CULTURE AND ANXIETY: A CROSS-CULTURAL STUDY

DISSERTATION

Presented to the Graduate Council of the University Of North Texas in Partial Fulfilment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

BY

Amir Abbassi, BA, MA

Denton, Texas

December, 1998

By measuring interactions among and between anxiety and the independent variables of country of origin, gender, level of education, and age, this study attempted to gain insight into how students from different countries experience anxiety on a U.S. college campus.

It was assumed that students with different countries of origin experienced different levels of anxiety. Participants in this study were 158 international students from Thailand, Taiwan, Japan and Korea enrolled in classes designed for international students on the campus of a large metropolitan university in the Southwest. The State-Trait Anxiety Inventory was used, and the subjects evaluated themselves on how they felt at the moment (form Y-1) and how they generally feel (form Y-2). Results indicated that there was a high correlation between forms Y-1 and Y-2. Results of
the Multivariate Analysis of Variance (MANOVA) and the univariate test (ANOVA) indicated that the gender and level of education of the subjects made no significant difference. However, when it came to country of origin, there were significant differences between two of the cultural groups and respective anxiety level. Findings also support a positive correlation between age and anxiety levels, with the youngest participants having the lowest anxiety levels.
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CHAPTER I

INTRODUCTION

Contemporary social thinkers have viewed anxiety as a unique human emotion that can help as well as hurt individuals throughout their lives. Spence saw anxiety as a learned drive which energizes the organism (Levitt 1967). Anxiety can be a performance facilitator which increases an individual’s learning speed. Spielberger (1976) saw anxiety as the central explanatory concept in almost all theories of learning and psychopathology. Anxiety has also been considered a main cause of such distinct behaviors as insomnia, debilitating psychological and psychosomatic symptoms, “immoral and sinful” acts, and instances of creative self-expression.

Definitions

In spite of the general agreement that anxiety has
played an important role in human life, there is wide
disagreement on the definition of anxiety. Most authors
reviewed by this investigator, however, agree that the
concept is so complex that it makes scientific research in
this area extremely difficult. Izar and Blumberg (1985) claim
that the subject of emotions, in general, and the study of
anxiety, in particular, is interdisciplinary in nature.
Spielberger (1972) defines anxiety as an undesirable
emotional state which is characterized by subjective
feelings of stress, apprehension, and worry, and by arousal
of the autonomic nervous system. Leary defines anxiety as a
cognitive-affective response characterized by physiological
arousal and apprehension regarding a potentially negative
outcome that the individual perceives as impending (Leary in
Sarason 1985). Izard and Blumberg (1985) regard anxiety as a
complex multidimensional phenomenon (including the neuro-
chemical processes) that always involves a pattern of
emotions and interactions of emotions with cognition and the
consequent actions.

In reviewing the *Diagnostic and Statistical Manual of*
Mental Disorders, fourth edition (DSM-IV) (1994), one sees that anxiety disorders cover a broad range of emotional and behavioral problems, including obsessive thoughts (troubling intrusive thoughts); compulsive exhibits (repetitive overt behaviors which neutralize anxiety); all sorts of phobias (unrealistic fears of certain situations, objects or activities); generalized anxiety (excessive anxiety and worry); anxiety due to a general medical condition (physiological consequence of general medical conditions); and substance-induced anxiety characterized by prominent physiological consequences.

Sarason (1985) states that evidence shows that thinking disorders (less gross and more limited than in psychosis) are important elements of anxiety disorders. According to Good and Kleinman (1985), most anxiety disorders are disorders of perception, cognition, and interpretation. Anxiety disorders are the dynamic interaction between the interpretation of particular experiences of distress and specific forms of psychophysiological disturbances of cognitive and
interpretive processes (Sarason, 1985).

Historical Perspective

Systematic cross-cultural studies on psychopathology began after World War II with support from the World Health Organization (Good and Kleinman, 1985). Researchers (Chaturvedi, 1993; Weiser, Endler & Parker, 1991); Tsujioka & Cattell, 1965; Cattell & Warburton, 1961) conducted a number of cross-cultural studies on psychiatric disorders in non-western societies (Good and Kleinman, 1985). Cross-cultural research on anxiety in particular is most closely associated with the works of Cattell and Spielberger (Cattell, 1961; Spielberger, 1958, 1962, 1966, 1970, 1972). These authors have tried to measure anxiety in terms of personality “Traits” and “States” (or responses to psychosocial stressors).

Rationale

Throughout twelve years of working as a counselor with international students at the University of North Texas
(UNT), this investigator has counseled many students referred by the UNT Intensive English Language Institute (IELI). The majority of these referrals have been for sudden behavioral changes and deterioration in academic performance. It is this investigator's observation that these sudden changes are related to the more intense periods of the semester, especially around midterm and final examinations. It is also this writer's observation that the behavioral changes have something to do with how these students experience and express the academic anxiety produced at the time of evaluation.

Academic achievement is influenced and determined by many different environmental and personal variables. According to Sharma, Dang and Spielberger (1986), the effects of anxiety on academic advancement are complex and seem to be influenced by individual differences. Current literature also suggests that culture plays a significant role in how individuals experience and are affected by anxiety. There are a number of cross-cultural studies which ascertain these differences (Spielberger, 1976; Spielberger
& Diaz-Guerrero, 1976; Sharma, Dang & Spielberger, 1986; Mumford, 1993). However, none has looked at these cultural differences within the same environment.

Statement of the Problem

In working with international students, this writer has noticed that students from various cultures seem to experience and manifest anxiety in respectively different ways. This observation coincides with Spielberger's findings highlighted in this document (Spielberger, 1976; Spielberger & Diaz-Guerrero, 1976; Spielberger, et al., 1983). This investigator intends to conduct a quantitative cross-cultural study of a selection of international student groups at a large (over 25,000 student population) major U.S. university to see if differences in anxiety exist. This study will consist of administering a commonly used anxiety inventory, the "State- Trait Anxiety Inventory" (Spielberger 1983) to ascertain if international students from various cultural groups experience respectively different levels of anxiety. This inquiry will be conducted for the purpose of
discerning implications for practice and for research. Results may help professional staff at the university international studies and programs office to appreciate anxiety level differences among and between cultures and to embellish, redesign or otherwise modify existing programs to better accommodate students from various cultures. This study will also help counselors to see the differences among similar cultural groups. This investigation will contribute to the overall much-needed body of knowledge on how to work with multicultural clienteles.

Review of Literature

The problem of anxiety occupies a central position not only in the theory of psychopathology and mental health, but also in the area of psychosomatic dysfunctions. Contemporary literature on anxiety suggests that even though many researchers have general agreement on the concept, they still vary in their definitions of anxiety and what needs to be considered when one is undertaking research on anxiety.

Rollo May and Soren Kierkegaard associate anxiety with
decision, commitment, choice and awareness (Epstein, 1972).

Wherever one needs to make a decision, or a chance to "actualize a potential", there is a state of anxiety. Thus, in order for individuals to advance, anxiety must be experienced. Kierkegaard refers to anxiety as "a school" and as "one of the best teachers," since, through struggling with anxiety, awareness is increased. Thus anxiety is seen as part of normal people's lives as they advance. May believes that although anxiety is a threat to our existence, it is necessary for our personal survival. According to Epstein (1972), it was this ambiguity that led Kierkegaard to conclude that anxiety is the normal state of life and that the absence of it is neurosis. Signaled by anxiety, the organism may mobilize and intensify its capacities toward a higher level of functioning, learning, and new forms of adjustment in response to a threat.

It was Sigmund Freud who first proposed the critical role that anxiety plays in personality and in the etiology of psychoneurotic and psychosomatic disorders (Spielberger, 1983). Freud considered anxiety the fundamental phenomenon
and central problem of neurosis. Sigmund Freud claimed that anxiety is produced by the repression of sexual impulses. This creates tension and toxic effects which can cause anxiety. Freud later changed his mind and promoted the idea that it was the anxiety that produced the repression, and not the reverse (Epstein, 1972). It is possible that both viewpoints are correct (Epstein, 1972). Frustration in the form of blocking of an impulse can generate anxiety, and that anxiety can serve as a signal to repress an impulse. Freud considered fear and anxiety a universally experienced, unpleasant emotional state. Freud also believed that anxiety should be distinguished from other emotions, such as anger or depression (Spielberger 1976).

Basowitz, Persky, Korchin and Grinker (1955) claimed that Freud’s early recognition of the importance of anxiety in the blocking of sexual drives and the conversion of the libido into noxious substances was not verified, clinically or experimentally. However, the present understanding of anxiety is not much more complete than Freud’s in 1936. With the development of ego psychology it was assumed that
anxiety is the signal recognized by the conscious or preconscious ego as an indicator of present or future dangers. This signal initiates a behavioral as well as a psychological maneuver in an attempt to save the integrity of the person and to maintain homeostasis. This is why many of the psychiatric and psychosomatic syndromes, as well as basic personality types are considered chronic defenses against anxiety (Basowitz, et al., 1955).

Carl Rogers believed that anxiety is experienced when one perceives that something is a threat to one's self-concept. Rogers assumed that discrepancies between the conceived self and the perception of reality generate tension. This tension causes anxiety. Rogers claimed that if one cannot defend oneself against deep threats, the result is a catastrophic psychological breakdown and disintegration (Epstein 1972). According to Basowitz et al. (1955), anxiety has the important role of indicating danger and alarming protective defenses. In greater intensity and in case of absence of adequate coping mechanisms, it can become a symptom of disturbance and can itself be the end product of
a breakdown of individual integration. Thus, anxiety has two functional roles, first as the precursor of the defensive and adjustive processes, and second, as the result of its breakdown.

Rollo May lists the following properties of anxiety:
1) it is a diffuse apprehension; 2) it is unspecific, vague, and objectless; 3) it relates to feelings of uncertainty and helplessness; 4) it is a threat to the core of the personality (May in Epstein 1972). Basowitz et al. (1955) define anxiety as the "conscious and reportable experience of intense dread and foreboding, conceptualized as internally derived and unrelated to external threat" (p.3). They continue that discrimination is not always possible between the fear response to real danger and the anxiety response so often characterized as objectless. Moreover, one cannot always differentiate the reactions against fear from those associated with anxiety. Fear is temporary and more related to external events, while anxiety is long lasting and derived more from internal psychological problems.

Lazarus and Averill define anxiety as an emotion based
on the assessment of a threat (Epstein 1972). Anxiety results when cognitive systems prohibit an individual from relating meaningfully to the world about him.

Spielberger, Beck, Epstein and Mandler all emphasize the cognitive factors in the experience of anxiety as an emotion (Spielberger, 1972). However, they differ with regard to the response patterns in reaction to anxiety. For example, for Epstein, anxiety is an outcome of a process in which the excitement is produced by some form of threat that cannot be directed with appropriate action. For Mandler, anxiety results from a process in which a sequence of behavior is interrupted. This results in a state of distress and arousal that turns into helplessness and anxiety.

Spielberger (1972) believes that much of the uncertainty and semantic confusion about the concept of anxiety is caused by random use of the term to refer to two related, yet very different, constructs. He points out that the term "anxiety" is often used to describe an unpleasant (potentially harmful, dangerous and threatening) transitory emotional state (an anxiety state, A-State). He claims that anxiety
states vary in magnitude and change over time as a function of the amount of stress that an individual experiences. However, confusion results when the term "anxiety" is also used to refer to individual differences in anxiety proneness as a personality disposition or trait (trait-anxiety, A-Trait). A-Trait may not be directly manifested in behavior but can be inferred from the individual's arousal in an anxiety state. Spielberger continues that individuals who are high in A-Trait (i.e., psychoneurotic) are disposed to perceive the world as more threatening than low A-Trait people. As a result, High A-Trait people are more vulnerable to stress and tend to experience A-State reactions of greater intensity and with greater frequency over time than individuals who are low in A-Trait.

The trait state distinction in anxiety, as Holtzman mentions (1976), was originally formulated by Cattell and is emphasized by Spielberger. Spielberger states that state-trait discrimination is very clear in Beck's hypothesis that individual differences in vulnerability to stressors are important elements in the development of psychosomatic
indications. According to Beck, the chronic psychophysiological reaction associated with anxiety states in people who are prone to respond inappropriately to stressful situations may ultimately lead to the development of a psychosomatic disorder (Spielberger, 1976).

The concept "anxiety" is also used to refer to a very different construct, a complex psychobiological process. This process includes a sequence of cognitive affective, physiological and behavioral events that, according to Holtzman (1976), need to be considered together to gain a better understanding of the meaning of anxiety. Spielberger (1972) believes that the concept of anxiety-as-process suggests a theory of anxiety that includes stress, threat, and state and trait anxiety as basic constructs. He also says that, in order to clarify the meaning of the concept of anxiety-as-process, the traditional distinction between fear and anxiety needs to be examined. He says that it is generally presumed that fear and anxiety reactions are alike. However, the term "fear" is used to describe a process that involves an emotional reaction to the
anticipation of physical harm from some real danger in the immediate environment. Unlike fear, the term “anxiety” is used to describe an emotional response which is considered “object-less” because the conditions that draw this reaction are unknown. Anxiety is also applied to a process in which the intensity of an emotional reaction to a stressful situation is much greater than the magnitude of the objective danger. Therefore, the concepts of fear and anxiety refer to emotional reactions that are produced by different processes.

Spielberger concludes that the concept of anxiety-as-process needs to be added to the conceptual differentiation between anxiety as a transitory state and as a personality trait. In essence, anxiety-as-process refers to the sequence of cognitive, affective, and behavioral responses that occur as a reaction to some form of stress.

Basowitz et al. (1955) found that an anxious individual in a stressful situation show characteristic changes in many aspects of psychological functioning. As stress or anxiety increases, the organism becomes less capable of mastering
tasks. One's behavior loses its spontaneity, and individuals respond more in terms of habitual and safer response. Anything new can be threatening, and increased effort has to be expended in order to maintain adequate behavior.

At higher levels of stress and anxiety, where one no longer has the ability for effective action, the organization of one's behavior breaks down. Regression to simpler modes of response occur, and all aspects of psychological functioning are affected.

Modern concepts of stress response have been changed by the work of Hans Selye. His medical research on stress brings a new perspective on human physiological reaction to stress, which is one of the major causes of anxiety. According to Selye (1974) the stress-producing factors (stressors) are different; yet they all elicit the same biological response. Selye states that the businessman who is under constant pressure from his clients, the athlete who competes to win, and the husband who is witness to his spouse painfully dying of cancer, all experience stress. Medical researchers have proved that even though the problem
each faces is totally different, the human body responds
with identical biochemical changes to cope with the
increased demand. Selye (1974) lists the following
characteristics of stress:

1. It is the nonspecific response of the body to any demand
made upon it. Selye believes that each demand made upon our
body is, in a sense, unique. For example, one shivers to
produce more heat when exposed to cold and sweats to cool
off the skin when exposed to heat.

2. It is immaterial whether the situation is pleasant or
unpleasant. For example, sorrow and joy are completely
different, yet their stressor effect— the nonspecific demand
to readjust—is the same.

3. It is not nervous tension. Stress reactions do occur in
lower animals with no nervous system and even in plants.

4. It is not always the nonspecific result of damage. Any
kind of normal activity, such as a game of chess or even a
passionate hug, can produce stress without causing harmful
effects.

5. Stress should not be and, in fact, cannot be avoided.
Selye believed that complete freedom from stress is death.

There are some major problems with regard to defining anxiety as a process (Holtzman 1976). Holtzman believes that the anxiety-as-process approach does not take into consideration coping and avoidance behaviors and the psychological defenses that serve to reduce the anxiety state. There are a number of important variables that must be taken into consideration in a comprehensive theory of anxiety. They are 1) the nature and the extent of the stress; 2) the cognition involved in the assessment of stressful situations as threatening; 3) the availability of coping processes; and 4) the avoidance behaviors and defense mechanisms that serve to reduce A-State and protect the person from a threatening situation (Spielberger, 1972). Holtzman states that definitions of anxiety-as-process tend to obscure important conceptual issues in anxiety research because they confound the anxiety reaction with the cognitive factors that mediate the arousal of A-States and that determine its intensity and persistence over time (1976).
Cross-cultural studies provide an opportunity to find out if findings in research in Western countries are universal or not. Good and Kleinman (1985) believe that the evidence and results of psychophysiology, psychological studies on emotion, and pharmacological research on cross-cultural settings make it clear that anxiety disorders are universal. Even though the phenomenology of these disorders, which constitute the social reality, prevalence and form of expression, may vary in quite significant ways from one culture to another, the foundation and essential structure is still the same. Nevertheless, the full range of the variations have not yet been studied or identified. Good and Kleinman state further that some of these variations can be observed in the "natural history" of disorders, the age of their onset, the course of the disorders, their social distribution, and the consequences in the lives of people who suffer from these disorders. Good and Kleinman state that these findings, if verified in future research, underline the importance of guarding against a "category fallacy" in anxiety studies. In a cross-cultural setting, a
category fallacy is the reification of a nosological category developed for particular Western populations and the application of that category to more than three quarters of the world's populations who are non-Western, without establishing its validity within those populations.

A number of cross-cultural research projects in the areas of anxiety have been conducted over the last couple of decades. However, according to Good and Kleinman (1985), the cross-national literature on anxiety is far less advanced than on schizophrenia or depression. The researchers continue that the most comprehensive review of cross-cultural psychiatric epidemiology that has appeared so far was done by H.B.M. Murphy in 1982. In this review Murphy discusses anxiety disorders specifically only in a chapter on neuroses and other minor disorders. The review chiefly covers variations on the frequency and patterning of war neuroses, phobic disorders and forms of hysteria.

Spielberger's State-Trait Anxiety Inventory (STAI) has been translated into many different languages and has been used in measuring and comparing anxiety cross-culturally.
Volume 3 of *Cross-Cultural Anxiety*, edited by Spielberger and Diaz-Guerrero (1986), reports the research findings from eleven different countries. The investigators all consider anxiety a transitory emotional state and agree that individual differences in anxiety proneness exist. These tenets provide a unifying conceptual framework for the current researcher.

In 1973 Spielberger, Sharma and Singh administered the A-State scale of the Hindi STAI to a sample of 92 graduate students in India under standard (NORMAL) instructions, and then with instructions to respond according to how they believed they would feel just prior to their final examination (Sharma 1977). The results were compared with those reported for American college students. It was discovered that there was a greater increase in STAI A-State scores for Indian graduate students than for the Americans. The researchers concluded that this increase could be explained by the differences in the examination systems and also by the fact that the Indian students were examined less frequently than American students and that they therefore
perceived examinations as more stressful. This study is consistent with Jalota (1957) who, according to Sharma (1977), also reported that Indian college students are more anxious than their American counterparts.

In a similar study, Spielberger, Sharma and Parnian (1983) studied the test anxiety level of Iranian (N=160) and Indian (N=160) secondary school and college students. The results indicated that the Iranian students had higher levels of test anxiety than their Indian counterparts and that, overall, the level of anxiety was higher for females than for males. Tricultural differences in the test anxiety levels among the Iranian, Indian and U.S. student groups were interpreted. They indicated that reactions to objective examinations resulted in greater test anxiety in some Eastern cultures.

Le Compte and Onner compared the published normative data on STAI for Turkish (N=499), American (n=1800), Puerto Rican bilingual (N=481) and Hindi small samples (N=160). The order of the mean for the A-Trait scores from low to high was Puerto Rican, American, Hindi and Turkish. The order of
the mean for A-state scores from low to high was Hindi, American and then a tie between Turkish and Puerto Rican samples (Le Compte and Onner in Sharma, 1977).

Pancheri, Bernabei, Bellaterra and Takaglion (1976), compared STAI a-Trait means for Italian and American female and male college students. The results showed that Italian and American female students were significantly higher in trait anxiety.

Using the Children's Manifest Anxiety Scale (CMAS), Iwawaki, Sumida, Okuno and Cohen found that, although adult Japanese have a higher level of general anxiety than adult Americans, Japanese nine-year-olds have significantly lower levels of anxiety than nine-year-olds in France and the U.S.A. (Iwawaki et al. in Good and Kleinman, 1985). Investigators have accounted for these findings in terms of positive changes in child rearing in Japanese families since World War II, decreased social restriction for particular age groups, and decreased pressure for successful performance on Japanese university examinations.

Chiu (1971) also studied Taiwanese and American
children in urban and small-town settings, employing the CMAS. It was hypothesized that more severe child-rearing practices in Chinese families and a lower standard of living in Taiwan resulted in higher anxiety scores for the Taiwanese children (Chiu in Good and Kleinman 1985).

In a cross-cultural study of sex differences in anxiety, curiosity and anger as States and Traits among Israeli college students, Ben-Zur and Zeidner (1988) administered the Hebrew version of Spielberger's State-Trait Personality Inventory (STPI/HB) to 223 female and 151 male students. Then the results were compared with the norms available for American students. The researchers found that the data indicated a higher anxiety level among females than males; and this is, in general, consistent with several studies using STAI in cultures outside of the United States. Moreover, Ben-Zur and Zeidner claimed that their data was also consistent with that reported by Spielberger, who pointed out higher T-Anxiety scores among American females than males (1979). Ben-Zur and Zeidner (1988) claim that females across cultures are more vulnerable to stress and
that and that, given exposure to similar stresses, women are more prone than men to manifest stress-related symptoms such as anxiety. Leventhal suggests that females are more aware of their emotions and are better able to interpret and evaluate them. He further suggests that, if women have a greater capacity to process emotional information and make verbal judgments of that information than men, two alternative explanations can be offered for the noticed sex differences on T-anxiety: 1) females may report more anxiety because they are more likely to process emotional information in verbal terms. This may make emotional events more obvious and help females to remember the emotion, which in turn contributes to higher evaluations of T-anxiety. Or 2) verbal processing (i.e., subjective evaluation) is considered to be one of the components of emotions. Thus, females may indeed experience emotion more intensively than males because of the contribution of the verbal element. This can intensify the emotional experience and prolong its duration (Leventhal in Ben-Zur and Zeidner, 1988). In two other studies with the STAI, Anglos and Mexican-Americans
were given the English STAI, while Puerto Ricans were given the Spanish version of the STAI. According to Sharma (1977), the results indicated the following position from high to low in both State and Trait anxiety levels: Puerto Rican, Anglos, Mexican-Americans.

Tsujioka and Cattell made extensive comparisons of Japanese and Americans employing a sample of 300 Japanese male and 117 American male undergraduates. Tsujioka and Cattell reported highly significant differences between the Americans, who were lower in anxiety levels, and the Japanese (Sharma 1977). In another study of college students, Cattell and Scheier compared six nations: the United States, Britain, France, Italy, Poland and India. The results showed the following order from high to low in anxiety: Poland, India, France, Italy, Britain and the United States (Sharma 1977).

Cultural adjustment involves both acculturation and assimilation. However, no standard definitions were found for these relevant terms. In the ethnicity literature, adjustment, acculturation and assimilation are used
interchangeably to indicate value, attitude and behavior changes associated with feelings of mental health and social integration. According to Kagan and Cohen (1990), research on cultural adjustment yields mixed results. Rather than length of residency per se, another critical factor may be allowance for time to know the institutions and symbols of the host culture. It is also suggested that fluency in the English language may influence the acculturation process in the U.S. Acculturation and assimilation processes are also facilitated by dissociation from one's own ethnic community and culture and association with members of the host culture (Bruner 1956; Masuda, Matsumoto and Meredith 1970).

According to Sodowsky and Plake (1992), cultural adjustment has been theoretically viewed from unidirectional as well as bidirectional perspectives. Unidirectionally, acculturation has been seen as the process of changing one's cultural patterns to match those of the host culture and as appreciation of the host culture's value system. On the other hand, the bidirectional perspective defines acculturation in terms of the sojourner's commitment to both
cultures, ranging on a continuum from low to high commitment to the host's cultural practices, attitude, behavior, and values. Sodowsky and Plake believe that acculturation is a dynamic process in which the minority group selectively adapts its value system and cultural practices to integrate into the society.

Acculturation options differ among minority people, depending on their sociocultural characteristics according to Sodowsky and Plake (1992). For example, one study of Asian Indians demonstrated that sociocultural variables of preference for ethnic clothing and food at home and the married status were negatively correlated with high acculturation and assimilation. Sodowsky and Plake (1992) also claim that an increase in length of stay in the U.S. seems to have a significant effect on the acculturation process.

Szapocznik, Scopetta, Kurtines and Aranalde (1978) claim that sojourners first develop host-like values and then behaviors. Those whose values are parallel may adjust faster than those whose value system is extremely different
from the host culture's. The results of studies by Szapocznik et al., (1978) suggests that acculturation is distinguished by different behavioral, cognitive, affective and demographic attributes. These researchers state that individuals who have shifted from cultural resistance to cultural appreciation and assimilation possess qualities similar to those of American students (i.e. they have American friends, are single, place high value on work and happiness and speak English at home). Speaking English at home was the single most important factor that contributed to both cultural, personal and social adjustment.

Padilla (1980) concluded from his studies that gender was not a critical variable in the acculturation process. Instead, he found that generational level was an extremely important predictor variable in determining the extent of acculturation. However, his research results also indicated that, even into the fourth generation, there were individuals in his sample who had not completely acculturated and who still possessed some of the cultural values of the country of origin. He also claimed that there
were reasons to believe that educational level was positively correlated with the acculturation process. Also, acculturation was positively related to income level, since it was found that individuals living in low ethnic density neighborhoods were more acculturated than those living in their own ethnic neighborhoods.

There is great variation across cultures in the experience and expression of anxiety. The variability of symptoms across cultures must be recognized and accounted for in cross-cultural research on anxiety. Many cultures express the experience of anxiety in psychosomatic forms (Good and Kleinman 1985). Mumford (1993) believes that the word "somatization" was coined by the Viennese psychoanalyst Wilhelm Stekel, as a synonym for conversion hysteria. Stekel believed that neurotics have an amazing ability to express their mental states in symbolic language of the body organs.

Good and Kleinman (1985) define somatization as the expression of personal and social distress in the form of physical complaints. They say that somatic symptoms in depression and anxiety disorders play a more central role in
the experience and expression of somatic disorders in non-Western cultures and among ethnic groups in Western cultures. Good and Kleinman believe that anxious and depressed patients are often found in general medical settings, asking for physical treatment for their somatic symptoms. They state that very few patients are diagnosed correctly as anxious or depressed or appropriately referred for treatment. Mumford states that somatic complaints most frequently involve the heart, bowels, belly, bones and eyes (Mumford 1993).

Kirmeyer and Robbins describe three forms of somatization: 1) "functional somatization," which refers to a number of medically unexplained somatic symptoms during the individual's lifetime, 2) "hypochondriacal somatization," which refers to one's belief that one has a serious illness despite reassurances from physicians, and 3) "presenting somatization," which refers to the presentation of exclusively somatic symptoms to the general practitioner, despite the appearance of mental sickness (Kirmeyer and Robbin in Mumford 1993).
Good and Kleinman (1985) state that somatization is a form of illness behavior. While the personality of the individual and the circumstances, as well as the illness type, all contribute to the form that somatization takes and its frequency, there is plenty of evidence that culture is also a key factor. Good and Kleinman continue,

Based on his field research with Chinese and on his reading of cross-cultural literature, Kleinman (in press) has outlined a typology of somatization styles: (1) weakness-exhaustion style (e.g., neurasthenia); (2) pain preoccupation style (e.g., chronic pain syndrome); (3) illness preoccupation style (e.g., classical hypochondriasis, somatic delusions, or group preoccupation with symptoms allegedly caused by environmental toxins); (4) neurological loss or activation style (e.g., conversion symptoms of hysterical paralysis, blindness, or seizures); (5) bowel preoccupation style (e.g., functional bowel disease, neurotic constipation, etc.); (6) semen loss (e.g., shen kuei syndrome in China, dhat syndrome in South
Asia); (7) cosmetic preoccupation style (e.g., excessive concern with physical changes of aging, or with body weight, skin blemishes, sexual potency).

(p.320)

Underlying any assessment of anxiety must be a theory as to what anxiety is and how it can be identified (Spielberger 1976). Investigators have developed a number of instruments for measurement of anxiety. According to Levitt (1967), Taylor’s Manifest Anxiety Scale (MAS), published in 1953, was the first anxiety inventory to come into general use. The MAS is one of a number of inventories of different kinds taken from the 550 items of the Minnesota Multiphasic Personality Inventory (MMPI), which was developed to identify psychopathological tendencies and has been widely used. The MMPI has been used in the development of a number of instruments throughout the years.

The anxiety inventory developed by the Institute for Personality and Ability Testing (IPAT) originated from a more general attempt to measure human personality. Through factor analysis, the IPAT researchers distinguished 16
personality traits. A number of these trait measures included items which appeared to measure anxiety (Levitt 1967).

The Freeman Manifest Anxiety Test is based on one's perception of oneself, feelings, mental state, and physiological reactions. Freeman's Manifest Anxiety Test is structured like an attitude inventory or opinion questionnaire. The inventory includes some multiple-choice items, some true-false, and some forced-choice pairing items. There is a total of 56 items, yielding a maximum score of 56. Normal persons average about 25 and hospitalized psychiatric patients about 30 (Levitt 1967).

The stimulus-response Inventory of Anxiousness developed by Endler in 1962 is an attempt to measure anxiety proneness. This inventory contains brief descriptions of eleven situations that are likely to produce anxiety in people. The Affect Adjective Check List (AACL) is an inventory created by Zuckerman out of a series of items such as "I am frightened" and "I am upset". The AACL has eleven anxiety-positive adjectives- which are those that directly
portray anxiousness—and ten anxiety-negative items—those that are antithetical. One of the advantages of this inventory is that it can be employed to measure either proneness ("describe how you generally feel") or state ("describe how you feel now") (Levitt 1967) by adjusting the wording of instructions.

State Trait Anxiety Inventory is one of the more widely used instruments for assessment of anxiety. The STAI is a self-evaluation questionnaire with 40 items such as "I am tense", "I feel frightened", or "I feel inadequate". On the questionnaire one is supposed to rate one’s feelings by choosing categories from "almost never" to "almost always" with "sometimes" and "often" in between. And "not at all" to "very much so" with "somewhat" and "moderately so" in between. (This instrument will be discussed in more detail in chapter three).

Spielberger and his colleagues have carefully built upon earlier instruments, refining the items to differentiate between enduring trait anxiety and transitory state anxiety. For Spielberger, Corsuch and Lushene, the
cognitive-perceptual system is of primary importance in the assessment of anxiety (Holtzman 1976). Holtzman believes that the self-report inventory is the key method employed for collecting information about one's perceptions of one's life situation, inner feelings, bodily sedation, and reactions to stress. According to Spielberger (1972), people differ in their vulnerability to different kinds of stress. Therefore, a comprehensive theory of anxiety must include the concept of anxiety as a personality trait. Individual differences in A-Trait may be gathered from the frequency and the intensity of A-State reactions over time. The results of general assessment of trait anxiety, using the Taylor's Manifest Anxiety Scale, Cattell and Scheirer's IPAT Anxiety Scale and the STAI, are highly correlated with one another (Spielberer 1972). Levitt (1967), in a book called *The Psychology of Anxiety*, reviewed and evaluated a number of different anxiety instruments. He claimed that "the STAI is the most carefully developed instrument, from both theoretical and methodological standpoints" (p.71).

Of course, there are a number of objections to any
cross-cultural study and the use of Western-normed instruments. These objections are generally concerned with lack of consideration of the specific cultural norms on the investigator's part. According to Good and Kleinman (1985), cross-cultural studies raise obvious questions of validity. How do we know that the same concept, anxiety, is being measured in the various cultures? Sharma (1977) claimed that in all of the studies involving the STAI and its well-calibrated versions, the mean anxiety scores of cultures other than the U.S. were compared with normative data reported in the Test Manual of the English version STAI. This indicates that cross-cultural comparisons were made before normative data for the new cultures were established. Sharma (1977) continues that a norm based on one culture is likely not to be applicable to another culture. Therefore, one should develop normative data for any culture under study before cross-cultural comparisons are made. Therefore, he claims that all the cross-cultural comparisons of anxiety are weak.

Good and Kleinman (1985) believe that the general
uncertainties in the field of anxiety studies (examining the nature of pathological and normal anxiety); the conceptual inter-relationship of the emotion anxiety; and the relationships of numerous anxiety disorders to each other compound the difficulties of studying psychopathology in societies radically different from the U.S.

Moreover, Good and Kleinman (1985) point out that generalizing levels of anxiety in a culture based on responses of a sample of students in a college or primary school is misleading. They state that significant differences in scores appear even when students of the same age but in different settings are compared in the same culture (i.e., students from a small town school compared to students from a large city school). Good and Kleinman do not recommend translation of any instrument from one language to another unless validity can be established using techniques as rigorous as those employed to develop the instrument in the first place. Also, native language idioms of distress should be sampled and used to develop a culture-specific inventory. Good and Kleinman further state that the
collected data should be processed through factor analysis. Then a study should be undertaken to compare scores on such an instrument with scores on a translated instrument. No less should be acceptable if one wishes to establish the validity of a translation of an instrument.
CHAPTER II

PROCEDURES

This chapter presents the purpose and hypotheses of the study. It also provides a description of the instrumentation and participants as well as procedures for collection and analysis of data.

Goals and Purposes of the Study

This study agrees with Spielberger's definition (1972) of anxiety as an unpleasant emotional state or condition characterized by subjective feelings of tension, apprehension, and worry and by activation of the autonomic nervous system. Current literature (Boehnke, Frindte, Reddy, Singhal, 1993; Good & Kleinman 1985; Magansson & Stattin, 1978; Spielberger and Diaz-Guerrero 1975, 1976; Spielberger & Sharma, 1976) suggests that culture plays a significant role in how people perceive, experience and are affected by anxiety. A number of cross-cultural studies have ascertained
these differences (Olah, 1995; Ginter, Glanser, Richmond, 1994; Klonoff, Landrine, 1994, El-Zanhar, Hocevar, 1991). However, this investigation looks at cultural differences related to anxiety within the same physical and institutional environment.

This writer wonders if different cultural groups at one university experience different levels of anxiety and manifest anxiety differently. This study proposed a quantitative cross-cultural investigation of international student groups at the University of North Texas to see if differences existed. Specifically, it was this writer's intention to ascertain if there was a significant difference among the levels of anxiety in various international cultural groups in an academic environment. The independent variables of gender, age, level of education and cultural ethnicity were considered for the purpose of discerning hypotheses and their implications in practice and research in counseling international students.
Hypotheses

The following null hypotheses served as the basis for this study:

1. There will be no significant difference between the levels of anxiety of students with different countries of origin.

2. There will be no significant difference between the State and Trait anxiety levels of participants.

3. There will be no significant interaction effect between participants' age and level of education on anxiety.

4. There will be no significant interaction effect between participants' age and gender on level of anxiety.

5. There will be no significant interaction effect between the participants' gender and level of education on anxiety.

6. There will be no significant interaction effect between the participants' country of origin and level of education on anxiety.

7. There will be no significant interaction effect among and between age, group and country of origin on anxiety.
8. There will be no significant interaction effect between country of origin and gender on anxiety.

Instrumentation

This research utilized the State Trait Anxiety Inventory (STAI) (Form Y-1, State and Form Y-2, Trait) a self-evaluation questionnaire written by Spielberger, Gorsuch, Lushene, Vagg, and Jacobs (1983). This instrument has been translated into the following languages: Spanish, French, Italian, Turkish, Danish, German, Greek, Hebrew, Hungarian, Japanese, Malay, Norwegian, Polish, Rumanian, Russian, Slavic, Vietnamese, Lugandan, and Swahili. This study used the English version of the inventory for three reasons: 1) the instrument has not been translated to all the languages that are spoken by the participants in this study, 2) it is an assumption of this study that the participants are in the same environment, and 3) it is also assumed that all participants are proficient in the use of English as a second language. This instrument has been used extensively for research in the U.S. with adults and
adolescents. Although this is a self-report inventory, according to the contemporary literature, it is one of the most carefully designed instruments.

Contributors to STAI have gone to great lengths to establish the validity and reliability of this inventory. According to Good and Kleinman (1985), the authors of STAI set high standards for translation in order to ensure semantic equivalence. They administered the questionnaires in both English and native languages to bilingual individuals, finding high correlations among items as well as among scale scores of the inventory. In addition, they compared stressed subjects (usually students in examination settings) with non-stressed subjects, finding higher anxiety levels among the more stressed, as would be predicted.

The STAI was developed to provide a relatively brief, homogeneous self-report assessment of both state (A-State) and trait (A-Trait) anxiety (Spielberger et al.). The STAI A-Trait scale (Form Y-2,) consists of 20 statements that instructs individuals to describe how they generally feel (e.g., "I feel that difficulties are piling up so that I
cannot overcome them"; "I take disappointments so keenly that I can't put them out of my mind"). Subjects respond to each item by rating themselves on the following four-point scale: 1) Almost never; 2) Sometimes; 3) Often; 4) Almost always. On this instrument, individual items were selected on the basis of the concurrent validity of each item as determined by correlations with two widely accepted inventories, the Taylor Manifest Anxiety Scale (MAS) and the Cattell and Scheier (1963) IPAT Anxiety Scale.

Correlation between scores on Spielberger et al. Anxiety Trait Scale, Taylor (MAS), and Cattell and Scheier IPAT Scale range between .75 and .80 for college students and above .80 for neuro-psychiatric patients. The 20 items had high internal consistency, measured by item-remainder correlation and alpha coefficient.

The A-State scale, Form Y-1, consists of 20 statements (e.g., "I am tense"; "I feel nervous") that ask individuals to describe how they feel at a particular moment by rating themselves on the following four-point scale: 1) Not at all; 2) Somewhat; 3) Moderately so; 4) Very much so.
In constructing the STAI A-State scale, the primary qualities that were measured were tension, apprehension, and nervousness as these feeling, or phenomenological states varied along a continuum of increasing levels of intensity (Spielberger, 1976). Low scores were expected to reflect states of calmness; intermediate scores were designed to indicate moderate levels of tension and apprehensiveness; and high scores were to correspond with intense states of fright and apprehension, approaching panic. Spielberger believes that the STAI has proven to be useful in clinical work as well as in research. He also claims that the A-Trait scale provides a means for screening patients and normal populations for people who are troubled by neurotic anxiety problems. This scale has also been used as a research tool for choosing subjects who differ in anxiety proneness. In addition, the A-State scale is a sensitive indicator for the transitory anxiety that is experienced by many clients in counseling. This scale has also been used to measure changes in A-State intensity in experimental studies on stress, anxiety, and learning.
Data Collection

Following approval from the University of North Texas (UNT) Institutional Review Board involving human subjects, the STAI was administered to 156 (N=156) international students from different countries who were enrolled at UNT and UNT’s Intensive English Language Institute (IELI). The subjects were enrolled in the IELI’s advanced (level 6) Communication, Advanced English Composition, and Advanced Reading Comprehension classes, as well as UNT freshman English Composition and speech classes for international students.

Table 1

Country of Origin and Gender

<table>
<thead>
<tr>
<th>Country of Origin</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Japan</td>
<td>24</td>
<td>36</td>
</tr>
<tr>
<td>Korea</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>Taiwan</td>
<td>21</td>
<td>24</td>
</tr>
<tr>
<td>Thailand</td>
<td>10</td>
<td>7</td>
</tr>
</tbody>
</table>
### Table 2

**Country of Origin and Age**

<table>
<thead>
<tr>
<th>Country of Origin</th>
<th>18-23</th>
<th>24+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>46</td>
<td>12</td>
<td>58</td>
</tr>
<tr>
<td>Korea</td>
<td>13</td>
<td>17</td>
<td>30</td>
</tr>
<tr>
<td>Taiwan</td>
<td>28</td>
<td>20</td>
<td>48</td>
</tr>
<tr>
<td>Thailand</td>
<td>6</td>
<td>11</td>
<td>17</td>
</tr>
</tbody>
</table>

### Table 3

**Country of Origin and Level of Education**

<table>
<thead>
<tr>
<th>Country of Origin</th>
<th>Ed. Level</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Under-G.</td>
<td>Graduate</td>
</tr>
<tr>
<td>Japan</td>
<td>48</td>
<td>6</td>
</tr>
<tr>
<td>Korea</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td>Taiwan</td>
<td>43</td>
<td>2</td>
</tr>
<tr>
<td>Thailand</td>
<td>7</td>
<td>10</td>
</tr>
</tbody>
</table>
Research Design

Investigation was done at two levels; an intra-cultural and an inter-cultural comparison. This study included a correlation study among all subjects from different cultures to ascertain if there was a positive correlation between the Form Y1 and Form Y2 of the STAI, and then the Multivariate Analysis of Variance (MANOVA) was conducted. In some cases where there were no interaction effects between some of the independent variables (age, gender, level of education and cultural ethnicity), this study looked at the main effect, and a univariate test was calculated.
CHAPTER III

RESULTS AND DISCUSSION

This chapter presents results of the data analysis and includes a discussion of research findings and recommendations based on the findings.

Analysis of Data

This study investigated inter-cultural differences in anxiety levels among different cultural groups. No published norm scores were found for any of the participating groups' anxiety levels. Results of the reliability test indicate that both State and Trait Anxiety Inventory (STAI) forms Y1 (alpha = .905) and Y2 (alpha = .889) are reliable for use with this population. The value of a Pearson Product-Moment Correlation Coefficient between the STAI form Y1 (State) and Y2 (Trait) among all participants was .64, which indicated that there was a significant positive relationship between the State and Trait (forms Y1 and Y2), as well.
This study examined state and trait levels of anxiety within and between each participating group. According to the State-Trait Anxiety Inventory manual, scores for both the State-Anxiety and the Trait-Anxiety scale can vary from a minimum of 20 to a maximum of 80. However, for comparison purposes, this study calculated the means of individual items on the State-Anxiety and Trait-Anxiety scales. Therefore, scores for both scales can vary from a minimum of 1 to a maximum of 4. Moreover, since there was no significant effect on A-State (form Y1) anxiety levels of participants, this study examined only A-Trait (form Y2) anxiety levels of participants.

T-test calculations indicated that there was no significant difference between the mean of State (form Y1) and Trait (form Y2) for students from Thailand and Japan. These calculations, however, did indicate a significant difference between the two forms for students from Korea and Taiwan (see table 4). Therefore, null hypothesis number two, which stated that there would be no significant difference between state and trait anxiety levels of participants is
rejected for students from Thailand and Japan and accepted for students from Taiwan and Korea.

Table 4
T-score comparison between state and trait anxiety levels of participants according to country of origin

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean Y1</th>
<th>SD</th>
<th>Std E</th>
<th>Mean Y2</th>
<th>SD</th>
<th>Std E</th>
<th>DF</th>
<th>T Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thailand</td>
<td>2.24</td>
<td>.45</td>
<td>.11</td>
<td>2.14</td>
<td>.43</td>
<td>.10</td>
<td>16</td>
<td>1.18</td>
</tr>
<tr>
<td>Japan</td>
<td>2.18</td>
<td>.49</td>
<td>.06</td>
<td>2.28</td>
<td>.51</td>
<td>.06</td>
<td>59</td>
<td>-1.72</td>
</tr>
<tr>
<td>Korea</td>
<td>2.30</td>
<td>.54</td>
<td>.09</td>
<td>2.13</td>
<td>.34</td>
<td>.06</td>
<td>30</td>
<td>2.28*</td>
</tr>
<tr>
<td>Taiwan</td>
<td>2.20</td>
<td>.53</td>
<td>.07</td>
<td>2.34</td>
<td>.42</td>
<td>.06</td>
<td>47</td>
<td>-2.63*</td>
</tr>
</tbody>
</table>

*P<.05

A two-way Multivariate Analysis of Variance (MANOVA) was done for the two independent variables of country of origin, level of education and dependent variable of A-Trait (form Y2) anxiety level. This study looked at the interaction effect and main effect between these independent variables. The overall test of MANOVA indicated the
possibility of a significant main effect on country \((F=1.99, \ P < .06)\). Because the significance level of \(P < .06\) was close enough on Wilks' Lambda Multivariate test, the univariate test (ANOVA) was computed. Also, the weighted least square regression technique was used in this model to reach the homogeneity of variance assumption.

Results indicate that there was no statistically significant interaction effect between the two variables of country of origin and education \((P > .05)\). However, there was a statistically significant main effect on the variable of country of origin \((P < .05)\), but not on the variable of education \((P > .05)\). Thus, null hypothesis number six which indicated that there would be no significant interaction effect between the participants' country of origin and level of education on anxiety is accepted (see table 5).

Table 5

Comparison of main effect and interaction between country of origin and level of education.

(Table continues)
Because there were significant differences among students' country of origin group means, a Post Hoc Tukey (also called Honestly Significant Difference) test was conducted. The results indicate that there is a significant mean difference for the countries of Taiwan and Korea (see table 6).

Table 6

* P < .05

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Sq.</th>
<th>Std. E</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td>11.413</td>
<td>1.95</td>
<td>3</td>
<td>3.802*</td>
</tr>
<tr>
<td>Education level</td>
<td>.309</td>
<td>.56</td>
<td>1</td>
<td>.309</td>
</tr>
<tr>
<td>Country x Ed. Level</td>
<td>6.389</td>
<td>1.46</td>
<td>3</td>
<td>2.128</td>
</tr>
</tbody>
</table>

Post Hoc Comparison of country group means

(Table continues)
<table>
<thead>
<tr>
<th>Source</th>
<th>Thailand</th>
<th>Japan</th>
<th>Korea</th>
<th>Taiwan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>.1961</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korea</td>
<td>.0679</td>
<td>-.1281</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taiwan</td>
<td>.2965*</td>
<td>.1005</td>
<td>.2286*</td>
<td></td>
</tr>
</tbody>
</table>

* P < .05

Results indicate that the stress level of students from Taiwan is significantly higher than those of all other countries. The mean score of A-Trait (form Y2) anxiety levels for students from Korea was ranked number two after Taiwan. In the review of findings, null hypothesis number one, which stated that there would be no significant interaction effect among and between anxiety levels of students from different countries of origin, is rejected.

This study divided the population to two age groups; 1) 18-23 and 2) 24 and above. This division was done arbitrary based on probability of group 1 consist of more undergraduate and group 2, more graduate students. Following
the above procedure, a two-way Multivariate Analysis of Variance (MANOVA) test was calculated. It yielded no statistically significant interaction effect between the two independent variables of country of origin and the age group means ($P > .05$) however, there was a statistically significant main effect on the variable of country of origin ($P < .05$, see table 7).

Table 7

Comparison of the country and age groups

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Sq.</th>
<th>Std E</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td>10.280</td>
<td>1.85</td>
<td>3</td>
<td>3.422*</td>
</tr>
<tr>
<td>Age groups</td>
<td>3.739</td>
<td>1.9</td>
<td>1</td>
<td>3.735</td>
</tr>
<tr>
<td>Country X age group</td>
<td>1.222</td>
<td>.63</td>
<td>3</td>
<td>.407</td>
</tr>
</tbody>
</table>

* $P < .05$

A Post Hoc Tukey test was conducted, and the result was close to the .05 level ($\alpha = .07$ and .08) which suggests a
possibility of a significant difference for the countries of Taiwan ($P < .07$) and Korea ($P < .08$). Results indicated that, in both countries, age group 1 (18 to 23 years) has a lower mean score than age group 2 (24 plus years). Comparing the two countries on age group 2, however, indicate that Taiwan has a higher mean score than Korea (see Table 8). These result indicate a significant difference between means but no interaction effect between the two independent variables of age and country of origin. Therefore, null hypothesis number seven, which stated that there would be no significant interaction effect between the age group and the country of origin on A-Trait (form Y2) level of anxiety, is accepted.

Table 8

Comparison of mean of the two age groups

(Table continues)
A two-way Multivariate Analysis of Variance (MANOVA) was done for the two independent variables of country of origin and gender. Results indicate no statistically significant interaction effect nor any main effect at $P > .05$ (see table 9). Therefore, null hypothesis number eight, which stated that there would be no interaction effect between the country of origin and gender on A-Trait (form Y2) level of anxiety, is accepted.

Table 9

Comparison of main effect and interaction between country of origin and gender

<table>
<thead>
<tr>
<th>Source</th>
<th>Age group</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea</td>
<td>18-23</td>
<td>2.007</td>
<td>.3741</td>
</tr>
<tr>
<td></td>
<td>24+</td>
<td>2.200</td>
<td>.2663</td>
</tr>
<tr>
<td>Taiwan</td>
<td>18-23</td>
<td>2.327</td>
<td>.4140</td>
</tr>
<tr>
<td></td>
<td>24+</td>
<td>2.365</td>
<td>.4443</td>
</tr>
</tbody>
</table>

(Table continues)
On the two independent variables of age and level of education, a two-way MANOVA was conducted, and results indicated no statistically significant interaction effect nor any main effect $p > 0.05$ (see table 10). Therefore, null hypothesis number three, which stated that there would be no significant interaction effect between participants' age and level of education on anxiety, is accepted.

Table 10

Wilks' Lambda multivariate test for age group and level of education

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of sq.</th>
<th>Std E</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td>6.847</td>
<td>1.51</td>
<td>3</td>
<td>2.279</td>
</tr>
<tr>
<td>Gender</td>
<td>0.045</td>
<td>0.06</td>
<td>1</td>
<td>0.005</td>
</tr>
<tr>
<td>Country x gender</td>
<td>2.521</td>
<td>0.91</td>
<td>3</td>
<td>0.839</td>
</tr>
</tbody>
</table>
Results of the two-way MANOVA for the two independent variables of gender and age indicated that there is no interaction effect nor any main effect between these two variables (see table 11). Hence, null hypothesis number four, which stated that there would be no significant interaction effect between the participants's gender and age on anxiety, is accepted.

Table 11

<table>
<thead>
<tr>
<th>source</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group</td>
<td>.370</td>
<td>.69</td>
</tr>
<tr>
<td>Education level</td>
<td>1.218</td>
<td>.29</td>
</tr>
<tr>
<td>Age group x ed. Level</td>
<td>2.108</td>
<td>.12</td>
</tr>
</tbody>
</table>

Wilks' Lambda multivariate test for age group and gender

(Table continues)
For the two independent variables of level of education and gender, results of the two-way MANOVA indicate no significant interaction effect nor any main effects for these two variables (see table 12). Therefore, null hypothesis number five, which stated that there would be no significant interaction effect between participants' gender and level of education on anxiety, is accepted.

Table 12

<table>
<thead>
<tr>
<th>source</th>
<th>F</th>
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*Wilks' Lambda multivariate test for level of education and gender*
This study attempted to gain insight into how students from different countries experienced anxiety on a U.S. college campus. This investigation measured interactions among and between anxiety and the independent variables of country of origin, gender, level of education, and age.

It was assumed that students with different countries of origin experience different levels of anxiety.

Participants in this study were 158 international students from Thailand, Taiwan, Japan and Korea enrolled in classes designed for international students on an American college campus. The State-Trait Anxiety Inventory (Spielberger,
1983) was used, and each subject evaluated him/herself on how he/she felt at the moment (form Y-1) and how he/she generally feels (form Y-2) as a person. Results indicate a high correlation between A-State (form Y1) and A-Trait (form Y2). The result of a Multivariate Analysis of Variance (MANOVA) and a univariate test (ANOVA) indicate no significant differences in gender and level of education. However, when it comes to country of origin there are significant differences between country of Taiwan and Korea. Findings also indicate a positive correlation between age and anxiety levels, with the youngest participants having the lowest anxiety levels.

A literature review suggested the possibility of significant differences among and between respective anxiety levels of students from different countries. However, data in this study do not support these findings. One major difference between this study and other cross-cultural studies is its focus on different cultures within the same university.

According to Good and Kleinman (1985), cross-cultural
studies provide an opportunity to find out if research findings in Western countries are universal. They believe that the evidence and results of psychophysiology, psychological studies on emotion, and pharmacological research on cross-cultural settings make it clear that anxiety disorders are universal. They further claim that, even though the phenomenology of these disorders—which constitutes the social reality, prevalence, and form of expression—may vary in quite significant ways from one culture to another, the foundation and essential structure is still the same.

Results of previous reliability tests indicated that the State-Trait Anxiety Inventory (STAI), was a reliable instrument for this study. Moreover, results indicated high correlation between the two forms, State (form Y1) and Trait (form Y2). The results of this study agree with Good and Klienman's findings that anxiety disorder is, indeed, universal. However, mixed results on two of the groups, Taiwanese and Korean on A-Trait (form Y2) indicate that Koreans experience a higher level of anxiety on this campus.
For Koreans, this increase may be explained by the current economic crisis in Korea and the numerous indications that Koreans do not enjoy the same level of established minority group recognition at this time as Chinese-Americans do in the United States.

Some authors suggest that acculturation and adjustment are better facilitated by disassociation from one's own cultural group and association with members of the host culture (Bruner 1956, Rostin & Edleson, 1984). Contrary to what such literature suggests, the significant difference between the State and Trait forms for Taiwanese may be the result of stronger support from their own well recognized minority ethnic group (Chinese-American) in the U.S. According to some scholars, because Chinese-Americans are so prevalent in some U.S. institutions, they may not feel as isolated as some other less-recognized minorities in this culture. According to Slavin, Rainer, McCreary and Gowada (1991), "...the simple fact that a group is few in number means that its members more frequently face potential stressors related to being in the minority" (p.158). Also,
as Chiu (1971) suggests, Taiwanese may have lower anxiety as a result of having a higher standard of living in the U.S. than in their own country of origin.

Since no published anxiety norms for Japanese and Thai students were found, this study does not attempt to explain why there is not a significant difference between form Y1 and Y2 for these populations. For Japanese students, one general explanation may be their familiarity with the host U.S. culture. Results of this study indicate no interaction effect between country of origin and level of education on anxiety. Therefore, graduate or undergraduate status appears to have no difference on student anxiety levels. However, the Post Hoc Tukey test again indicated respective differences between the students from Taiwan and Korean.

Professional literature suggests that, the lower the age, the easier the adjustment to the new environment (Padilla 1983); and the easier the adjustment, the easier the process of acculturation and assimilation in the new surroundings (Pedilla, Berry, Torres-Matrullo in Padilla, 1983). This study supports these findings in the literature.
Among the countries under investigation in this study, students in age group 1 (18-23 years old) were less anxious than students in age group 2 (24 years old and above).

In their cross-cultural study, Ben-Zur and Zeidner (1988) reported higher anxiety levels among females than males and concluded that females are more vulnerable to stress and anxiety, regardless of cultural differences. Also, given exposure to similar stresses, women appear more prone than men to manifest stress-related symptoms. According to Ben-Zur and Zeidner (1988), Leventhal suggests that females are more aware of their emotions and better able to evaluate and interpret them. This study found no interaction between county of origin and gender on anxiety.

This study may help cross-cultural counseling practitioners to understand that, regardless of differences among human beings, feelings of anxiety seem universal. However, for some reasons, the intensity of anxious feelings can differ from one group to another. It seems important for international advisors to heighten their sensitivity to these differences as a means to help different groups of
students appropriately. For example, students with higher anxiety levels may need easier access to their advisors to discuss their concerns. It may not be helpful to ask such students to make an appointment to see an advisor at a later time. It may be considerably more beneficial for such students to have access to advisors on a walk-in basis.

Although it is necessary, cross-cultural research is among the more difficult types of research to execute. Lack of quantity of cross-cultural research, lack of norms for specific cultural groups, and unfamiliarity of investigators with the respective cultural background of research subjects are among factors which contribute to this difficulty. Additionally, data collection and evaluation can be challenging when one who is not familiar with subjects' cultural frame of reference tries to evaluate and interpret the findings. International student advisor may need to educate faculty and administrators regarding international students anxiety, cultural norms and related information as a means to enhance the learning experience of international students and by extension for all student. International
Studies and Programs may want to establish workshops to attend to broader implications for building campus community.

Limitations of the study

A number of limitations may have affected the findings of this study. The total number of participants (N=158) was not an ideal number for the study, and the results might have been different if the total number had been over 500 students.

Also, the number of participants, ranging from 17 to 58, a rather large variation was not the same for each country. Although this study tried to equalize error variances by using Levene’s weighting techniques, results could have been different if there had not been large gaps between respective participant numbers in each group.

Use of the English version of the STAI may have been a contributing factor, as well. Although this study administered the inventory only to students who had sufficient English proficiency levels, results might have
been different if the instruments had been administered in participants' own languages.

This study was done entirely on one campus. The geographic location of this campus may have affected the study, as well, and results might have differed if the study were done, for example, in a location where there was a large number of Japanese or Thai immigrants to the U.S. Having a large number of people from an ethnic group may help others from the same group to cope with adjustment problems better and, as a result, experience less anxiety.

The STAI was administered to students who were taking classes that were only for international students. These predominately freshman classes limited the sample to mostly undergraduates (114 undergraduate, 28 graduate, 16 no answer). The large gap among and between the participants' educational levels may also have limited this study. Using predominately freshman classes may also affect the age variables, as the range was 93 people between ages 18 to 23 and 60 people at age 24 and older.

Results of this study must be used with caution because
of the above-mentioned limitations. However, this study confirms that anxiety disorders are universal and generally speaking, regardless of where students come from, they may experience some level of anxiety. Although this study did not investigate how different cultural groups manifest the symptoms of anxiety disorders, the examination of literature suggests that different individuals, as well as different cultural groups, manifest anxiety symptoms differently. Clinicians working with different cultural groups need to be alert to cultural differences and to be able to identify symptoms that culturally different clients experience.

As far as working with international students on this campus is concerned, it is important for the international program staff to be cognizant to differences and avoid treating all cultural groups the same. It seems very important to recognize differences in order to be more effective when working with international students in different settings.

Social science research is problematic in non-Western countries. Doing research is culturally a Western
phenomenon. Generally speaking, non-Western social scientists are not as involved in research as their Western colleagues. This difference is due in part to the relative lack of academic freedom experience for non-Western cultures. Moreover, relative lack of a comprehensive body of literature in cross-cultural research makes investigators pioneers in their respective areas of study. Thus, Cross-cultural researchers have the disadvantage of not having the context of historical findings to build on.

Investigators who would like to replicate this study need to avoid as many of the above-mentioned limitations as possible. This investigator advises against using a cluster method of sampling. By neglecting subjects who may not be present in that cluster, the investigator may miss valuable information. Although random sampling can be appropriately conducted, it may be advisable to include the entire population at all educational levels.

It could also be valuable to involve college campuses in different geographic areas. Including other college campuses would not only increase the number of participants
but also eliminate geographical effects on different cultural groups, as noted above. Moreover, including other campuses may add greater diversity among the represented cultural groups. Due to the high number of students enrolled from Southeast Asia on this campus, this study was not able to collect enough data on other cultural groups. This study would have been even more comprehensive if students from other continents or non-Southeast Asian groups were included.

Another way of improving this type of research is to try to establish group norms to understand the dynamics within group differences and functions. Not knowing the group norms makes it difficult to do cross-cultural comparison, and the investigator may end up comparing apples and oranges. It is this writer's opinion that, because of the problems and limitations of this study, as in all cross-cultural research, a practitioner should avoid stereotyping and generalizing the findings to all individuals from any particular culture. This writer believes that although individuals are from the same culture, they are still
different in their ways of thinking, feeling and behaving. To be effective and helpful, counselors should try to learn as much as possible about a student's cultural practices, values and beliefs from the student with whom they are working and should not rely on pre-conceived ideas in these areas. It may very well be true that one can be an island in one's self beliefs and value system and this premise coincide with longstanding counseling principle regarding individual worth, dignity, uniqueness and potential.
March 31, 1998

Mr. Amir Abbassi
1916 Southridge Dr.
Denton, TX 76205

Re: Human Subjects Application No. 98-056

Dear Mr. Abbassi:

As permitted by federal law and regulations governing the use of human subjects in research projects (45 CFR 46), I have conducted an expedited review of your proposed project titled “Collecting Data For My Dissertation.” The risks inherent in this research are minimal, and the potential benefits to the subjects outweigh those risks. The submitted protocol and cover letter are hereby approved for the use of human subjects on this project.

The UNT IRB must re-review this project prior to any modifications you make in the approved project. Please contact me if you wish to make such changes or need additional information.

If you have questions, please contact me.

Sincerely,

Walter C. Zacharias, Jr., Ed.D.
Chair, Institutional Review Board

cc: IRB Members
SELF-EVALUATION QUESTIONNAIRE

Please provide the following information:

Name ___________________________ Date ___________

Age ___________ Gender (Circle) M F ___________

DIRECTIONS:

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you feel right now, that is, at this moment. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

1. I feel calm................................................................. 1 2 3 4
2. I feel secure ................................................................ 1 2 3 4
3. I am tense ................................................................... 1 2 3 4
4. I feel strained ............................................................... 1 2 3 4
5. I feel at ease ................................................................. 1 2 3 4
6. I feel upset .................................................................. 1 2 3 4
7. I am presently worrying over possible misfortunes ......... 1 2 3 4
8. I feel satisfied ............................................................... 1 2 3 4
9. I feel frightened ............................................................ 1 2 3 4
10. I feel comfortable ......................................................... 1 2 3 4
11. I feel self-confident ....................................................... 1 2 3 4
12. I feel nervous ............................................................... 1 2 3 4
13. I am jittery ................................................................. 1 2 3 4
14. I feel indecisive ............................................................ 1 2 3 4
15. I am relaxed ............................................................... 1 2 3 4
16. I feel content ............................................................... 1 2 3 4
17. I am worried ............................................................... 1 2 3 4
18. I feel confused ............................................................ 1 2 3 4
19. I feel steady ............................................................... 1 2 3 4
20. I feel pleasant ............................................................. 1 2 3 4
SELF-EVALUATION QUESTIONNAIRE

STAI Form Y-2

Name ____________________________ Date ____________________________

DIRECTIONS

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

21. I feel pleasant .................................................. 1 2 3 4
22. I feel nervous and restless .................................... 1 2 3 4
23. I feel satisfied with myself .................................... 1 2 3 4
24. I wish I could be as happy as others seem to be ....... 1 2 3 4
25. I feel like a failure .............................................. 1 2 3 4
26. I feel rested ...................................................... 1 2 3 4
27. I am "calm, cool, and collected" .............................. 1 2 3 4
28. I feel that difficulties are piling up so that I cannot overcome them ........................................ 1 2 3 4
29. I worry too much over something that really doesn't matter ........................................................... 1 2 3 4
30. I am happy ......................................................... 1 2 3 4
31. I have disturbing thoughts .................................... 1 2 3 4
32. I lack self-confidence .......................................... 1 2 3 4
33. I feel secure ...................................................... 1 2 3 4
34. I make decisions easily ....................................... 1 2 3 4
35. I feel inadequate ................................................ 1 2 3 4
36. I am content ..................................................... 1 2 3 4
37. Some unimportant thought runs through my mind and bothers me .................................................. 1 2 3 4
38. I take disappointments so keenly that I can't put them out of my mind ............................................... 1 2 3 4
39. I am a steady person ......................................... 1 2 3 4
40. I get in a state of tension or turmoil as I think over my recent concerns and interests ....................... 1 2 3 4

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Published by Mind Garden, Inc., Redwood City, CA.
State-Trait Anxiety Inventory for Adults Scoring Key (Form Y-1, Y-2)

Developed by Charles D. Spielberger in collaboration with R.L. Gorsuch, R. Luschen, P.R. Vagg, and G.A. Jacobs

To use this stencil, fold this sheet in half and line up with the appropriate test side, either Form Y-1 or Form Y-2. Simply total the scoring weights shown on the stencil for each response category. For example, for question #1, if the respondent marked 3, then the weight would be 2. Refer to the manual for appropriate normative data.

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