미주 한국인들을 대상으로 문화와 건강이 어떻게 연관성을 갖는지를 찾기 위해 연구 논문을 진행하고 있습니다.

가존 박사님과 저는 문화가치, 종교헌신도, 분노를 다스리는 방법 등이 전반적으로 건강에 영향을 미치는지, 영향을 미친다면 어떻게 미치는 지를 알아내기 위해, 성인 한국사람들을 대상으로 설문조사를 진행 중입니다. 귀하의 참여는 문화적, 영적 요인들과 관련하여 한국인들의 건강상태를 알게 해주는 매우 중요한 지식을 얻게 해줄 것으로 기대합니다. 또한 얻어진 지식은 한국인들을 위해 정서적으로 도움을 줄 수 있는 프로그램들을 개발하는데 기여할 것으로 기대하고 있습니다.

설문은 2009 년 ?월 ?일 자정에 마감할 예정입니다. 무기명으로 입력되는 귀하의 답변은 매우 소중하게 사용될 것이며, 절대적으로 비밀이 보장되는 동시에, 본 연구를 제외한 그 어떤 다른 목적으로 사용되지 않을 것입니다.

문의하실 내용이 있으시거나, 혹 컴퓨터로 진행하는 인터넷 설문조사에 참여하는 것이 사정상 어려우셔서, 대신 종이로 인쇄된 설문지에 응답하시기를 원하시면, 다음의 연락처로 연락해주시면 감사하겠습니다.

전화번호: 미국 434-229-6569 (정우현) 또는 한국 010-3956-6959 (정정희)
이메일: wchong@liberty.edu (정우현) 또는 fgarzon@liberty.edu (Dr. Garzon)
주소: 300 Addie Way Lynchburg, VA 24501, USA

본 설문에 참여하는 총 소요시간은 약 20 분에서 30 분 정도가 될 것입니다. 본 설문은 아래 웹싸이트 주소를 클릭하시거나, 복사하셔서 귀하의 웹브라우져에 입력하시면 접속하실 수 있습니다.

http:// www.???.???

<div align="right">
리버티 상담 및 가족 연구센터에서

정우현 (Woohyun Daniel Chong) 올림
</div>

혹 설문조사 웹사이트에 접속하거나 응답하시는데 기술적 문제가 있으시면, 위의 연락처로 알려주시면 감사하겠습니다.

본 메일이나 앞으로 있을 수도 있는 이메일 수신을 원치 않으시면, 본 이메일의 답장(Reply) 버튼을 누르시고 이메일 제목에 "제거" 또는 "REMOVE"라고 쓰신 후 발신해 주십시오.

Appendix B: Survey Invitation for English-Speaking Koreans or Korean Americans

Dear _____,

I as a doctoral student of the Center for Counseling and Family Studies of Liberty University, am studying on relationship between culture and health with Dr. Fernando Garzon as my advisor, and need your help.

In an effort to find out if cultural values, religious commitment, and anger management style influence general health, Dr. Garzon and I are administering a short survey to adult Koreans. Your input can help us to have important knowledge about health status in relation to cultural and spiritual values, with which we expect to create assisting programs that will suit Koreans' emotional needs. We estimate that it will take you approximately 20-30 minutes to complete the survey.

We would appreciate a response by ?th of ?, 2009.
Your answers to these questions are most important, and will be kept confidential (used only for the purposes of research for this project).
If you have any questions or would prefer to complete a paper survey please call us at 434-229-6569 or email Woohyun Daniel Chong at wchong@liberty.edu.

The survey is located at the following web-site. Click on the hyperlink below, or cut and paste the entire URL into your browser.

http://

Sincerely yours,
Woohyun Daniel Chong

Center for Counseling and Family Studies of Liberty University

If you experience technical difficulties accessing or submitting the survey, please contact me at the same phone number or email address as mentioned above.

To be removed from this or any future mailings, please reply to this message and enter "REMOVE" in the subject line.

Appendix C: Survey Invitation for non-Koreans

Dear _____,

Could you help a Liberty student doing an anonymous survey project for his dissertation? Your participation would give you the opportunity to win a $50 Barnes and Nobles or Wal-Mart gift card as a Thank You! The survey will take 30 minutes of your time.

I am a doctoral student of the Center for Counseling and Family Studies of Liberty University and am studying on relationship between culture and health with Dr. Fernando Garzon as my advisor. Dr. Garzon and I are administering this survey to give us important knowledge about how culture, religious practices, and anger management style impact a person's health. We expect the survey to provide valuable information in creating culturally specific support programs to help people become healthier.

Your choice whether to participate or not in this project will not affect in any way your grades for this course. Dr. Garzon will not know who has chosen to participate and who has not because the survey is anonymous. The collection of responses for this survey will be concluded once the 70th survey participant has submitted his or her responses. The drawing for the $50 gift card will take place at that time. Your answers to these survey questions are most important, and will be kept confidential (used only for the purposes of research for this project). Because the survey takes half an hour, you may sign off to take

a break and then return to the survey later. The online site will place you back where you left off when you sign in. Only completed surveys will be included in the gift drawing. If you have any questions or would prefer to complete a paper copy of the survey, please call us at:

434-229-6569 or email Woohyun Daniel Chong at wchong@liberty.edu

434-592-4054 or email Dr. Fernando Garzon at fgarzon@liberty.edu .

The survey is located at the following web-site (Password: liberty). Click on the hyperlink below, or cut and paste the entire URL into your browser.

Password: liberty

https://www.surveymonkey.com/s.aspx?sm=juEqo_2fq_2fj6BYzUpQ_2bvkDMQ_3d_3d

Sincerely yours,

Woohyun Daniel Chong

Center for Counseling and Family Studies of Liberty University
PS: Forwarding this email to your friends would be wonderfully helping this research!

If you experience technical difficulties accessing or submitting the survey, please contact me at the same phone number or email address as mentioned above.

To be removed from this or any future mailings, please reply to this message and enter "REMOVE" in the subject line.

Appendix D: The Demographic Questions for English Speakers

1. What is your gender?
   1) Male
   2) Female
2. If you are a female, are you pregnant?
   1) Yes
   2) No
3. What is your marital status?
   1) Never married
   2) Married
   3) Separate
   4) Divorced
   5) Remarried
   6) Other
4. What is your religion?
   1) Protestant Christianity or Evangelical Church
   2) Catholicism
   3) Buddhism
   4) Muslim
   5) Other
   6) No religion
5. What is your household income monthly?
   1) Less than US$1000.00/1,000,000won
   2) US$1001.00~2000.00/1,000,001won~2,000,000
   3) US$2001.00~3000.00/2,000,001won~3,000,000
   4) US$3001.00~4000.00/3,000,001won~4,000,000
   5) US$4001.00 and more/4,000,001won and more
6. What is your educational attainment?
   1) Under elementary school
   2) Elementary school
   3) Middle School
   4) High School
   5) Early College-up to 2 years
   6) Undergraduate-up to 4 years
   7) Graduate or up to doctoral level
7. Were you born in the United States?

1) Yes
2) No

8. Where do you live now? [If the US, proceed to question #9. Otherwise, skip to #10.]
   1) Korea
   2) The United States
   3) Other

9. [If you live in the US, please answer. Otherwise, skip to question #10]
   I live in one of the following regions of the United States:

   1) Virginia
   2) Northeast USA
   3) Southeast
   4) Midwest
   5) Northwest
   6) Southwest
   7) Alaska
   8) Hawaii
   9) Other

10. What is your ethnicity? [If "Korean", proceed to question #11; otherwise, skip to question #13]
    1) Caucasian
    2) African-American
    3) Latino
    4) Asian (Non-Korean)
    5) Korean
    6) Native American
    7) Other

11. [If you are <u>Korean</u> and <u>live in the US</u>, please answer this question and question #12; otherwise skip to #13] How long have you been in the United States?
    1) Less than 1 year
    2) 1-2 years
    3) 3-5 years
    4) 6-10 years
    5) More than 11 years

12. What is your generation?
    1) Korean: I was born in Korea and have lived in Korea all my life.
    2) 1st generation: I was born and educated primarily in Korea. I live currently in America as a resident or international college/graduate student.

3) 1.5 generation: I was born in Korea. When I was young, I immigrated to America and was educated primarily in the U.S.
4) 2nd generation: My parents are the first generation of immigrants to the United States.
5) 3rd generation: My parents are the second generation of immigrants to the United States.
6) Other

13. How old are you?   Years old.
14. Are you physically disabled?
    1) Yes
    2) No
15. Are you a Liberty graduate student?
    1) Yes [If yes, proceed to question #16.]
    2) No [If no, Demographic questionnaire is at end.]
16. [If you are a Liberty graduate student, please answer; otherwise, you are done.] What program are you currently enrolled in?

    1) Ph. D. in counseling
    2) M. A. in counseling (includes 30, 48, & 60 hour programs)
    3) M.A. in marriage and family therapy

Appendix E: The Demographic Questions for Korean Speakers

아래의 질문을 잘 읽고 해당되는 내용을 적어주시거나 번호를 표시해 주십시오.

1. 당신의 성별은 무엇입니까?
    1) 남자
    2) 여자
2. 당신이 여자라면 임신 중입니까?
    1) 예
    2) 아니오
3. 당신은 결혼 하셨습니까?
    1) 미혼
    2) 기혼
    3) 별거
    4) 이혼
    5) 재혼
    6) 기타
4. 당신의 종교는 무엇입니까?
    1) 기독교
    2) 천주교
    3) 불교
    4) 이슬람교
    5) 기타 종교
    6) 종교 없음
5. 당신 가족의 월수입 총액은 얼마입니까?
    1) 1000 불 이하 (1,000,000 원 이하)
    2) 1001 불 ~2000 불 (1,000,001 원~2,000,000 원)
    3) 2001 불~3000 불 (2,000,001 원~3,000,000 원)
    4) 3001 불~4000 불 (3,000,001 원~4,000,000 원)
    5) 4001 불 이상 (4,000,001 원 이상)
6. 당신의 최종학력은 무엇입니까?

1) 초등학교 이하

2) 초등학교

3) 중등학교

4) 고등학교

5) 대학 2 년

6) 대학 4 년

7) 대학원 이상

7. 당신은 현재 어디에서 살고 있습니까? ["미국"에 답하신 경우, 다음 8 번 질문으로; 그렇지 않은 경우 9 번으로]

1) 한국

2) 미국

3) 한국과 미국을 제외한 다른 국가

8. [본 질문에는 미국에 거주하시는 경우만 답하시면 됩니다. 미국이 아닌 경우, 9 번 질문으로] 당신은 다음의 보기 중, 어느 미국내 지역에 살고 있습니까?

1) 버지니아 지역

2) 미국 북동부 지역

3) 미국 남동부 지역

4) 미국 중서부 지역

5) 미국 북서부 지역

6) 미국 남서부 지역

7) 알라스카 지역

8) 하와이 지역

9) 기타 지역

9. 당신의 인종은 무엇입니까? [한국인인 경우는 10 번 질문으로; 한국인을 제외한 나머지의 경우는 모두 12 번 질문으로]

1) 백인

2) 흑인

3) 라틴

4) 한국인이 아닌 아시아계

5) 한국인

6) 인디언 (미국원주민)

7) 기타

10. [당신이 한국인으로서 미국에 거주하는 분이면, 본 질문에 답해주시고,
   10 번 질문으로 이동해주세요. 미국에 거주하지 않는 경우는, 11 번 질문으로
   이동해주세요.] 당신은 미국에 현재까지 얼마동안 거주해 왔습니까?
   1) 1 년 미만
   2) 1~2 년
   3) 3~5 년
   4) 6~10 년
   5) 11 년 이상

11. 당신은 미국 이민자로서 무슨 세대에 해당됩니까?
   1) 나는 한국에서 태어나 평생 한국에서만 거주해옴.
   2) 나는 한국에서 태어나 한국에서 주로 교육을 받았지만, 현재는
      이민자로서 미국에서 살고 있거나, 현재 미국 유학생으로서 미국에
      거주하고 있는 이민 1 세대.
   3) 나는 한국에서 태어나 어릴 때 미국으로 이민을 온 후, 주로 미국에서
      교육을 받은 이민 1.5 세대.
   4) 나의 부모가 미국 이민 첫번째 세대로서 나는 제 2 세대.
   5) 나의 부모가 미국 이민 두번째 세대로서 나는 제 3 세대.
   6) 기타

12. 당신의 연령은 몇 세 입니까? _____세

13. 당신은 리버티 대학교 상담대학원생입니까?
   1) 예 [14 번 질문으로]
   2) 아니오 [다음 페이지로 이동]

14. [당신이 리버티 대학원 상담대학원생이라면, 본 질문에 답해주십시오.
   그렇지 않다면, 다음 페이지로 이동해주십시오.]
   당신은 어느 과정에 재학 중입니까?

   1) 상담학 Ph. D. 과정
   2) 상담학 M. A. 과정 (30, 48, 60 학점 프로그램 해당)
   3) 결혼 및 가족치료학 M. A. 과정

Appendix F: The Korean American Acculturation Scale for English Speakers

Please read the following statements and decide how you think about each statement.

Place a check mark on the degree to which each statement best reflects your situation.

(1) Never – (2) Seldom – (3) About half the time – (4) Usually – (5) Always
1. I speak Korean with other Koreans.
2. I watch Korean language TV (and/or Videos).
3. I celebrate Korean holidays (e.g., Chusuk, Sul).
4. Currently, my best friends are Koreans.
5. I use a Korean name instead of an English name.
6. I listen to Korean music.
7. My family cooks Korean foods.
8. I speak Korean at home.
9. It is easier to make friends with Koreans than Americans.
10. I invite Koreans to my home rather than Americans.
11. My thinking is done in Korean.
12. I read books in Korean.
13. I write letters in Korean.
14. When I was a child, most of my friends were Koreans.
15. I engage in Korean forms of recreation and social activities.

Please place a check mark on the degree to which each statement best describes how

much you agree or disagree with each item.

(1) Strongly Disagree – (2) Disagree – (3) Undecided – (4) Agree – (5) Strongly
   Agree
1. It is important to work hard for the future.
2. One should think about one's social group before oneself.
3. Older persons have more wisdom than younger persons.
4. Parents should encourage their children to achieve for the honor of the family.
5. One should follow the role expectations of one's family (parents, siblings).
6. When one receives a gift, one should give a gift of equal or greater value.
7. One should remain reserved and tranquil.
8. Educational failure brings shame to the family.
9. Maintaining interpersonal harmony is important.

10. It is necessary to be patient to get what one wants.
11. One should respect elders and ancestors.
12. One should achieve academically to make parents proud.
13. The ability to control one's emotions is a sign of strength.
14. Modesty is an important quality for a person.
15. It is important to have a good education.
16. One should control one's public expression of emotions.
17. One should not boast.
18. Failure in work brings shame to the family.

다음은 여러분의 현재 생활에 관한 질문입니다. 여러분의 상황을 가장 잘 나타내는 정도를 표시해주십시오.

(1)전혀 아니다 – (2)아니다 – (3)중간이다 – (4)대개 그렇다 – (5)항상 그렇다

1. 나는 한국사람과 이야기 할 때 한국말을 사용한다.

2. 나는 한국 방송 (TV/ 영화) 을 본다.

3. 나는 한국 명절을 지낸다.

4. 현재 가장 친한 친구는 한국사람이다.

5. 나는 영어이름 대신에 한국이름을 사용한다.

6. 나는 한국음악을 듣는다.

7. 집에서 한국음식을 만들어 먹는다.

8. 나는 집에서 한국어를 사용한다.

9. 미국 사람보다 한국사람과 쉽게 친해진다.

10. 나는 미국사람보다 한국사람을 집으로 초대한다.

11. 나는 한국어로 생각한다.

12. 나는 한국어로 된 책을 읽는다.

13. 나는 한국어로 편지를 쓴다.

14. 어릴 때 가장 친한 친구는 한국사람이다.

15. 나는 한국적인 레크리에이션이나 사회활동을 한다.

여러분은 다음 질문에 대해 얼마나 동의합니까? 해당되는 것에 표시해 주십시오.

(1)전혀 아니다 – (2)아니다 – (3)중간이다 – (4)그렇다 – (5)매우 그렇다

1. 미래를 위해 열심히 일하는 것이 중요하다.

2. 사람은 자신보다 다른 사람 (사회) 을 먼저 생각해야 한다.

3. 어른은 젊은 사람보다 더 현명하다.

4. 부모는 가족의 영광을 위해 자녀의 성공을 권장해야 한다.

5. 가족의 역할 기대 (예. 부모님/형제의 말) 을 잘 따라야 한다.

6. 선물을 받았을 때, 받은 선물의 가치에 상응하는 것으로 보답해야 한다.

7. 사람은 자제력이 있어야 하고 차분해야 한다.

8. 공부를 못하는 것은 가족에게 수치스러운 일이다.

9. 다른 사람과 조화롭게 지내는 것이 중요하다.

10. 원하는 것을 얻기 위해선 참을성이 필요하다.

11. 어른과 조상을 공경해야 한다.

12. 부모님을 자랑스럽게 하기 위해 공부를 잘해야 한다.

13. 자신의 감정을 잘 통제하는 것은 장점이다.

14. 사람들에게 있어서 겸손은 중요한 자질이다.

15. 좋은 교육을 받는 것은 중요하다.

16. 사람은 공개적으로 감정을 표현하지 않도록 감정통제를 해야 한다.

17. 사람은 뽐내지 말아야 한다.

18. 직업세계에서의 실패는 가족에게 수치를 가져온다.

Appendix H: The Ethnic Orientation Scale for English Speakers

Please place a checkmark on the number that best applies to you.

(1) Strongly Disagree – (2) Disagree – (3) Undecided – (4) Agree – (5) Strongly Agree

1. I try to learn about the culture and history of Korea.

2. I have Korean cultural practices (e.g., food, music, or holiday).

3. I spend time with people other than Koreans.

4. I am happy that I am a Korean.

5. I like to meet and know people other than Koreans.

6. I feel it would be better if I were not a Korean.

7. I have a sense of Korean and what it means for me.

8. I go to places where people are Korean.

9. I try to become friends with people from other ethnic groups.

10. I talk to other people about Korea.

11. I am proud to be a Korean.

12. I understand how I behave as a Korean.

13. I have a sense of being a Korean.

14. I am involved with people from other ethnic groups.

15. I have attachments to Korea.

16. I feel comfortable being with people other than Koreans.

Appendix I: The Ethnic Orientation Scale for Korean Speakers

여러분의 생각이나 생활을 가장 잘 나타내는 것에 표시를 해주십시오.

(1)전혀 아니다 – (2)아니다 – (3)중간이다 – (4)그렇다 – (5)매우 그렇다

1. 나는 한국문화와 역사에 대해 배우려고 노력한다.

2. 나는 한국 문화적인 것을 누린다 (예. 음식, 음악, 혹은 명절).

3. 나는 한국 사람보다 다른 사람과 시간을 보낸다.

4. 내가 한국 사람인 것이 행복하다.

5. 나는 한국 사람보다 다른 민족 사람을 만나고 아는 것이 좋다.

6. 내가 한국 사람이 아니었으면 좋겠다고 느낀다.

7. 나는 한국인의 긍지를 갖고 있고, 이것이 무엇을 의미하는지 알고 있다.

8. 나는 한국 사람이 있는 곳에 간다.

9. 나는 다른 민족 사람과 친구가 되려고 노력한다.

10. 다른 사람과 한국에 대해서 이야기 한다.

11. 한국 사람인 것이 자랑스럽다.

12. 한국 사람으로서 어떻게 행동해야 하는지 이해하고 있다.

13. 나는 한국 사람이라는 의식을 갖고 있다.

14. 다른 민족 집단 출신의 사람과 같이 지낸다.

15. 나는 한국에 애착이 있다.

16. 나는 한국 사람보다 다른 사람과 있을 때 편안하다.

Appendix J: The Religious Commitment Inventory - 10 for English Speakers

<u>Please read the following statements and place a checkmark on the number that best describes you with each item.</u>

1 = not at all true of me, 2 = somewhat true of me, 3 = moderately true of me, 4 = mostly true of me, 5 = totally true of me

1. I often read books and magazines about my faith.
2. I make financial contributions to my religious organization.
3. I spend time trying to grow in understanding of my faith.
4. Religion is especially important to me because it answers many questions about the meaning of life.
5. My religious beliefs lie behind my whole approach to life.
6. I enjoy spending time with others of my religious affiliation.
7. Religious beliefs influence all my dealings in life.
8. It is important to me to spend periods of time in private religious thought and reflection.
9. I enjoy working in the activities of my religious organization.
10. I keep well informed about my local religious group and have some influence in its decisions.

Appendix K: The Religious Commitment Inventory - 10 for Korean Speakers

다음의 각 사항들에 대해 얼마나 동의하시는지 해당되는 것에 표시해 주십시오.

1 = 전혀 그렇지 않다, 2 = 조금 그렇다, 3 = 중간 정도 그렇다, 4 = 대부분 그렇다, 5

= 매우 그렇다

1. 나는 종종 신앙에 관한 책과 잡지들을 읽는다.
2. 나는 종교단체에 재정적으로 기부를 한다.
3. 나는 내 신앙에서 자라기위한 노력에 시간을 투자한다.
4. 종교는 인생의 의미에 대한 질문들에 답을 주기 때문에 나에게 특별히 중요하다.
5. 나의 종교적 신념들은 인생을 이해하는 내 전체 가치관의 바탕이 된다.
6. 나는 같은 종교를 믿는 사람들과 함께 교제하는 시간이 즐겁다.
7. 나의 종교적 신념은 인생의 모든 문제를 다루는 방식에 영향을 준다.
8. 나는 종교적인 사색과 묵상을 위해 시간을 정해놓고 나만의 시간을 갖는 것을 중요하게 여긴다.
9. 나는 나의 종교단체의 여러 활동에 참여하는 것이 즐겁다.
10. 나는 나의 동네종교단체가 어떻게 돌아가는 지 잘 알고 있고, 그 단체가 내리는 결정에도 영향력을 발휘하고 있다.

Appendix L: General Information on a Hurt or Offense for English Speakers

In the following section, you will rate your current feelings about **three** recent hurts or offenses that you have experienced. In each case, you will write a brief description of the hurt or offense. Then you will rate the degree of hurt you experienced. Then you will rate the degree to which you may have or have not forgiven the transgression to date. Try to recall 3 transgressions from 3 different people in which you thought the hurt was severe (rating 5) or very bad (rating 4).

1. Please recall someone [another person (for the second and third sets of forgiveness questions)] who has deeply hurt or offended you. It is best to choose an event about which you don't yet have complete peace. Without writing the name of the person, write yourself a brief description of what the person did to hurt or offend you. (Note: if the person has done many things, it is important to recall one *specific* event on which you focus.) Write a short description below to remind yourself of the event.

_____.

2. <u>Please rate the hurtfulness of the offense, using the scale below. Circle your answer.</u>

1	2	3	4	5
Very little hurt				Large amount of hurt

3. Please estimate the time in months since the offense occurred. If it occurred over 1 year ago, give the approximate year and months. For example, 5 years and 3 months.

The offense occurred ＿＿＿＿＿years and ＿＿＿＿＿ months ago.

4. Please describe the closeness of your relationship with the person **prior to the incident**.

-2	-1	0	+1	+2

Negative & Conflictual   Neutral or None   Positive & Harmonious

5. Please describe the closeness of your relationship with the person **at the present time**.

-2	-1	0	+1	+2

Negative & Conflictual   Neutral or None   Positive &

Harmonious

Appendix M: General Information on a Hurt or Offense for Korean Speakers

다음은 당신의 최근 상처받은 **3 개**의 다른 경험에 대한 현재의 감정에 대한

질문들입니다. 각각의 경험에 대해 답하실 때, 먼저 그 상처 받은 경험에 대해

간단히 묘사해주십시오. 그런다음, 그 상처가 얼마나 컸는지를 답해주십시오.

그런다음, 현재까지 당신에게 상처를 준 사람을 어느정도 용서했는지, 또는

용서하지 않았는지를 답해주시면 됩니다. 당신에게 가장 심하게 또는 심하게

상처를 준 3 명을 기억하시되, 각각 3 개의 서로 다른 경험을 기억해주십시오.

1. 당신의 마음에 깊이 상처입힌 한 사람 [또 다른 사람 (두번째와 세번째

용서질문에서)]을 기억하십시오. 당신이 아직 마음에 완전한 평화를 갖지 못한

경험을 기억하십시오. 그 사람의 이름은 쓰지 마시고, 그 사람에게 당신이 상처를

받은 그 경험을 간단히 묘사해주십시오. (만약, 그 사람에게로부터 여러가지 많은

일로 상처를 받았다면, 그 중 한가지만을 집중하여 생각해주십시오.) 아래 빈 란에

그 경험을 간단히 묘사해 주십시오.

2. 당신이 위 경험에서 받은 상처의 정도를, 아래 숫자 중 하나로 선택하여

O 표해주십시오.

         1) 매우 적음 – 2) 적음 – 3) 중간 – 4) 많음 – 5) 매우 많음

3. 당신이 위 경험 이후 현재까지 대략 어느 정도의 시간이 흘렀는가?

위의 상처받은 경험은 ＿＿＿＿년＿＿＿＿＿개월 전 일이다.

4. 위의 상처 받은 경험이 있기전에, 가해자와 어느정도 가까운 사이였는가?

-2 　　　　-1 　　　0 　　　+1 　　　+2

부정적이고 갈등관계 　　　중간 및 관계없었음 　　　긍정적이고

조화로운 관계

5. 현재 가해자와 어느정도 가까운 사이인가?

-2 　　　　-1 　　　0 　　　+1 　　　+2

부정적이고 갈등관계 　　　중간 및 관계없었음 　　　긍정적이고

조화로운 관계

Appendix N: The Decisional and Emotional Forgiveness Scales (DFS/EFS) for English

Speakers

The next series of questions ask you to think about the hurtful event you described above in which a person has hurt you in some way. Think of your current intentions or emotions toward the person who hurt you. Indicate the degree to which you agree or disagree with the following statements.

SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree

1. I intend to try to hurt him or her in the same way he or she hurt me.
2. I will not try to help him or her if he or she needs something.
3. If I see him or her, I will act friendly.
4. I will try to get back at him or her.
5. I will try to act toward him or her in the same way I did before he or she hurt me.
6. If there is an opportunity to get back at him or her, I will take it.
7. I will not talk with him or her.
8. I will not seek revenge upon him or her.
9. I care about him or her.
10. I no longer feel upset when I think of him or her.
11. I'm bitter about what he or she did to me.
12. I feel sympathy toward him or her.
13. I'm mad about what happened.
14. I like him or her.
15. I resent what he or she did to me.
16. I feel love toward him or her.

Appendix O: The Decisional and Emotional Forgiveness Scale (DFS/EFS) for Korean

Speakers

다음은 당신이 위에 묘사한 깊은 상처를 주었던 경험에 대한 질문들입니다. 당신에
상처를 주었던 그 사람에 대해 현재 당신이 마음속으로 어떠한 각오나 감정을
가지고 있는 지를 생각해보십시오. 그리고 다음 사항들에 대해 당신이 어느 정도
동의하는 지 혹은 동의하지 않는지를 표시하십시오.

전혀 그렇지 않다-그렇지 않다-중간-그렇다-매우 그렇다

1. 나는 그 사람이 나에게 상처를 준 것과 같은 방법으로 그 사람에게
   상처를 줄거다.
2. 나는 그 사람이 어떤 도움이 필요하다고해도, 그 사람을 도와주려고
   애쓰지는 않을 것이다.
3. 내가 만약 그 사람을 마주치면, 나는 그를 친절하게 대할 것이다.
4. 나는 그 사람에게 복수를 하고 싶은 마음이 있다.
5. 나는 그 사람이 나에게 상처를 주기 전에 그사람을 대하던 태도 그대로
   그렇게 그사람을 대하고 싶다.
6. 만약 그 사람에게 복수를 할 기회가 생기면 복수를 하겠다.
7. 나는 그 사람과는 말도 안하겠다.
8. 나는 그 사람에게 복수하려는 시도는 하지 않겠다.
9. 나는 그 사람이 걱정이 된다.
10. 나는 그 사람에 대해 생각할때 더이상 불쾌한 감정을 느끼지 않는다.
11. 나는 그 사람이 나에게 한 일에 대해 쓴뿌리가 있다.
12. 나는 그 사람에 대해 동정심을 느낀다.
13. 나는 그 일에 대해 지금도 화가 나있는 상태다.
14. 나는 그 사람이 좋다.
15. 나는 그 사람이 나에게 한 일을 생각하면 분개가 인다.
16. 나는 그 사람을 향해 사랑을 느낀다.

Appendix P: The Rumination About an Interpersonal Offense Scale for English Speakers

The following items describe reactions people can have to being hurt by others. Think back over your experience in the last 7 days and indicate your agreement or disagreement with the following statements.

1=*strongly disagree* (Strg Disagree) to 5=*strongly agree*(Strg Agree).

	Strg Disagree				Strg Agree
1. I can't stop thinking about how I was wronged by this person.	1	2	3	4	5
2. Memories about this person's wrongful actions have limited my enjoyment of life.	1	2	3	4	5
3. I have a hard time getting thoughts of how I was mistreated out of my head.	1	2	3	4	5
4. I try to figure out the reasons why this person hurt me.	1	2	3	4	5
5. The wrong I suffered is never far from my mind.	1	2	3	4	5
6. I find myself replaying the events over and over in my mind.	1	2	3	4	5

Appendix Q: The Rumination About an Interpersonal Offense Scale for Korean Speakers

위의 상처받은 경험을 생각하십시오. 다음의 사항들은 사람들이 상처받는 경우에 그것에 대해 반응하는 행동들을 묘사하고 있습니다. 지난 7 일동안, 당신이 위에 묘사한 상처받은 경험들에 대해 어떻게 경험 했는지를 각 항목별로 가장 적합한 답에 O 표하십시오.

1=전혀 그렇지 않다 2=그렇지 않다 3=중간이다 4=그렇다 5=매우 그렇다

1. 나는 그 사람이 나에게 어떻게 잘못 행한지에 대해 생각하는 것을 멈출 수 없다.

2. 그 사람이 나에게 잘못한 행동들에 대한 기억들 때문에 내 삶의 즐거움이 제한 되었다.

3. 내가 상처받았다는 생각들이 내 머릿속에서 떠나지를 않는다.

4. 나는 왜 그 사람이 나에게 상처를 주었는지, 그 이유를 생각해내려고 시도 했다.

5. 나는 내가 고통받는 그 잘못된 일이 내 마음에서 결코 멀어지지 않는다.

6. 나는 그 상처받은 사건을 내 머릿속에 반복해서 재생하고 있다.

Appendix R: Transgression-Related Interpersonal Motivations Scale – 12-Item Form

(TRIM-12) for English Speakers

For the following questions, please indicate what you imagine your **current thoughts and feelings** would be about the person who wounded you. Use the following scale to indicate your agreement or disagreement with each of the statements.

1= strongly disagree, 2 = mildly disagree, 3 = agree and disagree equally, 4 = mildly agree, 5 = strongly agree

1. ____ I'll make him or her pay.
2. ____ I wish that something bad would happen to him/her.
3. ____ I want him-her to get what he/she deserves.
4. ____ I'm going to get even.
5. ____ I want to see him/her hurt and miserable.
6. ____ I'd keep as much distance between us as possible.
7. ____ I'd live as if he/she doesn't exist, isn't around.
8. ____ I wouldn't trust him/her.
9. ____ I'd find it difficult to act warmly toward him/her.
10. ____ I'd avoid him/her.
11. ____ I'd cut off the relationship with him/her.
12. ____ I'd withdraw from him/her.

다음의 사항들은, **위의 상처받은 경험의 가해자에 대한 당신의 현재 생각과**

감정들을 묻는 질문들입니다. 각 질문에 대해 가장 적합한 답을 골라

0 표시해주십시오.

1=전혀 그렇지 않다 2=그렇지 않다   3=중간이다 4=그렇다   5=매우

그렇다

(만약 그 사람이 내 주위에 있다면,)

1. 나는 그 사람이 댓가를 지불하도록 만들 것이다.
2. 나는 어떤 안 좋은 일이 그 사람에게 일어나기를 소망한다.
3. 나는 나는 그 사람이 저지른 일에 합당한 벌을 받기 원한다.
4. 나는 그 사람이 행한대로 똑같이 갚을 것이다.
5. 나는 그 사람이 상처받고 비참해지는 것을 보고 싶다.
6. 나는 그 사람과 나의 사이가 될 수 있으면 멀어졌으면 좋겠다.
7. 나는 그 사람이 마치 존재하지 않고, 내 주위에 없는 사람처럼 살 것이다.
8. 나는 그 사람을 신뢰하지 않을 것이다.
9. 나는 그 사람을 따뜻하게 대해 주기 어렵다는 것을 발견할 것이다.
10. 나는 그 사람을 피할 것이다.
11. 나는 그 사람과의 관계를 단절할 것이다.
12. 나는 그 사람에게서 물러설 것이다.

Appendix T: Instruction for the Facilitators

The survey study by Woohyun Daniel Chong

1. The facilitator of the survey will read out to the participants the survey information quoted below without any other comments before distributing the survey copies to them. In case the participants ask a question during sampling in the U.S., if the facilitator does not know the answer, the facilitator will try to contact Daniel Chong (the main researcher) through his cell phone to obtain clarification. If contact cannot be obtained, the participant will be asked to use the contact information on the last page of the survey to ask the researcher the question. After the participants are ready in place, please read the following study information to them.

"You are invited to participate in a survey that will help researchers understand how a variety of cultural influences impact the general health of Koreans. This survey is anonymous. No one at the church will look at your responses. The survey is part of a research project by Daniel Chong, a doctoral student at Liberty University. After you complete your response to all the questions, you will place it into the box. To insure your privacy, I am never allowed to even touch your completed survey.

This survey is not a test or exam. There is no right or wrong answer to the survey items. Please feel free to answer the questions according to your own ideas and thoughts. Again, this is absolutely anonymous and there will never be any kind of indication that shows the identification of your organization or church, and all the collected copies from many organizations and churches including yours will be randomly shuffled.

This is a significantly important part of the study, which may be able to help

Korean people's health status, questioning 500 Koreans from the United States

and South Korea.

Without writing your name on it at all, after responding to all the questions, please

put it into the prepared box here. The box will be directly sent to the researcher."

2. The facilitator will hand the survey copies out to the participants.
3. It will take about 30 minutes. Please do NOT touch the responded survey copies, but make the participants put it into the box by themselves.
4. Once all are collected in the box, please seal the box and give it to the researcher via a possible method (directly or by mail).
5. The expenses that are taken for collecting the survey and/or delivery are going to be reimbursed or prepaid.

The contact information of the researcher:

Name: Chong, Woohyun

Phone#: 1-434-229-6569

Address: 300 Addie Way Lynchburg VA 24501 (USA)

Your participation is sincerely appreciated.