

STRESS AND ANXIETY AMONG KOREAN INTERNATIONAL STUDENTS
AT LIBERTY UNIVERSITY
ANALYZED WITH THE STATE-TRAIT ANXIETY INVENTORY (FORM Y)

by

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Liberty University

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has been approved

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Abstract

International students face unique issues, including anxiety while adjusting to cultural unfamiliar and academic challenges. This research study examined characteristics and anxiety levels as Korean international seminary students ($n = 61$) living in the U.S. and compared them with Korean domestic seminary students ($n = 120$) living in Korea using the State-Trait Anxiety Inventory (Form Y) (Spielberger, 1983). The results: the Pearson correlation indicated that the state anxiety scores and trait anxiety scores were significantly related. Korean international seminary students had statistically significantly higher mean scores on state and trait anxiety than Korean domestic seminary students. The $2 \times 2 \times 2$ ANOVA revealed that significant differences were found for location and marital status, but not for gender. In indicating that among Korean international students some require more care and support for the management of anxiety than others.

Dedication

Dedicated to my father, a pastor, who has lost his physical sight but is still a light for many— including his son.

Dedicated to my mother, a light for her husband, who is always with me and on my side. It has been a special privilege and blessing to have lived with these angels of God for a while.

Dedicated to my wife, my best friend, who provides me with patience and support through her unconditional love.

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I would like to express my gratitude to my grandparents. Whenever I called them, they said they had prayed for me. I simply wish I could have finished this dissertation before

my grandfather went to be by God's side. I am sure you are still praying for me in heaven.

I would like to express my deepest gratitude to my parents. Thank you for always being there with endless love and prayer. I pray you live a long and health life in order for me to repay even a little bit of love to you.

Finally, I would like to thank Eunjoo, my wife and suitable helper from God (Gen. 2:18). The Bible states, "A wife of noble character who can find?" (Prov. 31:10). I am just so thankful because God helped me to find her. Surely, she is "worth far more than rubies" (Prov. 31:10). I would also like to thank her parents for bringing her up in the love of Christ and giving their blessings for our marriage. Yehyun, Jonghyun, and Jihyun: my precious heritage from God (Psa. 127:3). You have sacrificed having a dad for the completion of this dissertation. God shows me His love through you. I am greatly blessed!

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CHAPTER ONE: INTRODUCTION

Background of the Problem

The Apostle Paul exhorts Philippians: “Do not be anxious about anything” (Phil. 4:6, New International Version). His exhortation implies that the Philippians were anxious when they did not have to be. Hart (2001) argues that all persons are prone to anxiety and that anxiety is “an inevitable part of life” (Hart & Weber, 2005, p. 168).

At moderate levels, anxiety can be healthy (National Institute of Mental Health [NIMH], para. 1). This is especially true when people have “the ability to vary anxiety levels in response to different situations” (Maxmen & Ward, 1995, p. 245). Appropriate levels of anxiety can also help people flee from physical danger or the presence of evil spirits (Stanley, 2003). However, when anxiety is “an excessive, irrational dread of every situation, it has become a disabling disorder” (NIMH, para. 1).

When anxiety is excessive, it becomes a disabling disorder and the cost to persons and economies become enormous. Statistically, anxiety disorders are “the most common mental illness in the U.S. with 40 million (18.1%) of the adult U.S. population (age 18 and older) affected” (Anxiety Disorders Association of America [ADAA], para. 1). This “cost the U.S. more than \$42 billion a year, almost one third of the \$148 billion total mental health bill for the U.S.” (ADAA, para. 2). In the Republic of Korea (South Korea), Chung (2006) reported that 25 % of a sample of 1,000 people consisting of 500

males and 500 females ranging in age from 20 to 69 in six major cities indicated that they have anxiety; 6% of them think that their anxiety affects their daily lives and needs to be treated. Park and Kim (2007) also report that the population of university students who come to school counseling centers for help in dealing with anxiety has increased dramatically. At Yonsei University in Seoul, Korea there were 3,485 cases dealing with anxiety in 2006 while there were only 1,364 cases dealing with anxiety in 2003, an increase of 255 %. At Seoul University, there were 320 cases dealing with anxiety in 2006 while only 191 in 2004, an increase by 167 %; Kwangwoon University reports that usually, 10 or 15 students per day visit the school counseling center with anxiety issues (Park & Kim).

Students, whether international or domestic, are not exempt from anxiety.

Researchers report that the anxiety levels experienced by students is related to a variety of issues including: academic examinations (Moneta, Spada, & Rost, 2007; Orbach, Lindsay, & Grey, 2007); computers (Korukonda, 2007; Mcilroy, Sadler, & Boojawon, 2007); conventional paper-based multiple-choice paper assessments versus computer-based assessment (Irish, 2006); course contents such as statistics, which includes math phobia; lack of connection to daily life, pace of instruction, instructor's attitude (Pan & Tang, 2005); death (Pierce, Cohen, Chambers, & Meade, 2007); the future (Bolanowski, 2005); girlhood, i.e., feeling required to be an ideal female student in school classrooms (Charlton, 2007); information technology (Nugent, 2007); the internet (Joiner, Brosnan, Duffield, Gavin, & Maras, 2007); negative moods (Kassel, Bornovalova, & Mehta, 2007); perfectionism in sports (Stoeber, Otto, Pescheck, Becker, & Stoll, 2007); physical

condition (Carpentier, Mullins, & Van Pelt, 2007); religious background (Keller, 2000); self-esteem and self-concept (Thomas & Gadbois, 2007); self-perception of performance in medical students (Chandavarkar, Azzam, & Mathews, 2007); and social interaction (Kashdan & Roberts, 2007). Dusselier, Dunn, Yongyi, Shelley, and Whalen (2005) report that an increase in stress associated with university demands often contributes to the development of anxiety disorders in students.

Graduate students also have their own anxiety issues. Hadjioannou, Shelton, Fu, and Dhanarattigannon (2007) argue that graduate students because they have high levels of stress and anxiety are expected to be successful academicians, to have the ability to “read, understand and articulate theory and research, to write on a mature academic level, to conduct rigorous research, to effectively teach college level courses, and to have appropriate professional interactions” (p. 174).

Graduate seminary students experience unique stresses that contribute to the development of high levels of anxiety. They feel that they are “living in a fishbowl” (Rayburn, Richmond, & Rogers, 1986, p. 544), where everyone can see easily what is going on. Rayburn, Richmond, and Rogers report that among religious leaders, both the seminarian group and the minister group are more stressed than the priest group, the nun group, or the brother group. Furthermore, seminary students have the low levels of personal resources and are at high risk, for anxiety within the population of religious leaders. One of the anxiety issues experienced by seminary students is related to their family. According to Rosenbaum (1984), seminary students’ wives have finance and time management issues that produce stress and anxiety. As a result, the stress issues of

seminary students' wives can cause anxiety for their husband, seminary students (Rosenbaum).

International students face unique issues while adjusting to new cultural and academic situations. Even before going abroad, international students' experience anxiety while anticipating study in the U.S. (Petress, 1995). Charles and Stewart (1991) divided the issues that create anxiety for international students into several categories: (a) cultural sensitivity, (b) language limitations, (c) adjustment issues, (d) academic overload, (e) academic restrictions, (f) international students' perceptions of advisor and other authority figures, (g) differences in educational systems, and (h) dealing with ambiguity. Choo (2007) reported on several additional factors that contribute to the generation of anxiety for these students: international students' cultural diversity and learning styles are often incompatible with western pedagogical assumptions; values and critical intent; the professional roles of management; and teachers and institutional rules and procedures that are required to support critical learning. Sibel (2005) found that the class participation of Turkish international graduate students was influenced mainly by cultural background, discussion topic, and peer dominance in discussion, and anxiety was often heightened in these situations. Petress (1995) also found that the anxiety of international students included fears for personal safety, fears of failing to achieve good grades, worries about personal finances, boyfriend/girlfriend separations, adapting to a new culture, and anxiety over making new friends.

In addition, international students often experience anxiety from homesickness (Kovatz, Kutz, Rubin, Dekel, & Shenkman, 2006), that is associated with language

barriers, barriers with staff and affective barriers, new library systems, library computer searches, and general cultural adjustments (Battle, 2004; Onwuegbuzie, & Jiao, 1997). International students may also experience anxiety related to language (Brown, 2008; Poyrazli, Arbona, Nora, McPherson, & Pisecco, 2002; Surdam & Collins, 1984; Sümer, Poyrazli, & Grahame, 2008; Yeh & Inose, 2003), the length of the class term (Bell, 2001), or the regulation of international students from the U.S. Department of Immigration (Jongsma, 1999). Aspects of a statistics course may produce anxiety, including the interpretation of statistical data, taking examinations for statistics courses, the actual mathematical computation, fear of asking for help, and fear of teachers (Bell, 1998). In sum, anxiety is one of the major reasons for international students to come to the counseling center (Nilsson, Berkel, Flores, & Lucas, 2004; Yi, Jun-Chih Giseala Lin, & Kishimoto, 2003).

Culturally, Asian students struggle with greater acculturative stress than European and American students because European and American cultures belong fundamentally to similar Western cultures (Poyrazli, Kavanaugh, Baker, & Al-Timimi, 2004). According to Poyrazli et al., the cultural values of European and American societies are fundamentally similar while considered as Western cultures that “encourage independence and individual expression” (p. 80), whereas Asian cultures, as Eastern cultures, focus on “dependence and conformity” (p. 80). It is also reported that Asian students experience higher levels of total adjustment stress compared to the European students while having higher levels of stress regarding their educational experiences, English, and personal psychological experiences (Poyrazli & Kavanaugh, 2006). In

counseling centers, Asian students are more concerned about confidentiality than non-Asian students when it comes to talking about personal feelings or anxieties (Gilbert, Bhundia, Mitra, McEwan, Irons, & Sanghera, 2007).

As domestic graduate and seminary students face unique issues, so do international graduate students. International students suffer from the same adjustment issues that domestic students endure but additionally they experience anxiety related to: financial issues because their sponsors may require graduate students to do well and finish their courses of study in a limited time (Charles & Steward, 1991), or difficulties with the English language when working as teaching assistants (Pedersen, 1991). International seminary students may also feel lonely or alienated outside of their classrooms. While most seminary students in the U.S. live quite far from their campuses and are often working while attending seminary, international seminary students are required to live on campus and concentrate solely on their studies (McFarlane, 2007). At the same time, seminary students and seminary professors themselves struggle with increasing demands (Weeks, 2007). As a result, it is often the case that only textbooks and God are left for international seminary students on campus (p. 6).

In summation, the anxiety level of international students is typically higher than that found in domestic students (Bell, 1998; Cole, Matheson, & Anisman, 2007; Iwata & Higuchi, 2000; Kovatz, Kutz, Rubin, Dekel, & Shenkman, 2006). These high levels of anxiety for international students negatively affect their academic achievement and experience (Cole, Matheson, & Anisman, 2007; El-Anzi, 2005). Among international students, Asian students experience more overall adjustment stress and anxiety related to

academic achievement (Poyrazli & Kavanaugh, 2006).

Purpose of the Study

The purpose of this study is to examine the state and trait anxiety of two groups of Korean seminary students—those domestic seminary students who were studying in Korea and those international seminary students who were studying in the U.S.—in a cross-cultural setting. Korean international seminary students who were exposed to a culturally different situation were compared to Korean domestic seminary students who were not exposed to it with the State-Trait Anxiety Inventory (STAI) (Form Y) (Spielberger, 1983).

The design of this study is similar to the research conducted by Iwata and Higuchi (2000). Using the STAI (Form Y), Iwata and Higuchi reported that the scores on anxiety-absent items of both Japanese university students studying in Japan, and Japanese international students studying in the U.S., were significantly higher than those of American students. According to Iwata and Higuchi, “Japanese students had a tendency to inhibit positive (anxiety-absent) feelings, resulting in higher anxiety scores” (p. 48). These findings support several former studies, using the Center for Epidemiologic Studies Depression Scale (Radloff, 1977), which revealed that the responses of Japanese individuals were much more likely to report a lack of positive affect while suppressing its expression (Iwata, Roberts, & Kawakami, 1995; Iwata, Saito, & Roberts, 1994).

In the study, we investigate whether or not Korean international seminary students

also have experience with anxiety that correspond to the experience of the Japanese. We determine the levels of anxiety experienced by Korean seminary students studying in America and compare this with the levels of anxiety experienced by Korean seminary students studying in Korea. If significant differences exist there, we must ask what resources are brought to bear for the amelioration of anxiety levels in Korean students studying in American seminaries.

Research Hypotheses

The researcher's hypotheses are as follows:

H1: A correlation between the state anxiety score and trait anxiety score will exist for Korean seminary students.

H2: Scores on state anxiety items and trait anxiety items for Korean *domestic* seminary students, both male and female, studying in Korea will be significantly lower than those for Korean *international* seminary students, both male and female, studying in the U.S.

H3: Scores on state anxiety items and trait anxiety items for *female* Korean seminary students, both domestic and international, will be significantly higher than those for *male* Korean seminary students, both domestic and international.

H4: Scores on state anxiety items and trait anxiety items for *unmarried* Korean seminary students, both domestic and international, will be significantly higher than those for *married* Korean seminary students, both domestic and international.

H5: Scores on state anxiety items and trait anxiety items for *unmarried* Korean domestic and international seminary students, both male and female, will be significantly higher than those for *married* Korean domestic and international students, both male and female.

The null hypotheses are as follows:

H1: There is no correlation between the state anxiety score and trait anxiety score for Korean seminary students.

H2: There is no significant difference between the scores on state anxiety items and trait anxiety items for Korean *domestic* seminary students studying in Korea and the scores on state anxiety items and trait anxiety items for Korean *international* seminary students studying in the U.S.

H3: There is no significant difference between the scores on state anxiety items and trait anxiety items for *female* Korean seminary students and *male* Korean seminary students.

H4: There is no significant difference between the scores on state anxiety items and trait anxiety items for *unmarried* Korean seminary students and *married* Korean seminary students.

H5: There is no significant difference between the scores on state anxiety items and trait anxiety items for *unmarried* Korean domestic and international seminary students, both male and female, and *married* Korean domestic and international seminary students, both male and female.

The researcher chose a significance value of $p < .05$. This was chosen because this particular p value is used most commonly in the social sciences and is sufficiently stringent to safeguard against accepting too many insignificant results as significant (Cohen, 1990; Issac & Michaels, 1997). The researcher believes that there is a relatively low likelihood of negative consequences occurring to the participants should a Type I error occur as a result of the present study. Therefore, the researcher was willing to accept a p value of .05 as a trade-off in statistical power instead of using more conservative options such as $p < .01$.

Assumptions and Limitations

This study was limited to a sample group of Korean international and domestic seminary students who are currently enrolled in and pursuing a seminary degree at a private Christian university in central Virginia in the U.S., as well as in Seoul, Korea. Both of the seminaries are founded upon evangelical and reformed theology. The findings are limited in application to graduate institutions that share a similar theology.

This study was also limited to a sample Korean international and domestic graduate students may not be generalize to other cultures and ethnic groups. This study also limits itself to graduate students in seminary context.

The STAI (Form Y) was relied upon to obtain data for this research study. Consequently, the anxiety level of the population was measured quantitatively by only a self-report method, though it is a well-known and validated instrument in research.

Definition of Terms

Anxiety: The subjective and physiological concomitants of anticipation of future danger or aversive consequences of current behavior (Millon, 1996).

State Anxiety: A person's temporary level of anxiety at a particular time and situation. Spielberger (1983) defined it as "a palpable reaction or process taking place at a given time and level of intensity" (p. 5). It can be referred to as acute anxiety if it is too high or maladaptive (Maxmen & Ward, 1995).

Trait Anxiety: A person's general or characteristic range of anxiety that is relatively fixed. Spielberger (1983) defined it as "relatively stable individual differences in anxiety-proneness, that is, to differences between people in the tendency to perceive stressful situation as dangerous or threatening and to respond to such situations with elevations in the intensity of their state anxiety reactions" (p. 5).

Anxiety Disorders: Disorders primarily related to abnormal or inappropriate anxiety. The American Psychiatric Association (2000) denotes that the following disorders are included in Anxiety Disorders: Panic Disorder Without Agoraphobia, Panic Disorder With Agoraphobia, Agoraphobia Without History of Panic Disorder, Specific Phobia, Social Phobia, Obsessive-Compulsive Disorder, Posttraumatic

Stress Disorder, Acute Stress Disorder, Generalized Anxiety Disorder, Anxiety Disorder Due to a General Medical Condition, Substance-Induced Anxiety Disorder, and Anxiety Disorder Not Otherwise Specified (pp. 429-430). In the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision* (DSM-IV-TR) criteria sets for a Panic Attacks and Agoraphobia are listed separately at the beginning of the section of Anxiety Disorders because both of them occur in the context of several of the eleven disorders that described above (pp. 430-432).

Stress: The physical or mental tension or response to events that threaten or challenge us (Feldman, 2008).

Significance of the Study

The population of international students in the U.S. has increased dramatically. There were 34,232 international students in the school year of 1954-55; whereas, there were 565,039 in 2004-05 (605.8% of the increase) (Open Doors, 2006). As of December 30, 2006, there were 630,998 active international students in the U.S. (Student and Exchange Visitor Information System [SEVIS], 2007, p. 16).

Attending an academic institution in a foreign country is a desirable experience for international students; yet, it was reported that many of them also experience anxiety (Battle, 2004; Bell, 1998; 2001; Charles & Stewart, 1991; Choo, 2007; Davis & Humphrey, 2000; Gilbert, Bhundia, Mitra, McEwan, Irons, & Sanghera, 2007; Keller,

2000; Kovatz, Kutz, Rubin, Dekel, & Shenkman, 2006; Nilsson, Berkel, Flores, & Lucas, 2004; Onwuegbuzie & Jiao, 1997; Petress, 1995; Poyrazli et al., 2004; Sibel, 2005; Yi et al., 2003; Yoon & Portman, 2004). Interestingly, anxiety has a multifaceted character. That is, it can be a motivator at low to moderate levels, whereas, it can be a hindrance at high levels (Hart, 2001; Hart & Weber, 2005; Stanley, 2003). It was reported that if anxiety is greater than what people can deal with, it can be an obstacle blocking high academic achievement (Cole, Matheson, & Anisman, 2007; El-Anzi, 2005), being one of the significant stress predictors for students (Dusselier, Dunn, Yongyi, Shelley, & Whalen, 2005), or even being a detrimental to students' health psychologically and physically (Tennant, 2002; Torsheim & Wold, 2001).

As a result, In order to understand the anxiety issues of international students, it is necessary to keep the data that are related to the issues renewed and informed. Actually, it was reported that counselors need to become more aware of the multicultural situation of international students so that they can "make their job easier and more fun" (Pedersen, 1991, p. 250). In that sense, this research can be significant twofold: first, this research addressed the anxiety and stress issues of seminary students in a cross-cultural setting and second, this research was related to seminary students. Poyrazli et al. (2002) argued that most of the research with international students in the U.S. has not distinguished between undergraduate and graduate students while pointing out that international graduate students may be under more stress than undergraduate. Furthermore, Yi et al. (2003) reported that there was a noticeable difference between undergraduate students and graduate students who entered the school counseling center regarding the top three

concerns. Even in regard to seminary students, little is known. Consequently, it may be worthwhile to study graduate seminary students as a separate group.

CHAPTER TWO: REVIEW OF THE LITERATURE

Etiologically, anxiety can be caused by various sources; its treatment is also determined in accordance with the source of anxiety (Collins, 1988; Hart, 2001; Hawkins, Hindson, & Clinton, 2002). As a result, this chapter consists of a review of the literature that addresses the etiology and treatment of anxiety in the following domains: (a) biological explanations; (b) psychological explanations; (c) social explanations; (d) spiritual explanations; and (e) holistic views. The chapter concludes with a summary of the review of the literature.

Biological Explanations for the Etiology and Treatment of Anxiety

There are certain evidence to show the relationship between biological factors and psychological issues. Feldman (2008) pointed out that some personality characteristics have some genetic factors and “a specific gene is very influential in determining risk-taking behavior” (p. 65). In fact, genetic counselors utilize prenatal testing to focus on possible inherited genetic defects to help potential parents. Additionally, genetic counselors screen for potential disorders such as Huntington’s Disease, which is related to genetic factors (Feldman). Herringa, Roseboom, and Kalin (2006) pointed out that genetically, men with decreased amygdala corticotropin-releasing factor-binding proteins (CRF-BP) may be more vulnerable to the effects of stress exposure on the etiology or

maintenance of bipolar disorder or schizophrenia. Fountoulakisa et al. (2001) found that low melatonin values are closely related to melancholic depression. Regarding anxiety, it can be explained with these two main categories: (a) genetic factors, and (b) physical factors.

Etiology

Genetic Factors. Anxiety can be produced by biological causes. Some evidence supports that there is the relationship between anxiety disorders and a genetic component, or that there are susceptibility genes that are related to anxiety. For example, Thoeringer et al. (2007) reported that a dysregulation of the central γ -aminobutyric acid (GABA)-ergic tone is related to the pathophysiology of anxiety disorders. They also reported that diazepam binding inhibitor (DBI) genetic variants are associated with the occurrence of panic attacks. Additionally, there is a possible relationship between the hippocampal gene and anxiety (Bogoch, Biala, Linial, & Weinstock, 2007; Earnheart et al., 2007). Bremner (2002) reported that the hippocampus, which is involved with memory and emotion in the brain and has the capacity to regenerate neurons, can be damaged by extreme stressors such as child abuse, resulting in lasting effects of psychological trauma. Earnheart et al. (2007) also found that stressful experiences in early life inhibit hippocampal neurogenesis and the expression of GABA-A receptors in adulthood. Additionally, they found that deficits in GABAergic neurotransmission and reduced neurogenesis are related to the etiology of pathological anxiety.

In regard to the gene factor in anxiety, Huang et al. (2007) also reported that while low monoamine oxidase (MAO) activity and neurotransmitter dopamine are two important factors in the development of alcohol dependence, the monoamine oxidase-A gene may modify the association between the dopamine D2 receptor gene and the anxiety/depression alcohol dependence phenotype. Mössner et al. (2006) found that the elevation of central serotonin levels by drugs such as clomipramine represented one of the most effective treatment options for panic disorders, which means that dysregulation of the serotonergic system plays an important role in the genetic etiology of panic disorders.

Physical Factors. Some evidence supports the notion that there is a relationship between anxiety and physical factors. For example, Hand, Phillips, and Dudgeon (2006) reported that state and trait anxiety is significantly correlated with perceived stress, depression, HIV-related symptoms, sleep quality, daytime sleepiness and fatigue. Hamke, Herpfer, Lieb, Wandelt, and Fiebich (2006) found that certain substances, such as neuropeptide substance P (SP), is related to the stress hormone axis or diseases like affective or anxiety disorders. Stein, Simmons, Feinstein, and Paulus (2007) also reported that anxiety-prone subjects had significantly greater bilateral amygdala and insula activation to emotional faces than did the anxiety-normative comparison subjects. Reich, Johnson, Zautra, and Davis (2006) found that the condition of “uncertainty of illness” of fibromyalgia syndrome (FMS), a chronic musculoskeletal pain condition, was significantly associated with anxiety, negative affect, and avoidant and passive coping.

Longitudinally, interacting with interpersonally stressful daily events predicted reports of reduced positive affect. This suggests that illness uncertainty acts as a risk factor for affective disturbances during stressful times (Davis).

When feeling anxiety, a body responds sympathetically to it with “sweaty palms, rapid heartbeat, increased blood pressure and pupil dilation” (Hart, 2005, p. 168) due to the alert that the amygdala initiates in the brain, as “the hypothalamus and pituitary gland signals the adrenal glands to pump out high levels of the stress hormone cortisol” (Hart, pp. 168-169). Collins (1988) pointed out that whereas a variety of physical disorders can bring anxiety, anxiety can also produce a variety of “psychosomatic (psychologically caused)” problems such as ulcers, headaches, skin rashes, backaches, stomach discomfort, shortness of breath, inability to sleep, increased fatigue, loss of appetite, frequent desire to urinate, changing in blood pressure, increased muscle tension, a slowing of digestion, chemical changes in the blood, or the overproduction of adrenaline (p. 85). In that sense, there can be a vicious circle between anxiety and physical problems.

Treatment

Collins (1998) argued that if anxiety is caused by biological issues, it is almost necessary to use medication in cooperation with physicians “who are cautious about the overuse of tranquilizers but who are willing to prescribe and monitor the use of such medication when anxiety seems high” (p. 77). Counselors do not have to criticize too quickly the use of medications if it is helpful to facilitate counseling. Collins pointed out

that medical treatment, especially when combined with counseling, is often very effective for biologically produced anxiety.

With regard to medication, Lam (2006) pointed out that optimal treatments for anxiety should be based on chronic disease management and should balance efficacy with long-term tolerability. Hart (2001) also pointed out that there are many forms of anxiety; some of them may need medication temporarily, but others may not. Anxiety problems such as phobias or separation anxiety do not generally need medication, while psychotherapy, especially cognitive-behavioral therapy, is effective for phobias or separation anxiety that originated as a result of thinking patterns. However, during the early stages of the treatment of panic disorders, it is almost always necessary to use medications. Hart believed it is especially useful if anxiety sufferers are caught in the vicious cycle that needs to be interrupted:

One reason why medication is especially important in treating the early stages of an anxiety problem is that in anxiety, unlike depression, the symptoms themselves become the source of further problems. . . . When you are anxious, the anxious feelings create more anxiety so that the disorder literally feeds off itself. For example, in panic anxiety disorder, the extreme fear of a panic attack creates a spiral of more anxiety and sets up the conditions for further attacks. This is the fear-of-fear response I mentioned earlier. In anxiety, therefore, it is imperative that this vicious cycle is interrupted and the system stabilized, so that the necessary counseling or psychotherapy can be introduced. (pp. 79-80)

Hart (2001) continued to point out that medications may help anxiety sufferers acquire the energy to deal with that anxiety and buy some time for the underlying issues to be addressed; those who are constantly fighting off their panic attacks can hardly pay their attention to the life issues that originally caused their anxiety problems. When he said that “knowing when and how to stop your medication is so important” (p. 71), Hart

(2001) provided some definite indications in order to discern whether medication is necessary:

(a) Is your anxiety so debilitating that you can make no progress in therapy without medication? If so, medication is necessary. (b) Are you making progress without medication? If so, it is likely that you can continue without it. (c) Can you function adequately at home and/or work without medication? If so, it is unlikely that you need to take it. (d) Do you feel confident that you can control your attacks yourself? If so, try and see how you do. (e) Are you suicidal or demoralized, or does the anxiety present any risk to your life or others? If so, medication is essential. (pp. 80-81)

However, Hart (2001) had one fundamental assumption that “tranquilizers alone will not cure your anxiety problems” (p. v), though a lot of anxiety is biologically based. He argues that the brain has its own system of natural tranquilizers, so anxiety sufferers should restore the natural production of the brain’s own tranquilizers.

Psychological Explanations for the Etiology and Treatment of Anxiety

Etiology

Anxiety can arise from psychological issues. Kirkegaard Thomsen (2006) found that there was strong evidence for a positive association between rumination and anxiety. Brozina and Abela (2006) also reported that inferential styles about consequences and the self with a helplessness-hopelessness perspective, including (a) a helplessness expectancy, (b) a negative outcome expectancy, and (c) an individual’s degree of certainty about their helplessness and negative outcome expectancies, lead to symptoms of anxiety in children.

In a study of the early childhood classroom adjustment of low income preschoolers, Miller et al. (2006) reported that negative dysregulation was related in expected directions to aggression, anxiety, and social skills while positive emotion regulation was related negatively to anxiety and positively to social skills.

In a study on the relationship between worry and life satisfaction in college students, Paolini, Yanez, and Kelly (2006) found that individuals scoring higher on worry experienced significantly less life satisfaction than those scoring lower. They argued that the tendency to worry hinders life satisfaction; whereas, a decrease in worry might increase life satisfaction. They also argued that concerns about the unpleasantness of the future significantly affect current life satisfaction. Wilfong (2006) proposed that the largest significant relationship with both computer anxiety and anger was computer self-efficacy beliefs, rather than computer experience or use.

The Bible says, “For with much wisdom comes much sorrow; the more knowledge, the more grief” (Eccl. 1:18). The term of “grief” was translated from Hebrew *kaeb*, which means sorrow, grief, affliction, or pain (Archer, Harris, & Waltke, 2003). The verse implies that knowledge can cause psychological suffering. For example, anxiety has already begun since infants had certain knowledge. Feldman (2008) pointed out that the cognitive development of infants commonly causes stranger anxiety as well as separation anxiety. As infants after the age of six months are able to differentiate the people who they know from the people they do not know, they commonly have stranger anxiety with fear when they see a strange person. For the same reason, infants generally have separation anxiety after the age of seven or eight months

when their first caregiver departs (Feldman). In some sense, infants would have not anxiety issue such as separation anxiety or stranger anxiety if they could not have certain knowledge of caregivers or strangers.

Hart (2001) argued that the thinking patterns of anxiety sufferers may result in high stress and play a role in “the trigger for a specific attack” (p. 111). As a result, once the mind is trained or conditioned to respond with anxiety when faced with a given situation, then a fear of anxiety causes another anxiety in a perpetuating cycle (Hart). Hawkins, Hindson, and Clinton (2002) argued that anxiety can be caused by addicted thoughts or “thought patterns” (p. 411) that have been developed on the basis of “error-based thinking” (p. 412). They also argued that people can be trapped in “hurtful emotional cycles” (p. 413), including anxiety, because of their abusive or traumatic experience in the past or present (Hawkins, Hindson, & Clinton).

Freud assumed that anxiety came from the threat posed by unacceptable libidinal wishes finding their way into the conscious mind, using the term *anxiety neurosis* to describe a variety of anxiety-related symptoms (Root, 2000). Freud assumed that there are three kinds of anxiety: (a) *realistic anxiety*, which is “the ego’s reaction to danger and the signal for taking flight” (Freud, 1966, p. 405), (b) *moral anxiety*, which “arises from dilemmas posed by the superego” (Hurding, 2003, p. 71), “when the superego gets too powerful, causing the person to be overwhelmed by guilt or shame” (Collins, 1988, p. 80), and (c) *neurotic anxiety*, which is “the result of submerged conflicts within the id” (Hurding, p. 71), “when the id begins to get so powerful that it threatens to overwhelm

the ego and cause the person to act with socially aggressive and sexually unacceptable behavior” (Collins, p. 80).

Freud argued that there are three forms of neurotic anxiety: (a) *freely floating expectant anxiety*, when people “foresee the most frightful of all possibilities” (Freud, 1966, p. 398) such as an expectation of evil, (b) *phobias*, when anxiety is “bound psychically and attached to particular objects or situations” (Freud, p. 398), and (c) *anxiety hysteria*, regarded as “a disorder closely related to the familiar conversion hysteria” (Freud, p. 400). Freud concluded that anxiety neurosis and development are caused by the deflection of the libido from its normal employment, which takes place in the region of somatic processes. In other words, the unsuccessful resolution of the Oedipus complex brings neurosis to the surface.

Jones and Butman (1991) pointed out that classical psychoanalysis uses a variety of methods, including free association, dream analysis, the process of abreaction or catharsis (reliving certain painful childhood experiences) as well as making the unconscious conscious. It is based on the assumption that people have been universally pathological since their formative developmental stages. As a result, the conflicts between id and superego, as intrinsic human nature, and their fixations are focused. Consequently, psychoanalytic tradition assumes that there is anxiety at the core of all psychopathology and the ego defense mechanism is used to avoid or blind anxiety (Jones & Butman).

However, Corey (2009) pointed out that one of the major limitations of classical psychoanalysis is the fact that long-term commitment is required in order to achieve

therapeutic goals. Hurding (2003) argued that Freud's assumption has provoked severe criticism from a variety of groups: "Freud has been under fire from the academic psychologists for being unscientific, from humanistic and theistic psychologists for being too reductionist and from the behaviorists for not being reductionist enough" (p. 70).

The Christian criticism of Freud's assumption can be summarized in two major areas: (a) theology—God, and (b) anthropology—man. First, in regard to God, Freud's theories were thoroughly based upon his agnostic or atheistic system, in which he considered religion to be an illusion that stems from real or distorted memories of childhood years (Jones & Butman, 1991). Freud tried to explain anxiety issues without the acknowledgement of the existence of God when he considered religious conversion unfavorably to be "a regressive attempt to resolve early oedipal hatred of the father by complete submission to a higher power" (Pargament, 2001, p. 247). Second, in regard to man, Freud's view on the origin of guilt, neurosis, or motivation for life stemmed from aggressive or sexual impulses on the assumption of his atheistic determinism, reductionism, or individualism generated from Darwinism, which ignored the fact that the human being is dependent on God and relational with others (Hurding, 2003; Jones & Butman).

In regard to phobic symptom, classical behaviorists assume that it can be induced experimentally and then treated successfully according to conditioned learning theory (Lindemann, 1966). Pavlov (1957) argued that there are three points that are connected with morbid disturbances through his study of the higher nervous activity in dogs. These properties are related to the genesis of nervous and mental diseases: "the strength of the

two basic nervous processes—excitation and inhibition—then the correlation of their intensities, or their equilibrium, and finally their mobility” (p. 481). On that assumption, Pavlov pointed out that these properties result in the foundation of the types of higher nervous activity, which play a significant role in the genesis of nervous and mental diseases as well as typical changes taking place under pathological states of this activity. Skinner assumed that most emotional problems are reactions to over-controlling, punitive environments, and because fear is a conditioned outcome to punishment, it elicits such environmentally conditioned emotions as guilt, depression, and anger (James & Gilliland, 2003).

Wolpe’s (1958) desensitization was derived from classical conditioning; his approach based on the learning theory was widely accepted in the psychotherapy of phobias (Lindemann, 1966). Wolpe assumed that anxiety is caused by guilt and depression; it can be considered an autonomic response to harmful stimuli; whereas, it can be maladaptive in circumstances where objectively there is no threat (James & Gilliland, 2003). Wolpe argued that while neurotic anxiety responses are not often extinguished by repeated evocation, conditioned inhibition helps to diminish the anxiety-evoking potential of the stimuli progressively, eventually to zero. He considered *reciprocal inhibition* as a therapeutic principle:

If a response antagonistic to anxiety can be made to occur in the presence of anxiety-evoking stimuli so that it is accompanied by a complete or partial suppression of the anxiety responses, the bond between these stimuli and the anxiety responses will be weakened. (Wolpe, p. 71)

However, Azrin (1966) argued that anxiety may be worse than the punishment itself because learning helps people have the ability to anticipate an event.

James and Gilliland (2003) pointed out that behaviorists assume that there are no underlying causes while focusing on just changing maladjustive behavior. Because of the tenet, however, behavioral counseling is criticized, often because:

it does not deal with deep-seated emotions and feelings, . . . fails to provide the client with insights and deep understanding of the problem, . . . focuses mainly on symptoms . . . ignores the historical roots of present maladaptive behaviors. (James & Gilliland, p. 193)

As a result, there may be short-term effects without lasting changes, and when one symptom is fixed, another appears (James & Gilliland).

However, the “over reductionism” (Hurding, 2003, p. 54) or dehumanizing tendency of behaviorists, including a lack of consideration on a person’s dynamic inner life, provoked criticism from Christianity; although, the methodology that assesses the human being at the fundamental level of behavior is attractive among experimental psychologists (Hurding, 2003). Jones and Butman (1991) also pointed out that behaviorists overlook “a key aspect of human nature, which is the interplay of body and soul-spirit and the distinctively transcendent aspects of our natures” (p. 155) because of their philosophical assumption of materialistic naturalism or reductionistic determinism that focus on the physical aspect of human beings as well as its outcome evaluation: “If thought is merely a behavioral disposition or a by-product of physical brain events, then humans cannot transcend the physical order of things. This provides a conceptual grounding for the doctrine of determinism” (p. 155).

Backus and Chapien (2000) argued that anxiety can be caused by misbeliefs, which “generally appear as truth to the person repeating them to himself” (p. 18). They pointed out that “negative and distorted statements which a person repeats to himself come from the devil” (p. 18). They assumed that the misbeliefs are the direct cause of emotional turmoil, maladaptive behavior, and mental illness, as the consequences of misbeliefs lead to despair, shame, and vice: “What you think and believe determines how you feel and what you do” (Backus & Chapien, p. 22).

In regard to anxiety, Backus and Chapien (2000) argued that there are two major misbeliefs: (a) “If the thing I worry about were to happen, it would be terrible” (p. 72), and (b) “Even though the likelihood of the terrible happening to me is utterly remote, I believe it’s actually inevitable” (p. 72). Under that etiological assumption, Backus and Chapien continued to argue that most anxieties are related to four things: “(a) dread of making public mistakes, (b) fear of making someone else angry or upset, (c) losing love, or (d) physical pain and death” (p. 76). After all, Backus and Chapien pointed out that anxiety is created by the one who does not tell the truth to himself or herself: “In reality, you create anxiety, not situations or events. Anxiety is brought about by your telling yourself something is terrible” (p. 76). They stressed that even anxious people cannot define what makes them anxious: “You make yourself miserable by the things you tell yourself. Sometimes, however, an anxious person cannot define what it is that is making him anxious” (p. 68).

There are two camps trying to explain psychological problems based on belief systems: (a) REBT and (b) cognitive behavior therapy (CBT). Both of them are closely

related to each other and have more commonalities than differences between them. The differences are mainly summarized in the fact that CBT may give more practical guidelines; whereas, REBT is more philosophical (James & Gilliland, 2003). The difference was affirmed, when Padesky and Beck (2005) mentioned in response to Ellis, “we still maintain that CT is primarily an empirically based psychotherapy and REBT is primarily a philosophically based psychotherapy. . . . We acknowledge that in the future REBT is likely to be empirically based” (p. 188).

Ellis argued that psychological problems stem from the way people think about things: “The things that occur do not upset you—but your view of those things does. Or, in RET terms, A (Activating Event) does not directly cause C (emotional and behavioral Consequence); B (your Beliefs about A) does” (Ellis & Grieger, 1977, pp. 7-8). One’s belief system (B), which is related to an activating event (A) consists of two sets of beliefs: rational beliefs and irrational beliefs. The irrational beliefs lead to inappropriate emotional consequences (C). After all, most emotional disturbances, such as anxiety, depression, or rage, stem from irrational beliefs (Ellis & Grieger, 1977; Walen, DiGiuseppe, & Dryden, 1992; Yankura & Dryden, 1994).

Ellis (1984) argued that there are three kinds of cognition: (a) *cold cognition*, descriptive and non-evaluative inferences, (b) *warm cognition*, preferences and non-preferences and (d) *hot cognition*, commands and demands. Hot cognition, with commanding and demanding words, leads to dysfunctional behavior such as anxiety or depression even though there is no empirical evidence to substantiate them. Ellis argued

that these commanding or demanding words, such as *must*, *should*, or *ought*, generate *masturbation*, which leads to irrational beliefs:

Quite quickly, once you get adept at looking for these demands, you will start to find them. Then you can also do the same thing about your other irrational thinking, most notably your *awfulizing* and your *can't-stand-its* and your *damning* of yourself and/or others. . . . Look even a little closely at behavior that we tend to call “neurotic,” “disturbed,” or “disordered,” and probably 90% or more of it involves a person’s absolutistically demanding something, awfulizing about not getting what he or she demands, whining persistently about not getting it, and/or stupidly concluding that he or she, or someone else, is despicable for acting in a particular way. (Ellis & Grieger, 1977, pp. 9-11)

According to James and Gilliland (2003), Ellis assumed that in emotional disturbance, two types of anxiety are generally present: (a) *ego anxiety*, and (b) *discomfort anxiety*. Ego anxiety is related to guilt and inadequacy in regard to a person’s ability to perform, while discomfort anxiety tends to be specific to a dangerous situation, and is less dramatic and inherent in most phobias. When these two types mingle, emotional disturbance is more profound (James & Gilliland). It is interesting that that the main reason that Ellis became a psychotherapist is related to anxiety; Ellis (2005) confessed that he was very anxious in several respects, such as speaking in public, approaching new women, and performance, especially in sport, and wanted to solve his own problems.

REBT is criticized for the fact that its de-emphasis of the therapeutic relationship may result in early termination of therapy (James & Gilliland, 2003). An REBT therapist is so powerful in persuasiveness and directness that psychological harm is more possible while the clients accede to the therapist’s authority. However, it is difficult to dig out

belief systems; whereas, it is easier to get tangled in the activating event or the consequences (James & Gilliland).

From a Christian perspective, Jones and Butman (1991) pointed out that although RET and Christianity share a perspective on human experience, especially welfare and psychological functioning, the major presuppositions about humanism and hedonism of RET are incompatible with Christian assumptions. In terms of humanism, the philosophical assumption of RET is on the arrogant humanistic atheism that there is no one supreme being in universe and “the highly humanistic definitions of rationality” (p. 193); whereas, in Christianity, “human beings are not the final authority, not capable of total autonomy and self-perfection” (p. 180). In terms of a therapeutic goal, RET helps people to live longer and more happily on its hedonistic assumption; whereas, Christianity encourages people “to glorify God and enjoy Him forever” and “glorifying God is not synonymous with human happiness” according to the Westminster Confession of Faith (p. 181).

Cognitive behavior therapists assumed that *schemas*, core beliefs and basic assumptions, have a substantial influence on one’s cognitive operations and affect his or her emotions and behavior. Consequently, if a person’s schemas are dysfunctional, he or she would be predisposed to a particular psychological distress (Beck & Weishaar, 1995).

However, Jones and Butman (1999) pointed out that although there is some compatibility between Christianity and CBT, certain behavioristic presuppositions, including materialism, naturalism, atomism, reductionism and scientism, are

unacceptable in Christianity. It is because CBT excludes God and supernatural activity and strips humanity of its God-given rationality and dignity (Jones & Butman):

It seems likely that we are what cognitive-behavioral therapy depicts us as being: thinking and acting creatures of habit who act upon and are acted upon by our environments for the purpose of obtaining that which we value. But it also seems clear to the Christian that we are more than this. (p. 223)

Treatment

Hawkins, Hindson, and Clinton (2002) pointed out that anxiety caused by “thought patterns” (p. 411) need to be renewed by “choosing to think about that were ‘excellent’ and ‘praiseworthy’ (Phil. 4:8)” (p. 412); anxiety caused by addicted behaviors need to work through “the process of *dehabituation* and *rehabilitation*” (p. 412). While Wilfong (2006) also proposed that computer anxiety is related to self-efficacy belief, rather than computer experience or use, he suggested that self-efficacy beliefs be increased so that users may experience lower levels of anxiety and anger.

Hart (2001) also argued that one consistently effective strategy to overcome anxiety problem is to change thinking habits: “Every anxiety sufferer must learn new ways of thinking and develop methods for changing their former thinking patterns” (p. 111). In order to change the thinking patterns of anxiety sufferers, Hart (2001) suggested three techniques: “(a) slowing down your thinking, (b) challenging your mistaken beliefs, and (c) speaking the truth to yourself” (pp. 112-116). First, Hart pointed out that those who have anxiety problems have to capture the thoughts that are rushing through their

minds, and slowing down their thinking processes is one way to capture their thoughts.

Second, he argued that at the root of much anxiety there are mistaken beliefs that sabotage anxiety sufferers' tranquility, create painful anxieties, and prevent anxiety sufferers from the freedom to achieve their full potential. As a result, these mistaken beliefs should be recognized and challenged. Hart also provided four practical questions to discern whether any belief is mistaken:

(a) What is the evidence that this belief is true? (b) Is this belief always true, or are there exceptions? (c) Was this belief forced upon me at a time when I couldn't think for myself? (d) Does this belief promote my welfare, or does it work against me? (Hart, p. 114)

Third, Hart tried to help anxiety sufferers establish a set of well-rehearsed self-statements in order to prepare for anxiety-producing situations: "(a) anxiety seems to be coming on, (b) having a panic attack, (c) going into a stressful situation, or (d) when you are feeling overwhelmed by your feelings" (pp. 115-116).

In his early days, Freud focused on repressed traumatic memories, especially unconscious fantasies and actual trauma as pathogenic, so that he tried to understand the unconscious conflicts of patients and relieve the symptoms through conscious recognition and resolution of unconscious irrational elements (Lindemann, 1996). During the session, his primary technique was hypnotization: "As a rule, it is necessary to hypnotize the patient and to arouse his memories under hypnosis of the time at which the symptom made its first appearance" (Breuer & Freud, 1957, p. 3). His therapeutic goal was to find a way out through speech that had been abreacted:

It brings to an end the operative force of the idea which was not abreacted in the first instance, by allowing its strangulated affect to find a way out through speech;

and it subjects it to associative correction by introducing it into normal consciousness (under light hypnosis) or removing it through the physician's suggestion, as is done in somnambulism accompanied by amnesia. (Breuer & Freud, 1957, p. 17)

However, as his focus changed later on from the elimination of symptom to the understanding of how symptoms were formed, Freud understood phobia with regard to an oedipal conflict, which activated the defenses of denial, displacement, and projection. Under that assumption, Freud tried to find out the unconscious conflicts of patients to eliminate the symptom (Lindemann, 1996).

Backus and Chapien (2000) argued that in order to treat the anxiety caused by misbeliefs, people need to tell themselves the truth to get over their problems. As for mentioning that people should face anxiety without avoiding it, Backus and Chapien provided a strategy to remove the misbeliefs that cause anxiety:

Getting rid of your anxiety means to (a) minimize the danger you tell yourself you are in (remember, your fears are exaggerated); (b) realize you create your anxiety (you create your own misbeliefs); (c) dispute these misbeliefs, challenge them ("is this really as terrible as I'm telling myself?"); (d) replace the misbeliefs with the truth. (pp. 76-77)

Although Backus and Chapien provides the strategy from a Christian perspective, it is very similar to the basic assumption of Rational-emotive behavior therapy (REBT) in the sense that the primary goal of REBT is to teach clients to detect and dispute irrational beliefs, especially to reduce the client's self-blame in regard to anxiety (James & Gilliland, 2003).

Recently, it was reported that REBT effectively reduced the levels of anxiety and stress of the Nigerian adolescents (Adomeh, 2006). It was also reported that the largest positive mean effect of REBT was on disruptive behaviors among five outcome

categories: anxiety, disruptive behaviors, irrationality, self-concept, and grade point average. Gonzales et al. (2004) found that REBT appeared equally effective for children and adolescents presenting with and without identified problems, and children benefited more from REBT than adolescents, according to a meta-analysis research.

In accordance with the assumption that *schemas* have a substantial influence on one's cognitive operations and affect his or her emotions and behavior, the goal of CBT is to correct faulty information processing and modify assumptions that maintain maladaptive behaviors and emotions (James & Gilliland, 2003). For modern problems such as stress, anxiety, and physiological problems that are not traceable to organic causes, relaxation therapy is used (James & Gilliland).

It is reported that CBT reduces the level of anxiety and is effective in anxiety problems such as fear of flying (Van Gerwen, Spinhoven, & Van Dyck, 2006), depression and anxiety prevention for children (Gillham, Reivich, Freres, Lascher, Litzinger, Shatté et al., 2006), and anxiety and other common problems related to illness and disability in late life (Satre, Knight, & David, 2006).

Social Explanations for the Etiology and Treatment of Anxiety

Etiology

Anxiety can be produced by social environmental causes such as “political instability, economic trends, shifting values, mobility that disturbs our sense or

rootedness, changing moral standards, or declining interest in religion” (Collins, 1988, p. 84). Collins also argued that society and neighborhoods can either stimulate anxiety or give such a secure environment that anxiety is lessened. Regarding stressors, a person who goes through “any life event or change, such as divorce, marriage, bereavement, loss or change of a job, or moving house” (Colman, 2006, para. 1), may be stressed and “associated with the onset or deterioration of a mental disorder” (Colman, para. 1).

Research has shown that international students had anxiety related to the library (Battle, 2004), homesickness and culture shock (Kovatz, Kutz, Rubin, Dekel, & Shenkman, 2006). There are other environmental elements that cause anxiety for students. Wright (2002) reported that nontraditional undergraduates, who are typically older than average, work full-time, and/or are entrusted with substantial family responsibilities, suffer from a lack of continuity in education, so that they have anxiety and frustration.

Political instability can be an environmental source of anxiety problems. Cole and Brown (2002) reported that post-war children in Kosovo need psychological recovery from a period of stress, dislocation, hope, and anxiety. In Israel, Slone (2000) found that the anxiety level of the participants in the experimental group who were exposed to television news clips of terrorism and threats to national security was significantly higher than the participants in the control group, which were not exposed to them. Hill, Levermore, Twaite, and Jones (1996) also reported that the trait anxiety of African-American children was correlated positively with exposure to violence and

negatively with social support; whereas, their state anxiety was correlated negatively with family social support.

The effect of culture made people respond differently to the same stressful stimuli and to a perceived dangerous environment. Kovatz, Kutz, Rubin, Dekel, and Shenkman (2006) reported that there were clear differences between the two groups of students, with Americans reporting a higher level of anxiety and fear, a poorer level of social functioning, and more change in their daily activities to a greater extent than the Israelis; although, there was no significant difference between the two groups in terms of their sense of safety at a medical school in Israel during a period of terror. Bell (2001) also found that international students react differently to stressful situations.

Clinton and Sibcy (2002) pointed out that children might have desperate anxiety if their mothers are not close enough to provide a secure attachment. van Brakel, Muris, Bögels, and Thomassen (2006) reported that there was a relationship between attachment style and anxiety in children. In the research on children aged 11-15 years, higher levels of behavioral inhibition, insecure attachment, and parental control/anxious rearing were associated with higher levels of anxiety symptoms. It was also reported that the nature of attachment during infancy can affect their relationships for the rest of their lives (Hamilton, 2000; Waters, Hamilton, & Weinfield, 2000; Fraley, 2002).

Both the attachment styles of parents and the quality of their care affect the psychosocial development of their children: “In sum, early attachment is said to launch processes that can have long-term consequences; but the quality of care that the child continues to receive can either strengthen or redirect those processes” (Broderick &

Blewitt, 2006, p. 132). The different interaction of parents with their infant may affect the child's psychosocial development differently: "Because fathers and mothers tend to interact differently with their infants, the attachment relationship with each parent may affect different aspects of the child's psychosocial development" (Broderick & Blewitt, p. 132). Poor early attachment can cause anxiety-ambivalence, which means that "babies show a great deal of distress on separation from their mothers, they may act angry upon reunion, alternately approaching and resisting the mother, or may respond listlessly to her efforts to comfort. They seem preoccupied with their mothers and rarely return to exploration after a separation" (Broderick & Blewitt, p. G-1).

There is a relationship between parenting style and children's anxious arousal. Hoffman (1983) proposed that children can feel anxious according to parents' discipline style. He pointed out that mild power assertion is more effective for long term internalization and helps children pay attention to their parents' message; whereas, an intense arousal during discipline may make children pay more attention to concerns other than their parents' socialization message. Kochanska (1993) argued that the anxiety of children is aroused differently with different children. That is, securely attached, fearless toddlers tend to show committed compliance with their mothers' requests; whereas, insecurely attached, fearful toddlers were much less likely to do so. Highly fearful children with their mothers' gentle discipline showed the most committed compliance. Among adolescents, it is reported that the quality of friendship is linked to delinquent behavior (McElhaney, Immele, Smith, & Allen, 2006).

Buckner, Schmidt, and Eggleston (2006) reported that social anxiety was significantly correlated with endorsement of enhancement drinking motives; that is, drinking to enhance positive experiences or emotions, but not social or coping motives. According to a study on the relationship between social anxiety and problematic alcohol use in an undergraduate sample, social anxiety was also correlated with endorsement of drinking in high-risk situations such as experiencing unpleasant emotions, conflict with others, social pressure, and testing personal control. Buckner, Schmidt, and Eggleston (2006) also reported that fear of negative evaluation and social avoidance and distress were both significantly positively related to drinking to cope with negative emotions and to conform to peer pressure, and fear of negative evaluation was significantly positively related to drinking to socialize and to drinking problems; whereas, social avoidance and distress was significantly negatively related to drinking frequency.

Medical or nursing contexts can be social environmental elements that cause anxiety for nurses, nursing students, or medical students. Hinshaw (2002) reported that nurses may experience overwhelming stress and anxiety when they are faced with issues of grief and loss without the knowledge, skills, and support to handle such situations. Caton and Klemm (2006) proposed that when novice nurses are not adequately prepared to provide end-of-life care in situations when dying patients and their families have unique physical, psychosocial, social, and spiritual needs, they may experience anxiety, stress, and/or burnout. Theroux and Pearce (2006) reported that graduate nurse practitioner students felt anxious while learning pelvic exam techniques and in subsequent clinical experiences. Graduate nursing students who were taught pelvic

examination techniques by standardized patients had a more positive experience, reported a better understanding of exam techniques, and had decreased feelings of anxiety compared with students who were taught by faculty with voluntary peer classmate examination. Smith, Peterson, Degenhardt, and Johnson (2007) found that the rigors of the medical curriculum may play an important role in the increased prevalence of depression and anxiety for students during their medical education. In regard to patients, Gammon (1998) found that in the hospital, those who were isolated because of an infection demonstrated feelings of anxiety and were more stressed than those patients with routine hospital admission.

Cloud and Townsend (1992) argued that many clinical psychological symptoms, including anxiety disorders, find their root in conflicts with boundary problems, in which a person has difficulty setting limits and/or does not respect others' limits. McGee (2003) pointed out that people may be troubled with the fear of rejection while they are living with people who demand to be pleased in exchange for approval and acceptance. He argued that such demands often lead people directly to this false belief: "I must be approved by certain others to feel good about myself" (p. 54). The false belief can lead people to bow to peer pressure, join social groups, or even engage in drug use or sexual promiscuity in order to escape from the fear of rejection even though they are virtually involved in superficial relationships or isolation. He warned that "sometimes rejection is willfully used as an act of manipulation designed to control someone else" (p. 57) and people may be involved in the vicious circle of approval addiction: "But ironically, the conditional approval of others was never enough to satisfy me. . . . I was thus compelled

to work even harder at being successful. I occasionally find myself falling in this pattern of behavior even now” (p. 59). He argued that the fear of rejection can affect people in many ways such as resultant anger, resentment, hostility, codependency, avoidance of people, control of others, depression, repeating of negative messages, hypersensitivity (hyposensitivity) to the opinions of others, or feelings of being easily manipulated. .

Treatment

Breast-feeding provides nutrients and some degree of immunity for a child and benefits for a mother’s health as well as significant emotional advantages for both mother and child; it helps to decrease postnatal maternal anxiety and leads to the child’s healthy social development (Feldman, 2006; Gerrish & Mennella, 2000; Zanardo et al., 2001). Lorenz (1957) argued that skin-to-skin contact between parent and child during the period immediately following birth leads to emotional bonding and prevents anxiety. However, Feldman (2008) pointed out that whereas scientific evidence for the claim of bonding just after birth is not sufficient and there are no persisting reactions to separations immediately after birth, postpartum has an influence on anxiety scores (Breitkopf, Primeau, Levine, Olson, Wu, & Berenson, 2005).

It was reported that adolescents who had strong and supportive friendships showed lower levels of delinquency, though they presented anxious/ambivalent attachment styles (McElhaney, Immele, Smith, & Allen, 2006). Secure attachment style can prevent children from anxiety (Broderick & Blewitt, 2006; Clinton & Sibcy, 2002;

Fraley, 2002; Hamilton, 2000; van Brakel, Muris, Bögels, and Thomassen, 2006; Waters, Hamilton, & Weinfield, 2000). Clinton and Sibcy (2002) pointed out that children might have desperate anxiety if their mothers are not close enough to provide a secure attachment. While Clinton and Sibcy (2002) defined the attachment behavior of parents as “any behavior that results in getting mother and child physically closer” (p. 21), they considered attachment as an overarching system that explains the principles, the rules, and the emotions of relationships. In that sense, people’s psychological, relational, and even spiritual foundations can be shaken unless attachment is not fulfilled properly. Therefore, a mother should be close enough to provide a secure environment, especially in times of trouble, so that her children can believe that their mothers are faithfully there as well. This also enables children to walk around the world feeling safe and secure. While Clinton and Sibcy (2002) stressed that “fear of abandonment is the fundamental human fear” (p. 22), they pointed out that, if children could not get proper attachment behavior from their parents, they would begin to express real, distressful, even desperate anxiety, then anger at being left.

Cloud and Townsend (1992) argued that sound boundary systems, which mean setting limits as well as respecting others’ limits, can decrease many clinical psychological symptoms, including anxiety disorders. While McGee (2003) pointed out that people may be troubled with the fear of rejection derived from the desire to acquire others’ approval and acceptance, he proposed the solution of reconciliation through the sacrificial payment of Christ: “God’s solution to the fear of rejection is based on Christ’s sacrificial payment for our sins. Through this payment, we find forgiveness,

reconciliation, and total acceptance through Christ. Reconciliation means that those who were enemies have become friends” (p. 63).

Spiritual Explanations for the Etiology and Treatment of Anxiety

Etiology

Anxiety problems can arise from spiritual issues. Research has shown that whereas individuals with high levels of intrinsic religiousness experience less anxiety than others (Mickley, Carson, & Soeken, 1995), negative religious coping was significantly linked to various forms of psychopathology, including anxiety, phobic anxiety, depression, paranoid ideation, obsessive–compulsiveness, and somatization (McConnell, Pargament, Ellison, & Flannelly, 2006). Slone (2000) proposed that the religious participants in Israel were more vulnerable to anxiety in response to the political broadcast of terrorist threats than the secular participants though it reflected the complex interrelation between religion and nationalism in Israel.

Pargament (2007) argued that specific types of spiritual problems may be related to specific types of psychological problems such as depression, anxiety, addiction, eating disorders, marital problems, violence, or serious mental illness. In regard to anxiety, he pointed out that anxiety can be caused by “spiritual confusion and doubt, an insecure relationship with God, spiritual rigidity and narrowness, as well as to beliefs in a small god who accepts no less than perfection” (p. 181).

Adams (1970) pointed out that anxiety can be raised by *unconfessed sin*. He gave an example of David, the King of Israelite (Psa. 32; 38; 51), “who is guilty over his sin and who is crushed by that anxiety” (p. 119). Adams also pointed out that the body of David was in the effects of the anxiety psychosomatically: “Because of your wrath there is no health in my body; my bones have no soundness because of my sin” (Psa. 38:3).

Hindson, Ohlschlager, and Clinton (2002) argued that tragically, people in postmodern society have serious trouble missing transcendence so that their lives could not feel the pain of heart though they lost their soul. Hawkins, Hindson, and Clinton (2002) pointed out that some have struggled with emotional problems because they are wounded deadly at the core of their personalities by old sinful nature that “goads us to rebel against God’s Word and the ministry of the Holy Spirit in our lives (Gal. 5:13-26)” (p. 411) or even “beset by evil powers” (p. 414).

Collins (1988) also pointed out that anxiety emerges when people turn away from God and take full responsibility for handling their problems by themselves, while spiritual deadness or waning spiritual vitality can cause fears or insecurities. He argued that anxiety may arise when the basic needs of human beings are not satisfied, especially the six fundamental needs: survival, security, sex, significance, self-fulfillment, and selfhood. However, even if all of those fundamental needs are met, there exist issues transcending life on earth—existential questions, which often lead to considerable anxiety. Consequently, he pointed out that people have to be at peace with God in order to find the ultimate answer to their anxiety problems:

We can have no lasting freedom from this kind of anxiety until we are at peace with God, resting in his promises for eternity, and knowing the stability that comes when our sins have been confessed and we are completely forgiven. (p. 83)

Anderson (2003) differentiated anxiety from fear. He defined anxiety as “a fear of the unknown or fear without an adequate cause” (p. 50), while fear is “the natural emotion we feel when our physical or psychological safety is being threatened” (p. 51). He argued that the basis for anxiety is uncertainty and a lack of trust, and to be anxious means to be double-minded (Jas. 1:7-8). He also differentiated legitimate fears, which are necessary for survival, from irrational fears that compel people to do something irresponsible or prevent people from doing something responsible. He mentioned that sometimes people have the terrifying experience of spiritual attacks at night when they seem to be half asleep or through human agents, while secular doctors or counselors call it an anxiety or panic attack (Anderson).

Cloud and Townsend (2001) argued that anxiety comes from not facing troublesome things inside one’s soul. As for differentiating good pain from bad pain (i.e. wasted pain) Cloud and Townsend argued that good pain has value and produces growth, while bad pain comes from repeating old patterns and avoiding the suffering, including psychological depression or anxiety, even though it would lead to growth. They explained life problems, including anxiety, in regard to the process of spiritual growth.

Anxiety can make people feel disconnected from God:

Many people who have a heart for God and growth . . . want to deepen their walk, become more Christlike, and know God more intimately. But they feel disconnected from those with life problems, such as depression, addiction, anxiety, a marriage/family/relationship problem, or a work obstacle. (p. 266)

Stanley (2003) argued that long-term anxiety is caused by the inner needs such as “a lack of self-worth, a desire for total control, concern for what others think, striving to follow the world’s pattern, or living in the tomorrow” (pp. 132-142). In regard to fear, Stanley (2003) argued that there are two kinds of fear: (a) real fear, and (b) shadow fear. Regarding real fears, he pointed out that the true opposite of fear is faith. He argued that there are several of the biggest and most common fears that people all face. One of them is fear of sin’s consequences: “Fear is a normal and universal response to our knowing we have sinned and become separated from God” (p. 190). He continued to argue that when people disobey God, they will have a fear, and it can compel them to obey God. He also pointed out that there is a rightful purpose and function of fear. That is, the emotion of fear helps people flee from physical danger or the presence of Satan. One of the purposes or functions that fear serves is to warn of physical danger or harm: “Fear was . . . the first emotion a person felt in the presence of anything associated with death, destruction, or danger. It is the first emotion we are to feel in the presence of evil of any kind, from any source” (Stanley, p. 191). Often normal fear can help people take precautions or adopt a defensive with the fight-or-flight reaction. Another purpose or function that fear serves is to warn of spiritual danger or harm: “It is good for a person to be fearful in evil situations. . . . This fear was rooted in the spirit realm. . . . Any Christian should feel in the face of pure evil” (Stanley, pp. 193-194). After all, he concluded that these normal, legitimate fears are helpful in many ways, and God is always more powerful than fear (Stanley).

Stanley (2003) also argued that there are shadow fears that are not real and reside only in the imagination or mind. If shadow fears persist or grow internally, they may become a spirit of fear and make a person become a slave to fear. Some of those fears come from bad teaching or the bad influence of parents. These fears cloud the mind, cause tension in the body, weaken confidence and boldness, keep people from praying, or keep people from reaching the full potential that God has for them (Stanley).

McGee (2003) argued that people can be deceived by Satan's strategy, "Self-Worth = Performance + Other's Opinions" (p. 21), and its logical consequence is fear, specifically, the fear of failure, rejection, or punishment. He argued that from life's outset, people search to satisfy some inner, unexplained yearning, which is the need for self-worth. The deeper need is the primary source of emotional pain:

Our hunger causes us to search for people who will love us. Our desire for acceptance pressures us to perform to gain praise from others. . . . But the man or woman who lives only for the love and attention of others is never satisfied—at least, not for long. Despite our efforts, we will never find lasting, fulfilling peace. . . . Our desire to be loved and accepted is a symptom of a deeper need—the need that frequently governs our behavior and is the primary source of our emotional pain. Often unrecognized, this is our need for self-worth. (p. 7)

McGee (2003) continued to argue Satan's deception that people's worth is based on their performance and people's opinion stems from the separation from God and His Word. In that sense, if people want to be approved by certain others to feel good about themselves, they may have four kinds of false belief in terms of performance trap, approval addict, blame game, or shame. The results of the false belief are (a) the fear of failure with perfectionism, drive to succeed, manipulation of others to achieve success, or withdrawal from healthy risks if they are caught in a performance trap, (b) the fear of

rejection with attempts to please others at any cost, over-sensitivity to criticism, or withdrawal from others to avoid disapproval if they are caught in approval addict, (c) the fear of punishment with punishing others, blaming others for personal failure, or withdrawal from God and others, or drive to avoid failure if they are caught in blame game, or (d) the feeling of shame, including hopelessness, inferiority, passivity, loss of creativity, isolation, or withdrawal from others, if they are caught in shame (McGee).

McGee (2003) continued to argue that anxiety and fear of failure can make people fall into a vicious circle that can lead them to a downward spiral of anxiety. He provided the common symptoms related to the results of false beliefs. First, the symptoms of the fear of failure may be perfectionism, avoidance of risks, anger and resentment, pride, depression, low motivation, sexual dysfunction, chemical dependency, addiction to success, identity entanglement with success, sense of hopelessness, or anger at oneself and God. Second, the fear of rejection can result in anger, resentment, hostility, being easily manipulated, codependency, avoidance of people, control, depression, hypersensitivity to the opinions of others, or hyposensitivity. Third, the symptom of the fear of punishment can be self-induced punishment, bitterness, passivity, punishment of others, or fears of all sorts (McGee).

In regard to the affection or approval of other people, Backus and Chapian (2000) also pointed out that whereas anxious people tell themselves that they are in danger of other people's reactions to them, the Bible does not teach a person to please everybody on earth: "Jesus himself wasn't loved by everyone and still isn't. . . . Jesus didn't live to please people. He lived to please His Father in heaven" (pp. 67-68). Backus and

Chapian argued that anxiety can be caused by the misbeliefs that come from the devil: “Negative and distorted statements which a person repeats to himself come from the devil” (p. 18). Scazzero (2006) also pointed out that one of the temptations toward a false self is performance, and if people consider themselves worthwhile because of what they do, it would result in emotional problems, such as blaming others for their predicaments, depression or shame.

Crabb (1988) argued that there is an ache beneath the surface of everyone’s life, and it will not go away until the day of Jesus’ second coming. People can deny it: “The promise of one day being with Jesus in a perfect world is the Christians’ only hope for complete relief. Until then we either groan or pretend we don’t” (p. 18). He argued that the reality of the fallen man’s soul is (a) a deep thirst to be dependent on someone else for satisfaction, and (b) a depth of corruption. He argued that since fallen men were expelled from the garden, they have been out of the nest while handling their discomfort by keeping a distance from others and responding more to their fears than to another’s desire for love. Moreover, modern Christianity tends to give hurting people false belief that people have the power within themselves to arrange for the relief that they long for and grant it the relief that they demand (Crabb).

Treatment

It was reported that there is a positive relationship between religion and psychological health. Myers and Diener (1995) found that religious people are less

vulnerable to depression and retained greater happiness than irreligious people. Richards and Bergin (2005) proposed that people, who engage in religious coping, such as praying, reading sacred writings, meditating, or seeking support from religious leaders and community, tend to adjust better to their problems and have lower levels of anxiety or depression.

It was reported that the role of religion enhanced psychological well-being. Hongtu, Cheal, McDonel Herr, Zubritsky, and Levkoff (2007) found that religious participation is positively associated with older adults' mental health status and treatment effects. That is, those who were attending religious activities on a weekly, monthly, or occasional bases were significantly less likely to have suicidal ideations and emotional distress than those who never participated or participated on a less frequent basis. Vitz and Lynch (2007) proposed that childhood attachment traumas and pathological experiences of separation anxiety may be used as a positive source of motivation in search for and response to God.

McMinn (1996) pointed out that spiritual life cannot be separated from mental health. He argued that people need a map for spiritual growth; in the map they can enjoy spiritual and mental health. In that sense, those who have spiritual problems in their lives also have mental problems, including anxiety issues, and spiritual health requires a sound intimate relationship with God.

Collins (1988) argued that anxiety can either motivate people to seek divine help or drive them away from God. In that sense, he pointed out that "the Christian counselor may be welcomed as a spiritual minister, or rejected because he or she represents a God

who has permitted the stresses and left the impression that he doesn't care" (pp. 85-86). Collins (1988) also mentioned in his spiritual stance that those who have anxiety issues need to be encouraged to rejoice, be gentle, pray, think, or act according to Philippians 4:6-9: "The Bible gives unusually specific and clear directions for overcoming anxiety" (p. 88). In order to prevent anxiety, Collins (1988) argued that people have to trust in God, especially with the conviction of "an underlying confidence in the sovereignty and wisdom of an all-powerful God" (p. 89). That is, it is natural that people would have anxiety problems unless they trust in God firmly. Collins (1988) stressed that beliefs help those who are troubled with anxiety to have trust and security in the midst of turmoil:

Beliefs have a great bearing on one's anxiety level. If God is seen as all-powerful, loving, good, and in ultimate control of the universe (which is the biblical teaching), then there can be trust and security even in the midst of turmoil. If we believe that God forgives when we confess our sins, that he promises eternal life, and that he meets our needs on earth, then there is less cause for anxiety. (p. 84)

Anderson (2003) pointed out that the antidote for anxiety is God (1 Pet. 5:7). He explained that fear has an object, while anxiety does not, so a person should remove one of its attributes in order to eliminate a fear object. In that sense, he pointed out that the answer to spiritually based panic attack is the fear of God. He continued to point out that people should fear God who is able to destroy both soul and body in Hell (Matt. 10:28); the one people are to fear and dread is the Lord (Isa. 8:12-14); a wise person fears God as the ultimate object, who is omnipotent and omnipresent, rather than people, death, or Satan (Prov. 9:10).

Cloud and Townsend (2001) argued that the life problems that people might bring into a growth setting are actually the fruit of deeper spiritual issues. That is, those symptoms are a signal of a deeper soul problem, rather than just the problem. Therefore, if people face those life problems, it leads them to the path of spiritual growth (Cloud & Townsend).

While Stanley (2003) argued that long-term anxiety is caused by the inner needs, in order to get over anxiety, he encouraged people to:

(a) refuse to allow anxiety to become a “state of being” in your life, (b) believe God when He says you are worthy of His constant care, (c) yield total control of every area of your life to God, (d) refuse to be caught up in what others think of you, (e) refuse to be trapped into operating according to the world’s systems, (f) get your priorities in line with God’s priorities for you, and (g) choose to live in today, not tomorrow. (pp. 142-143)

In terms of fear, while Stanley (2003) suggested these seven steps in order to overcome fear: (a) acknowledge the fear you experience, without denying that you feel it, (b) ask immediately for God’s help, (c) determine the root fear, (d) go to God’s word, (e) praise the Lord, (f) take a positive step, and (g) make a decision to believe God, not to live in fear. He pointed out that fear keeps Christians from going some places God desires them to go.

McGee (2003) argued that the feeling of significance is crucial for man’s stability and only satisfied by God, and the true source of the human value is the acceptance of the God who created people rather than of people themselves. In order to treat false beliefs that cause fear, including fear of failure, rejection, punishment, or shame, he provides God’s specific solutions of justification, reconciliation, propitiation, and regeneration.

First, regarding the fear of failure, he pointed out that the solution is God's justification, by which people assure that they are completely forgiven, fully pleasing to God, and do not have to fear failure any longer. Second, regarding the fear of rejection, the solution is God's reconciliation, by which people assure that they are totally accepted by God and do not have to fear rejection any longer. Third, regarding the fear of punishment, the solution is God's propitiation, by which people assure that they are deeply loved by God and do not have to fear punishment or punish others any longer. Lastly, regarding the pain of shame, the solution is God's regeneration, by which people assure that they are new creation in Christ and do not need to experience the pain of shame (McGee).

Crabb (1988) pointed out that people should be courageous in facing the horrors or struggles of living as part of a fallen race while realizing that the only way to make it is to learn to love and to commit our yearnings for perfect joy in God. He categorizes people into two groups: (a) shallow copers, those who "cope with life by dealing with whatever they can handle and ignoring all the rest" (p. 39), and (b) troubled reflectors, those who "wrestle honestly with at least some of the disturbing parts of their lives for which they have no real answers" (p. 40).

Crabb (1988) considered people to be beings who are thirsty and foolish: ". . . we are thirsty people who long for what was lost in the Fall . . . we devise foolish, ineffective, and immoral strategies to provide for our own satisfaction" (pp. 68-69). In that sense people are doomed to have three kinds of longings: (a) crucial longing, "the joys that only relationship with God provides" (p. 95) as the most basic and profound longing, (b) critical longing, a "good relationship with people" (p. 95), and (c) casual longing or

“physical comfort” (p. 95). He continued to argue that there are two kinds of paths to satisfy these longings: (a) outside in, which means that casual longing is satisfied at first, then critical and crucial in turn, and (b) inside out, which means that crucial longing is satisfied at first, then critical and casual in turn, the latter reflecting the true nature of spiritual growth better. In order for people to get real answers about changing, it is critical to look inward through dealing with below-the-waterline problems, while focusing on maturity, without self-protection or a quick and superficial look (Crabb, 1988).

Scazzero (2006) argued that emotional health should be accompanied by spiritual maturity because they are inseparable. He continued to point out that for emotionally healthy spirituality, it is necessary to engage seriously with Jesus Christ who alone can touch a large portion that remains untouched below the surface. In that sense, he pointed out that human emotions, including anxiety or fear, should be expressed without ignoring or denying them because human emotion is a kind of measure to assess psychological and biological states.

Therefore, in order to overturn unhealthy spirituality and get the radical transition, Scazzero (2006) argued that people need to dismantle the false self and allow their true self in Christ to emerge through four practical truths: (a) “paying attention to your interior in silence and solitude,” (b) “finding trusted companions,” (c) “moving out of your comfort zone,” and (d) “praying for courage” (pp. 84-90). He continued to argue that emotionally healthy spirituality requires people to go through the pain of the wall that consists of the six stages of faith: (a) “life-changing awareness of God,” (b)

“discipleship,” (c) “the active life,” (d) “journey inward,” (e) “journey outward,” and (f) “transformed into love” (pp. 118-120).

Anxiety in the Bible

In the ultimate sense, anxiety began when sin entered the world through the first ancestor (Rom. 5:12, 15-19). According to the Bible, the man and his wife hid from God among the trees of the garden; they were afraid when they heard the voice of God (Gen. 3:8, 10). That is, their disobedience to the commandment of God caused them to experience anxiety and guilt. In a sense, anxiety had already begun as the first woman saw the fruit of the tree with desire for gaining wisdom (Gen. 3:6) when the serpent provoked her heart (Gen. 3:1, 4-5). After all, the human being has been anxious before God ontologically since the first man committed the original sin. It is because He is not a God who takes pleasure in evil so that the wicked cannot dwell with Him (Psa. 5:4) while the entire human race has sinned (Rom. 3:23; 5:12). Anxiety has been with humankind since sin entered the world through one man. In some cases, it may be overwhelming as David, the King, expressed, “My heart is in anguish within me; the terrors of death assail me. Fear and trembling have beset me; horror has overwhelmed me” (Psa. 55:4-5).

People in the Bible are a good example of the fact that anxiety exists in the human society. They were anxious before God, His work or revelation, other people, bad news, misfortune, life, body, food or drink, future, or internal and external disturbances. Anxiety is pervasively with people in various situations for various reasons, which are

expressed in such terms as anxiety, care, concern, fear, or worry. In the King James Version (KJV), for example, the term fear is used 400 times, *feared* 74 times, *fearest* 3 times, *feareth* 20 times, *fearful* 11 times, *fearfully* 1 time, *fearfulness* 3 times, *fearing* 8 times, or *fears* 4 times. In NIV, the term of worry is used 13 times, *worried* 2 times, *worries* 4 times, or *worrying* 3 times.

This section will look into causes and times when people in the Bible were anxious based on an etymological study of the term anxiety and some related terms such as *care*, *concern*, *fear*, or *worry*. The term *anxiety*, and its related terms, is used in various situations. In NIV, the terms that are translated into *anxiety*, including *anxieties*, *anxious*, and *anxiously*, are used 13 times: *anxiety* 6 times, *anxieties* 1 time, *anxious* 5 times, and *anxiously* 1 time. These instances are translated from דַּאָגָה (de'agah), רָגַז (raggaz), כָּעַס (ka`ac), שַׂרְעָף (sar`aph), or רַעְיוֹן (ra`yown) in the Old Testament, and from λύπη (lupe), ὀδύνη (odunao), μέριμνα (merimna), or μεριμνάω (merimnao) in the New Testament.

In KJV, the Hebrew or Greek terms to express anxiety are often translated into other words such as *the multitude of thoughts* (Psa. 94:19), *thoughts* (Psa. 139:23), *heaviness in the heart of man* (Prov. 12:25), *trembling heart* (Deut. 28:65), *sorrow* (Eccl. 11:10; Phil. 2:28; Lk. 2:48), *care* (Lk. 21:34; 1Pt. 5:7), *carefulness* or *careful* (Ezek. 12:19; Phil. 4:6), or *the vexation of heart* (Eccl. 2:22), while the term *anxiety* is used literally in NIV.

The root דַּאָג (da'ag), which means “anxiety, with a shading toward the meaning of fear in some cases,” while דַּאָגָה (de'agah) means “care, carefulness, fear, sorrow,

heaviness” (1Sam. 9:5; 10:2; Prov. 12:25; Isa. 57:11; Jer. 17:8; 38:19; 42:16; 49:23) (Archer, Harris, & Waltke, 2003). Saul’s father experienced anxiety about his son as Saul searched for his father’s donkeys and did not come back in time (1Sam 9:5; 10:2). An anxious heart weighs a man down (Prov. 12:25). Jeremiah proclaims that the man who trusts in the Lord, rather than man, is blessed without worries like a tree planted by the water (Jer. 17:8). Zedekiah was afraid of the Jews who had gone over to the Babylonians. He was afraid that if he surrendered to the Babylonians, they would hand him over to the Jews who would mistreat him (Jer. 38:19).

The term of רָגַז (raggaz), which means trembling, quivering, or quaking, is also used to express anxiety, especially, in regard to ideas such as shaking in anger, fear, or anticipation, which are derived from its primary meaning of the root, which is to quake or shake. The term of רָגַז (rāgaz) as a verb expresses mostly agitation growing out of some deeply rooted emotion while the underlying emotion is to be recognized only from context (Archer, Harris, & Waltke, 2003). The term, including its derived forms, is used to express people’s trembling before God, His work, or His rule (Isa. 64:2; Joel 2:1; Deut. 2:25; Jer. 33:9; Psa. 29:9), a reaction to misfortune (Isa. 32:10-11), bad news (2Sam. 18:33), or some profoundly stirring knowledge or revelation (Hab. 3:16), God’s raging in anger or wrath (Isa. 28:21; Hab. 3:2), the raging of a fool (Prov. 29:9), external disturbances (Job 3:17, 26; 14:1), trembling with fear (Ezek. 12:18), or the fearful heart of God’s people in exile (Deut. 28:65).

The root meaning of כָּעַס (ka`ac) is to vex, agitate, stir up, or provoke the heart to a heated condition which in turn leads to specific actions. King Asa was “angry” (NIV)

when he was rebuked by the prophet Hanani (2Chr. 16:10). Sanballat became “angry” (NIV) when he heard the Jews were rebuilding the wall (Neh. 4:1). Especially, when the term applied to God anthropomorphically and anthropopathically, it referred to God’s inner self as vexed, agitated, pained, grieved, or provoked by rebellion, disobedience, or sin by virtue of God’s holiness and jealous love (Ezek. 16:42). The Hiphil stem of the verb is used in 45 passages in the Old Testament in order to warn or express God’s vexation when His chosen people were involved with other false gods (Deut. 4:25, 9:7-8). In that sense, man can cause God to be vexed, especially, when he falls into sin. For example, Jeroboam vexed God to anger because of his sins (1Ki. 15:30), and Israel provoked God to anger by making offerings for any high hill or leafy tree (Ezek. 20:28). Man also can cause his fellowmen to be provoked such as Peninnah (1Sam. 1:7, 16), foolish son (Prov. 17:25), and adversaries (Psa. 6:7) (Archer, Harris, & Waltke, 2003).

The term of שָׂרָפָה (sar`aph), which means disquieting thoughts, is used four times to express disquieting or excited thoughts (Job 4:13; 20:2; Psa. 94:19; 139:23) (Archer, Harris, & Waltke, 2003). Eliphaz, the Temanite, was in disquieting dreams (Job 4:13). Zophar, the Naamathite, was greatly disturbed as replied to Job (Job 4:13). God’s consolation brought joy to the psalmist’s soul when anxiety was great within him (Psa. 94:19). The psalmist asked God to know his anxious thoughts (Psa. 139:23).

The term of רָצִין (ra`yown), which means longing, or striving, is used three times to express longing such as “vexation of spirit” (Eccl. 1:17; 4:16; KJV) or “vexation of heart” (Eccl. 2:22; KJV) that is translated into “anxious striving” in NIV (Archer, Harris, & Waltke, 2003).

In the New Testament it is translated from λύπη (lupe), ὀδυνάω (odunao), μέριμνα (merimna), or μεριμνάω (merimnao). The term of λύπη (lupe) is used to express “(a) physically *pain, suffering, distress* (Jn. 16:21); (b) mentally or spiritually *sorrow, grief, sadness, anxiety* (Jn. 16:6); (3) adverbially *with a grieved spirit, reluctantly, grudgingly* (2Co. 9:7)” (Friberg & Friberg, 2001). When Jesus told that He was going to God, the disciples were filled with *grief* (Jn. 16:6). Paul, the Apostle, points out that Godly *sorrow* brings repentance, but worldly *sorrow* does death (2Co. 7:10).

The term of λυπέω (lupeo) is to “(a) active (*cause*) *pain, grieve, make sad* (Eph. 4:30); (b) passive *be sad, be sorrowful, be distressed* (Mt. 26:22); aorist *become distressed or sorry* (2Co. 7:9)” (Friberg & Friberg, 2001). When Jesus said that one of His disciples would betray Him, they were very sad (Mt. 26:22). Peter, the Apostle, was *hurt* (*grieved*, KJV), because Jesus asked him for the third time, “Do you love me?” (Jn. 21:17). Paul, the Apostle, commands, “Do not *grieve* the Holy Spirit of God” (Eph. 4:30).

The term ὀδυνάω (odunao), which means to cause pain in the active voice, is used only in the passive voice to refer to “(a) of violent physical torment *feel pain, suffer torment, be in agony* (Lk. 16:24); (b) of spiritual or mental distress *be grieved, be pained, be anxious, be very worried* (Lk. 2:48)” (Friberg & Friberg, 2001). Jesus’ parents had been *anxiously* searching for Him until they found Him in the temple courts (Lk. 2:44-48). The elders of the Ephesus church were grieved in Miletus because Paul stated that they would never see Paul’s face again (Acts 20:17, 38).

In the New Testament the term that is used most frequently to express anxiety is μέριμνα (merimna) or μεριμνάω (merimnao). The term μέριμνα (merimna) is used to

express “*care, concern* (2Co. 11:28); often in a negative sense, *anxiety, worry, distraction* (Lk. 8:14)” (Friberg & Friberg, 2001). People do not mature when choked by the *worries* of this life even though they hear the word of God (Mt. 13:22; Mk. 4:19; Lk. 8:14). Jesus warned that our hearts would be weighed down with dissipation, drunkenness and the *anxieties* of life unless we are careful (Lk. 21:34). Paul, the Apostle, said that he faced daily the pressure of *concern* for all the churches (2Co. 11:28). Peter, the Apostle, encouraged us to cast all our *anxiety* on Him because He cares for us (1Pet. 5:7).

The term of μεριμνάω (*merimnao*) means “(a) in a good sense, *care for, be concerned about* (1Co. 7:32); (b) in a bad sense, *be anxious, be overly concerned about, be worried about* (Phil. 4:6)” (Friberg & Friberg, 2001). Jesus commanded us not to *worry* about our life, eating, drinking, body, clothing, or tomorrow as he pointed out that no one can add a single hour to his life by *worrying* (Mt. 6:25, 27, 31, 34; Lk. 12:22, 25). He also commanded us not to *worry* about what to say or how to say it when we would be arrested, for we will be given what to say (Mt. 10:19; Lk. 12:11). Martha was *worried* and upset about many things because of her sister (Lk. 10:41). Paul, the Apostle, encouraged the Philippians not to be *anxious* about anything (Phil 4:6).

Anderson (2003) pointed out that the term of *merimna*, when it is used as a verb, appears to be a compound word that consists of two root words: *merizo*, which means divide, and *nous*, which means mind. In that sense, he argued that to be anxious in a negative sense is to be double-minded as double-minded people are unstable in all their ways (Jas. 1:7-8) and serve two masters (Mt. 6:24-25).

Paul, the Apostle, encouraged the Philippians not to be anxious (μεριμνάω) about anything (Phil. 4:6). In a sense, it implies that people may be anxious about anything. Jesus also acknowledged that His disciples would have trouble when they experienced anxiety (λύπη) that was caused by His ascension. Though he pointed out that He has overcome the world, anxiety is still with people, including even His disciples (Jn. 16:6, 22, 33), until His second coming. Actually, it is natural on Earth that people live with anxiety more or less up to the point of glorification that is sanctified completely (2Co. 7:1; 1Thess. 4:3; Rev. 14:5) while living somewhere between *already* and *not yet* in terms of the process of spiritual maturation, sanctification: “Although regeneration is instantaneously complete, it is not an end in itself... continuing and completing what has been begun... there is much more yet to come” (Erickson, 1998, pp. 957-958). Anxiety, with other problematic issues resulting from the first sin, never go perfectly away in the world: “Sanctification is usually a lengthy process and never reaches perfection in this life” (Berkhof, 1996, p. 534).

One of His attributes has been explained through anxiety in the Bible. As a result of God’s holiness or jealous love, God’s inner self is vexed or grieved by rebellion or sin. It is understood as anthropomorphisms or anthropopathisms, which means describing God’s actions and feelings in human terms from a human perspective or through human analogies as God experienced pain or regret (Erickson, 1998). In fact, God is spirit (Jn. 4:24); He is neither composed of matter nor limited with a physical body. In regard to anthropomorphisms or anthropopathisms, therefore, careful interpretation is required “so

as not to militate against the pure spirituality and holiness of God, can hardly be justified” (Berkhof, 1996, p. 65).

Holistic Views on Etiology and Treatment of Anxiety

As described above, anxiety problems can arise from a variety of bio-psycho-socio-spiritual causes. Moreover, each part can affect the other parts in a person such as psychosomatic illness (Adams, 1970; Collins, 1988; Hart, 2001; Stein, Simmons, Feinstein, & Paulus, 2007). In order to make therapeutic results better, therefore, it is stressed that anxiety issues should be accessed with holistic views.

Etiology

Research has shown that biological, psychological, and spiritual issues are related to each other. McConnell, Pargament, Ellison, and Flannelly (2006) found that the relationship between negative religious coping and anxiety and phobic anxiety is stronger for individuals who have experienced a recent illness; negative religious coping was significantly linked to various forms of psychopathology, including anxiety, phobic anxiety, depression, paranoid ideation, obsessive–compulsiveness, and somatization.

Hart (2001) argued that spirituality can be affected by stress and anxiety: “Stress and anxiety can play havoc with our spiritual aspirations. When our body and mind are fighting for basic survival, they do not have the energy or time to connect with God” (p.

255). In arguing some compatibility between Christianity and cognitive-behavioral therapy, Jones and Butman (1991) warned that cognitive-behaviorists focus on a specific behavioral aspect of human beings with reductionism while ignoring other aspects: “A failure to believe the right things can lead to spiritual impoverishment, as we fail to appropriate God’s resources” (p. 211). Therefore, if therapists or those who have anxiety problems focus on a specific or preferred explanation, it is less effective than when it is treated within holistic view that encompasses biological, psychological, social, and spiritual explanations. Scazzero (2006) pointed out that the human being is created as a whole person in the image of God, and if that is ignored, the result is destructive:

God made us as whole people, in his image (see Genesis 1:27). The image includes physical, spiritual, emotional, intellectual, and social dimensions. . . . Ignoring any aspect of who we are as men and women made in God’s image always results in destructive consequences—in our relationship with God, with others, and with ourselves. (p. 18)

Scazzero (2006) argued that there is a list of the top ten symptoms that indicate if someone is suffering from a bad case of emotionally unhealthy spirituality, and among those symptoms is to ignore the emotions of anger, sadness, and fear. That is, if people deny their emotions, including fear or anxiety, in spite of the fact that human beings are created to feel a wide range of emotions, and fail to express their feelings clearly, it results in keeping free people in Christ in slavery with extensive damage.

Treatment

In research on the quality of symptom management related to palliative care for those who have physical and psychological symptoms of end-stage cancer patients at one week after admission and two days before death, Tsai, Wu, Chiu, Hu, and Chen (2006) proposed that symptom management is essential according to patients' symptom pattern, and holistic care, which encompasses physical, psychosocial and spiritual aspects, and represents a rational approach for the relief of these incurable symptoms. Caton and Klemm (2006) also reported that nurses are required to provide end-of-life patients and their families with physical, emotional, psychosocial and spiritual support during prolonged illness.

Hart (2001) pointed out that the word *heal* itself implies the human wholeness that encompasses body, mind, and spirit in terms of etymology, while mentioning that the word *heal* comes from the root Old English word *haelen*, which means *to make whole*. On that assumption, he stresses that “no healing, or cure, is complete unless it contributes to making us “whole” or complete, and we can only be complete if the body, mind, and spirit are brought together” (p. 252). As a result, Hart (2001) argued that anxiety problems should also be dealt with in regard to the restoration of our wholeness with healing our larger selves: “Healing is not complete until that healing restores our wholeness. The implication here is that we cannot expect to be healed from our anxiety problems without healing our “large selves” (p. 253). He pointed out that even though it is true that bodily tranquility should be considered to be the antidote for anxiety, it needs to be used on the assumption of wholeness, rather than one or two specific parts:

As we have seen, tranquility requires biological harmony in the brain. Upon this foundation of biological harmony, we must build emotional and spiritual tranquility. One cannot survive without the other, and each serves to strengthen the other. (p. 254)

Hart (2001) continued to stress that people need to deal with their problematic issues with holistic stance: “I happen to believe that good stress management is as much a matter of spirituality as it is of self-discipline and mastery over our bodies” (p. 256). He argued that people can be protected from stress and anxiety; for example, Jesus asked his disciples in a furious storm “You of little faith, why are you so afraid?” (Mt. 8:26). In the example, Hart (2001) stressed that healthy faith helps people to manage their stress and anxiety better because “faith can play a major role in determining how chaotic our lives become” (p. 256).

Welch (1998) also pointed out that humans are composite beings in the biblical sense and human beings should not be treated with simple dualistic or monistic views in regard to the relationship between body and mind:

Heart and body are both two and one. They are two in that body cannot be reduced to heart or spirit, and heart cannot be reduced to body. But they are mutually interdependent. They need each other. Human life cannot even be imagined without both the inner and the outer person. (p. 47)

On the assumption of holiness, Welch pointed out that this unity suggests that the heart or spirit will always be represented or expressed in the brain’s chemical activity, while trying to explain problems in three categories: (a) brain dysfunction—the brain did it, (b) psychiatric problems—maybe the brain did it, or (c) new trends in the brain sciences—the brain didn’t do it.

Weil (1997) argued that the healing system is able to handle most problems and restore the balance of health, and the true purpose of medicine is to facilitate healing while separating healing from treatment:

When illness persists, the healing system is blocked, stalled, or overwhelmed and needs help. The true purpose of medicine is to facilitate healing; the aim of treatment should be to unblock the healing system and allow it to do its work. Please keep in mind the distinction between healing and treatment: treatment originates from outside, whereas healing comes from within. (p. 17)

In that sense, Weil treats his patient, who was subject to attacks of severe anxiety without warning, with lifestyle medicine such as daily walks and breathing exercise, lecturing and counseling, and even herbal remedy with a program of healthy living for two months to help him have a new sound habit. In order to optimize the function of the healing system, Weil pointed out that people should deal with their problems with a holistic view: “To optimize the function of the healing system, you must do everything in your power to improve physical health, mental/emotional health, and spiritual health” (p.28).

Adams (1970) also pointed out that the problem should be treated within the total structure, which means “looking at the problem in relationship to all areas of life” (p. 156) such as spiritual life, family or marriage, work or school, social or financial, and physical health. Adams argued that God created man and gave him a commission to subdue the earth, but sin brought the reversal of man’s rule over the earth, which means that clients who have problems have allowed the environment to control them. Therefore, clients and counselors should conform to God’s commandments in total structuring according to God’s law:

Whenever a client's problem turns out to be one large, glaring sin, . . . the problem cannot help but affect every other aspect of his life. . . . Structured, or disciplined living is living that conforms to God's commandments. Living a life of love is the goal. Clients and counselors alike should be satisfied with nothing less than the goal of total structuring according to God's law. (p. 155)

McMin (1996) also argued that the goals of Christian counseling are multifaceted and are concerned with spiritual growth as well as mental health. In regard to treatment, McMinn argued that while adjusting their counseling intervention with ongoing assessment to their clients, counselors should consider three components with a multi-tasking stance: (a) psychological perspectives, (b) theological perspectives, and (c) spiritual-formation perspectives. He stressed that both psychological and spiritual health are based on these 3 foundations: (a) accurate awareness of self, (b) accurate awareness of need, and (c) healing relationship:

The effectiveness of counseling is limited by the accuracy of the counselor's ongoing assessment. . . . However, before using any counseling intervention, . . . it is wise to anticipate the possible effects. . . . Just as a good basketball coach is able to watch several players at once and call the best play for the moment, an effective counselor watches these three components of psychological and spiritual health—healthy sense of self, awareness of personal brokenness, and confiding relationship—and adjusts the treatment accordingly. . . . Effective Christian counseling strengthens all three of these areas. (pp. 56-59)

Collins (1988) also dealt with anxiety problems from a holistic perspective. He pointed out that in ultimate sense, anxiety comes when people turn away from God as they try to handle problems by themselves without acknowledging God or seeking His kingdom and righteousness. As a result, he argued out that anxiety arises from various causes such as threat, conflict, fear, unmet needs, physiology, and individual differences, and people also response differently to anxiety-producing situations with physical, psychological, and spiritual reactions: "Some people are almost never anxious, some

seem anxious most of the time, many are in between. Some people are made anxious by a variety of situations; others find that only one or two issues create apprehension” (p. 83). Concerning these differences, he suggested several causes: “Perhaps the answer comes in terms of a person’s past learning, personality, social environment, physiology, and theology” (p. 84).

On the assumption of holiness, Collins (1988) argued that counseling interventions for anxiety need to encompass biological, behavioral, and environmental aspects as the need arises. For example, sometimes anxiety has a physical cause so that non-medical counselors need to treat the problem medically in cooperation with physicians regarding the biological aspect; on the other hand, behavior therapy can also be effective treatment for anxiety regarding the psychological aspect; in regard to the spiritual aspect, he points out that anxiety problems can be resolved with Christian responses including a biblical formula such as (a) rejoice (Phil 4:4), (b) be gentle (Phil 4:5), (c) pray (Phil 4:6), (d) think (Phil 4:8), or (e) act (Phil 4:9). After all, Collins suggested eight strategies to counsel the anxious person: (a) recognizing the counselor’s own anxieties, (b) calming tension, (c) showing love, (d) identifying causes, including observation, reflection, and contemplation, (e) making interventions, including biological, behavioral, and environmental interventions, (f) encouraging action, (g) giving support, and (h) encouraging a Christian response.

In the holistic stance, Scazzero (2006) pointed out that people need to develop spiritual life through Scripture, silence and solitude, daily office, study, Sabbath, simplicity, play and recreation, service and mission, emotional health, family, and

community: “We, too, are called to order our lives around spiritual practices and disciplines—that is, a “Rule of Life,” . . .” (p. 195) as well as care for the physical body: “Many of us take poor care of the bodies God has given us. Yet caring for our bodies can be as spiritual as prayer or worship” (p. 205). He stressed that the body is a way to listen to God in the sense that God might speak to people through their bodies, and people can “acknowledge the holiness of all of life and honor the fact that God is within us” by listening to their bodies (pp. 205-206).

International Students’ Anxiety Issues

As described above, international students have unique issues that cause anxiety stemming from their adjustment to new cultural and academic situations. These anxiety issues of international students can also coincide with bio-psycho-socio-spiritual causes that affect each other. As a result, once anxiety occurs, it can lead to a vicious circle of anxiety. In this case, when one issue causes anxiety, the anxiety from that cause leads to another issue—which becomes the cause for another anxiety—so that the process continues to repeat itself; getting worse as it goes (Adams, 1970; Collins, 1988; Hart, 2001; Stein, Simmons, Feinstein, & Paulus, 2007).

For example, it has been reported that international students may experience acculturative stress (Battle, 2004; Choo, 2007; Onwuegbuzie, & Jiao, 1997; Petress, 1995; Sibel, 2005). It was also reported that anxiety is closely related to stress (Arthur, 1998; Furukawa, 1997; Kilinc & Granello, 2003; Spielberger, 1966). Also, Sümer et al.

(2008) found that depression and anxiety were intercorrelated; that is, students who scored high on a depression test (the Goldberg Depression Scale) also scored high on a state anxiety test (the State Anxiety scale (Form Y-1)). Once anxiety begins to set in among international students, it can cause other issues while negatively affecting their academic achievements (Cole, Matheson, & Anisman, 2007; El-Anzi, 2005; Poyrazli & Kavanaugh, 2006). Following, this negative effect can lead to repeated anxiety and stress (Dusselier, Dunn, Yongyi, Shelley, & Whalen, 2005). Asian international students experience greater overall adjustment stress and anxiety connected to academic achievements (Poyrazli & Kavanaugh). After all, the anxiety issues of international students can negatively affect their psychological and physical health (Tennant, 2002; Torsheim & Wold, 2001).

Cheng (2004) reported that international students suffer anxiety from being sick in a foreign country. The study found that international students may endure pain until it either passes, or they return home for treatment, because of their frustration and feelings of inadequacy towards their lack of information or choices regarding health care. The study reported that when international students are ill, they make choose whether to go to their school's health care center based on their knowledge of health care in their native country, communication experiences abroad, past and current personal experiences, and third party experiences about the school's health center. The results of the study showed that international students worry about "being labeled and/or treated as foreign burdens and as lesser humans" (p. 85). These concerns and acute awarenesses may inhibit them

from raising questions while receiving the university's health services—or from even seeking healthcare at all.

Kozu (2000) found that Japanese international students in the U.S. have greater symptoms of phobic anxiety than their American counterparts due to the acculturative stress coming from culture shock. The study also reported that Japanese sojourners, “who live temporarily in a different culture” (Kozu, p. 90) generally seek help less frequently than their American counterparts. In regards to the frequency of help sought, the study ordered those sought by Japanese sojourners as (from most to least sought) partners, parents, and friends; whereas the Americans' sought friends the most followed by their partners and parents. For both cultural groups, professors were their fourth choice while counselors/psychotherapists were the least frequently preferred sources. Among Japanese sojourners, the use of international student advisors was the next least preferred (Kozu). However, the study reported that there are no significant differences among the Japanese sojourners within different levels of psychological adjustments in terms of their worldviews: assumptions about human nature, attitudes toward authority, individualism-collectivism, and locus of control.

Berry, Kim, Minde, and Mok (1987) argued that individuals can experience several changes as a result of acculturation: (a) physical changes, including “a new place to live, a new type of housing, increased population density, more pollution, etc.” (p. 492), (b) biological changes, including “new nutritional status, new disease (often devastating in force), interbreeding yielding mixed (metis, mestizo, etc.) populations” (p. 492), (c) cultural changes, including “original political, economic, technical, linguistic, religious

and social institutions” (p. 492), (d) social relationships and dominance patterns, and (e) psychological changes for individuals such as “behavioral changes and an alteration in mental health status” (p. 492). Especially regarding acculturative stress, they pointed out that certain kinds of stress behaviors can occur during acculturation, including “lowered mental health status (specifically confusion, anxiety, depression), feelings of marginality and alienation, heightened psychosomatic symptom level, and identity confusion” (p. 492). They go on to argue that individuals can face more severe stress according to certain factors, including “education, age, gender, cognitive style, prior intercultural experiences, and contact experiences” (p. 495). The study pointed out that student sojourners in general, as migrants who cannot legally stay beyond their period of study, do not establish supportive networks in the host society or among themselves; compared to other groups such as immigrants, refugees, natives, or ethnic groups.

Sümer et al. (2008) reported that anxiety was negatively correlated with social support; that is, students who had lower levels of social support showed higher levels of anxiety. Also, the study showed that students with higher levels of social support reported higher levels of proficiency in English. The study reported that English pattern was negatively correlated with age and patterns of social contact, and positively correlated with social support; that is, younger students reported higher English proficiency than older students, and students who socialized primarily with non-American students reported lower English proficiency than did students who socialized primarily with American students.

Researchers report that English language fluency was a significant predictor of acculturative stress while affecting their psychological adjustment to the new culture (Brown, 2008; Poyrazli et al., 2002; Surdam & Collins, 1984; Sümer et al., 2008; Yeh & Inose, 2003). Brown (2008) pointed out that anxiety over language ability is an inevitable part of the experience of culture shock for non-native speakers of English. This leads many international students to suffer anxiety related to the stress of communicating and studying in a foreign language. The problems that international students may face include “insufficient comprehension of lectures, seminar discussion and day-to-day conversation; limited fluency, grasp of grammar and vocabulary, serving to inhibit conversation and participation in class; and poor reading and writing skills” (Brown, p. 77). The study showed a high level of anxiety in the initial stage of the academic sojourn among international students who have difficulty communicating in day-to-day situations as well as following lectures and participating in class. The study also found that international students’ stress is placed overwhelmingly on linguistic competence, rather than on the mastery of non-verbal communicative competence. The study pointed out that anxiety related to communication ability may decrease as time passes and improvements are achieved; therefore, the anxiety suffered by students in the initial stages must not be underestimated, and appropriate support systems must be put in place to alleviate their distress.

In the spiritual sense, international students may face anxiety issues related to their religion. For example, Lee (1996) reported that many traditional members of a family experience conflict with a member who comes to adopt a religion differing from

those of the family while becoming acculturated in the U.S. (Lee, 1996). Even among Asian Americans, Tan and Dong (2000) pointed out that older groups who speak their mother tongue pursue more theologically conservative and traditional worship styles, whereas younger English speaking generations prefer contemporary worship styles. They also argued that traditional cultural philosophies or religious beliefs may continue to influence individuals even if they work to maintain religious integrity by rejecting other belief systems after their conversion (Tan & Dong).

In addition, Fritz, Chin, and DeMarinis (2008) argued that international students should not be considered as one homogenous group. Actually, it was reported that there is a different pattern related to the cause of anxiety among international students. Asian international students experience greater difficulty in dealing with the new language and making new friends than European international students (Hayes & Lin, 1994; Mori, 2000; Fritz, Chin, & DeMarinis, 2008), whereas European international students face greater stress from being separated from family and friends (Orr & MacLauchlan, 2000; Fritz, Chin, & DeMarinis, 2008). Even among Asian international students, there can be diverse international student groups. In fact, Asia, as “the world’s largest and most diverse continent” (“Asia,” 2008, para. 1), covers not only the Asia-Pacific region but also Middle East and Russia in regard to physical geography.

For example, Abbassi (2007) reported that among the international students who came from Thailand, Taiwan, Japan, and Korea and were studying at a U.S. college campus, there were no significant differences between the state and trait level of anxiety except among Korean women. In the study, the participants were assessed with regards

to how they experienced anxiety on a U.S. college campus. In a sense, the study did not support the possibility of significant differences between respective anxiety levels of students from different countries. However, Abbassi (2007) pointed out that the study focused on different cultures within the same environment, so that it resulted in no significant differences. It can also be considered that the participants' countries (Thailand, Taiwan, Japan, and Korea) belong to the same East Asian cultural sphere characterized by the use of old Chinese letters (Park & Cho, 1995)—as well as by certain principles that focus on proper or harmonious social order, living in harmony with nature and with others, the avoidance of direct confrontation, passive acceptance, group orientation, duty and obligation, deference and obedience to those of higher status, anticipating the needs of others while not expressing one's own needs verbally, or self-restraint in verbal communication and control over strong emotions (Tan & Dong, 2000).

Correlation between State Anxiety and Trait Anxiety

Researchers report that there exists a correlation between state anxiety and trait anxiety. Spielberger (1983) reported that persons with high trait anxiety tend to have higher state anxiety “even in relatively neutral situations” (p. 33).

In a study to examine surgery-induced anxiety among cataract patients, patients with higher trait anxiety were more likely to also experience higher levels of state anxiety (Nijkamp, Kenens, Dijker, Ruiters, Hiddema, & Nuijts, 2004). Hoff, Hoff, Almasbakk, and Espnes (2001) also reported a high correlation between state anxiety and trait anxiety

in their study of examining state and trait anxiety in sports performance situations. That is, sport science students who scored high in trait anxiety also scored high in state anxiety. They pointed out that those who show a high level of general anxiety need psychological counseling in contest situations. It was also reported that higher levels of trait anxiety are correlated with higher levels of state anxiety among first-year clinical residents at a medicine school (Peterlini, Tibério, Saadeh, Pereira, & Martins, 2002). Karsli and Baloğlu (2006) also reported a significant correlation between the state and trait anxiety levels among Turkish colleges' administrators without any significant difference based on gender, age, administrative level, or tenure. In a study for women undergoing planned gynaecological surgery, patients with higher levels of trait anxiety were more likely to experience higher levels of anxiety (Carr, Brockbank, Allen, & Strike, 2006). Regarding the threat of Quebec's separation from Canada, Canadian university students who had high trait anxiety in ambiguous situations and appraised the referendum situation as threatening were characterized with an elevated level of state anxiety before the uncertain outcome of the vote (Flett, Endler, & Fairlie, 1999).

It was also reported that the correlation between state anxiety and trait anxiety either dropped or were not found at all under certain conditions; state anxiety was more influenced than trait anxiety in certain instances while trait anxiety was influenced more in others. For example, Spielberger (1983) reported that there existed a higher correlation between state anxiety and trait anxiety in social evaluative situations related to self-esteem or personal adequacy while lower or no correlations showed up in physical-danger situation (Spielberger, 1983). Mulatu (2002) reported that state anxiety scores

were more strongly correlated with life event stress scores than trait anxiety scores. Lau, Eley, and Stevenson (2006) reported that state anxiety is largely influenced by environmental factors whereas trait anxiety shows moderate genetic effects and substantial non-shared environment effects that create differences amongst family members. In a study related to the sensitivity of the pupillary light reflex to the threat of an electric shock in 32 healthy volunteers, it was reported that the within-subject differences in light reflex amplitude was correlated with state anxiety scores without being correlated to trait anxiety scores (Bitsios, Szabadi, & Bradshaw, 2002). In a study to examine the quality of life in Turkish university students, it was reported that negative correlations were found between levels of state anxiety and physical health, psychological health, and independence; whereas positive correlations were found between level of trait anxiety and physical/psychological health, social relationships, environment, overall quality of life and general health perceptions (Unalan, Celikten, Soyuer, & Ozturk, 2008).

In summation, researchers reported that there was a correlation between trait anxiety and state anxiety in most circumstances (Carr, Brockbank, Allen, & Strike, 2006; Flett, Endler, & Fairlie, 1999; Karsli & Baloglu, 2006; Nijkamp, Kenens, Dijker, Ruiter, Hiddema, & Nuijts, 2004; Peterlini, Tibério, Saadeh, Pereira, & Martins, 2002; Unalan, Celikten, Soyuer, & Ozturk, 2008). However, state anxiety and trait anxiety were less or not correlated under certain conditions. State anxiety was more influenced by social evaluative situations (Spielberger, 1983) or environmental factors (Lau, Eley, & Stevenson, 2006) whereas trait anxiety was more influenced by moderate genetic effects

and substantial non-shared environment effects (Lau, Eley, & Stevenson, 2006). In regard to physical threat, there was no correlation between state anxiety and trait anxiety (Spielberger, 1983, Bitsios, Szabadi, & Bradshaw, 2002).

Summary of Review of the Literature

Anxiety issues should be dealt with at their source (Adams, 1970; Collins, 1988; Hart, 2001; McMin, 1996; Stein, Simmons, Feinstein, & Paulus, 2007; Weil, 1997; Welch 1998). Maxmen (1995) stressed that one of the first steps in the diagnosis of an anxiety disorder is “to determine if it has a known specific cause” (p. 248). As described, anxiety arises from several major causes that can be biological, psychological, social, or spiritual origin. Maxmen pointed out that approximately 30 percent of patients who seek help from primary-care physicians have anxiety problems; however, these patients are concerned about somatic symptoms rather than about the anxiety itself. Furthermore, if the focus is solely on the somatic symptoms, such as heart racing, diarrhea, upset stomach, dizziness, or chest tightness, the underlying anxiety may be overlooked frequently. That indicates that not all anxiety is just biologically based or purely a mental phenomenon. In fact, it is more effective when anxiety problems are approached under the holistic assumption that encompasses biological, psychological, social, and spiritual aspects (Hart, 2001; Weil, 1997, Welch, 1998).

All psychopathology, including anxiety, are traceable to sin (Adams, 1970; Carter & Narramore, 1979; Cloud & Townsend, 2001; Collins, 1988; Stanley, 2003). In the

ultimate sense, therefore, any human problem cannot be fixed without conversion and regeneration, which means that old life has to be relinquished and replaced with the fundamental transformation. Pargament (1997) defined conversion as “the individual experiences a dramatic change of the self, a change in which the self becomes identified with the sacred” (p. 248). It should happen to entire life, rather than some parts of it. It signifies a change in the whole course of life:

It is important to note that the immediate impulse leading to conversion may be an emotional, moral, social, or intellectual problem, but only by grasping that there is something fundamentally wrong with one’s life can conversion occur. . . . The convert attempts to give up not just old “love objects” (e.g., alcohol, sex, unfulfilling relationship, anger, guilt, or helplessness), but the life built around them. In their place, the convert looks for another organizing force, a new “center of loyalty. (Pargament, p. 249)

In brief, it is necessary that anxiety problems should also be treated under the assumption that all psychopathological problems are traceable to sin in ultimate sense. Therefore, the goal of therapy is the fundamental transformation in entire life. In the sense that the fundamental transformation is related to the entire life of each person, anxiety issues should also be dealt with holistically unless focusing on one or two specific areas such as body, mind, environment, or spirit.

As described above, students, whether international or domestic, are not exempt from anxiety; it can be obstacle blocking high academic achievement with a vicious circle between anxiety and the problematic symptoms. It was also described that the anxiety of students can be caused by a variety of physical, psychological, social, or spiritual issues. Therefore, the anxiety issues of students should also be dealt with holistically.

It was reported that there was a correlation between state anxiety and trait anxiety in most circumstances; however, state anxiety and trait anxiety were less or not correlated under certain conditions.

CHAPTER THREE: METHODS

This chapter presents the population of this study and the instrumentation used, the State-Trait Anxiety Inventory (STAI) (Form Y). This chapter also presents the procedures and design of the study. Permission was received from the Liberty University Institutional Review Board, and the data collected with the STAI (Form Y) was entered into the Statistical Package for the Social Sciences (SPSS). The chi-square test, Pearson correlation, ANOVA, and Tukey's Honestly Significant Difference (HSD) post hoc test were employed to examine the data.

Population and Sample

The population in this study consisted of two groups of seminary students. The first group consists of Korean domestic seminary students who were studying at Chongshin University, Sadang-Dong, Seoul in Korea, in the spring semester of 2006. The second group consists of Korean international seminary students who were studying at Liberty University, Lynchburg, Virginia in the fall semester of 2006. The fall semester of Liberty University and the spring semester of Chongshin University are respectively the first semester attendance for students at the seminaries.

The STAI (Form Y) was administered at each seminary. One hundred and twenty Korean domestic seminary students at Chongshin University in Korea while 61 Korean international seminary students at Liberty University in the U.S. (see Table 1).

Table 1.

Descriptive Statistics: Location, Age, Gender, & Marital Status

Location	Age		Gender	n	Marital status	n
	M	SD				
Korea ^a	32.50	6.83	Male	110	Married	58
			Female	10	Unmarried	62
US ^b	37.13	5.71	Male	51	Married	57
			Female	10	Unmarried	4

Note. ^an = 120. ^bn = 61.

Participants ranged in age from 22 to 57, 161 male, 20 female, 115 married, and 66 unmarried persons with an average age of 34.06 ($SD = 6.82$) were tested (see Table 1).

One hundred and twenty Korean domestic seminary students studying in Korea ranging between the ages of 22 to 57 ($M = 32.50$, $SD = 6.83$) were tested. One hundred ten were male and 10 were female. Fifty eight were married and 62 were unmarried (see Table 1).

Sixty-one Korean international seminary students studying in the U.S. ranging between the ages of 23 to 51 ($M = 37.13$, $SD = 5.71$) were tested. Fifty one were male and 10 were female. Fifty seven were married and 4 were unmarried (see Table 1).

This data was collected from the freshmen class in the Korean seminary while from various differing classes in the U.S. seminary. After the inventory was introduced and explained to the students, it was handed out and collected for analysis. Prior to taking the tests, participants were informed of the nature of the study and assured of anonymity.

Instrumentation

The State-Trait Anxiety Inventory (STAI) (Form Y) was used to assess the levels of anxiety experienced by the target students. The STAI is defined as “A standardized pencil and paper questionnaire that enables researchers to measure both A-trait and A-state levels of anxiety” (Oxford University Press, 2007, para. 1). It was first published by Spielberger and several colleagues in 1970. The development of the STAI was initiated at Vanderbilt University in 1964 by Spielberger and Gorsuch. The concepts of state and trait anxiety were first introduced by Cattell and have been elaborated on by Spielberger. Its revisions were carried out by constructing and validating Form Y (Spielberger, 1983). Spielberger (1983) describes the characteristics of the STAI:

Trait anxiety (T-Anxiety) refers to relatively stable individual differences in anxiety-proneness, that is, to differences between people in the tendency to perceive stressful situation as dangerous or threatening and to respond to such

situations with elevations in the intensity of their state anxiety (S-Anxiety) reactions. T-Anxiety may also reflect individual differences in the frequency and intensity with which anxiety states have been manifested in the past, and in the probability that S-Anxiety will be experienced in the future. The stronger the anxiety trait, the more probable that the individual will experience more intense elevations in S-Anxiety in a threatening situation. (p. 5)

The STAI consists of 40 statements. It is written at a 6th grade reading level and can be completed in 10 minutes or fewer. It has been used in both clinical and research contexts. The STAI (Form Y) is interwoven by the twofold posts: (a) state and trait, and (b) anxiety-present and anxiety-absent. First, it consists of 20 items to assess state anxiety (S-Anxiety) and another 20 items to determine trait anxiety (T-Anxiety). The S-Anxiety scale requires respondents to rate how they feel at the moment (e.g., “I feel calm”) using a 4-point scale: 1 = not at all, 2 = somewhat, 3 = moderately so, and 4 = very much so. The T-Anxiety scale requires respondents to rate how they generally feel (e.g., “I have disturbing thoughts”) using a 4-point scale: 1 = almost never, 2 = sometimes, 3 = often, and 4 = almost always.

A distinction between state and trait anxiety has become commonplace (Spielberger, 1972, 1983). S-Anxiety refers to a palpable reaction or process taking place at a given time and level of intensity, while T-Anxiety refers to relatively stable individual differences in anxiety proneness (intensity vs. frequency). The S-Anxiety scale evaluates feelings of apprehension, tension, nervousness, and worry, which increase in response to physical danger and psychological stress. It may be used to evaluate “how they felt at a particular time in the recent past and how they anticipate they will feel either in a specific situation that is likely to be encountered in the future or in a variety of

hypothetical situations” (Spielberger, 1983, p. 6). In contrast, the T-Anxiety scale is used to evaluate “the immediate and long-term outcome of psychotherapy, counseling, behavior, modification, and drug-treatment programs” (Spielberger, 1983, p. 7).

Second, the STAI (Form Y) can also be explained in terms of anxiety-presence or anxiety-absence. That is, it consists of 21 anxiety-present items (e.g., “I feel nervous and restless”) and 19 anxiety-absent items (e.g., “I feel pleasant”). The STAI anxiety-present items describe the presence of negative feelings with the presence of anxiety, while the STAI anxiety-absent items describe the presence of positive feelings with the absence of anxiety.

The STAI is the most frequently used scale in research worldwide, and no other measure has received as many foreign language adaptations and citations in the last three decades (MacArthur & MacArthur, 1997). This self-report inventory has been successfully translated and adapted into more than 40 languages; its Greek version was recently used in 2006 (Fountoulakisa et al., 2006). In Korea, most recently, the STAI was used to evaluate the reliability and validity of the Multidimensional Health Assessment Questionnaire (MDHAQ), which was translated into the Korean language for use with Korean-speaking patients with rheumatoid arthritis (Lee et al., 2006). Its Amharic version in Ethiopia and some sub-Saharan African versions that have already been used have acceptable reliability and validity (Mulatu, 2002). In Dutch, even its short version has good reliability and validity as a quick tool to evaluate the effectiveness of screening programs on anxiety levels (Van der Bij, De Weerd, Cikot, Steegers, & Braspenning, 2003).

In this study, both the English version of the STAI (Form Y) and the Korean version, which is translated by the researcher, were given simultaneously. Each English STAI item went side by side with its Korean counterpart in order to make sure that the participants understood the English version. Not all the participants needed the STAI Korean version because the STAI is written at a 6th grade reading level in English.

In regard to reliability, Spielberger (1983), who initiated the development of the STAI, reported that as might be expected that the stability of the STAI (Form Y) was relatively high for the STAI T-Anxiety scale (ranging from .65 to .75) and low for the S-Anxiety scale (ranging from .16 to .62) in the research regarding situational stress of high school students. It is because “a valid measure of state anxiety should reflect the influence of unique situational factors that exist at the time of testing” (p. 31). He also reported that the internal consistency of the STAI (Form Y) scales are quite high as measured by the alpha coefficients and item-remainder correlations: “The overall median alpha coefficients for the S-Anxiety and T-Anxiety scales for Form Y in the normative samples are .92 and .90” (p. 30). In regard to validity, it was reported that the median correlation for the normative samples used was .65 (p. 33). It was also reported that the STAI scales show a correlation with other measures of personality—including Minnesota Multiphasic Personality Inventory, Cornell Medical Index, Personality Research Form, Edwards Personal Preference Schedule, and Mooney Problem Checklist (Spielberger, 1983).

Procedures

Permission was received from the Liberty University Institutional Review Board to conduct this research study with the protocol number of 01-006.

Both Korean groups were asked to complete the STAI (Form Y), including its Korean translated version (see Appendix C), which was administered in a regular class setting. The nature and purpose of the survey was explained to the students prior to the test. All the participants gave their consent regarding the survey and responded to the questionnaire voluntarily (see Appendix B). They were assured about the anonymity of their information. The students were instructed to follow the written instructions on the Inventory.

The data was collected in both Seminaries. After the data was collected, for analysis, it was entered into the Statistical Package for the Social Sciences (SPSS) software program to perform statistical calculations (Gravetter & Wallnau, 2007).

Design

In this study, the chi-square test was employed to examine equivalence between Korean domestic seminary students and Korean international seminary students in regard to age. This was because the test, as a nonparametric test, may be used “to test whether there is a relationship between 2 variables” (Gravetter & Wallnau, 2007, p. 592).

The Pearson correlation was also employed to examine the relationship between the two dependent variables (STAI’s state anxiety score and trait anxiety score). This

was because the Pearson correlation is specifically used to measure “the degree and direction of linear relationship between two variables” (Gravetter & Wallnau, 2007, p. 511). Actually, the Pearson correlation is “the most commonly used measure of relationship and is used with data from an interval or a ratio scale of measurement” (Gravetter & Wallnau, p. 525). The Pearson correlation can also provide “the basis for drawing inferences about the corresponding population correlation” (Gravetter & Wallnau, p. 521). In this study, a sample correlation derived from the population of this study can therefore help understand how the state anxiety score is correlated with the trait anxiety score among general Korean seminary students as well as their subgroups; including international, domestic, male, female, married, or unmarried students respectively.

ANOVA was also employed in this study to describe the state and trait anxiety levels of both Korean international seminary students studying in the U.S. and Korean domestic seminary students studying in Korea. It was also used to explore the relationship between the independent variables (location, gender, and marital status) and the dependent variables (STAI’s state anxiety score and trait anxiety score). ANOVA is used to “evaluate mean differences between two or more treatments (or populations)” (Gravetter & Wallnau, 2007, p. 389) while providing “much great flexibility in designing experiments and interpreting results” (Gravetter & Wallnau, p. 389). In this study therefore, a sample data derived from ANOVA can be used as “the basis for drawing general conclusions about populations” (Gravetter & Wallnau, p. 389) among Korean seminary students.

Tukey's Honestly Significant Difference (HSD) post hoc test, a commonly used test in psychological research, was also employed to determine the minimum difference between means that is necessary for significance (Gravetter & Wallnau, 2007).

The STAI (Form Y) (Spielberger, 1983) was used as the assessment tool to examine the anxiety levels in the population.

The design allowed the researcher to explore whether the independent variables were related to the dependent variables through demographic information such as the participants' location, gender, or marital status. This study is considered exploratory research because the existing research literature does not provide a clear direction regarding specificity in directional hypothesis testing.

CHAPTER FOUR: DATA ANALYSIS AND RESULTS

This chapter presents demographic information and normative information that is relevant to the scoring of the state and trait anxiety score of the STAI. The data analysis and the results of the statistical analysis are reported. Finally, the acceptance or rejection of the hypotheses is also reported.

Demographic Data

The total sample consisted of 120 Korean domestic seminary students who were studying in Korea and 61 Korean international seminary students who were studying in the U.S. All subjects ranged in age from 22 to 57, 161 male, 20 female, 115 married, and 66 unmarried persons with an average age of 34.06 ($SD = 6.82$) were tested (see Table 2).

Table 2.

Descriptive Statistics: Location, Age, Gender, & Marital Status

Location	Age		Gender	<i>n</i>	Marital status	<i>n</i>
	<i>M</i>	<i>SD</i>				
Korea ^a	32.50	6.83	Male	110	Married	58
			Female	10	Unmarried	62
US ^b	37.13	5.71	Male	51	Married	57
			Female	10	Unmarried	4

Note. ^a*n* = 120. ^b*n* = 61.

One hundred and twenty Korean domestic seminary students studying in Korea ranging between the ages of 22 to 57 ($M = 32.50$, $SD = 6.83$) were tested. One hundred ten were male and 10 were female. Fifty eight were married and 62 were unmarried (see Table 2).

Sixty-one Korean international seminary students studying in the U.S. ranging between the ages of 23 to 51 ($M = 37.13$, $SD = 5.71$) were tested. Fifty one were male and 10 were female. Fifty seven were married and 4 were unmarried (see Table 2).

Data Analysis

The chi-square test was employed to examine equivalence between Korean domestic seminary students and Korean international seminary students in regard to age.

The participants showed that there is statistically significant relationship between location and age, $\chi^2(3, n = 181) = 11.74, p < .01$.

The Pearson correlation was employed to examine the relationship between the two dependent variables (STAI's state anxiety score and trait anxiety score).

A 2×2×2 ANOVA was also employed for an additional study to analyze the research results in terms of several subcategories with location (Korea and the U.S.), gender (male and female), and marital status (married and unmarried) as the independent variables and the STAI score (state and trait anxiety difference) as the dependent variables.

Tukey's HSD post hoc test, a commonly used test in psychological research, was also employed to determine the minimum difference between means that is necessary for significance (Gravetter & Wallnau, 2007).

Research Question One

The first hypothesis was that a correlation between the state anxiety score and trait anxiety score will exist for Korean seminary students.

A correlation for the data of the overall model revealed that the state anxiety score and trait anxiety score were significantly related, $r = +.82, n = 181, p < .01$, two tails.

Regarding international Korean seminary students, a correlation for the data revealed that the state anxiety score and trait anxiety score were significantly related, $r = +.82, n = 61, p < .01$, two tails.

Regarding domestic Korean seminary students, a correlation for the data revealed that the state anxiety score and trait anxiety score were significantly related, $r = +.84$, $n = 120$, $p < .01$, two tails.

Regarding female Korean seminary students, a correlation for the data revealed that the state anxiety score and trait anxiety score were significantly related, $r = +.78$, $n = 20$, $p < .01$, two tails.

Regarding male Korean seminary students, a correlation for the data revealed that the state anxiety score and trait anxiety score were significantly related, $r = +.83$, $n = 161$, $p < .01$, two tails.

Regarding unmarried Korean seminary students, a correlation for the data revealed that the state anxiety score and trait anxiety score were significantly related, $r = +.86$, $n = 66$, $p < .01$, two tails.

Regarding married Korean seminary students, a correlation for the data revealed that the state anxiety score and trait anxiety score were significantly related, $r = +.78$, $n = 115$, $p < .01$, two tails.

Research Question Two

The second hypothesis was that the scores on state anxiety items and trait anxiety items for Korean *domestic* seminary students, both male and female, studying in Korea will be significantly lower than those for Korean *international* seminary students, both male and female, studying in the U.S.

State anxiety. A 2×2×2 ANOVA showed that the overall model was statistically significant, $F(7, 180) = 4.70, p < .01, \eta^2 = 0.16$. The variable *location* is also statistically significant, $F(1, 180) = 18.04, p < .01, \eta^2 = 0.09$ (see Table 3). In other words, the scores on state anxiety items for Korean *international* seminary students were significantly higher ($M = 39.08, SD = 12.13$) than Korean *domestic* seminary students ($M = 35.75, SD = 9.30$).

Table 3.

Analysis of Variance for State Anxiety

Source	<i>df</i>	<i>F</i>	<i>p</i>	<i>Partial Eta Squared</i>
Corrected Model	7	4.70**	.00	.160
Location (L)	1	18.04**	.00	.094
Gender (G)	1	.25	.61	.001
Marital Status (M)	1	20.92**	.00	.108
L × G	1	.63	.43	.004
L × M	1	8.71**	.00	.048
G × M	1	.23	.63	.001
L × G × M	1	.93	.33	.005
Error	173			
Total	181			
Corrected Total	180			

* $p < .05$, ** $p < .01$.

Tukey's HSD post hoc test revealed that there was no statistically significant difference between the mean state anxiety score for *international* students and the mean state anxiety score for *domestic* students among *male* Korean seminary students ($p = .45$, *Mean difference* = 2.44) (see Table 4).

Tukey's HSD post hoc test also revealed that there was no statistically significant difference between the mean state anxiety score for *international* students and the mean state anxiety score for *domestic* students among *female* Korean seminary students ($p = .39$, *Mean difference* = 6.90) (see Table 4).

Table 4.

Tukey's HSD Post Hoc Test Regarding State Anxiety: Location and Gender

Variable	Mean Difference	<i>p</i>
In the U.S. & In Korea		
Male	2.44	.45
Female	6.90	.39

Trait anxiety. A 2×2×2 ANOVA showed that the overall model was statistically significant, $F(7, 180) = 3.13, p < .01, \eta^2 = 0.11$. The variable *location* is also statistically significant, $F(1, 180) = 5.24, p < .05, \eta^2 = 0.03$ (see Table 5). In other words, the scores on trait anxiety items for Korean *international* seminary students were significantly higher ($M = 38.90, SD = 10.02$) than Korean *domestic* seminary students ($M = 38.70, SD = 9.10$).

Table 5.

Analysis of Variance for Trait Anxiety

Source	<i>df</i>	<i>F</i>	<i>p</i>	<i>Partial Eta Squared</i>
Corrected Model	7	3.13**	.00	.113
Location (L)	1	5.24*	.02	.029
Gender (G)	1	.03	.85	.000
Marital Status (M)	1	16.20**	.00	.086
L × G	1	.33	.57	.002
L × M	1	4.09*	.04	.023
G × M	1	.34	.56	.002
L × G × M	1	.38	.54	.002
Error	173			
Total	181			
Corrected Total	180			

* $p < .05$, ** $p < .01$.

Tukey's HSD post hoc test revealed that there was no statistically significant difference between the mean trait anxiety score for *international* students and the mean trait anxiety score for *domestic* students among *male* Korean seminary students ($p = 1.00$, *Mean difference* = $-.20$) (see Table 6).

Tukey's HSD post hoc test also revealed that there was no statistically significant difference between the mean trait anxiety score for *international* students and the mean trait anxiety score for *domestic* students among *female* Korean seminary students ($p = 1.00$, *Mean difference* = $.60$) (see Table 6).

Table 6.

Tukey's HSD Post Hoc Test Regarding Trait Anxiety: Location and Gender

Variable	Mean Difference	<i>p</i>
In the U.S. & In Korea		
Male	-.20	1.00
Female	.60	1.00

Research Question Three

The third hypothesis was the scores on state anxiety items and trait anxiety items for *female* Korean seminary students, both domestic and international, will be significantly higher than those for *male* Korean seminary students, both domestic and international.

State anxiety. A 2×2×2 ANOVA showed that the overall model was statistically significant, $F(7, 180) = 4.70, p < .01, \eta^2 = 0.16$. However, the variable *gender* is not statistically significant, $F(1, 180) = .25, p = .61, \eta^2 = 0.001$ (see Table 3). Consequently, post hoc test to determine exactly which mean differences are significant and which are not on the dependent variable of state anxiety is not necessary (Gravetter & Wallnau, 2007).

Trait anxiety. A 2×2×2 ANOVA showed that the overall model was statistically significant, $F(7, 180) = 3.13, p < .01, \eta^2 = 0.11$. However, the variable *gender* is not statistically significant, $F(1, 180) = .03, p = .85, \eta^2 = 0.000$ (see Table 5). Consequently, post hoc test to determine exactly which mean differences are significant and which are not on the dependent variable of trait anxiety is not necessary (Gravetter & Wallnau, 2007).

Research Question Four

The fourth hypothesis was the scores on state anxiety items and trait anxiety items for *unmarried* Korean seminary students, both domestic and international, will be

significantly higher than those for *married* Korean seminary students, both domestic and international.

State anxiety. A 2×2×2 ANOVA showed that the overall model was statistically significant, $F(7, 180) = 4.70, p < .01, \eta^2 = 0.16$. The variable *marital status* is also statistically significant, $F(1, 180) = 20.91, p < .01, \eta^2 = 0.108$ (see Table 3). In other words, the scores on state anxiety items for Korean *unmarried* seminary students were significantly higher ($M = 39.20, SD = 11.30$) than Korean *married* seminary students ($M = 35.56, SD = 9.68$).

Tukey's HSD post hoc test revealed that there was a statistically significant difference between the mean state anxiety score for *unmarried* students and *married* students among Korean *international* students ($p < .01, Mean\ difference = 23.46$). In other words, *unmarried* students had a statistically significantly higher mean score for state anxiety than *married* students among Korean *international* seminary students (see Table 7).

Tukey's HSD post hoc test also revealed that there was no statistically significant difference between the mean state anxiety score of *unmarried* students and the mean state anxiety score of *married* students ($p = .09, Mean\ difference = 4.17$) among Korean *domestic* seminary students (see Table 7).

Table 7.

Tukey's HSD Post Hoc Test Regarding State Anxiety: Location and Marital Status

Variable	Mean Difference	Sig.
Unmarried & Married		
In Korea	4.16	.09
In the U.S.	23.46	.00

Trait anxiety. A 2×2×2 ANOVA showed that the overall model was statistically significant, $F(7, 180) = 3.13, p < .01, \eta^2 = 0.11$. The variable *marital status* is also statistically significant, $F(1, 180) = 16.20, p < .01, \eta^2 = 0.086$ (see Table 5). In other words, the scores on trait anxiety items for Korean *unmarried* seminary students were significantly higher ($M = 41.21, SD = 10.27$) than Korean *married* seminary students ($M = 37.36, SD = 8.59$).

Tukey's HSD post hoc test revealed that there was a statistically significant difference between the mean trait anxiety score for *unmarried* students and *married* students among Korean *international* students ($p < .01, Mean difference = 18.30$). In other words, *unmarried* students had a statistically significantly higher mean score for trait anxiety than *married* students among Korean *international* seminary students (see Table 8).

Tukey's HSD post hoc test also revealed that there was no statistically significant difference between the mean trait anxiety score of *unmarried* students and the mean trait anxiety score of *married* students ($p = .21$, *Mean difference* = 3.22) among Korean *domestic* seminary students (see Table 8).

Table 8.

Tukey's HSD Post Hoc Test Regarding Trait Anxiety: Location and Marital Status

Variable	Mean Difference	Sig.
Unmarried & Married		
In Korea	3.22	.21
In the U.S.	18.30	.00

Research Question Five

The fifth hypothesis was the scores on state anxiety items and trait anxiety items for *unmarried* Korean domestic and international seminary students, both male and female, will be significantly higher than those for *married* Korean domestic and international students, both male and female.

State anxiety. A 2×2×2 ANOVA showed that the overall model was statistically significant, $F(7, 180) = 4.70, p < .01, \eta^2 = 0.16$. The interaction between location and marital status was also statistically significant, $F(1, 180) = 8.71, p < .01, \eta^2 = 0.48$. However, the interactions between location and gender, $F(1, 180) = .63, p = .43, \eta^2 = 0.004$; gender and marital status, $F(1, 180) = .23, p = .63, \eta^2 = 0.001$; or location, gender, and marital status, $F(1, 180) = .93, p = .33, \eta^2 = 0.005$) were not statistically significant (see Table 3).

Trait anxiety. A 2×2×2 ANOVA showed that the overall model was statistically significant, $F(7, 180) = 3.13, p < .01, \eta^2 = 0.11$. The interaction between location and marital status was also statistically significant, $F(1, 180) = 4.09, p < .05, \eta^2 = 0.023$. However, the interactions between location and gender, $F(1, 180) = .33, p = .57, \eta^2 = 0.002$; gender and marital status, $F(1, 180) = .34, p = .56, \eta^2 = 0.002$; or location, gender, and marital status, $F(1, 180) = .38, p = .54, \eta^2 = 0.002$) were not statistically significant (see Table 5).

Summary

Results of the statistical analyses in regard to the hypotheses were reported in this chapter. Tests of Hypothesis 1, 2, and 4 reached statistical significance whereas the hypothesis 3 did not; the hypothesis 5 did partially. Consequently, only the hypothesis 1, 2, and 4 were retained while the null hypothesis 1, 2, and 4 were rejected; the hypothesis 5 was retained partially while the null hypothesis 5 was rejected partially.

The state anxiety scores and trait anxiety scores were significantly related. The scores of the state and trait anxiety items for Korean *international* seminary students who were studying in the U.S. were significantly higher than Korean *domestic* seminary students who were studying in Korea. The scores of the state and trait anxiety items for Korean *unmarried* seminary students who were studying in the U.S. were significantly higher than Korean *married* seminary students who were studying in Korea. Among Korean *international* seminary students who were studying in the U.S., the scores of the state and trait anxiety items for *unmarried* students were significantly higher than *married* students. The interaction between *location* and *marital status* was also statistically significant in regard to the state anxiety items as well as trait anxiety items.

CHAPTER FIVE: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents a summary of the study, a discussion of the results of the statistical analyses, and some recommendations for future research.

Summary

The present study examined the state and trait anxiety of two groups of Korean seminary students: domestic seminary students studying in Korea and international seminary students studying in the U.S. This study also examined state and trait anxiety in regard to location (Korea and the U.S.), gender (male and female), and marital status (married and unmarried). The questions under consideration were whether the state anxiety scores are significantly correlated with the trait anxiety scores as well as whether the state and trait anxiety scores of Korean international seminary students studying in the U.S. are significantly higher than Korean domestic seminary students studying in Korea.

The researcher proposed the following hypotheses:

H1: A correlation between the state anxiety score and trait anxiety score will exist for Korean seminary students.

- H2: Scores on state anxiety items and trait anxiety items for Korean *domestic* seminary students, both male and female, studying in Korea will be significantly lower than those for Korean *international* seminary students, both male and female, studying in the U.S.
- H3: Scores on state anxiety items and trait anxiety items for *female* Korean seminary students, both domestic and international, will be significantly higher than those for *male* Korean seminary students, both domestic and international.
- H4: Scores on state anxiety items and trait anxiety items for *unmarried* Korean seminary students, both domestic and international, will be significantly higher than those for *married* Korean seminary students, both domestic and international.
- H5: Scores on state anxiety items and trait anxiety items for *unmarried* Korean domestic and international seminary students, both male and female, will be significantly higher than those for *married* Korean domestic and international students, both male and female.

The null hypotheses were also proposed. The null hypotheses were as follows:

- H1: There is no correlation between the state anxiety score and trait anxiety score for Korean seminary students.
- H2: There is no significant difference between the scores on state anxiety items and trait anxiety items for Korean *domestic* seminary students studying in Korea and the scores on state anxiety items and trait anxiety items for Korean *international*

seminary students studying in the U.S.

H3: There is no significant difference between the scores on state anxiety items and trait anxiety items for *female* Korean seminary students and *male* Korean seminary students.

H4: There is no significant difference between the scores on state anxiety items and trait anxiety items for *unmarried* Korean seminary students and *married* Korean seminary students.

H5: There is no significant difference between the scores on state anxiety items and trait anxiety items for *unmarried* Korean domestic and international seminary students, both male and female, and *married* Korean domestic and international seminary students, both male and female.

To test the hypotheses and the null hypotheses, Korean seminary students from both a private university in the U.S. and a private university in Korea were given the STAI (Form Y) (61 in the U.S. and 120 in Korea). The STAI, a questionnaire to measure state and trait anxiety, was first published by Spielberger and colleagues in 1970, and its revisions were carried out by constructing and validating Form Y (Spielberger, 1983). The STAI is the most frequently used scale in research worldwide where it is translated into many languages (MacArthur & MacArthur, 1997).

Analysis of the data utilizing the chi-square test, Pearson correlation, $2 \times 2 \times 2$ ANOVA, and Tukey's HSD post hoc test yielded results revealing a significant difference between the mean state anxiety score as well as trait anxiety score for Korean

international seminary students and Korean domestic seminary students. Location (Korea and the U.S.), gender (male and female), and marital status (married and unmarried) were the independent variables while the STAI score (state and trait anxiety difference) was the dependent variables. The chi-square test showed that there was statistically significant relationship between location and age. The Pearson correlation showed that the state anxiety scores and trait anxiety scores were significantly related. The ANOVA showed that the overall model was statistically significant. The variables of *location* and *marital status* are statistically significant whereas the variable *gender* is not statistically significant in regard to both state anxiety score and trait anxiety score. The interaction between *location* and *marital status* was also statistically significant in regard to both state anxiety score and trait anxiety score. However, the interactions between *location* and *gender*, *gender* and *marital status*, or *location*, *gender*, and *marital status* were not statistically significant in regard to both state anxiety score and trait anxiety score.

Tukey's HSD post hoc test revealed that among Korean *international* seminary students, *unmarried* students had a statistically significant higher mean score for both state anxiety and trait anxiety than *married* students. Tukey's HSD post hoc test also revealed that, among Korean *unmarried* seminary students, *international* students had a statistically significantly higher mean score for both state anxiety and trait anxiety than *domestic* students.

Discussion

This study found a significant correlation between the state anxiety score and the trait anxiety score of Korean seminary students. This study also found a significant difference in state and trait anxiety levels between participants in the Korean international seminary students who were studying in the U.S. and participants in the Korean domestic seminary students who were studying in Korea. Thus, two research hypotheses were confirmed. The research also helped describe the relationship between state and trait anxiety level and independent variables such as location (Korea and US), gender (male and female), and marital status (married and unmarried).

Correlation between State Anxiety and Trait Anxiety

In this study, it was reported that the state anxiety score and trait anxiety score were significantly correlated. In other words, students who scored high in trait anxiety also scored high in state anxiety: the state anxiety score shares about 67% of its variability with the trait anxiety score in the overall model. The finding provides support for existing research that claims a correlation between state anxiety and trait anxiety (Carr, Brockbank, Allen, & Strike, 2006; Flett, Endler, & Fairlie, 1999; Hoff, Hoff, Almasbakk, & Espnes, 2001; Karsli & Baloğlu, 2006; Nijkamp, Kenens, Dijker, Ruiters, Hiddema, & Nuijts, 2004; Peterlini, Tibério, Saadeh, Pereira, & Martins, 2002; Spielberger, 1983). Spielberger (1983) reported that low or no correlations between state anxiety and trait anxiety showed up in physical-danger situations. However, it seems that

the cause of anxiety for international students is more related to mental or emotional issues such as acculturative stress (Battle, 2004; Choo, 2007; Onwuegbuzie, & Jiao, 1997; Petress, 1995; Sibel, 2005), stress caused by academic achievements (Cole, Matheson, & Anisman, 2007; El-Anzi, 2005; Poyrazli & Kavanaugh, 2006), language (Brown, 2008; Poyrazli et al., 2002; Surdam & Collins, 1984; Sümer et al., 2008; Yeh & Inose, 2003), or religion (Lee, 1996, Tan & Dong, 2000) rather than physical danger situations. Even though Cheng (2004) reported that international students may suffer anxiety from being sick in a foreign country, it is not related directly to the physical danger or threat. It is because their anxiety is derived from their frustration and feelings of inadequacy towards their lack of information or choices regarding health care as well as their worries about “being labeled and/or treated as foreign burdens and as lesser humans” (p. 85). In regard to international students therefore, it can be assumed that there is a tendency of state anxiety being correlated with trait anxiety in the sense that the anxiety issues of international students are not related to physical danger situations.

In this study, it was also reported that the state anxiety score is statistically significantly correlated with trait anxiety score in all the dependent variables: location (international and domestic), gender (male or female), or marital status (married or unmarried). In each subgroup, the state anxiety score was also significantly correlated with the trait anxiety score: the state anxiety shares with the trait anxiety score about 67% of its variability among international Korean seminary students, about 70% among domestic students, about 61% among female students, about 89% among male students,

about 74% among unmarried students, and about 69% among married students respectively.

In regard to anxiety proneness therefore, it implies that students who scored high in trait anxiety tend to be more vulnerable to anxiety issues at a particular time and situation while scoring high in state anxiety. As a result, it can be worthwhile to gather information on the anxiety level of students, including state anxiety as well as trait anxiety, while asking what specific issues can make them more vulnerable to being anxious with regard to anxiety proneness in their new academic journey. If students themselves are informed about their own vulnerability or proneness related to anxiety, it can help them be wise ants who store up their food in the summer (Prov. 30:24-25) in terms of prevention.

Location

In this study, it was reported that the scores on state and trait anxiety items for Korean *international* seminary students were significantly higher than Korean *domestic* seminary students. That is, in regard to location, the study showed that international students who were exposed to a culturally and academically different situation had a higher level of anxiety than domestic students who were not so exposed. The finding provides support for existing research that the anxiety level of international students, who must adapt themselves to culturally and academically different situations, is higher than domestic students (Bell, 1998; Iwata & Higuchi, 2000).

Currently, international students who come from more than 100 countries are registered as active students, and within the student population, there are 579,188 active F-1s and 4,769 active M-1s (USICE). In this sense, it should be noted that this study investigated only state and trait anxiety that was limited to both a local Korean university and a local U.S. university. Therefore, this study could be extended for the exploration of other local universities in regard to ethnicity, religion, or regions.

The variable, *location*, implies not only the difference of location between the study populations but also differences in culture, language, and/or situation between both locations. It is very natural that students, whether domestic or international, feel anxiety when they experience a new culture, language, or situation as freshmen in their respective schools (Moneta, Spada, & Rost, 2007; Korukonda, 2007; Pan & Tang, 2005; Keller, 2000; Kashdan & Roberts, 2007; Dusselier, Dunn, Yongyi, Shelley, & Whalen, 2005).

Furthermore, seminary students, whether domestic or international, may face academic challenges related to integration while studying theology. That is, they are required to integrate in themselves general revelation and special revelation while academically focusing more on special revelation, i.e. the Bible. It is most likely that some have graduated from secular undergraduate schools in which even general Christian terms including prayer, worship, praise, and more were used less (perhaps never) in their class settings than in Christian schools.

However, international students face these issues that cause anxiety more seriously while living in a foreign country, using a new language, and learning a different

social and cultural situation. The variable of location implies all these issues in regard to international students.

Yet, interestingly, Korean international students in particular had low expectations in terms of their motivation to seek counseling, which was similar to Chinese international students, and expected to drop out of the counseling sessions quickly if the process was unpleasant or did not seem to be immediately helpful (Byon, Chan, & Thomas, 1999). Asian students were more concerned with confidentiality when it came to talking about personal feeling or anxieties (Gilbert, Bhundia, Mitra, McEwan, Irons, & Sanghera, 2007). In regard to the counseling format, Asian-American and Asian international college students had less favorable attitudes toward seeking help online than toward seeking help by traditional face-to-face means (Chang & Chang, 2004).

The above research implies that, compared to European international students and/or U.S. native students, Asian students are much less likely to seek informational, emotional, and social support—even though their need is much greater than those of their Caucasian counterparts. Without such exterior support, internal family becomes that much more important in their ability to decrease the level of anxiety. A community can serve as an extended “family” that can also give such needed support.

Gender

In this study, it was also reported that there was no statistically significant difference between the mean state and trait anxiety score of *female* participants and the

mean state and trait anxiety score of *male* participants, even though female participants reported a higher level of state and trait anxiety than male participants in both locations.

Interestingly, this finding does not provide support for several previous findings that females experienced higher academic stress and anxiety than males (Dusselier, Dunn, Yongyi, Shelley II, & Whalen, 2005; Misra & McKean, 2000). Actually, it was reported that there is a gender difference in regard to anxiety: women reported greater anxiety changes than did men while responding to the political broadcast of terrorist threats (Slone, 2000); during acculturation, women experience more stress than men (Berry, Kim, Minde, & Mok, 1987); men tend to respond to stress instrumentally while women do so in a more emotionally expressive manner (Eagly and Wood, 1991); and women reported significantly higher levels of death anxiety and extrinsic religiosity among US high school and college students (Pierce, Jr., Cohen, Chambers, & Meade, 2007).

When considering the fact that women experienced higher academic stress and anxiety than men in previous studies as well as the fact that female participants reported a higher level of state and trait anxiety than male participants in both locations in this study, female seminary students should receive more care and support than male seminary students.

Actually, Korean men are required to fulfill military services as a duty for national defense according to the military service law of South Korea. In general, they perform the military duty around their early twenties which usually takes 24 months. This military duty is an experience for which they all must adjust and conform to. As a result, most of the male population of this study studying in graduate program had

already experienced adjusting themselves to very foreign situation once before. That is, their previous experiences can help them cope with the anxiety of being an international student better than women. This seems to a good reason why female participants reported a higher level of state and trait anxiety than male participants in both locations of this study.

In seminaries however, male students can be vulnerable because it was reported that there are gender differences within religious vocations with regard to perceived stress (Rayburn, Richmond, & Rogers, 1986). They reported that the job demands of male religious leaders more frequently exceeded their resources than female religious leaders in terms of role overload, and male religious leaders had a poorer sense of what is expected of them in their religious vocations and of how they should be spending their time than female religious leaders in regard to role ambiguity.

Marital Status

In this study, it was also reported that, in general, the state and trait anxiety level of *unmarried* individuals was higher than *married* ones. The findings suggest unmarried female seminary students who were studying in the U.S. should have more care and support than other groups.

Interestingly, Cho (1988) reported that there was no significant relationship between the level of anxiety and marital status among international students from Korea, Arab nations, and Nigeria. Kachuee et al. (2007) also reported that there was no

significant difference between those who slept well and those who did not in the mean of marital status even though a poor quality of sleep is common after kidney transplantation and they showed more severe anxiety. Arapaslan, Soykan, Soykan, and Kumbasar (2004) also reported that marital status was not significantly different between patients with or without psychiatric diagnoses even though the frequency of psychiatric disorders, including anxiety spectrum disorders, is quite high in renal transplantation patients.

However, it was also reported that marital status has a significant impact on the anxiety and depression for those suffering from breast cancer, particularly during the early post-surgical period (Bulotiene, Veseliunas, Ostapenko, & Furmonavicius, 2008). Leaman and Gee (2008) also reported that intimate partner violence and marital status were significantly related among young adult mothers, but not adolescent mothers. Smith, Peterson, Degenhardt, and Johnson (2007) also reported that there were differences between married students and unmarried students in regard to the cause of anxiety; among entering medical students, married students reported feeling significantly more hassled by finances and relationships with their immediate family than single students while single students reported feeling more hassled by academic pressures and time pressures, day-to-day functions, and social issues.

As shown in previous studies, marital status can or cannot be considered as a significant factor according to research settings. In the personal experience of the author, marriage can be helpful to cope with anxiety; whereas, it can also lead to other issues that cause anxiety. For example, the author, who is a married international student with 3 children, obviously has less opportunity to learn English and/or culture than other

unmarried students who interact in dorms with American students. It was reported that English language fluency was a significant predictor of acculturative stress, and anxiety related to communication ability may decrease as time passes and improvements are achieved (Brown, 2008). It is obvious that the more opportunity for communication with American students international students have, the better they will cope with anxiety as they learn English during the initial stages. However, staying with family is much helpful for emotional stability or security, when compared to experiences felt during army service or dorm life before marriage. It is also obvious that the author has a responsibility for caring for the adjustment issues of his family members who are also suddenly alienated from their close friends in their home country when they went abroad. In regard to international students therefore, it can be worthwhile to study the causes of anxiety with more specific questions at a deeper level while separating married students from unmarried students.

Resources for International Students

Petress (1995) found that anxiety reduction was the most prevalent help for international students. In addition to the counseling center, it is necessary to provide a variety of resources for international students to decrease anxiety. Only approximately 2% of all the international students sought counseling services from the university counseling center during an academic year, and of those students, approximately 33.3% dropped out after the initial intake session (Nilsson, Berkel, Flores, & Lucas, 2004).

Anderson and Myers (1985) reported that the “no show” rate after the intake sessions of international students was significantly higher than American students; although, both of the groups entered counseling with similar problems or concerns. They pointed out that counselors need to build rapport and trust with them from the beginning (Anderson & Myers).

Social support can be helpful to decrease the level of anxiety. This is because social support moderates the impact of recent life stresses (Cropley & Steptoe, 2005). Actually, a group support program that was developed by a major University Counseling and Testing Center helped Asian female students enjoy speaking English without fear of judgment, express their feelings, share experiences, and feel validated by others (Carr, Koyama, & Thiagarajan, 2003) while social support from friends predicted greater success among ethnic minority students (Cole, Matheson, & Anisman, 2007). Sümer, Poyrazli, and Grahame (2008) also reported that social support was related to depression and anxiety; students who scored higher on the social support measure scored lower on the depression and anxiety measures. They suggested that a social support group may help international students utilize stress-management techniques while serving as a buffer against depression and anxiety. They also suggested that bilingual or international counselors implement programs like “host family” programs that match international students with more experienced international students, or peer programs in which an American student is paired up with an international student.

Informational and emotional support can also be helpful for students to decrease academic stress and depression (MacGeorge, Samter, & Gillihan, 2005). Charles and

Stewart (1991) argued that the academic advisor of international students can play an important role in their adjustment as “a conduit between the institution and international students” (para. 5).

Following, there is a positive relationship between religious coping and psychological adjustment; the role of religion enhanced psychological well-being (Myers & Diener, 1995). Higher worship frequencies were associated with lowering the chances of psychiatric disorders—including mood, anxiety, and addictive disorders (Baetz, Bowen, Jones, & Koru-Sengul, 2006). Religious participation is positively associated with older adults’ mental health status and treatment effects (Hongtu, Cheal, McDonel Herr, Zubritsky, & Levkoff, 2007). It was proposed that childhood attachment traumas and pathological experiences of separation anxiety may be used as a positive source of motivation in search for and response to God (Vitz & Lynch, 2007). Negative religious coping was significantly linked to various forms of psychopathology—including anxiety, phobic anxiety, depression, paranoid ideation, obsessive-compulsiveness, and somatization. The relationship between negative religious coping and anxiety, phobic anxiety was stronger for individuals who had experienced a recent illness (McConnell, Pargament, Ellison, & Flannelly, 2006). In this sense, it can be suggested that the role of religion for all the participants in this research may have affected their coping with anxiety.

Recommendations for Future Research

As described above, this study has limitations. The sample was drawn from two local seminaries for a cross-sectional study. Thus, this study is limited in regard to ethnicity, location, and religion with a limited number of the population. As a result, the findings of this study are less likely to be generalizable to other ethnicities, religions, undergraduates, or locations. Therefore, this study may be modified with populations who are studying in other institutions and have other religions (including secularity) or ethnicities.

In regard to a limited number of the population, this study may also enhance the existing literature: it may provide a methodological design, which has been largely absent in studies of the psychological impact of the anxiety issue of international seminary students who are “living in a fishbowl” as seminary students (Rayburn, Richmond, & Rogers, 1986, p. 544) with the lowest personal resources within the population of religious leaders (Rayburn, Richmond, & Rogers, 1986) while, at the same time, dealing with academic, financial, language, time management, or family issues incorporated in living as international students (Pedersen, 1991; De Verthelyi, 1995; Charles & Steward, 1991; Rosenbaum, 1984).

Second, while only students were studied in this study, their families did not fall under the survey target. However, it was reported that not only international students but also their family members can have anxiety issues (De Verthelyi, 1995; Pedersen, 1991). As of December 30, 2006 there were 73,689 dependents of active international students, including spouses and children, in the U.S. (SEVIS, 2007, p. 19). Yoon and Portman (2004) pointed out that research into international students’ spouses and families are

neglected. Cho, Lee, and Mary (2005) argued that Korean students' wives have 8 phases to the basic social process of adjusting to life in the U.S.: prefronting, confronting, discovering, undergoing crisis, seeking, reorienting, reflecting, and refronting. In those phases, they can suffer from anxiety. In that sense, it would be worthwhile to research into the anxiety of international students' family members. Actually, certain numbers of Korean international seminary students in this study have family members with them when considering that 90 percent of the participants are married. As a result, they can also have anxiety issues.

Third, the research instrument of the STAI (Form Y) is a self-report method. It should also be noted that the independent variables used in this study are location, gender, and marital status in a quantitative research format. In regard to international seminary students therefore, a qualitative study may offer additional findings with deeper levels of anxiety symptoms of the population through these further questions: the types of adjustment issues they face, their methods of coping with adjustment issues, their length of stay in the U.S. so far, the impact of religion on their coping, the difference of the state and trait anxiety level between religious and secular persons, the impact of marital status on coping, the influence of their family members on their adjustment, the presence of children, the ages of the children (because they may have different issues according to their children's ages in regard to adjustment), the family members' own coping with adjustment issues, the security of their financial support systems, or the existence of support systems and its effects.

Conclusion

In this study, the state and trait anxieties of two Korean seminary student groups were examined. The results indicated that the state anxiety score and trait anxiety score were significantly correlated. Korean international seminary students studying in the U.S. had statistically significantly higher mean scores on state and trait anxiety than Korean domestic seminary students studying in Korea. Among Korean international seminary students, the state and trait anxiety level of unmarried participants was significantly higher than married participants. As a result, unmarried international students need to be more concerned with social, informational, or emotional support while they adjust to cultural unfamiliarity and academic challenges. Further qualitative studies on examining the deeper levels of anxiety issues toward not only international students but also their families can become the next necessary step in this study.

REFERENCES

- Abbassi, A., & Stacks, J. (2007). Culture and anxiety: A cross-cultural study among college students. *Journal of Professional Counseling: Practice, Theory & Research*, 35(1), 26-37.
- Abrahamsson, K. H., Berggren, U., Hallberg, L., & Carlsson, S. G. (2002). Dental phobic patients' view of dental anxiety and experiences in dental care: a qualitative study. *Scandinavian Journal of Caring Sciences*, 16(2), 188-196.
- Adams, J. E. (1970). *Competent to counsel: Introduction to nouthetic counseling*. Grand Rapids, MI: Zondervan.
- Adomeh, I. O. C. (2006). Fostering emotional adjustment among Nigerian adolescents with rational emotive behaviour therapy. *Educational Research Quarterly*, 29(3), 21-29.
- Alzheimer's Foundation of America. (2007). *About Alzheimer's*. Retrieved March 27, 2008, from the Alzheimer's Foundation of America Web site <http://www.alzfdn.org/alzheimers/index.shtml>
- Alzheimer's Foundation of America. (2007). *About Dementia*. Retrieved March 27, 2008, from the Alzheimer's Foundation of America Web site <http://www.alzfdn.org/dementia/index.shtml>
- American Heritage Dictionary of the English Language (4th ed.). (2000). Boston, MA: Houghton Mifflin.
- American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders DSM-IV-TR* (Text Revision). Washington, DC: Author.
- Anderson, N. T. (2003). *Discipleship counseling*. Ventura, CA: Regal.
- Anderson, T., & Myers, T. (1985). Presenting problems, counselor contacts, and "no shows": International and American college students. *Journal of College Students Personnel*, 26, 500-503.
- Anxiety Disorders Association of America. (n.d.). *Statistics and facts about Anxiety Disorders*. Retrieved October 06, 2009, from <http://www.adaa.org/AboutADAA/PressRoom/Stats&Facts.asp>

- Arapaslan, B., Soykan, A., Soykan, C., & Kumbasar, H. (2004). Cross-sectional assessment of psychiatric disorders in renal transplantation patients in Turkey: A preliminary study. *Transplantation Proceedings*, 36(5), 1419-1421.
- Archer, G., Harris, R. L., & Waltke, B. (Ed.). (2003). *Theological Wordbook of the Old Testament*. Chicago, IL: Moody Publishers.
- Arthur, N. (1998). The effects of stress, depression, and anxiety on postsecondary students' coping strategies. *Journal of College Student Development*, 39, 11-22.
- Asia. (2008). In *Encyclopædia Britannica*. Retrieved October 6, 2008, from Encyclopædia Britannica Online: <http://search.eb.com/eb/article-9110518>
- Azrin, N. H. (1966). Sequential effects of punishment. In T. Verhave (Ed.), *The experimental analysis of behavior* (pp. 186-189). New York: Appleton-Century-Crofts.
- Backus, W. & Chapien, M. (2000). *Telling yourself the truth: Find your way out of depression, anxiety, fear, anger, and other common problems by applying the principles of misbelief therapy*. Bloomington, MN: Bethany House.
- Baetz, M., Bowen, R., Jones, G., & Koru-Sengul, T. (2006). How spiritual values and worship attendance relate to psychiatric disorders in the Canadian population. *Canadian Journal of Psychiatry*, 51(10), 654-661.
- Battle, J. C. (2004). The effect of information literacy instruction on library anxiety among international students. *Dissertation Abstracts International*, 65, 03A. (UMI No. AAI3126554)
- Beck, A. T., & Weishaar, M. E. (1995). Cognitive therapy. In R. J. Corsini & D. Wedding, *Current psychotherapies* (5th ed.; pp. 229-261). Itasca, IL: F. E. Peacock.
- Bell, J. A. (1998). International students have statistics anxiety too! *Education*, 118(4), 634-636.
- Bell, J. A. (2001). Length of course and levels of statistics anxiety. *Education*, 121(4), 713-716.
- Berkhof, L. (1996). *Systematic theology* (combined ed. with new preface). Grand Rapids, MI: Wm. B. Eerdmans.

- Berry, J. W., Kim, U., Minde, T., & Mok, D. (1987). Comparative studies of acculturative stress. *International Migration Review*, 21(3), 491-511.
- BibleWorks, LLC. (2006). Bible works for windows (Version 7.0.012g) [Computer software]. Norfolk, VA: BibleWorks, LLC.
- Bitsios, P., Szabadi, E., & Bradshaw, C. M. (2002). Relationship of the 'fear-inhibited light reflex' to the level of state/trait anxiety in healthy subjects. *International Journal of Psychophysiology*, 43(2), 177-184.
- Bogoch, Y., Biala, Y. N., Linial, M., & Weinstock, M. (2007). Anxiety induced by prenatal stress is associated with suppression of hippocampal genes involved in synaptic function. *Journal of Neurochemistry*, 101(4), 1018-1030.
- Bolanowski, W. (2005). Anxiety about professional future among young doctors. *International Journal of Occupational Medicine & Environmental Health*, 18(4), 367-374.
- Breitkopf, C. R., Primeau, L. A., Levine, R. E., Olson, G. L., Wu, Z. H., & Berenson, A. B. (2005). Anxiety symptoms during pregnancy and postpartum. *Journal of Psychosomatic Obstetrics & Gynecology*, 27(3), 157-162.
- Bremner, J. D. (2002). The lasting effects of psychological trauma on memory and the hippocampus. Retrieved March 27, 2008 from <http://www.lawandpsychiatry.com/html/hippocampus.htm>
- Breuer, J. & Freud, S. (1957). *Studies on hysteria*. (J. Strachey, Eds. & Trans.). New York: Basic Books.
- Broderick, P. C., & Blewitt, P. (2006). *The life span: Human development for helping professional*. Upper Saddle River, NJ: Pearson.
- Brozian, K., & Abela, J. Z. (2006). Symptoms of depression and anxiety in children: Specificity of the hopelessness theory. *Journal of Clinical Child & Adolescent Psychology*, 35(4), 515-527.
- Buckner, J. D., Schmidt, N. B., & Eggleston, A. M. (2006). Social anxiety and problematic alcohol consumption: The mediating role of drinking motives and situations. *Behavior Therapy*, 37(4), 381-391.
- Bulotiene, G., Veseliunas, J., Ostapenko, V., & Furmonavicius, T. (2008). Women with breast cancer: Relationships between social factors involving anxiety and depression. *Archives of Psychiatry & Psychotherapy*, 10(4), 57-62.

- Byon, K. H., Chan, F., & Thomas, K. R. (1999). Korean international students' expectations about counseling. *Journal of College Counseling, 2*(2), 99-100.
- Cappeliez, P., Sèvre-Rousseau, S., Landreville, P., & Prévile, M. (2004). Physical health, subjective health, and psychological distress in older adults: Reciprocal relationships concurrently and over time. *Ageing International, 29*(3), 247-266.
- Carpentier, M. Y., Mullins, L. L., & Van Pelt, J. C. (2007). Psychological, Academic, and Work Functioning in College Students with Childhood-Onset Asthma. *Journal of Asthma, 44*(2), 119-124.
- Carr, E., Brockbank, K., Allen, S., & Strike, P. (2006). Patterns and frequency of anxiety in women undergoing gynaecological surgery. *Journal of Clinical Nursing, 15*(3), 341-352.
- Carr, J. L., Koyama, M., & Thiagarajan, M. (2003). A women's support group for Asian international students. *Journal of American College Health, 52*(3), 131-134.
- Carter, J. D., & Narramore, B. (1979). *The integration of psychology and theology: An introduction*. Grand Rapids, MI: Zondervan.
- Caton, A. P., & Klemm, P. (2006). Introduction of Novice Oncology Nurses to End-of-Life Care. *Clinical Journal of Oncology Nursing, 10*(5), 604-608.
- Chapell, M. S., Blanding, Z. B., Takahashi, M., Silverstein, M. E., Newman, B., Gubi, A., et al. (2005). Test Anxiety and Academic Performance in Undergraduate and Graduate Students. *Journal of Educational Psychology, 97*(2), 268-274.
- Chandavarkar, U., Azzam, A., & Mathews, C. A. (2007). Anxiety symptoms and perceived performance in medical students. *Depression & Anxiety (1091-4269), 24*(2), 103-111.
- Chang, T., & Chang, R. (2004). Counseling and the internet: Asian American and Asian international college students' attitudes toward seeking online professional psychological help. *Journal of College Counseling, 7*, 40-44.
- Charles, H., & Stewart, M. A. (1991). Academic advising international students. *Journal of Multicultural Counseling and Development, 19*(4), 173-181. Retrieved April 2, 2007, from EBSCOhost database.

- Charlton, E. (2007). "Bad" Girls versus "Good" Girls: Contradiction in the constitution of contemporary girlhood. *Discourse: Studies in the Cultural Politics of Education*, 28(1), 121-131.
- Cho, S. (1988). A cross cultural study of factors that predict stress among international college students. *Dissertation Abstracts International*, 50, 01A. (UMI No. AAG8904412)
- Cho, K., Lee, J., & Mary, J. (2005). Korean Women Living in the United States as Student Wives. *Health Care for Women International*, 26(10), 897-915.
- Choo, K. L. (2007). The implications of introducing critical management education to Chinese students studying in UK business schools: some empirical evidence. *Journal of Further & Higher Education*, 31(2), 145-158.
- Chung, S. K. (2006, December 5). 아무 대책 없는 '불안 불감증.' *Donga.com*. Retrieved April 19, 2007 from http://www.donga.com/docs/magazine/weekly/2006/12/04/200612040500018/200612040500018_1.html
- Clinton, T., & Ohlschlager, G. (2002) *Competent Christian counseling: Foundations & practice of compassionate soul care* (Vol. 1). Colorado Springs, CO: WaterBrook Press.
- Clinton, T., & Sibcy, G. (2002) *Attachments: Why you love, feel and act the way you do*. Brentwood, TN: Integrity.
- Cloud, H., & Townsend, J. (1992). *Boundaries*. Grand Rapids, MI: Zondervan.
- Cloud, H., & Townsend, J. (2001). *How people grow: What the Bible reveals about personal growth*. Grand Rapids, MI: Zondervan.
- Cohen, J. (1990). Things I have learned (so far). *American Psychologist*, 45, 1304-1312.
- Cole, E., & Brown, R. S. (2002). Psychological needs of post-war children in Kosovo: A preliminary analysis. *School Psychology International*, 23(2), 131.
- Cole, B., Matheson, K., & Anisman, H. (2007). The Moderating Role of Ethnic Identity and Social Support on Relations Between Well-Being and Academic Performance. *Journal of Applied Social Psychology*, 37(3), 592-615.
- Collins, G. R. (1988). *Christian counseling: A comprehensive guide* (Revised ed.). Dallas, TX: Word.

- Colman, A. M. (2006). Psychosocial stressor. *A Dictionary of Psychology*. Oxford University Press. Retrieved January 27, 2009, from Oxford Reference Online on the World Wide Web:
<http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t87.e6859>
- Corey, G. (2009). *Theory and practice of counseling and psychotherapy* (8th ed.). Belmont, CA: Wadsworth/Thomson Learning.
- Crabb, L. (1988). *Inside out*. Colorado Springs, CO: NavPress.
- Cropley, M., & Steptoe, A. (2005). Social support, life events and physical symptoms: A prospective study of chronic and recent life stress in men and women. *Psychology, Health & Medicine, 10*(4), 317-325.
- Davis, D. C., & Humphrey, K. M. (2000). *College counseling: Issues and strategies for a new millennium*. Alexandria, VA: American Counseling Association.
- De Verthelyi, R. F. (1995). International students' spouses: Invisible sojourners in the culture shock literature. *International Journal of Intercultural Relations, 19*, 387-411.
- Dusselier, L., Dunn, B., Yongyi W., Shelley II, M. C., & Whalen, D. F. (2005). Personal, health, academic, and environmental predictors of stress for residence hall students. *Journal of American College Health, 54*(1), 15-24.
- Earnheart, J. C., Schweizer, C., Crestani, F., Iwasato, T., Shigeyoshi I., Mohler, H., et al. (2007). GABAergic control of adult hippocampal neurogenesis in relation to behavior indicative of trait anxiety and depression states. *Journal of Neuroscience, 27*(14), 3845-3854.
- El-Anzi, F. O. (2005). Academic Achievement and Its Relationship with Anxiety, Self-esteem, Optimism, and Pessimism in Kuwaiti Students. *Social Behavior & Personality: An International Journal, 33*(1), 95-103.
- Ellis, A., & Grieger, R. (1977). *Handbook of rational-emotive therapy*. New York: Springer.
- Ellis, A. (1984). Foreword. In W. Dryden, *Rational-emotive therapy: Fundamentals and innovations* (pp. i-xv). London: Croom Helm.

- Ellis, A. (2005). Why I (really) became a therapist. *Journal of Clinical Psychology*, 61(8), 945-948.
- Engelhard, I. M., & Arntz, A. (2005). The fallacy of ex-consequencia reasoning and the persistence of PTSD. *Journal of Behavior Therapy & Experimental Psychiatry*, 36(1), 35-42.
- Erickson, M. J. (1998). *Christian theology* (2nd ed.). Grand Rapids, MI: BakerBooks.
- Feldman, R. S. (2008). *Development across the life span* (5th ed.). Upper Saddle River, NJ: Prentice Hall.
- Flett, G., Endler, N. S., & Fairlie, P. (1999). The interaction model of anxiety and the threat of Quebec's separation from Canada. *Journal of Personality & Social Psychology*, 76(1), 143-150.
- Fountoulakisa, K. N., Karamouzisb, M. Iacovidesa, A., Nimatoudisa, J., Diakogiannisa, J., Kaprinisa, G. et al. (2001). Morning and Evening Plasma Melatonin and Dexamethasone Suppression Test in Patients with Nonseasonal Major Depressive Disorder from Northern Greece (Latitude 40–41.5°). *Neuropsychobiology*, 44(3), 113-117.
- Fountoulakisa, K. N., Papadopoulou, M., Kleanthous, S., Papadopoulou, A., Bizeli, V., Nimatoudis, I. et al. (2006). Reliability and psychometric properties of the Greek translation of the State-Trait Anxiety Inventory form Y: Preliminary data. *Annals of General Psychiatry*. Greece: Aristotle University of Thessaloniki.
- Fraley, R. C. (2002). Attachment stability from infancy to adulthood: Meta-analysis and dynamic modeling of developmental mechanisms. *Personality & Social Psychology Review*, 6(2), 123-151.
- Freud, S. (1966). *Introductory lectures on psychoanalysis* (J. Strachey, Trans. & Ed.). New York: Liveright.
- Friberg, B. & Friberg, N. T. (2001). *Analytical lexicon of the greek New Testament*. New Bern, NC: Trafford Publishing.
- Furukawa, T. (1997). Depressive symptoms among international exchange students, and their predictors. *Acta Psychiatrica Scandinavica*, 96, 242–246.
- Gammon, J. (1998). Analysis of the stressful effects of hospitalisation and source isolation on coping and..... *International Journal of Nursing Practice*, 4(2), 84-96.

- Gerrish, C. J., & Mennella, J. A. (2000). Short-term influence of breastfeeding on the infants' interaction with the environment. *Developmental Psychobiology*, *36*, 40-48.
- Gilbert, P., Bhundia, R., Mitra, R., McEwan, K., Irons, C., & Sanghera, J. (2007). Cultural differences in shame-focused attitudes towards mental health problems in Asian and Non-Asian student women. *Mental Health, Religion & Culture*, *10*(2), 127-141.
- Gillham, J. E., Reivich, K. J., Freres, D. R., Lascher, M., Litzinger, S., Shatté, A. et al. (2006). School-based prevention of depression and anxiety symptoms in early adolescence: A pilot of a parent intervention component. *School Psychology Quarterly*, *21*(3), 323-348.
- Gravetter, F. J., & Wallnau, L. B. (2007). *Statistics for the behavioral sciences* (7th ed.). Belmont, CA: Thomson Wadsworth.
- Hadjioannou, X., Shelton, N. R., Fu, D., & Dhanarattigannon, J. (2007). The road to a doctoral degree: Co-travelers through a perilous passage. *College Student Journal*, *41*(1), 160-177.
- Hamilton, C. (2000). Continuity and discontinuity of attachment from infancy through adolescence. *Child Development*, *71*(3), 690-694.
- Hamke, M., Herpfer, I., Lieb, K., Wandelt, C., & Fiebich, B. L. (2006). Substance P induces expression of the corticotropin-releasing factor receptor 1 by activation of the neurokinin-1 receptor. *Brain Research*, *1102*(1), 135-144.
- Hand, G. A., Phillips, K. D., & Dudgeon, W. D. (2006). Perceived stress in HIV-infected individuals: Physiological and psychological correlates. *AIDS Care*, *18*(8), 1011-1017.
- Hart, A. D. (2001). *The anxiety cure*. Nashville, TN: Thomas Nelson.
- Hart, A. D., & Weber C. H. (2005). Stress and Anxiety. In T. Clinton, A. D. Hart, and G. Ohlschlager (Eds.), *Caring for People God's Way: Personal and Emotional Issues, Addictions, Grief, and Trauma*. (pp. 160-180). Nashville, TN: Thomas Nelson.
- Hawkins, R., Hindson, E., & Clinton, T. (2002) Pastoral care and counseling: Soul care centered in the church. In T. Clinton, and G. Ohlschlager (Eds.), *Competent Christian counseling: Foundations & practice of compassionate soul care* (Vol. 1) (pp. 401-423). Colorado Springs, CO: WaterBrook Press.

- Herrington, R. J., Roseboom, P. H., & Kalin, N. H. (2006). Decreased amygdala CRF-Binding Protein mRNA in post-mortem tissue from male but not female bipolar and schizophrenic subjects. *Neuropsychopharmacology*, 31(8), 1822-1831.
- Hill, H. M., Levermore, M., Twaite, J., & Jones, L. P. (1996). Exposure to community violence and social support as predictors of anxiety and social and emotional behavior among African American children. *Journal of Child & Family Studies*, 5(4), 399-399.
- Hindson, E., Ohlschlager, G., & Clinton, T. (2002). Roots of spirituality: Spiritual formation in Scripture, the church, and counseling. In T. Clinton, and G. Ohlschlager (Eds.), *Competent Christian counseling: Foundations & practice of compassionate soul care* (Vol. 1) (pp. 117-139). Colorado Springs, CO: WaterBrook Press.
- Hinshaw, D. B. (2002). The spiritual needs of the dying patient. *Journal of the American College of Surgeons*, 195(4), 565-568.
- Hoff, J., Hoff, T., Almasbakk, B., & Espnes, G. (2001). Testing state and trait anxiety in a sport performance situation. *Psyche & Societas*, 8(1/2), 34-44.
- Hoffman, M. L. (1983). Affective and cognitive processes in moral internalization. In E. T. Higgins, D. Ruble, & W. Hartup (Eds.), *Social cognition and social development: A sociocultural perspective* (pp. 236-274). New York: Cambridge University Press.
- Hongtu, C., Cheal, K., McDonel Herr, E. C., Zubritsky, C, & Levkoff, S. E. (2007). Religious participation as a predictor of mental health status and treatment outcomes in older persons. *International Journal of Geriatric Psychiatry*, 22(2), 144-153.
- Huang, S., Lin, W., Wan, F. Chang, A., Ko, H., Wang, T., et al. (2007). Monoamine oxidase-A polymorphisms might modify the association between the dopamine D2 receptor gene and alcohol dependence. *Journal of Psychiatry & Neuroscience*, 32(3), 185-192.
- Hurding, R. F. (2003). *Roots and shoots: A guide to counselling and psychotherapy* (Updated ed.). London: Hodder & Stoughton Religious.
- Irish, B. (2006). The potential use of computer-based assessment for knowledge testing of general practice registrars. *Education for Primary Care*, 17(1), 24-31.

- Iwata, N., & Higuchi, H. (2000). Responses of Japanese and American university students to the STAI items that assess the presence of absence of anxiety. *Journal of Personality Assessment*, 74(1), 48-62.
- Iwata, N., Roberts, C. R., & Kawakami, N. (1995). Japan–U.S. comparison of responses to depression scale items among adult workers. *Psychiatry Research*, 53, 275-245.
- Iwata, N., Saito, K., & Roberts, R. E. (1994). Responses to a self-administered depression scale among younger adolescents in Japan. *Psychiatry Research*, 53, 275-287.
- James, R. K., & Gilliland, B. E. (2003). *Theories and strategies in counseling and psychotherapy* (5th ed.). Boston, MA: Allyn and Bacon.
- Joiner, R., Brosnan, M., Duffield, J., Gavin, J., & Maras, P. (2007). The relationship between Internet identification, Internet anxiety and Internet use. *Computers in Human Behavior*, 23(3), 1408-1420.
- Jones, S. L., & Butman, R. (1991). *Modern psychotherapies: A comprehensive Christian appraisal*. Downers Grove, IL: InterVarsity Press.
- Jongsma, A. (1999). Anxiety over student ID system. *Times Higher Education Supplement*, (1415), 10
- Kachuee, H., Ameli, J., Taheri, S., Assari, S., Riahipour, F., Khedmat, H., et al. (2007). Sleep quality and its correlates in renal transplant patients. *Transplantation Proceedings*, 39(4), 1095-1097.
- Karsli, M. D., & Baloğlu, M. (2006). A description and comparison of the levels of anxiety among college administrators. *Social Behavior & Personality: An International Journal*, 34(6), 739-745.
- Kashdan, T. B., & Roberts, J. E. (2007). Social anxiety, depressive symptoms, and post-event rumination: Affective consequences and social contextual influences. *Journal of Anxiety Disorders*, 21(3), 284-301.
- Kassel, J. D., Bornovalova, M., & Mehta, N. (2007). Generalized expectancies for negative mood regulation predict change in anxiety and depression among college students. *Behaviour Research & Therapy*, 45(5), 939-950.
- Keller, R. R. (2000). Religious diversity in North America. In S. P. Richard & A. E. Bergin (Eds.), *Handbook of Psychotherapy and Religious Diversity* (pp. 27-55). Washington, DC: American Psychological Association.

- Kierniesky, N., & Groelinger, L. (1977). General anxiety and death imagery in Catholic seminarians and college students. *The Journal of Psychology*, 97(2), 199-203.
- Kilinc, A., & Granello, P. F. (2003). Overall life satisfaction and help-seeking attitudes of Turkish college students in the United States: Implications for college counselors. *Journal of College Counseling*, 9, 56–68.
- King, B. M., & Minium, E. W. (2003). *Statistical reasoning in psychology and education* (4th ed.). Hoboken, NJ: John Wiley & Sons.
- Kirkegaard Thomsen, D. (2006). The association between rumination and negative affect: A review part of the work of the present review was conducted during the project “The immune system – Influence of aging, psychosocial factors and physical activity.” *Cognition & Emotion*, 20(8), 1216-1235.
- Kittel, G., Friedrich, G., & Bromiley, G. W. (Ed.). (1985). *Theological dictionary of the New Testament* (Abridged ed.). Grand Rapids, MI: Wm. B. Eerdmans Publishing Company.
- Klaniczay, S. (2000). On childhood stuttering and the theory of clinging. *Journal of Child Psychotherapy*, 26(1), 97-115.
- Knights, J. A., & Kennedy, B. J. (2007). Medical school selection: Impact of dysfunctional tendencies on academic performance. *Medical Education*, 41(4), 362-368.
- Kochanska, G. (1993). Toward a synthesis of parental socialization and child temperament in early development of conscience. *Child Development*, 64, 325-347.
- Korukonda, A. R. (2007). Differences that do matter: A dialectic analysis of individual characteristics and personality dimensions contributing to computer anxiety. *Computers in Human Behavior*, 23(4), 1921-1942.
- Kovatz, S., Kutz, I., Rubin, G., Dekel, R., & Shenkman, L. (2006). Comparing the distress of American and Israeli medical students studying in Israel during a period of terror. *Medical Education*, 40(4), 389-393.
- Kozu, J. (2000) Worldview and the psychological adjustment of Japanese sojourners in the United States. *Dissertation Abstracts International*, A60/07. (UMI No. AAT9937635).

- Lam, R. W. (2006). Challenges in the treatment of anxiety disorders: Beyond guidelines. *International Journal of Psychiatry in Clinical Practice*, *10*, 18-24.
- Lau, J. Y. F., Eley, T. C., & Stevenson, J. (2006). Examining the state-trait anxiety relationship: A behavioural genetic approach. *Journal of Abnormal Child Psychology*, *34*(1), 18-26.
- Leaman, S., & Gee, C. (2008). Intimate partner violence among adolescent and young adult mothers. *Journal of Family Violence*, *23*(6), 519-528.
- Lee, E. (1996). Asian American families: An overview. In M. McGoldrick, J. Giordano, & J. Pearce (Eds.), *Ethnicity and family therapy* (2nd ed., pp. 227-248). New York: Guilford Press.
- Lee, S., Park, M., Yoon, H., Park, Y. Park, I., & Park, K. (2006). Evaluating the Korean version of the Multidimensional Health Assessment Questionnaire in patients with rheumatoid arthritis. *Clinical Rheumatology*, *25*(3), 353-357.
- Lindemann, C. (1996). The development of treatment: From phobias to anxiety disorders. In C. Lindemann (Eds.), *Handbook of the Treatment of the Anxiety Disorders*. Northvale, NJ: Jason Aronson.
- Lorenz, K. (1957). Companionship in bird life. In C. Scholler (Ed.), *Instinctive behavior*. New York: International Universities Press.
- MacArthur, J. D., & MacArthur, C. T. (1997). Anxiety. Research Network on Socioeconomic Status and Health. Retrieved May 18, 2006, from <http://www.macses.ucsf.edu/Research/Psychosocial/notebook/anxiety.html>
- MacGeorge, E. L., Samter, W., & Gillihan, S. J. (2005). Academic stress, supportive communication, and health. *Communication Education*, *54*(4), 365-372.
- Maxmen, J. S., & Ward, N. G. (1995). *Essential psychopathology and its treatment: Second Edition Revised for DSM-IV*. New York: W. W. Norton & Company.
- McConnell, K., Pargament, K. I., Ellison, C. G., & Flannelly, K. J. (2006). Examining the links between spiritual struggles and symptoms of psychopathology in a national sample. *Journal of Clinical Psychology*, *62*(12), 1469-1484.
- McElhaney, K. B., Immele, A., Smith, F. D., & Allen, J. P. (2006). Attachment organization as a moderator of the link between friendship quality and adolescent delinquency. *Attachment & Human Development*, *8*(1), 33-46.

- McFarlane, D. (2007). Theological education in China and in America: A comparison. *China Today*, 56(4), 30-33.
- McGee, R. S. (2003). *The search for significance*. Nashville, TN: W Publishing Group.
- Mcilroy, D., Sadler, C., & Boojawon, N. (2007). Computer phobia and computer self-efficacy: their association with undergraduates' use of university computer facilities. *Computers in Human Behavior*, 23(3), 1285-1299.
- McMinn, M. R. (1996). *Psychology, theology, and spirituality in Christian counseling*. Wheaton, IL: Tyndale House.
- Merriam-Webster's Medical Dictionary. (2002). Springfield, MA: Merriam-Webster.
- Mickley, J. R., Carson, V., & Soeken, K. L. (1995). Religion and adult mental health: State of the science in nursing. *Issues in Mental Health Nursing* 16(4), 345-60.
- Miller, A., Fine, S. E., Kiely Gouley, K., Seifer, R., Dickstein, S. & Shields, A. (2006). Showing and telling about emotions: Interrelations between facets of emotional competence and associations with classroom adjustment in Head Start preschoolers. *Cognition & Emotion*, (20)8, 1170-1192.
- Misra, R., & McKean, M. (2000). College students' academic stress and its relation to their anxiety, time management, and leisure satisfaction. *American Journal of Health Studies*, 16(1), 41-51.
- Moneta, G. B., Spada, M. M., & Rost, F. M. (2007). Approaches to studying when preparing for final exams as a function of coping strategies. *Personality & Individual Differences*, 43(1), 191-202
- Mössner, R., Freitag, C. M., Gutknecht, L., Reif, A., Tauber, R, Franke, P., et al. (2006) The novel brain-specific tryptophan hydroxylase-2 gene in panic disorder. *Journal of Psychopharmacology*, 20(4), 547-552.
- Mulatu, M. S. (2002). Psychometric properties of scores on the preliminary Amharic version of the State-Trait Anxiety Inventory in Ethiopia. *Educational & Psychological Measurement*, 62(1), 130-146.
- Myers, D. G., & Diener, E. (1995). Who is happy? *Psychological Science*, 6(1), 10-19.
- National Institute of Mental Health. Anxiety disorders. Retrieved March 27, 2008, from <http://www.nimh.nih.gov/healthinformation/anxietymenu.cfm>

- National Institute of Mental Health. Anxiety disorders. Retrieved March 27, 2008, from <http://www.nimh.nih.gov/publicat/anxiety.cfm#anx1>
- National Institute of Mental Health. Anxiety disorders. Retrieved March 27, 2008, from <http://www.nimh.nih.gov/healthinformation/anxietymenu.cfm>
- Nijkamp, M. D., Kenens, C. A., Dijker, A. J. M., Ruiters, R. A. C., Hiddema, F., & Nuijts, R. M. M. A. (2004). Determinants of surgery related anxiety in cataract patients. *British Journal of Ophthalmology (BJO)*, 88(10), 1310-1314.
- Nilsson, J. E., Berkel, L. A., Flores, L. Y., & Lucas, M. S. (2004). Utilization Rate and Presenting Concerns of International Students at a University Counseling Center: Implications for Outreach Programming. *Journal of College Student Psychotherapy*, 19(2), 49-58.
- Nugent, S. G. (2007). The ivory tower of Babel. *Educause Review*, 42(2), 6-7.
- Onwuegbuzie, A. J., & Jiao, Q. G. (1997). Academic library usage: A comparison of native and non-native English-speaking students. *Australian Library Journal*, 46(3), 258-269.
- Open Doors. (2006). International student and total U.S. enrollment. Retrieved March 27, 2008, from <http://opendoors.iienetwork.org/?p=89192>
- Orbach, G., Lindsay, S., & Grey, S. (2007). A randomised placebo-controlled trial of a self-help internet-based intervention for test anxiety. *Behaviour Research & Therapy*, 45(3), 483-496.
- Padesky, C. A., & Beck, A. T. (2005). Response to Ellis' discussion of "Science and philosophy: Comparison of cognitive therapy and rational emotive behavior therapy." *Journal of Cognitive Psychotherapy*, 19(2), 187-189.
- Pan, W., & Tang, M. (2005). Students' Perceptions on Factors of Statistics Anxiety and Instructional Strategies. *Journal of Instructional Psychology*, 32(3), 205-214.
- Paolini, L., Yanez, A. P., & Kelly, W. E. An examination of worry and life satisfaction among college students. *Individual Differences Research*, 4(5), 331-339.
- Pargament, K. I. (2001). *The psychology of religion and coping: Theory, research, practice*. New York, NY: The Guilford Press.
- Pargament, K. I. (2007). *Spiritually integrated psychotherapy: Understanding and addressing the sacred*. New York, NY: The Guilford Press.

- Park, I., & Cho, L. (1995). Confucianism and the Korean family. *Journal of Comparative Family Studies*, 26(1), 117.
- Park, S. C., & Kim, W. S. (2007, April 19). 극심한 취업난...불안한 미래... 대학생 '마음병' 위협수위. Chosun.com. Retrieved April 19, 2007 from http://news.chosun.com/site/data/html_dir/2007/04/19/2007041900070.html#bbs
- Pavlov, I. P. (1957). *Experimental psychology and other essays*. New York: Philosophical Library.
- Pedersen, P. B. (1991). Concluding comments to the special issue. *Journal of Counseling & Development*, 70(1), 250.
- Pedersen, P. B. (1991). Counseling international students. *The Counseling Psychologists*, 19(1), 10-58.
- Pedersen, P. B. (1991). Multiculturalism as a generic approach to counseling. *Journal of Counseling & Development*, 70(1), 6-12.
- Peterlini, M., Tibério, I., Saadeh, A., Pereira, J., & Martins, M. (2002). Anxiety and depression in the first year of medical residency training. *Medical Education*, 36(1), 66-72.
- Petress, K. C. (1995). Coping with a new educational environment: Chinese students' imagined interactions before commencing studies in the U.S. *Journal of Instructional Psychology*, 22(1), 50-63.
- Pierce, Jr., J. D., Cohen, A. B., Chambers, J. A., & Meade, R. M. (2007). Gender differences in death anxiety and religious orientation among US high school and college students. *Mental Health, Religion & Culture*, 10(2), 143-150.
- Poyrazli, S., Arbona, C., Nora, A., McPherson, R., & Pisecco, S. (2002). Relation between assertiveness, academic self-efficacy, and psychosocial adjustment among international graduate students. *Journal of College Student Development*. Retrieved April 3, 2006, from http://www.findarticles.com/p/articles/mi_qa3752/is_200209/ai_n9132513
- Poyrazli, S., & Kavanaugh, P. R. (2006). Marital status, ethnicity, academic achievement, and adjustment strains: The case of graduate international students. *College Student Journal*, 40(4), 767-780.

- Poyrazli, S., Kavanaugh, P., Baker, A., & Al-Timimi, N. (2004). Social support and demographic correlates of acculturative stress in international students. *Journal of College Counseling, 7*, 73-82.
- Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385-401.
- Rayburn, C., Richmond, L., & Rogers, L. (1986). Men, women, and religion: Stress within leadership roles. *Journal of Clinical Psychology, 42*(3), 540-546.
- Reich, J. W., Johnson, L. M., Zautra, A. J., & Davis, M. C. (2006). Uncertainty of illness relationships with mental health and coping processes in Fibromyalgia patients. *Journal of Behavioral Medicine, 29*(4), 307-316.
- Richards, P. S., & Bergin, A. E. (Eds.). (2000). *Handbook of psychotherapy and religious diversity*. Washington, DC: American Psychological Association.
- Richards, P. S., & Bergin, A. E. (2005). *A Spiritual strategy for counseling and psychotherapy* (2nd ed.). Washington, DC: American Psychological Association.
- Rosenbaum, K. (1984). The perception of the impact of life stress among wives of students at Southwestern Baptist Theological Seminary. *Dissertation Abstracts International, A45/11*, (UMI No. AAT0555646).
- Root, B. A. (2000). *Understanding panic and other anxiety disorders*. Jackson, MS: University Press of Mississippi.
- Satre, D. D., Knight, B. G., & David, S. (2006). Cognitive-behavioral interventions with older adults: Integrating clinical and gerontological research. *Professional Psychology: Research & Practice, 37*(5), 489-498.
- Scazzero, P. (2006). *Emotionally healthy spirituality: Unleash the power of authentic life in Christ*. Nashville, TN: Thomas Nelson.
- Sibel T. (2005). Classroom participation by international students: The case of Turkish graduate students. *Journal of Studies in International Education, 9*(4), 337-355.
- Slone, M. (2000). Responses to media coverage of terrorism. *Journal of Conflict Resolution, 44*, 508-522.
- Smith, C., Peterson, D. F., Degenhardt, B. F., & Johnson, J. C. (2007). Depression, anxiety, and perceived hassles among entering medical students. *Psychology, Health & Medicine, 12*(1), 31-39.

- Spielberger, C. D. (1966). *Anxiety and behavior*. Oxford, England: Academic Press.
- Spielberger, C. D. (1972). Anxiety as an emotional state. In C. D. Spielberger (Ed.), *Anxiety: Current trends in theory and research* (Vol.1). New York: Academic Press.
- Spielberger, C. D. (1983). *State-trait anxiety inventory for adults sampler set manual, test, scoring key*. Redwood City, CA: Mind Garden.
- Stanley, C. F. (2003). *Finding peace: God's promise of a life free from regret, anxiety, and fear*. Nashville, TN: Thomas Nelson.
- Stein, M. B., Simmons, A. N., Feinstein, J. S., & Paulus, M. P. (2007). Increased Amygdala and Insula activation during emotion processing in anxiety-prone subjects. *American Journal of Psychiatry*, 164(2), 318-327.
- Stoeber, J., Otto, K., Pescheck, E., Becker, C., & Stoll, O. (2007). Perfectionism and competitive anxiety in athletes: Differentiating striving for perfection and negative reactions to imperfection. *Personality & Individual Differences*, 42(6), 959-969.
- Student and Exchange Visitor Information System (SEVIS). (2007). General summary quarterly report: For the quarter ending December 30, 2006. Retrieved April 2, 2007, from http://www.ice.gov/doclib/sevis/pdf/quarterly_report_dec06v4.pdf
- Sümer, S., Poyrazli, S., & Grahame, K. (2008). Predictors of depression and anxiety among international students. *Journal of Counseling & Development*, 86(4), 429-437.
- Tan, S., & Dong, N. J. (2000). Psychotherapy with members of Asian American churches and spiritual traditions. In P. S. Richards, & A. E. Bergin (Eds.), *Handbook of psychotherapy and religious diversity* (pp. 421-444). Washington, DC: American Psychological Association.
- Tennant, C. (2002). Life events, stress, and stress, and depression. *Australian and New Zealand Journal of Psychiatry*, 36, 173-182.
- Oxford University Press. (2007). State trait anxiety inventory. In *The Oxford Dictionary of Sports Science & Medicine*. Retrieved January 27, 2009, from Oxford Reference Online on the World Wide Web: <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t161.e6773>

- Thoeringer, C. K., Binder, E. B., Salyakina, D., Erhardt, A., Ising, M., Unschuld, P. G., et al. (2007). Association of a Met88Val diazepam binding inhibitor (DBI) gene polymorphism and anxiety disorders with panic attacks. *Journal of Psychiatric Research, 41*(7), 579-584.
- Theroux, R., & Pearce, C. (2006). Graduate students' experiences with standardized patients as adjuncts for teaching pelvic examinations. *Journal of the American Academy of Nurse Practitioners, 18*(9), 429-435.
- Thomas, C. R., & Gadbois, S. A. (2007). Academic self-handicapping: The role of self-concept clarity and students' learning strategies. *British Journal of Educational Psychology, 77*(1), 101-119.
- Torsheim, T., & Wold, B. (2001). School-related stress, support, and subjective health complaints among early adolescents. *Journal of Adolescence, 24*(6), 701-713.
- Tsai, J., Wu, C., Chiu, T., Hu, W., & Chen, C. (2006). Symptom patterns of advanced cancer patients in a palliative care unit. *Palliative Medicine, 20*(6), 617-622.
- Unalan, D., Celikten, M., Soyuer, F., & Ozturk, A. (2008). Quality of life in Turkish university students and its relationship to levels of state-trait anxiety. *Social Behavior & Personality: An International Journal, 36*(3), 417-424.
- U.S. Immigration and Customs Enforcement (USICE). Students by country of citizenship. Retrieved April 5, 2006, from http://www.ice.gov/sevis/numbers/student/country_of_citizenship.htm
- van Brakel, A. L., Muris, P. Bögels, S. M., & Thomassen, C. (2006). A multifactorial model for the etiology of anxiety in non-clinical adolescents: Main and interactive effects of behavioral inhibition, attachment and parental rearing. *Journal of Child & Family Studies, 15*(5), 568-578.
- van der Bij, A. K., De Weerd, S., Cikot, R. J. L. M., Steegers, E. A. P., & Braspenning, J. C. C. (2003). Validation of the Dutch Short Form of the State Scale of the Spielberger State-Trait Anxiety Inventory: Considerations for usage in screening outcomes. *Community Genetics, 6*(2), 84-7.
- Van Gerwen, L. J., Spinhoven, P., & Van Dyck, R. (2006). Behavioral and cognitive group treatment for fear of flying: A randomized controlled trial. *Journal of Behavior Therapy & Experimental Psychiatry, 37*(4), 358-371.

- Vitz, P. C., & Lynch, C. P. (2007). Perspective: Therese of lisieux from the perspective of attachment theory and separation anxiety. *International Journal for the Psychology of Religion*, 17(1), 61-80.
- Walen, S. R., DiGiuseppe, R. & Dryden, W. (1992). *A practitioner's guide to rational-emotive therapy* (2nd ed.). New York: Oxford University Press.
- Waters, E., Hamilton, C. E., & Weinfield, N. S. (2000). The stability of attachment security from infancy to adolescence and early adulthood: General introduction. *Child Development*, 71(3), 678-683.
- Week, L. (2007). Overextended? *Christian Century*, 124(4), 26-31.
- Weil, A. (1997). *Eight weeks to optimum health: A proven program for taking full advantage of your body's natural healing power*. New York: Alfred A. Knopf.
- Welch, E. T. (1998). *Blame It on the Brain?: Distinguishing Chemical Imbalances, Brain Disorders, and Disobedience*. Phillipsburg, NJ: Presbyterian & Reformed Publishing.
- Wilfong, J. D. (2006). Computer anxiety and anger: The impact of computer use, computer experience, and self-efficacy beliefs. *Computers in Human Behavior*, 22(6), 1001-1011.
- Wolpe, J. (1958). *Psychotherapy by reciprocal inhibition*. Stanford, CA: Stanford University Press.
- Wright, N. E. (2002). Treading on tradition: Approaches to teaching international relations to the nontraditional undergraduate. *International Studies Perspectives*, 3(1), 15-24.
- Yankura, J. & Dryden, W. (1994). *Albert Ellis*. Thousand Oaks, CA: Sage Publications.
- Yi, J. K., Jun-Chih Giseala Lin, J. K., & Kishimoto, Y. (2003). Utilization of counseling services by international students. *Journal of Instructional Psychology*, 30(4), 333-342.
- Yoon, E., & Portman, T. A. A. Critical issues of literature on counseling international students. *Journal of Multicultural Counseling & Development*, 32(1), 33-34.
- Zanardo, V., Nicolussi, S., Favaro, F., Faggian, D., Plebani, M., Marzari, F., et al. (2001). Effect of postpartum anxiety on the colostral milk β -endorphin concentrations of breastfeeding mothers. *Journal of Obstetrics & Gynaecology*, 21(2), 130-134.

- דָּאָג (da'ag). (n.d.). In *Theological Wordbook of the Old Testament*. Retrieved from BibleWorks for Windows (CD-ROM, 2006 release).
- דֵּאָגָה (de'agah). (n.d.). In *Theological Wordbook of the Old Testament*. Retrieved from BibleWorks for Windows (CD-ROM, 2006 release).
- כַּעַס (ka`ac). (n.d.). In *Theological Wordbook of the Old Testament*. Retrieved from BibleWorks for Windows (CD-ROM, 2006 release).
- רָגַז (rāgaz). (n.d.). In *Theological Wordbook of the Old Testament*. Retrieved from BibleWorks for Windows (CD-ROM, 2006 release).
- רָגַגַז (raggaz). (n.d.). In *Theological Wordbook of the Old Testament*. Retrieved from BibleWorks for Windows (CD-ROM, 2006 release).
- רַעְיוֹן (ra`yown). (n.d.). In *Theological Wordbook of the Old Testament*. Retrieved from BibleWorks for Windows (CD-ROM, 2006 release).
- שַׂרְעָף (sar`aph). (n.d.). In *Theological Wordbook of the Old Testament*. Retrieved from BibleWorks for Windows (CD-ROM, 2006 release).
- ὄδυνα (odunao). (n.d.). In *Theological Dictionary of the New Testament*. Retrieved from BibleWorks for Windows (CD-ROM, 2006 release).
- λύπη (lupe). (n.d.). In *Theological Dictionary of the New Testament*. Retrieved from BibleWorks for Windows (CD-ROM, 2006 release).
- μέριμνα (merimna). (n.d.). In *Theological Dictionary of the New Testament*. Retrieved from BibleWorks for Windows (CD-ROM, 2006 release).
- μεριμνάω (merimnao). (n.d.). In *Theological Dictionary of the New Testament*. Retrieved from BibleWorks for Windows (CD-ROM, 2006 release).

APPENDIXES

Appendix A: Letter from Institutional Review Board

From: Gho, Jaesook
To: Kim, Jaeduk
Cc:
Subject: Exemption Review
Attachments:
Sent: Thu 5/11/2006 1:58 PM

Dear Mr. Kim,

Your proposal has been reviewed and approved. Your protocol number is below. Should you make any changes with your proposal, please contact the IRB and go through the revision process. You can now go ahead and collect your data.

Best,
Jae

Exemption Review – Protocol number #01-006 Jaeduk Kim
A Study of Stress and Anxiety among Korean International Students at Liberty
University Analyzed with the State-Trait Anxiety Inventory (Form Y)

Then you will know the truth, and the truth will set you free. John 8:32

Jaesook Gho Ph.D
Assistant Professor
Chair, Institutional Review Board (IRB)

Liberty University
Center for Counseling and Family Studies
Suite 2400, CN
1971 University Boulevard
Lynchburg, VA 24502
[office] 434-592-4052.
[fax] 434-522-0416
[email] jgho@liberty.edu

Appendix B: Letter of Informed Consent

From: Jaeduk Kim

RE: Voluntary Informed Consent

My name is Jaeduk Kim, a student of Ph.D. in Counseling program at Liberty University. I am currently in the process of conducting my dissertation study focusing on the characteristics of Korean seminary students in regard to anxiety. I am interested in assessing anxiety utilizing the State-Trait Anxiety Inventory (STAI) Form Y (Spielberger, 1983). This test consists of 40 statements, is written at a 6th grade reading level, and can be completed in 10 minutes or fewer.

You have been selected to participate in this study based on your enrollment in seminary classes during the semester. Your involvement is strictly voluntary and will in no way negatively affect your grade for this course or your status at the university, now or in the future. You have the freedom at any time to withdraw from this study without any penalty. By answering the questions of the self-evaluation inventory you are offering your informed consent to becoming a participant in this study. Your personal information will be kept confidential and will be used on for the purpose of identifying data for this research project.

For answers to questions pertaining to the research, research participant's rights, or in the event of research-related injury, you may contact me at (434) 582-4718 or Dr. Ron Hawkins, Dean of College of Arts and Sciences department at Liberty University, at (434) 592-4030.

Thank you for your willingness to participate in this research endeavor.

Sincerely,

Jaeduk Kim

Appendix C: STAI Questionnaire Translated into Korean

SELF-EVALUATION QUESTIONNAIRE

날짜: ____ / ____ / 2006, 나이 (만): _____, 성별: 남/여, 결혼 여부: 기혼/미혼.

STAI Form Y-1: 아래의 문장들을 통해서 사람들은 보통 자기 자신을 설명하곤 합니다. 각 문장들을 읽으신 후에, 자신이 바로 지금 이 순간(right now at this moment)에 어떻게 느끼고 있는가 하는 정도를 따라 알맞은 번호에 동그라미를 치십시오. 정답은 없습니다. 또한 각 문제마다 너무 많은 시간을 소비할 필요는 없습니다. 단지 현재의 상태 수준을 가장 잘 표현하는 것에 동그라미를 치십시오.

1: 전혀 그렇지 않다 Not At All, 2: 약간 그렇다 Somewhat, 3: 그런 편이다 Moderately So, 4: 매우 그렇다 Very Much So.

1. I feel calm 지금 나는 차분하고, 평온하다. 1 2 3 4
2. I feel secure 지금 나는 안전한 것 같다. 1 2 3 4
3. I am tense 지금 나는 (신경, 감정, 근육 등이) 긴장된 상태이다. 1 2 3 4
4. I feel strained 지금 나는 부자연스럽고 일부러 꾸민 것 같은 느낌이 든다. 1 2 3 4
5. I feel at ease 지금 나는 마음이 편하다. 1 2 3 4
6. I feel upset 지금 나는 흥분되고 당황스럽다. 1 2 3 4
7. I am presently worrying over possible misfortunes 지금 나는 뭔가 잘못된 일이 생길까봐 걱정하고 있다. 1 2 3 4
8. I feel satisfied 지금 나는 만족스런, 흡족한 느낌이 든다. 1 2 3 4
9. I feel frightened 지금 나는 두렵고 뭔가 놀란 것 같은 느낌이 든다. 1 2 3 4
10. I feel comfortable 지금 나는 기분이 좋고 쾌적한 느낌이 든다. 1 2 3 4
11. I feel self-confident 지금 나는 자신감이 있다. 1 2 3 4
12. I feel nervous 지금 나는 신경이 예민하다. 1 2 3 4
13. I am jittery 지금 나는 신경이 과민하다. 1 2 3 4
14. I feel indecisive 지금 나는 결단성이 없고 우유부단한 것 같다. 1 2 3 4
15. I am relaxed 지금 나는 긴장이 풀어진 편한 상태이다. 1 2 3 4
16. I feel content 지금 나는 불평이 없고 만족스럽다. 1 2 3 4
17. I am worried 지금 나는 걱정스럽고 근심스럽다. 1 2 3 4
18. I feel confused 지금 나는 당황스럽고 혼란스럽다. 1 2 3 4
19. I feel steady 지금 나는 마음에 동요가 없고 안정된 느낌이 든다. 1 2 3 4
20. I feel pleasant 지금 나는 즐겁고 쾌활한 느낌이 든다. 1 2 3 4

STAI Form Y-2: 아래의 문장들을 통해서 사람들은 보통 자기 자신을 설명하곤 합니다. 각 문장들을 읽으신 후에, 자신이 평소에 일반적으로(generally) 어떻게 느끼고 있는가 하는 정도를 따라 알맞은 번호에 동그라미를 치십시오.

1: 거의 그런 적이 없다 Almost Never, 2: 가끔 그렇다 Sometimes, 3: 자주 그렇다 Often, 4: 거의 항상 그렇다 Almost Always.

21. I feel pleasant 즐겁고 쾌활한 느낌이 든다. 1 2 3 4
22. I feel nervous and restless 신경이 예민하고, 들떠 있는 것 같은 느낌이 든다. 1 2 3 4

23. I feel satisfied with myself 내 자신에 대해 만족스럽다. 1 2 3 4
24. I wish I could be as happy as others seem to be 다른 사람들처럼 행복하게 되었으면 좋겠다고 생각한다.
1 2 3 4
25. I feel like a failure 아무래도 실패할 것만 같은 느낌이 든다. 1 2 3 4
26. I feel rested 편하게 쉬고 있는 것 같은 느낌이 든다. 1 2 3 4
27. I am “calm, cool, and collected” “차분하고, 평온하며, 침착하다” 1 2 3 4
28. I feel that difficulties are piling up so that I cannot overcome them 어려운 일들이 너무 많아서
헤어나기가 어렵게 느껴진다. 1 2 3 4
29. I worry too much over something that really doesn't matter 실제로 그렇게 중요한 일이 아닌 것들에
대해서도 과도하게 걱정한다. 1 2 3 4
30. I am happy 행복하다. 1 2 3 4
31. I have disturbing thoughts 마음이 혼란하고 어지럽다. 1 2 3 4
32. I lack self-confidence 자신감이 부족하다. 1 2 3 4
33. I feel secure 안정감이 든다. 1 2 3 4
34. I make decisions easily 결정을 쉽게 내리는 편이다. 1 2 3 4
35. I feel inadequate 스스로에 대해서 부족하고, 미숙한 느낌이 든다. 1 2 3 4
36. I am content 불평이 없고 만족스런 느낌이 든다. 1 2 3 4
37. Some unimportant thought runs through my mind and bothers me 별로 중요하지 않은 생각들이 마음
속에 일어나서 나를 귀찮고 성가시게 한다. 1 2 3 4
38. I take disappointments so keenly that I can't put them out of my mind 심하게 낙담이 되어서 그런
마음을 물리칠 수가 없다. 1 2 3 4
39. I am a steady person 안정되고 확고하며 절도 있게 산다. 1 2 3 4
40. I get in a state of tension or turmoil as I think over my recent concerns and interests 최근에 생긴
걱정거리나 관심사들로 인해 마음에 긴장과 혼란이 있는 상태이다. 1 2 3 4

Appendix D: SPSS Statistical Analyses

Crosstabs

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Location * Age	181	100.0%	0	.0%	181	100.0%

Location * Age Crosstabulation

Count		Age				Total
		under 25	26-35	36-45	over 46	
Location	Korea	9	77	28	6	120
	US	2	26	27	6	61
Total		11	103	55	12	181

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.741(a)	3	.008
Likelihood Ratio	11.650	3	.009
Linear-by-Linear Association	9.980	1	.002
N of Valid Cases	181		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 3.71.

Correlations: Overall Model

Descriptive Statistics

	Mean	Std. Deviation	N
State Anxiety	36.8895	10.42214	181
Trait Anxiety	38.7680	9.39274	181

Correlations

		State Anxiety	Trait Anxiety
State Anxiety	Pearson Correlation	1	.824(**)
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	19551.790	14513.359
	Covariance	108.621	80.630
	N	181	181
Trait Anxiety	Pearson Correlation	.824(**)	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	14513.359	15880.254
	Covariance	80.630	88.224
	N	181	181

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

Correlations: International Korean Seminary Students

Descriptive Statistics

	Mean	Std. Deviation	N
State Anxiety	39.0820	12.12614	61
Trait Anxiety	38.9016	10.01949	61

Correlations

		State Anxiety	Trait Anxiety
State Anxiety	Pearson Correlation	1	.823(**)
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	8822.590	5997.492
	Covariance	147.043	99.958
	N	61	61
Trait Anxiety	Pearson Correlation	.823(**)	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	5997.492	6023.410
	Covariance	99.958	100.390
	N	61	61

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

Correlations: Domestic Korean Seminary Students

Descriptive Statistics

	Mean	Std. Deviation	N
State Anxiety	35.7750	9.29757	120
Trait Anxiety	38.7000	9.10037	120

Correlations

		State Anxiety	Trait Anxiety
State Anxiety	Pearson Correlation	1	.843(**)
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	10286.925	8488.900
	Covariance	86.445	71.335
	N	120	120
Trait Anxiety	Pearson Correlation	.843(**)	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	8488.900	9855.200
	Covariance	71.335	82.817
	N	120	120

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

Correlations: Female Korean Seminary Students

Descriptive Statistics

	Mean	Std. Deviation	N
State Anxiety	40.7500	13.89386	20
Trait Anxiety	42.1000	12.45582	20

Correlations			
		State Anxiety	Trait Anxiety
State Anxiety	Pearson Correlation	1	.777(**)
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	3667.750	2555.500
	Covariance	193.039	134.500
	N	20	20
Trait Anxiety	Pearson Correlation	.777(**)	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	2555.500	2947.800
	Covariance	134.500	155.147
	N	20	20

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

Correlations: Male Korean Seminary Students

Descriptive Statistics			
	Mean	Std. Deviation	N
State Anxiety	36.4099	9.85804	161
Trait Anxiety	38.3540	8.90324	161

Correlations			
		State Anxiety	Trait Anxiety
State Anxiety	Pearson Correlation	1	.831(**)
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	15548.944	11668.634
	Covariance	97.181	72.929
	N	161	161
Trait Anxiety	Pearson Correlation	.831(**)	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	11668.634	12682.820
	Covariance	72.929	79.268
	N	161	161

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

Correlations: Unmarried Korean Seminary Students

Descriptive Statistics			
	Mean	Std. Deviation	N
State Anxiety	39.1970	11.30312	66
Trait Anxiety	41.2121	10.26797	66

Correlations			
		State Anxiety	Trait Anxiety
State Anxiety	Pearson Correlation	1	.861(**)
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	8304.439	6498.242
	Covariance	127.761	99.973

	N	66	66
Trait Anxiety	Pearson Correlation	.861(**)	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	6498.242	6853.030
	Covariance	99.973	105.431
	N	66	66

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

Correlations: Married Korean Seminary Students

Descriptive Statistics

	Mean	Std. Deviation	N
State Anxiety	35.5652	9.68552	115
Trait Anxiety	37.3652	8.58735	115

Correlations

		State Anxiety	Trait Anxiety
State Anxiety	Pearson Correlation	1	.784(**)
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	10694.261	7429.261
	Covariance	93.809	65.169
	N	115	115
Trait Anxiety	Pearson Correlation	.784(**)	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	7429.261	8406.661
	Covariance	65.169	73.743
	N	115	115

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

Univariate Analysis of Variance

Between-Subjects Factors

		Value Label	N
Location	1.00	Korea	120
	2.00	US	61
Gender	1.00	Male	161
	2.00	Female	20
Marital Status	1.00	Married	115
	2.00	Unmarried	66

Descriptive Statistics Dependent Variable: State Anxiety

Location	Gender	Marital Status	Mean	Std. Deviation	N
Korea	Male	Married	33.6667	9.09281	54
		Unmarried	37.5357	9.43295	56
		Total	35.6364	9.42739	110
	Female	Married	33.0000	7.74597	4
		Unmarried	40.1667	7.35980	6
		Total			

	Total	Total	37.3000	7.98679	10
		Married	33.6207	8.94786	58
		Unmarried	37.7903	9.23489	62
		Total	35.7750	9.29757	120
US	Male	Married	37.4800	9.83588	50
		Unmarried	68.0000	.	1
		Total	38.0784	10.63361	51
	Female	Married	38.0000	12.55654	7
		Unmarried	58.6667	22.50185	3
		Total	44.2000	17.81260	10
	Total	Married	37.5439	10.07839	57
		Unmarried	61.0000	18.95609	4
		Total	39.0820	12.12614	61
Total	Male	Married	35.5000	9.60380	104
		Unmarried	38.0702	10.18202	57
		Total	36.4099	9.85804	161
	Female	Married	36.1818	10.90705	11
		Unmarried	46.3333	15.68439	9
		Total	40.7500	13.89386	20
	Total	Married	35.5652	9.68552	115
		Unmarried	39.1970	11.30312	66
		Total	36.8895	10.42214	181

Tests of Between-Subjects Effects
Dependent Variable: State Anxiety

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3125.881(a)	7	446.554	4.703	.000	.160
Intercept	61600.205	1	61600.205	648.782	.000	.789
Location	1712.599	1	1712.599	18.037	.000	.094
Gender	24.066	1	24.066	.253	.615	.001
Married	1986.230	1	1986.230	20.919	.000	.108
Location * Gender	59.591	1	59.591	.628	.429	.004
Location * Married	827.043	1	827.043	8.711	.004	.048
Gender * Married	22.048	1	22.048	.232	.630	.001
Location * Gender * Married	88.726	1	88.726	.934	.335	.005
Error	16425.909	173	94.947			
Total	265863.000	181				
Corrected Total	19551.790	180				

a. R Squared = .160 (Adjusted R Squared = .126)

Estimated Marginal Means

1. Location
Dependent Variable: State Anxiety

Location	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Korea	36.092	1.640	32.856	39.329
US	50.537	2.980	44.655	56.418

2. Gender

Dependent Variable: State Anxiety

Gender	Mean	Std. Error	95% Confidence Interval

			Lower Bound	Upper Bound
Male	44.171	2.504	39.229	49.112
Female	42.458	2.302	37.915	47.002

3. Marital Status
Dependent Variable: State Anxiety

Marital Status	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Married	35.537	1.600	32.379	38.695
Unmarried	51.092	3.001	45.169	57.016

4. Location * Gender
Dependent Variable: State Anxiety

Location	Gender	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Korea	Male	35.601	.929	33.767	37.435
	Female	36.583	3.145	30.376	42.791
US	Male	52.740	4.921	43.028	62.452
	Female	48.333	3.362	41.697	54.969

5. Location * Marital Status
Dependent Variable: State Anxiety

Location	Marital Status	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Korea	Married	33.333	2.525	28.350	38.316
	Unmarried	38.851	2.093	34.720	42.982
US	Married	37.740	1.966	33.859	41.621
	Unmarried	63.333	5.626	52.229	74.437

6. Gender * Marital Status
Dependent Variable: State Anxiety

Gender	Marital Status	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Male	Married	35.573	.956	33.686	37.461
	Unmarried	52.768	4.915	43.066	62.470
Female	Married	35.500	3.054	29.473	41.527
	Unmarried	49.417	3.445	42.617	56.216

7. Location * Gender * Marital Status
Dependent Variable: State Anxiety

Location	Gender	Marital Status	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
Korea	Male	Married	33.667	1.326	31.049	36.284
		Unmarried	37.536	1.302	34.966	40.106
	Female	Married	33.000	4.872	23.384	42.616
		Unmarried	40.167	3.978	32.315	48.018
US	Male	Married	37.480	1.378	34.760	40.200
		Unmarried	68.000	9.744	48.767	87.233
	Female	Married	38.000	3.683	30.731	45.269
		Unmarried	58.667	5.626	47.563	69.771

Univariate Analysis of Variance

Between-Subjects Factors

		Value Label	N
Location	1.00	Korea	120
	2.00	US	61
Gender	1.00	Male	161
	2.00	Female	20
Marital Status	1.00	Married	115
	2.00	Unmarried	66

Descriptive Statistics
Dependent Variable: Trait Anxiety

Location	Gender	Marital Status	Mean	Std. Deviation	N
Korea	Male	Married	37.1296	8.69623	54
		Unmarried	39.6607	8.81997	56
		Total	38.4182	8.81136	110
	Female	Married	35.7500	6.02080	4
		Unmarried	45.8333	13.67358	6
		Total	41.8000	11.96105	10
	Total	Married	37.0345	8.50586	58
		Unmarried	40.2581	9.42605	62
		Total	38.7000	9.10037	120
US	Male	Married	37.8400	8.87409	50
		Unmarried	57.0000	.	1
		Total	38.2157	9.18545	51
	Female	Married	36.7143	8.19988	7
		Unmarried	55.6667	15.82193	3
		Total	42.4000	13.57449	10
	Total	Married	37.7018	8.73205	57
		Unmarried	56.0000	12.93574	4
		Total	38.9016	10.01949	61
Total	Male	Married	37.4712	8.74666	104
		Unmarried	39.9649	9.03755	57
		Total	38.3540	8.90324	161
	Female	Married	36.3636	7.17318	11
		Unmarried	49.1111	14.26924	9
		Total	42.1000	12.45582	20
	Total	Married	37.3652	8.58735	115
		Unmarried	41.2121	10.26797	66
		Total	38.7680	9.39274	181

Tests of Between-Subjects Effects
Dependent Variable: Trait Anxiety

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1787.209(a)	7	255.316	3.134	.004	.113
Intercept	61273.157	1	61273.157	752.162	.000	.813
Location	426.919	1	426.919	5.241	.023	.029
Gender	2.795	1	2.795	.034	.853	.000
Married	1320.113	1	1320.113	16.205	.000	.086
Location * Gender	26.981	1	26.981	.331	.566	.002
Location * Married	333.539	1	333.539	4.094	.045	.023
Gender * Married	27.674	1	27.674	.340	.561	.002
Location * Gender * Married	30.892	1	30.892	.379	.539	.002
Error	14093.045	173	81.463			

Total	287915.000	181				
Corrected Total	15880.254	180				

a. R Squared = .113 (Adjusted R Squared = .077)

Estimated Marginal Means

1. Location Dependent Variable: Trait Anxiety

Location	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Korea	39.593	1.519	36.596	42.591
US	46.805	2.760	41.358	52.253

2. Gender Dependent Variable: Trait Anxiety

Gender	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Male	42.908	2.319	38.330	47.485
Female	43.491	2.132	39.283	47.699

3. Marital Status Dependent Variable: Trait Anxiety

Marital Status	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Married	36.858	1.482	33.933	39.784
Unmarried	49.540	2.780	44.053	55.027

4. Location * Gender Dependent Variable: Trait Anxiety

Location	Gender	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Korea	Male	38.395	.861	36.696	40.094
	Female	40.792	2.913	35.042	46.541
US	Male	47.420	4.558	38.424	56.416
	Female	46.190	3.114	40.044	52.337

5. Location * Marital Status Dependent Variable: Trait Anxiety

Location	Marital Status	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Korea	Married	36.440	2.338	31.824	41.055
	Unmarried	42.747	1.939	38.921	46.573
US	Married	37.277	1.821	33.683	40.872
	Unmarried	56.333	5.211	46.048	66.619

6. Gender * Marital Status Dependent Variable: Trait Anxiety

Gender	Marital Status	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Male	Married	37.485	.886	35.737	39.233
	Unmarried	48.330	4.553	39.344	57.317
Female	Married	36.232	2.829	30.649	41.815
	Unmarried	50.750	3.191	44.452	57.048

7. Location * Gender * Marital Status
Dependent Variable: Trait Anxiety

Location	Gender	Marital Status	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
Korea	Male	Married	37.130	1.228	34.705	39.554
		Unmarried	39.661	1.206	37.280	42.041
	Female	Married	35.750	4.513	26.843	44.657
		Unmarried	45.833	3.685	38.561	53.106
US	Male	Married	37.840	1.276	35.321	40.359
		Unmarried	57.000	9.026	39.185	74.815
	Female	Married	36.714	3.411	29.981	43.448
		Unmarried	55.667	5.211	45.381	65.952

Post Hoc Tests

Location / Marital Status

Multiple Comparisons
Dependent Variable: State Anxiety
Tukey's HSD

(I) Location / Marital Status	(J) Location / Marital Status	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Korea & Married	Korea & Unmarried	-4.1696	1.78001	.093	-8.7873	.4480
	US & Married	-3.9232	1.81735	.139	-8.6377	.7914
	US & Unmarried	-27.3793(*)	5.03725	.000	-40.4468	-14.3118
Korea & Unmarried	Korea & Married	4.1696	1.78001	.093	-.4480	8.7873
	US & Married	.2465	1.78806	.999	-4.3921	4.8850
	US & Unmarried	-23.2097(*)	5.02676	.000	-36.2500	-10.1694
US & Married	Korea & Married	3.9232	1.81735	.139	-.7914	8.6377
	Korea & Unmarried	-.2465	1.78806	.999	-4.8850	4.3921
	US & Unmarried	-23.4561(*)	5.04010	.000	-36.5311	-10.3812
US & Unmarried	Korea & Married	27.3793(*)	5.03725	.000	14.3118	40.4468
	Korea & Unmarried	23.2097(*)	5.02676	.000	10.1694	36.2500
	US & Married	23.4561(*)	5.04010	.000	10.3812	36.5311

Based on observed means.

* The mean difference is significant at the .05 level.

Homogeneous Subsets

State Anxiety
Tukey's HSD

Location / Marital Status	N	Subset	
		1	2
Korea & Married	58	33.6207	
US & Married	57	37.5439	
Korea & Unmarried	62	37.7903	
US & Unmarried	4		61.0000
Sig.		.688	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 94.947.

a. Uses Harmonic Mean Sample Size = 13.293.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

Post Hoc Tests

Gender / Marital Status

Multiple Comparisons
Dependent Variable: State Anxiety
Tukey's HSD

(I) Gender_Married	(J) Gender_Married	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Male & Married	Male & Unmarried	-2.5702	1.60583	.381	-6.7360	1.5956
	Female & Married	-.6818	3.08942	.996	-8.6963	7.3327
	Female & Unmarried	-10.8333(*)	3.38566	.009	-19.6163	-2.0503
Male & Unmarried	Male & Married	2.5702	1.60583	.381	-1.5956	6.7360
	Female & Married	1.8884	3.20895	.935	-6.4362	10.2129
	Female & Unmarried	-8.2632	3.49506	.088	-17.3300	.8037
Female & Married	Male & Married	.6818	3.08942	.996	-7.3327	8.6963
	Male & Unmarried	-1.8884	3.20895	.935	-10.2129	6.4362
	Female & Unmarried	-10.1515	4.37965	.098	-21.5131	1.2101
Female & Unmarried	Male & Married	10.8333(*)	3.38566	.009	2.0503	19.6163
	Male & Unmarried	8.2632	3.49506	.088	-.8037	17.3300
	Female & Married	10.1515	4.37965	.098	-1.2101	21.5131

Based on observed means.

* The mean difference is significant at the .05 level.

Homogeneous Subsets

State Anxiety
Tukey's HSD

Gender_Married	N	Subset	
		1	2
Male & Married	104	35.5000	
Female & Married	11	36.1818	
Male & Unmarried	57	38.0702	38.0702
Female & Unmarried	9		46.3333
Sig.		.864	.063

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 94.947.

a. Uses Harmonic Mean Sample Size = 17.454.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

Post Hoc Tests

Location / Gender

Multiple Comparisons
Dependent Variable: State Anxiety
Tukey's HSD

(I) Location / Gender	(J) Location / Gender	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Korea & Male	Korea & Female	-1.6636	3.21837	.955	-10.0127	6.6854
	US & Male	-2.4421	1.65072	.452	-6.7243	1.8402
	US & Female	-8.5636(*)	3.21837	.042	-16.9127	-.2146
Korea & Female	Korea & Male	1.6636	3.21837	.955	-6.6854	10.0127
	US & Male	-.7784	3.36993	.996	-9.5206	7.9638
	US & Female	-6.9000	4.35769	.391	-18.2046	4.4046
US & Male	Korea & Male	2.4421	1.65072	.452	-1.8402	6.7243
	Korea & Female	.7784	3.36993	.996	-7.9638	9.5206
	US & Female	-6.1216	3.36993	.269	-14.8638	2.6206
US & Female	Korea & Male	8.5636(*)	3.21837	.042	.2146	16.9127
	Korea & Female	6.9000	4.35769	.391	-4.4046	18.2046
	US & Male	6.1216	3.36993	.269	-2.6206	14.8638

Based on observed means.

* The mean difference is significant at the .05 level.

Homogeneous Subsets

State Anxiety
Tukey's HSD

Location / Gender	N	Subset	
		1	2
Korea & Male	110	35.6364	
Korea & Female	10	37.3000	37.3000
US & Male	51	38.0784	38.0784
US & Female	10		44.2000
Sig.		.880	.159

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 94.947.

a. Uses Harmonic Mean Sample Size = 17.490.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

Post Hoc Tests

Location / Marital Status

Multiple Comparisons
Dependent Variable: Trait Anxiety
Tukey's HSD

(I) Location / Marital Status	(J) Location / Marital Status	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Korea & Married	Korea & Unmarried	-3.2236	1.64877	.209	-7.5008	1.0536
	US & Married	-.6673	1.68336	.979	-5.0342	3.6997
	US & Unmarried	-18.9655(*)	4.66585	.000	-31.0696	-6.8615
Korea & Unmarried	Korea & Married	3.2236	1.64877	.209	-1.0536	7.5008
	US & Married	2.5563	1.65623	.414	-1.7402	6.8529
	US & Unmarried	-15.7419(*)	4.65613	.005	-27.8208	-3.6631
US & Married	Korea & Married	.6673	1.68336	.979	-3.6997	5.0342
	Korea & Unmarried	-2.5563	1.65623	.414	-6.8529	1.7402
	US & Unmarried	-18.2982(*)	4.66849	.001	-30.4091	-6.1873
US & Unmarried	Korea & Married	18.9655(*)	4.66585	.000	6.8615	31.0696
	Korea & Unmarried	15.7419(*)	4.65613	.005	3.6631	27.8208
	US & Married	18.2982(*)	4.66849	.001	6.1873	30.4091

Based on observed means.

* The mean difference is significant at the .05 level.

Homogeneous Subsets

Trait Anxiety
Tukey's HSD

Location / Marital Status	N	Subset	
		1	2
Korea & Married	58	37.0345	
US & Married	57	37.7018	
Korea & Unmarried	62	40.2581	
US & Unmarried	4		56.0000
Sig.		.794	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 81.463.

a. Uses Harmonic Mean Sample Size = 13.293.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

Post Hoc Tests

Gender / Marital Status

Multiple Comparisons
Dependent Variable: Trait Anxiety

Tukey's HSD

(I) Gender_Married	(J) Gender_Married	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Male & Married	Male & Unmarried	-2.4938	1.48744	.339	-6.3524	1.3649
	Female & Married	1.1075	2.86164	.980	-6.3161	8.5311
	Female & Unmarried	-11.6400(*)	3.13603	.002	-19.7754	-3.5045
Male & Unmarried	Male & Married	2.4938	1.48744	.339	-1.3649	6.3524
	Female & Married	3.6013	2.97235	.620	-4.1095	11.3121
	Female & Unmarried	-9.1462(*)	3.23737	.027	-17.5445	-.7479
Female & Married	Male & Married	-1.1075	2.86164	.980	-8.5311	6.3161
	Male & Unmarried	-3.6013	2.97235	.620	-11.3121	4.1095
	Female & Unmarried	-12.7475(*)	4.05674	.011	-23.2714	-2.2236
Female & Unmarried	Male & Married	11.6400(*)	3.13603	.002	3.5045	19.7754
	Male & Unmarried	9.1462(*)	3.23737	.027	.7479	17.5445
	Female & Married	12.7475(*)	4.05674	.011	2.2236	23.2714

Based on observed means.

* The mean difference is significant at the .05 level.

Homogeneous Subsets

Trait Anxiety
Tukey's HSD

Gender_Married	N	Subset	
		1	2
Female & Married	11	36.3636	
Male & Married	104	37.4712	
Male & Unmarried	57	39.9649	
Female & Unmarried	9		49.1111
Sig.		.641	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 81.463.

a. Uses Harmonic Mean Sample Size = 17.454.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

Post Hoc Tests

Location / Gender

Multiple Comparisons
Dependent Variable: Trait Anxiety
Tukey's HSD

(I) Location / Gender	(J) Location / Gender	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Korea & Male	Korea & Female	-3.3818	2.98108	.669	-11.1153	4.3516

	US & Male	.2025	1.52901	.999	-3.7640	4.1690
	US & Female	-3.9818	2.98108	.542	-11.7153	3.7516
Korea & Female	Korea & Male	3.3818	2.98108	.669	-4.3516	11.1153
	US & Male	3.5843	3.12147	.660	-4.5133	11.6820
	US & Female	-.6000	4.03640	.999	-11.0711	9.8711
US & Male	Korea & Male	-.2025	1.52901	.999	-4.1690	3.7640
	Korea & Female	-3.5843	3.12147	.660	-11.6820	4.5133
	US & Female	-4.1843	3.12147	.538	-12.2820	3.9133
US & Female	Korea & Male	3.9818	2.98108	.542	-3.7516	11.7153
	Korea & Female	.6000	4.03640	.999	-9.8711	11.0711
	US & Male	4.1843	3.12147	.538	-3.9133	12.2820

Based on observed means.

Homogeneous Subsets

Trait Anxiety Tukey's HSD		
Location / Gender	N	Subset
		1
US & Male	51	38.2157
Korea & Male	110	38.4182
Korea & Female	10	41.8000
US & Female	10	42.4000
Sig.		.519

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 81.463.

a. Uses Harmonic Mean Sample Size = 17.490.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.