

A COMPARISON OF FIRST-YEAR UNDERGRADUATE AND GRADUATE
INTERNATIONAL STUDENTS' ADJUSTMENT TO COLLEGE

A Dissertation

by

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This dissertation meets the standards for scope and quality of
Texas A&M University-Corpus Christi and is hereby approved.

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ABSTRACT

International students constitute a growing student population in many colleges and universities in the United States. Adjusting to a new culture requires a new set of cultural patterns and behaviors that can be uncomfortable and sometimes stressful. Having a better understanding of how international students adjust to college in terms of resilience, relational skills, and acculturative stress, is important to university staff and the students alike, as it is the first step in improving the rate at which these students adjust to their new campus lives abroad. The purpose of this study was to investigate how resilience, relational skills, and acculturative stress, predict college adjustment of first-year undergraduate and graduate international students in the U.S. between August 2018 and May 2019.

A combination of ninety-five undergraduate ($n=40$) and graduate ($n=55$) first-year international students participated in this study. The data was collected during the spring semester of 2019 from two universities in South Texas utilizing the Brief Resilience Scale (Smith et al., 2008), the Relational Skills Inventory (Smith, 2019), the Acculturative Stress Scale for International Students (Sandhu & Asrabadi, 1994, 1998), and the Inventory of New College Student Adjustment (Watson & Lenz, 2018). Descriptive statistics and MANOVA were used to analyze the variables in this study and a standard multiple regression was employed to determine the unique contributions of resilience, relational skills, and acculturative stress on college adjustment. Additionally, Fisher's z transformation was used to evaluate whether two regression models were significantly different.

The results indicated a statistically significant difference between first-year undergraduate and graduate international students as related to college adjustment. Further analysis discovered significant relationships among predictor and criterion variables. Resilience,

relational skills, and acculturative stress significantly explained 55% of the variance in the adjustment of these international students. The comparison of these 3 factors to each other revealed no statistically significant differences, which indicates there are no distinctions in model fit between undergraduate and graduate students. The results of this study have practical implications for college educators, counselors, and administrators which may help universities meet the needs of first-year international students.

Keywords: first-year undergraduate and graduate international students, college adjustment, resilience, relational skills, acculturative stress.

DEDICATION

To God Almighty, thank you for giving me the strength to carry on. I am thankful for your immeasurable blessing upon my life.

To Wasiu, Fareed, and Fareedah, thank you for helping me to get to where I am today. Without all of this love, support and encouragement, my dreams would still be dreams. I hope I have presented a good role model for you.

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CHAPTER I: INTRODUCTION

Each year, thousands of international students from countries across the globe travel to the United States to obtain degrees of higher education in colleges and universities in all fifty states (Brunton & Joffrey, 2014). According to Chavoshi, Wintre, Dentakos & Wright (2017), when a person is exposed to different cultures, they have unlimited opportunities to compare and build a diverse picture of the entire world. These students play an essential role in contributing to the diversity and internationalization of their campuses, classrooms, and communities, as well as enrich the university environment and help faculty and students develop skills for working with people from different social and cultural backgrounds (Ching, Renes, McMurrow, Simpson, & Strange, 2017).

While international students enrich the U.S. society, they also contribute to the economy (Gareis, 2012). Two important ways that these students invest in the economy are through living expenses and tuition fees. A vast majority of their funds come from family, government, or private sources outside of the United States. It is estimated that international students enrolled in the U. S. contributed more than \$30 billion to the economy in 2014 (Opendoors, 2015). Since the mid-20th century, the United States has been the destination of choice for a large number of international students willing to study abroad (Andrade, 2006). In 2014, approximately 886,052 international undergraduate and graduate students were enrolled in universities throughout the United States (Institute of International Education, 2014). The U.S. hosts most of the world's 4.5 million international students, and of those students, only four percent make up the international population of all U.S. Universities (Hayes, & Lin, 1994). With this increase of international students, there is an inherent challenge to university systems to provide resources and services

that facilitate their adjustment (Ching, Renes, McMurrow, Simpson & Strange 2017; Leong, 2015).

All students face adjustment challenges when entering college. However, first-year international students face unique challenges as they pursue a college degree outside of their home country. Some of these problems are universal while others are specific, depending on the institution in which one undertakes their studies (Sabbadini, Naldi, Packman, Yungblom, & Weil, 2013). Some of these include language, anxiety, depression, climatic changes, cultural changes, financial hardships, political problems, and homesickness (Rabia, & Karkouti, 2017; Telbis, Helgeson, & Kingsbury, 2013; Smith, & Khawaja, 2014; Wang, Wei, Zhao, Chuang, & Li, 2015; Yakunina, Weigold, Weigold, Heccegovac, & Elsayed, 2013). Unfortunately, these students cannot merely escape this step of a culture shock when making this journey in order to study in the U.S (Ji-yeon, & Pistole, 2014; Nasirudeen, Koh, Lau, Seng, & Ling, 2014). According to Brunton & Joffrey (2014), to help these students adjust, universities need to provide suitable accommodation that can lead to their psychological and emotional stability. Also, international students need to make use of existing university and community resources including academic advisors, international offices, academic services, writing centers, tutoring services, computer labs, and international student clubs (Akanwa, 2015; Zhang, 2016). Engaging in activities with students from the United States helps international students become more involved in college life (Glass & Westmont, 2014). In order to cope with adjusting to college, Glass, Gomez, and Urzua (2014) suggested that international students get involved in religious activities that can connect them with domestic students. Isolation, especially in the university-level study, is fraught with many difficulties that cause stress (Duru, & Poyrazli, 2007).

Acculturative stress represents a growing threat to the health of many first-year international students as they seek knowledge in this new cultural environment (Li, Wang, & Xiao, 2014). For many undergraduate students, going away to college is the first of many significant changes such as living away from the security of home and family, apprehension of their new independence, and fear of growing responsibility (Stroebe, van Vliet, Hewstone, & Willis, 2002). In addition to these typical challenges, graduate study is another drastic change requiring international students to become better skilled at time management while juggling their additional academic requirements, on top of the pressures caused by acculturation (Lowinger, He, Lin, & Ghang, 2014). These everyday stresses and challenges associated with university study are substantially increased for the 886,052 international students currently in the United States (IIE, 2014). Some aspects of international students' acculturation may give rise to adjustment problems which are stressful physically, socially, or psychologically (Mesidor, & Sly, 2014; Morrell, Ravlin, Ramsey, & Ward, 2013; Onabule, & Boes, 2013). When these stresses become particularly intense, adjustments to the new cultural contexts may be hindered in a way in which students become anxious and disoriented (Hwang, Bennett, & Beauchemin, 2014; Ji-yeon, & Pistole, 2014; Yusoff, 2012).

Findings from several studies have identified coping skills as an important factor in adjusting to these unique challenges faced by international students (Banjong, 2015; Glass, 2014; Gebhard, 2012; Han, Han, Luo, Jacobs, & Jean-Baptiste, 2013; Mesidor & Sly, 2016; Ozer, 2015; Wirawan & Bandu, 2016). According to NilssonMesidor, and Sly (2014), resilience and relational skills can play a role in the adjustment and level of success of international students studying in the United States. It seems that additional studies and research are needed to help

spotlight this critical topic and to generate better accommodations to lead to an improvement in the adjustment of first-year undergraduate and graduate international students.

Statement of the Problem

The number of international students studying in the United States has been growing at an exponential rate, and these students are expected to cope with academic difficulties, cultural adjustments, and social isolation as they acclimate to this new lifestyle (Gebhard, 2012; Gullekson, & Tucker, 2012; Young, 2017). Academic challenges include language differences with professors, classmates, and staff, as well as cultural differences such as the innate reluctance to engage in collaborative classroom activities (Mamiseieshvi, 2012). First-year international students often experience social isolation when engaging in group activities both on campus and outside of the school environment (Smith & Khawaja, 2011). However, international students bring with them many assets that help them to become successful and adjust to their new settings (Chickering & Reisser, 1993).

Research shows that first-year undergraduate and graduates international students encounter problems adjusting to new academic and social environments when they go abroad for higher education (Gómez, Urzúa, & Glass, 2014; Gullekson, & Tucker, 2012). Also, transitioning to the new way of life, international students live in uncertainty because they have left their home country of origin and do not quite fit into the new world (Gebhard, 2012; Gomez, Urza, & Glass, 2014). A common belief among educators is that first-year international students are not sufficiently adjusted to higher education in their host countries; both academically and socially (Lee, 2014). Moreover, research shows that students who do not adjust well to college, particularly in the dimension of resilience and relational skills, are more likely to leave school before graduation (Glass, Wongtrirat, & Buus, 2015; Kensie, 2013). Based on the findings of the

research reviewed in this section, there is a need to examine the factors related to the adjustment of the first-year undergraduate and graduate international students, including how they engage with the campus community and resources that assist in the adjustment process of these students.

Purpose of the Study

The overall purpose of this study is to examine the factors related to the adjustment of the first-year undergraduate and graduate international students in the United States. Despite an increase in the number of international students' enrolment in universities in the United States, there have been a minimal number of quantitative designed studies that have compared the factors related to first-year undergraduate and graduate international students' adjustment to college in the United States (Glass, Gomez, & Urzua, 2014; Zhang, & Goodson, 2011). Moreover, salient variables of resilience, acculturative stress and relational skills have not been investigated together as predictors of international students' adjustment to college. Each variable is believed to have some predictive value that could help determine its importance as related to student adjustment. This study gathers survey data on factors related to the adjustment of first-year undergraduate and graduate international students.

Research Questions

This study examined the factors of resilience, relational skills, acculturative stress, and adjustment to college among samples of the first-year undergraduate and graduate international students. The specific research questions are as follows:

1. Are there differences between first-year undergraduate and graduate international college students' levels of resilience, relational skills, acculturative stress, and college adjustment?

2. Do resilience, relational skills, acculturative stress predict a significant percentage of the variance in college adjustment among first-year undergraduate and graduate international students?
3. Is there a difference in model fit between first-year undergraduate and graduate international students for the predictive model regressing resilience, relational skills, and acculturative stress on college adjustment?

Significance of the Study

The benefits of this study can be used by higher education institutions to help international students overcome the challenges of studying in the United States and to better understand the factors related to this adjustment. The number of international students enrolled in U.S. universities for the 2013 - 2014 academic year was 886,052 (Institute of International Education, 2014). By obtaining and reflecting upon the knowledge of the three adjustment factors used in this study, university administrators and their students can benefit in the ways of implementing programs to encourage international students to interact with the staff, their peers, and their new community. Moreover, this study will impact the counseling profession by helping counselor educators and domestic students further develop their cultural sensitivities and skills in working with people from different cultural backgrounds. Despite a large number of international students coming to the United States each year, research suggests that international students are less likely to use counseling than are domestic students (Hwang, Bennett, & Beauchemin, 2014; Li, Wong, & Toth, 2013; Mamiseishvili, 2012). This study can encourage international students to seek counseling services to better help them adjust to their new learning environment. This study can also help college career and mental health counselors become knowledgeable regarding issues specific to first-year international students therefore, they will be

able to determine the most appropriate counseling interventions for each individuals' unique challenge. Furthermore, this study is beneficial because it will provide information on the different strategies that international students from various countries use to manage stress.

This study is significant as it could help university administrators with both addressing the challenges faced by first-year international students and by further understanding the factors associated with the adjustment of these students. During this study, the researcher will have the opportunity to identify the factors related to the adjustment of first-year undergraduate and graduate international students by working with the International Student Office at each university to disperse an email containing the link to Qualtrics that the students can open in order to participate in the survey, and thus answer questions which have not yet been explored in the existing literature. The researcher is hoping that the results from the study will increase academic achievement, retention, and overall adjustments of international students to U.S. college life.

Methodology

Population and Sample

For this study, the sample consisted of 95 first-year undergraduate and graduate international students represented by different countries from both Texas A&M University-Corpus Christi and Texas A&M University-Kingsville. The data was gathered on the factors related to the adjustment of these first-year students who were enrolled in these institutions' undergraduate, masters, and doctoral graduate programs across disciplines. Through the International Student Office (ISO), the researcher received the participants' emails in order to send the questionnaires to the volunteer participants. To increase the number of respondents, the researcher also sent follow-up emails that included the time and date that this data would be collected.

Instrumentation

First-year international undergraduate and graduate students were provided with an information sheet describing the study and the instruments, as well as the demographic questionnaire used in the investigation via Qualtrics online survey software. The demographic and situational information was obtained on the following factors: age, gender, country of origin, student status, major, name of the university, and years in the United States. The factors that predicted the adjustment of these international students to university life in the United States were assessed through the Brief Resilience Scale (Smith et al., 2008), Acculturative Stress Scale for International Students (Sandhu & Asrabadi, 1994, 1998), and the Relational Skills Inventory (Smith, 2019). The Inventory of New College Student Adjustment (Watson & Lenz, 2018) was used to measure the international students' adjustment to college and served as the dependent variable.

The Brief Resilience Scale (Smith et al., 2008) was created to assess resilience as the ability of an individual to recover from stress and is a 6-item scale answered using a 5-point Likert-type response scale with options ranging from strongly disagree to agree strongly. A total scale score for resilience is calculated by dividing the total number of items on the scale by six. Scores can range from 6-30 points, with higher scores representing higher resilience, and lower scores representing lower resilience.

The Acculturative Stress Scale for International Students (Sandhu & Asrabadi, 1994, 1998) was created to measure cultural stress reported by international students living and studying in the U. S. The survey has 36 items scored on a 5-point Likert scale ranging from strongly disagree to strongly agree. Total scores can range from 36 to 180 points, with higher

scores indicating higher levels of acculturation stress, and lower scores indicating lower levels of acculturation stress.

The Relational Skills Inventory (Smith, 2019) is a 32-item scale that measures students' relational skills in regards to how students communicate and respond to other students, professors, and staff using a 5-point Likert scale ranging from not at all to very much. Scores on the RSI can range from 1 point to 30 points, and there are three different range sections that indicate where each student currently falls on this scale. Scores in the 1 to 15 range indicate areas of relational skills that need improvement, scores in the 16 to 21 range indicate areas of relational skills that need more consistent attention, and scores in the 22 to 30 range indicate areas of strength or potential strength.

The criterion variable of student adjustment was assessed through the Inventory of New College Student Adjustment which is a 14-item scale that has been validated with a sample of over one thousand students (Watson & Lenz, 2018). This assessment was answered by the volunteer participants who used a 4-point Likert scale ranging from strongly disagree to strongly agree when answering each question. The scores ranged from 14 to 56, with higher scores indicating higher levels of college adjustment, and lower scores indicating lower levels of college adjustment.

Data Analysis

For a better understanding of the factors related to adjustment experienced by first-year undergraduate and graduate international students, 95 students participated in this study. The data collected from the predictor and criterion variables were analyzed using the Statistical Package for Social Sciences (SPSS, 22) program. The SPSS was used to screen all of the data collected for the error of entry, missing data, outliers, linearity, normality, and heteroscedasticity.

This study used univariate, bivariate, and multivariate to analyze the data components frequencies, descriptive statistics, independent t-tests, a series of zero-ordered correlation coefficients, and standard multiple regression in order to evaluate the relationships among and between the independent and dependent variables. The goal of this analysis procedure is to determine the best linear combination of acculturative stress, relational skills, and resilience for predicting adjustment to university life for first-year international undergraduate and graduate students in the United States.

Basic Assumptions

The investigation was based on the following assumptions:

1. The instruments are valid and reliable and measure the constructs they suppose to measure.
2. Participants understood the concepts used by the instruments and answered the questionnaires fairly and to the best of their ability.
3. Data was collected appropriately and analyzed correctly.

Limitations of the Study

The limitations of this study are as follows: Since this study was completed in the Southwest geographic area, the overall results of this study may not be generalized to international students studying in other regions of the United States. Also, the study was limited to investigating only three of the many variables predictive of the adjustment of the first-year undergraduate and graduate international students attending universities in the United States. The study also has response bias due to the use of self-reported questionnaires, which increases error possibilities in validity and reliability. Moreover, the Inventory for New College Student Adjustment (INCA) (Watson & Lenz, 2018) was designed for first-year, first semester students

at the undergraduate level, but was used in this study to investigate the adjustment of both first-year undergraduate and graduate international students in college. Also, while the psychometric properties support three of the four measures included in this study, the Relational Skills Inventory is supported by its content validity only. An Exploratory Factor Analysis (EFA) and a Confirmatory Analysis (CFA) are being conducted on the RSI.

Delimitations

The following delimitations are imposed on this study:

1. The population is delimited to undergraduate and graduate international students at a particular institution in south Texas.
2. Multiple measures and instruments assessing the constructs included in this study exist. The definitions for each construct used by the researcher in this study are based on the instruments used during data collection. Other elements of these constructs not addressed in the instruments were not examined in this study.

Definition of the Terms

International student – Students who have enrolled in one of the United States' institutions of higher education, which are not a U. S. citizen, immigrant, or refugee and have obtained a J-1 or F-1 visa. In this study, international students refer to undergraduate and graduate international students registered in universities in Southwest Texas.

Adjustment – a psychological concept which has to do with the process of achieving harmony among the individual and the environment. Usually, this harmony is achieved through changes in the individual's knowledge, attitudes, and emotions about his or her environment. This culminates with satisfaction, feeling more at home in one's new environment, improved performance, and increased interaction with host country persons (Mesidor & Sly, 2016). In this

study, the term refers to the overall adjustment to university. The Inventory of New College Student Adjustment (Watson & Lenz, 2018) provides a measure of adjustment to college.

Institution attachment – Students’ degree of commitment to educational-institution goals and the degree of attachment to the particular institution the students are attending (SACQ; Baker & Siryk, 1999).

Challenge – International students’ new and difficult situation which requires determination and mental effort in order to adapt to the university successfully in the United States.

Resilience- The process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances, as measured by the Brief Resilience Scale, (Smith, et. al., 2008).

Acculturative stress- The stress comes from many differences in norms, values, social customs, politics, and education standards between the original culture and host culture, as measured by The Acculturative Stress Scale for International Students (Sadhu & Asrabadi, 1998).

Relational skills- The skills used every day by a person when communicating and interacting with other people, both individually and in groups, as measured by The Relational Skills Inventory (Smith, 2019).

College- An educational institution designed for instruction, examination, or both, of students in many branches of advanced learning, conferring degrees in various faculties, and often embodying colleges and similar institutions.

Organization of Remaining Chapters

The present study focused on the factors related to the adjustment of first-year undergraduate and graduate international students while attending universities in the United States. This chapter provided an introduction to the study. Chapter 2 includes a review of the related literature and previous research on this topic. Chapter 3 describes the design of the study, including the sample, measures utilized, gathering of data, and data analysis. Chapter 4 includes a manuscript which is comprised of the following sections: abstract, introduction, background and literature review, research method, results, discussion and implications, limitations, and conclusion.

CHAPTER II: LITERATURE REVIEW

Experiences and the Adjustment of International Students

The United States has historically been ambitiously sought after by international students owing to its high quality higher education system, welcoming culture, and relatively open labor market (Banjong, 2015; Eland, & Thomas, 2013; Gillett, & Baskerville, 2012). Today, the United States remains the country of choice for the most significant number of international students, hosting about 1.1 million of the 4.6 million enrolled worldwide in 2017. When international students choose to study in the United States, they are predominantly found in colleges in California, New York, Florida, Texas, and Pennsylvania (IIE, 2017). In fact, 36% of all international students in the U.S. are studying in these states while The University of Southern California has the highest individual enrollment of international students with 9,329 enrolled as of July, 2013 (Student and Exchange Visitor Information System [SEVIS], 2013) while the state itself hosts 111, 379 international students, the largest in the U.S. (Lee, 2014; McFadden, 2014; Quaye, & Harper, 2014). The largest population of international students in the United States is comprised of Asian students, with China, India, and South Korea being the top three countries sending students (IIE, 2017). According to IIE (2017), these three countries contribute nearly half (46%) of the total international enrollment in U.S. higher education with Canada, Taiwan, Saudi Arabia, and Japan each representing approximately 3% to 4% of the total international student population (Ross & Chen, 2015).

With the increase in the number of international students across academic fields, there has been considerable growth noticed in programs accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). For example, in a study conducted with international students in CACREP-accredited programs, Ng, Sorensen, & Eby (2006) found

that international students were enrolled in at least 41% of the programs surveyed during spring 2004, and at least 49% of the programs surveyed had international students enrolled during the most recent three years. This indicated that international students were represented in half of the CACREP programs (Li, Wong, & Toth, 2013).

Sodowsky and Plake (1992) highlighted that international students are a diverse group with many within-group differences that may also contribute to their unique as well as everyday issues. Adjustment concerns for international students are divided into three areas: (a) common difficulties that are shared by students of color and international students, (b) issues common to most international students, and (c) those issues unique to international students based on country of origin (Yusliza, & Shankar, 2010). Enrollment of international students in nearly 49% percent of CACREP-accredited programs (Lieb, 2016) has augmented the need for awareness in counseling and counselor education programs about the difficulties faced by this vulnerable student population.

However, not all international students enroll in four-year colleges or graduate programs. Many have discovered community colleges as both a way of reducing costs and improving English language skills before applying to 4-year colleges for their final two years (Urban, & Bierlein Palmer, 2014; West, 2012). This also frees up finances for funding graduate school should an individual wish to pursue advanced study. International students typically occupy a higher percentage of graduate programs than undergraduate programs, thereby increasing their chances of staying in the U.S. on a long-term basis through employment sponsorship (Mamiseishvili, 2012; Pan, 2011). The plight of the international student in the U.S. university educational system is well documented in terms of language, adaptation, and culture barriers (Hong & Jianqiang, 2013; Sherry, Thomas, & Chui, 2010; Yakunina, Weigold, Weigold,

Hercegovac, & Elsayed, 2013) yet this population persists in seeking an education in the United States as the perceived benefits still outweigh the challenges faced in its pursuit (Borgia, Bonvillian, & Rubens, 2011). Adjustment difficulties are one of the most common social challenges first-year international students face while studying abroad (Cheng & Erben, 2012). The available literature on this topic posits the importance of acclimation and integration of international students (Mamiseishvili, 2012; Pan, 2011).

Adjustment, derived from the Latin word *ad-justare*, is the process by which one balances needs and the obstacles in his or her environment (Mesidor & Sly, 2016). Yi et al. (2003) identified five areas in which first-year international students are likely to experience adjustment issues. These areas included academic, physical health, financial, vocational, and personal/social. Gebhard (2012) also studied international students' adjustment problems and behaviors. He found that students encountered problems in adjustment in three primary areas: academic, social interaction, and emotional reaction to their new environment. Language barriers, unfamiliarity with available resources and how to access those resources, and lack of an established social support system and social network compound the problems experienced in those areas (Smith & Khawaja, 2014) and often manifest in depression, loneliness, and isolation (Valdez, 2015). Wang et al. (2015) used the term "cross-cultural loss" to describe the process in which international students struggle to adjust to the loss of things familiar to them (e.g., personal relationships and the educational system of their home countries) while trying to adjust to a new culture and environment. They found that cross-cultural loss decreased with life satisfaction, positive affect, general self-efficacy, and social connection with their peers and academic community, all of which are indicators of increased cultural adjustment or acculturation.

Entering U.S. universities and colleges can be an overwhelming life and cultural transition for most first-year international students. The initial challenge an international student faces is in choosing where to study in the U.S. While international students quite often do not understand the importance of accreditation, they do have an interest in rankings (Arora, 2015). Other issues such as location, major, cost, family recommendations, and university name recognition also come into play (Chai, Krägeloh, Shepherd, & Billington, 2012). Ultimately, international students are prepared to face the challenges of study in a different country for the simple reason that they feel they can get a better education abroad, which will differentiate them from their peers upon returning home (Aydinol, 2013). Add to that the different delivery method of education in the U.S., which is generally collaborative, the international student feels exposed to a non-rote way of learning (Desa, Yusooff, & Abd Kadir, 2012; Glass, 2014; Hwang, Bennett, & Beauchemin, 2014).

Apart from the obvious language barrier, there exist many challenges for students studying in the United States. First, a cumbersome and exhausting visa process ensures that only the determined student succeeds in attending a university in the U.S (Mesidor & Sly, 2016). Once here, many students find interaction with the international students' office of their university a tedious ordeal (Glass, 2014). Reporting standards, training, and compliance requirements of SEVIS combine to make international student administrators, and counselors viewed more as immigration gatekeepers than a support mechanism for international students (Gnilka, Ashby, Matheny, Chung, & Chang, 2015). Also, the cultural differences of food, customs, financial constraints, homesickness, loss of social status, fear, and a sense of insignificance can all accumulate to make the international student genuinely feel overwhelmed in the U.S. collegiate system. Furthermore, since many international students are in the country

for a short period of time, many may feel adjustment to the American way of life unnecessary, which may alienate them on campus and through their own actions leave upon graduating with an unimpressed and uninformed view of life in the U.S. (Kaya, Tansey, Melekoğlu, & Çakıroğlu, 2015; Korobova, & Starobin, 2015; Kosheleva, Amarnor, & Chernobilsky, 2015).

Many studies (Liao, & Wei, 2014; Lieb, 2016; Liu, 2011; Terui, 2011; Zhang, & Goodson, 2011) explored the hurdles and challenges experienced by international students attending institutions of higher education in the U.S. These difficulties include, but are not limited to, language difficulties, difficulties adjusting to the academic culture, misunderstanding, and complications in communication with faculty and peers; anxiety, feelings of isolation, stress, culture shock, social experiences, lack of appropriate accommodation, financial hardships, loneliness, and any adaptation in their daily life. In many aspects, international students perceive the loneliness and isolation when they are studying in the U.S. In a study conducted among 900 international students in Australia, Russell, Rosenthal, and Thompson (2010) found that 41% of international students experience substantial levels of stress. This stress could be from culture shock, perceived discrimination, or homesickness. Yi et al. (2003) conducted a study in a major university in Texas on the utilization of counseling services by international students. This study aimed at understanding why international students seek counseling services. The data collected over six years of the study indicated that many international students when having difficulties or psychological concerns, lean on friends and family. Unfortunately, not all students have the support they need; international students may feel even more shy or uncomfortable asking for help from university staff and domestic students, contributing to the insufficient support needed for the adjustment to higher education. Although the university provided counseling services, it was not widely used by international students. Many saw counseling as a replacement for family

and friends, only to be used if a student did not have any friends or relatives (Cheng, & Erben, 2012; Heyn, 2013). An implication from this study could be that international students should be provided an understanding of possible options such as counseling as professional advice to assist in adapting to their new life in the U.S. (Cheng, & Erben, 2012).

Moreover, many challenges also occur in an academic setting. Language is considered one of the most significant academic issues hindering smooth adjustment for first-year international students (Geffen, & Fish, 2013; Reid, & Dixon, 2012). Probertson, Line, Jones, & Thomas (2000) surveyed staff's experiences with international students at their respective institutions. The findings indicated that the staff was not empathetic due to the students' language proficiency. Additionally, in a longitudinal study investigating characteristics of first-year international students, English-speaking difficulties and social integration had adverse effects on persistence in academics (Mamiseishvili, 2012). This suggests that students who are less fluent in English have more trouble integrating in peer groups and experience lower levels of academic tenacity. Similarly, a study by Poyrazli and Kavanaugh (2006) suggested that these various challenges often put international students at a greater risk for academic difficulties when compared to domestic students. According to Gomez, Urzua, and Glass (2014), level of acculturation has also been found to be a factor in psychological adjustment. An investigation of Chinese students found that low acculturation was associated with psychological symptoms such as depression and suicide (Kenedy, Monty, & Lambert-Drache, 2012; Kenzie, 2013). Overall, the research suggests that the main concerns for international students include language proficiency, group interaction, and persistence in academics.

College Adjustment

Adjusting to university is a significant transition in emerging adulthood (Akanwa, 2015). Baker and Siryk (1984) have provided one of the most widely studied models of adjustment, describing adaptation as including academic, social, personal-emotional, and institutional dimensions. According to recent data, these factors favor certain conflicts in the development and formation of emerging adults (Bai, 2016; Bhochibhoya, Dong, & Branscum, 2017; Han, Pistle, & Caldwell, 2017). During the first year at university, students are often confronted with a variety of new demands and challenges, and they may experience difficulties in developing a vocational identity in which processes of decision making, exploration and commitment are particularly important (Astin, 1993; Chickering & Reisser, 1993; Tinto, 1993). Such difficulties can lead to a feeling of dissatisfaction and disengagement from university life, finally causing students to question their choice of study, to fail academically, or to leave university (Abdullah, Elias, Mahyuddin, & Uli, 2009; Wintre, Bowers, Gordner, & Lange 2006).

Adjustment to university is multifaceted and involves an array of demands, which vary in kind and degree and require a variety of coping strategies or adjustments (Baker & Siryk, 1984, 1986, 1987). Young people, between 18 and 25 years old, attending university face important challenges that require new behavioral, cognitive, and affective patterns of responses. Students may regard their time at university as an opportunity to engage in exploration and risk-taking behavior before they have adult responsibilities (Dworkin, 2005; Ravert, 2009). University is therefore a time for making friends and establishing romantic relationships, engaging in frequent social gatherings, exploring new places, growing intellectually and affirming personality through self-expression (Buote et al., 2007; Cutrona, 1989; Hays & Oxley 1986; Schwartz, Côté, & Arnett, 2005; Swenson, Nordstrom, & Hiester,

2008). Such experiences should aid students to move toward autonomy and emotional independence, as well as achieving a sense of competence. These experiences also help students when managing emotions, developing a sense of purpose, clarifying a personal and consistent set of beliefs, as well as increasing their amount of patience when interacting with other students (Chickering & Reisser, 1993).

However, not all emerging adults can master these developmental tasks or have a satisfactory experience in higher education. Over half of all college students will experience some type of difficulty in their transition to college, including academic problems, emotional disorders or symptomatology, relationship struggles with parents or friends, and alcohol or other substance abuse (Buote et al., 2007; Caamano-Isorna, Corral, Parada, & Cadaveira, 2008; Cutrona, 1989; Hoffman & Weiss, 1987; Ozen, Ercan, Irgil, & Sigirli, 2010; Torrente-Hernandez & Vazsonyi, 2012; Wintre et al., 2006; Wintre & Yaffe, 2000). The first-year experience is critical because it is full of opportunities and hardships that students must adjust to in order for them to succeed academically (Wintre et al., 2006).

Educational systems are similar across cultures, but not completely identical, which forces international students to change once they enter into a new academic system. Ridley (2004) found the following:

“The discourses of academic disciplines in higher education can be confusing and mysterious for those who are new to university study. The confusion can be particularly greater for students coming from cultural and language backgrounds that are different to those underpinning the dominant ideologies of higher education institutions” (p. 91).

Specifically, international students in America generally must adjust to start thinking independently, which many of these students anticipate that will be the most challenging part of

their adjustment (Crede, & Niehorster, 2012). Thinking independently might be a new experience for some international students who are accustomed to relying on the professor as the ultimate authority on the course subject (Ross & Chen, 2005). Thus, it could be shocking for international students to adjust to professors who admit to not always knowing the right answers (Gareis, 2012; Holmes, & Vaughn, 2015; Lee, 2015).

Ridley (2004) stated that “every culture of learning offers an alternative perspective on how to do things academically” (p. 96). International students will have to adopt the American perspectives of plagiarism and cheating (Lee, 2015). Plagiarism is a foreign concept to many international students whose cultures do not place a great emphasis on the ownership of knowledge (Myers-walls, Frias, Kwon, Meryl, & Lu, 2011; Popp, Hums, & Greenwell, 2010). For example, one international student might feel that sharing answers to a classmate is the socially responsible thing to do, however, in the American educational system this would be considered cheating (Probertson, Line, Jones, & Thomas, 2000). Once international students adapt to this American principle, they will have fewer difficulties in their American classrooms (Rienties, Beausaert, Grohnert, Niemantsverdriet, & Kommers, 2011).

International students must also adjust to different kinds of teacher and student relationships than what they have experienced in their home countries. For example, in many Asian countries, the teacher is the primary authority of the classroom, and the students address him or her as Sir or Madam as they have been conditioned to respect the teacher as their superior (Zhang, 2010). In contrast to this example of Asian culture, in America, the student-teacher relationship is very informal. Crede and Niehorster (2011) contend that this informality stems from the American value that teachers are equal to students in the classroom. Examples of this informal student-teacher relationship include professors encouraging their classes to ask

questions, as well as professors and students collaborating on research projects (Charles-Toussaint, & Crowson, 2010). Initially, the informality might be uncomfortable for international students, but the more classes they attend, the more well adjusted they will become (Probertson, Line, Jones, & Thomas, 2000; Terui, 2011). Bradley (2000) found that international students ultimately enjoy this more personal relationship with their instructors.

Since international students leave their social circles behind once they reach America, they will ultimately have to adapt to a new social etiquette, and for these students, this social adaptation can be either a positive or negative experience (Han, Pistole, & Caldwell, 2017). Liao and Wei (2014) found that international students who have frequent contact with people from their home country are happier with their experiences in America than those students who have less contact with those from their country of origin. This preference of international students keeping in touch with their friends from their own country could be due to the lack of institutional support. Klomegah (2007) stated that “[m]any international students have reported that because university officials rarely reach out to them, they had to rely on each other for support and advice on everything from academic issues to American culture” (p. 305). Students choosing to make new friends outside of their culture will usually have to change how they socially interact, therefore, choosing whom to socialize with is one of the social adaptations international students face (Abunab et al., 2017). Coles and Swami (2012) note that international students will have to adjust to friendship-building and dating etiquette, American customs (food, religious beliefs, non-verbal communication, and physical contact) and the American concept of independence in order to successfully make new friends. The degree of acclimation to the American social culture will impact how successful students are when building their social networks (Cole & Ahmadi, 2010).

International students have millions of small adjustments to make when studying in a new country (Rabia & Karkouti, 2017). These adjustments could include using a fork instead of their hand to eat with, driving on the right side of the road instead of the left or even washing clothes in a washing machine instead of by hand. One big cultural adjustment is adapting to the constant use of a different language (deAraujo, 2011). Zang and Mi (2013) found that language ability determines the success of international students in a new culture. Logically, if students are unable to understand what instructors, classmates, staff members, etc. are saying, then it will be difficult for them to succeed. Wright and Schartner (2013) found in a research study that a significant relationship exists between language proficiency and academic achievement.

The impact of language even affects students who speak English in their home country; these students must adjust to a new accent and new idioms (Ozer, 2015; Sawir et al., 2012). Phrases such as “the early bird catches the worm,” “bend over backward,” and “make ends meet” has the potential to confuse students who are not familiar with American English (Nguyen & Benet-Martínez, 2013; Sam & Berry, 2010). Zhang and Goodson (2011) advise that professors who teach international students should be careful about how they use idioms because these students may face difficulties in adjusting to the new language and new phrases. This adaptation of a new language is just one of the many cultural adjustments that international students will make as they study in a different country (Zhang, Mangl, & Wang, 2010).

Ross and Chen (2000) investigated the academic and social issues of adjustment to American culture and higher education for undergraduate international students at the University of Tennessee. This study was conducted in order to determine what demographic, social, and academic factors might hinder or facilitate adjustment to higher education in America. The participants of this study came from various backgrounds: 54% from South and East Asia, 23%

from Western Europe and Canada, 13% from Central and East Europe, and 10% from Central and South America. Thirty-six percent of the respondents felt confident with their English writing and reading skills and another 33% indicated that they did not have any problems participating in class discussions or conversations in English. This study suggested that students from Europe and Canada adjusted better and had fewer problems than did Asian and African students. It also found that Central Europeans appeared to have even fewer difficulties than those who were from Western Europe or Canada.

Yi, Jun-Chih, Jenny, and Kishimoto (2003) examined data provided by 562 self-identified international students who visited the counseling center at a major university in Texas over six years (1992-1998). These international students were asked to complete questionnaires before their counseling appointments, the evidence of which revealed that nearly 70% reported that they were either mildly or extremely worried about their future lives. Through this study, the results found that due to the stigma of mental problems, international students were not likely to refer themselves for psychological help.

At a Midwestern research university, Professors Dee and Henkin (1999) studied how Korean students adjusted to the challenges of college life in the United States. Fifty-two students participated in the study and completed a 47-item, self-reported inventory based on their personal experiences. While the majority of the respondents (58%) were male, forty-one percent were between the ages of 27 and 31, and 33% were aged 26, or younger. A vast majority (79%) indicated that they did not have contact with other ethnic groups during their childhood years. Sixty-two of the respondents had never traveled abroad before coming to study in the United States. On the adjustment challenges, the language was reported to be the most difficult problem encountered by respondents (61%). Others (18%) suggested that financial difficulties were the

most problematic. Adjustment to American culture was identified by 14% of the respondents as their most challenging adjustment problem. Initial periods of homesickness were extensive for many students. Fifty-one percent confirmed that they were homesick for the first three months or more of their stay. A large number of respondents (31%) were unhappy, initially, when they arrived in the United States. The majority of the students (64%) indicated that they currently or occasionally experienced homesickness. Sixty-six percent of the respondents reported extensive social interaction with other Koreans. Only 11% indicated extensive social interaction with American students. The majority (67%) had no interaction with American families in the community. The study found that gender, age, academic major, and previous exposure to foreign cultures were essential variables in terms of adjustment for these Korean students.

Financial difficulties are undoubtedly common and persistent problems that international students face during their stay in the United States. Cieslak (1955) identified the following factors affecting the financial status of a foreign student: Incomplete and misleading budget information in college and university catalogues and bulletins; inflation of foreign currencies; inflation of the dollar; family emergencies affecting the source of the student's fund; and personal emergencies such as illnesses, unexpected travel needs, and delay in authorization of foreign exchange.

Other researchers have advanced the following theories regarding factors affecting the financial status of international students:

The sponsor and the student may hope that after arriving in the United States, the student will be able to find some alternative way of financing his or her stay. This puts the student in a precarious situation since a student cannot obtain an off-campus work permit during the first year, and there is no assurance of a permit after that academic year (Cieslak, 1955). Students

often discover that the university and the U.S. embassy are most concerned about the funds of the students' initial year. These students are supposed to provide the embassy with supporting evidence of their first year's financing as well as a reasonable expectation of where they might find their future funding. Therefore, some students focus primarily on the first year and hope opportunities will come their way afterward—a scholarship, a work permit, or a new sponsor (Day & Hajj, 1986). Some students may become disillusioned after thinking that they can get by with far less money than necessary to live comfortably in the United States. These students and their sponsors are then unprepared for the cost of American education (Dillard & Chisolm, 1983; Tinto, 1987). Moreover, universities may provide alternative sources of financial aid, but not all international students will qualify for this extra assistance (Dillard & Chisolm, 1983).

Many students experience financial difficulties when it comes to keeping a scholarship in the United States because there are several reasons in which scholarships may be reduced or completely withdrawn (Lee, Abd-Ella, & Bums, 1981). Furthermore, a student may lose their sponsor due to unexpected instances, such as the death of a family member, or the sponsor experiences financial issues or the student becomes ill or suffers an accident requiring the use of tuition or living expenses to pay the medical bills because insurance may not completely cover the cost (Lee, Abd-Ella, & Bums, 1981). International students studying in the United States who were supporting their families in their home country may wish to continue to provide this family support while living abroad, but even if they have full sponsorship, it is very unrealistic to expect them to have enough money to send to their families. Scholarships and other forms of sponsorship are usually based on living costs, and students typically need all the funds to maintain themselves in the United States. If they try to send part of each month's stipend back home, they often experience a shortage of funds for their living expenses. If students do not have

a full sponsorship upon arrival, the resulting financial difficulties may be even more significant (Manese et al., 1988; Meloni, 1986).

Furthermore, in case the student studying abroad experiences financial hardships, they may need to rely on their families back home to send them more money (Sakurako, 2000). Although the college or university is likely to have financial aid available (e.g., part-time jobs), these opportunities are highly competitive as there are not enough of them to be granted to all of the enrolled international students (Pedersen, 1991). International students depend on various sources of funds, but if something unexpected happens to one or more of these sources then the student's academic and personal prosperity may be affected in the following ways: tuition costs, books needed for classes, warm clothing during winter months, rent, food, and transportation (Tinto, 1993). The students who come to the United States without a sound financial base will feel financial pressure that may affect their academic work and overall psychological state from day one (Tinto, 1993). Students who have heard rumors that alternative sources of funding exist may be lulled into thinking that they will not have problems financing their education after the first year. Although rarely accomplished, some students do find sources outside the usual channels. There is a gap between what international students need and what financial sources are available, which often causes difficulty for these students (Weill, 1982).

International students must have adequate housing (Cieslak, 1955; Clarke and Ozawa, 1970; Fernandex, 1998). The older international students, as well as those who are married, are more likely to choose off-campus housing. Clarke and Ozawa (1970) argue that the highest potential for problems arise when there is the most considerable dissimilarity of color or culture, whether housed in dormitories or private housing. Cieslak (1955) found that not all international students reside in dormitories, even when dormitories are available to them. Types of housing

reported by the 353 international students studied by Cieslak (1955) included university dormitories (223 students), rooms in private homes (45), housed with relatives or friends (39), private rooming houses (18), an international house (12), and other types of housing.

According to Pedersen (1991), many students do not have enough funds to afford adequate housing and to live where they want. International students who do not receive scholarships do not have adequate finances to live on campus (Manese et al., 1988). Some students are allocated specific housing on campus, but campus housing is expensive, and students prefer to live off campus where rent is affordable (Meloni, 1986). When students live off campus, they spend much time traveling between home and the university and transportation time takes study time away from students. Also, buses and trains are sometimes inconsistent, and the distances to travel between school and home create unnecessary stress (Dillard & Chisolm, 1983). Russel and Petrie (1992) have studied other factors in students' adjustment to college. They found that personal or individual factors such as self-esteem, resilience, depression, and anxiety are important factors influencing student adjustment to college. The inclusion of personal factors to social and academic integration expanded the works of Tinto (1975) and Bean (1980, 1982). Russel and Petrie (1992) show that these personal factors, in addition to those of previous studies, play essential roles in students' decisions to withdraw from college or persist and graduate.

Baker and Siryk (1989) present a whole dimension of adjustment. They incorporated the theories of Bean (1980, 1982), Russel and Petrie (1992) and Tinto (1975, 1986) in developing a comprehensive measure for studying student adjustment to college. They assumed that starting university life, which is a significant change in many students' lives, requires adjustment to a variety of demands and is a multifaceted process. They stressed that

social, academic, and institutional attachments and individual or personal factors are important aspects that affect students' adjustment and their decisions to graduate.

Acculturative Stress

When international students arrive to study in a host country, leaving behind their families, friends, and their homeland, they often must adapt to different cultural practices. Adjustment to living in a different culture is often referred to as acculturation (Berry, 2003; Furukawa, 1997; Sam & Berry, 2010). Some aspects of international students' acculturation may give rise to adjustment problems which are stressful physically, socially, or psychologically (Khawaja, Moisuc, & Ramirez, 2014; Lee, Koeske, & Sales, 2003). Examples of such stresses include homesickness, language difficulties, financial hardships, academic struggles, and political problems (Furukawa, 1997; Misra & Castillo, 2003; Sherry, Thomas, & Chui, 2010). When these stresses become particularly intense, adjustments to the new cultural contexts may be hindered, so the students experience anxiety and disorientation (Fernandez, 1988; Hamboyan & Bryan, 1995; Lee, Koeske, & Sales, 2004). Also, international students may experience little acceptance, tolerance, or understanding of their cultural practices by members of the host country, and in some cases racial discrimination (Furukawa, 1997; Hamboyan & Bryan, 1995; Randall. et al., 1998; Ryan, & Deci, 2000).

Moreover, it is also possible that international students themselves may be intolerant or discriminatory towards other international students or members of the host culture. These difficulties can contribute to international students' loneliness, alienation, distrust, powerlessness, and depression (Hamboyan & Bryan, 1955; Sax, Bryant, & Harper, 2005). Although members (e.g., new college students) of the host culture may be affected by such difficulties, the combination of acculturation stressors has been found to weigh more heavily on international

students who have limited access to resources (Jackson & Laanan, 2015; Sax, Bryant, & Harper, 2005). International students in the U.S. have long been the subject of studies. Much of the research done in recent years has investigated international student distress associated with culture shock (e.g., Kirkcaldy, Furnham, & Siefen, 2004; Ward, Bochner, & Furnham, 2001), psychological difficulties associated with their arrival in the U.S. (e.g., Clark Oropeza, Fitzgibbon, & Baron, 1991; Sandhu & Asrabadi, 1994), and help-seeking behaviors (e.g., Hayes & Lin, 1994; Komiya & Eelss, 2001).

Acculturative stress is another prominent factor for international students and has also been of interest to several researchers (Constantine, Okazaki, & Utsey, 2004; Oei, & Notowidjojo, 1990; Poyzrali, Kavanaugh, Baker, & Al-Timimi, 2004; Yeh & Inose, 2003).

Acculturative stress has been defined as “one kind of stress, in which the stressors are identified as having their source in the process of acculturation; with a particular set of stress behaviors that occur during acculturation, such as lowered mental health status (especially confusion, anxiety, depression), feelings of marginality and alienation, heightened psychosomatic symptoms, and identity confusion” (Berry, 2003, p. 479). While these symptoms of distress are similar to other stress responses, acculturative stress has been identified as resulting from the act of moving to and living in a new culture; these symptoms include somatic manifestations, depression, anxiety, and decreased self-confidence. In addition to the difficulties international students experience with cultural change, several researchers have explored how academic demands and perfectionism are also associated with elevated levels of acculturative stress (Nilsson, Butler, Shouse, & Joshi, 2008; Rice, Choi, Zhang, Morero, & Anderson, 2012).

Resilience

Resilience is a critical variable associated with adaptation to the university environment (Wang, 2009). Research shows resilience reduces the risk of psychological distress, assists with the management of academic demands, and enhances academic outcomes, while also facilitating effective coping strategies when faced with academic pressures (Wintre, & Yaffe, 2000). In the absence of resilience, the stressors university students face have the potential to affect their mental health negatively, increase psychological distress, and result in more significant adjustment problems (Pittman, & Richmond, 2008; Wintre, & Yaffe, 2000). Previous research on resilience has primarily focused on individuals affected by short and long-term adversities (Wang & Castaneda-Sound, 2008). University students are exposed to long-term adversities, such as academic stressors and environmental pressures (Lee & Robbins, 2000). Although a universal definition of resilience does not exist, resilience is widely considered as an individual's capacity to overcome adversities and successfully adapt to their environment (Khawaja, Moisuc, & Ramirez, 2014).

Definitions of resilience range from a set of traits, an outcome, or a dynamic process that involves the exposure to stress or adversity, followed by successful adaptation (Pan, 2011; Pan, Fu Keung Wong & Ye 2013). Connor and Davidson (2003) define resilience as personal qualities that enable individuals to thrive when faced with adversity. Gilligan (2007) defines resilience as the ability to respond adequately and perform successfully in the face of adversity or to exceed expectations during hardships. Additionally, researchers have viewed resilience as a protective buffer that protects individuals against adversity (DeRosier, Frank, Schwartz, Leary, 2013; Jackson, Firtko, & Edenborough, 2007). Overall, global findings suggest that resilience in the university environment is positively associated with better mental health, as well as

successful transition and adjustment to university life (Peng et al. 2012; Wang, & Castaneda-Sound, 2008; Wilks, & Spivey, 2010). An international student needs good resilience that will motivate him/her to study in a new environment. However, the success of their life in a foreign country is also affected by other factors such as socio-cultural, economic, language, financial, comfort, resilience, and personality (Wilks, 2008). Within these factors, resilience should be given special attention and studied among international students in an American institution because it affects adjustment in a university environment (Lee, & Robbins, 2000; Uchino, 2009).

Relational Skills

Development of relational skills requires students to interact with peers, which has been shown to have a positive relationship with student gains and satisfaction with college (Kezar, & Moriarty, 2000). Many scholars have noted that international students do not actively relate with U.S. students in learning (e.g., Kuh, & Hu, 2001; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008). Based on a qualitative study with 24 international students from over 15 countries, Lee and Rice (2007) asserted that international students who studied in the U. S, worrying about English proficiency, often felt uncomfortable participating in group-work or interacting with their classmates. Many international students prefer relating only to peers from the same country or those who share similar cultural backgrounds (Kuh, & Hu, 2001). Several studies have examined the impact of student-faculty interaction on international student development and learning outcomes (Lee, & Rice, 2007; Lundberg, & Schreiner, 2004). McFadden (2014) found that these student-faculty interactions are positively associated with a wide range of student outcomes, such as students' self-assessed leadership abilities and social self-confidence. Faculty members play an essential role in influencing student learning both in and out of the classroom (Gareis, 2012). Through interviews with two international students enrolled in the U.S., Rajapaksa, & Dundes

(2002), found the relationship between first-year international students and their instructors and advisors was important to international students' adjustment to college.

Additionally, a good relationship effectively helped international students achieve their goals and promote professional development (Ross & Chen, 2015). Sax, Bryant, and Harper, (2005) advocated that if faculty members employed collaborative teaching and learning methods, and if they valued respecting students and challenging them academically, international students were more likely to have higher levels of engagement and learning outcomes. Spencer-Rodgers (2001) argued that students' sense of purpose would be enhanced as the frequency of student-faculty increased, regardless of whether the interaction was formal or informal. The literature above all supports the critical role of faculty members in enhancing students' adjustment and supporting their success.

Several scholars examined the beneficial effects of relational skills among students with diverse backgrounds. Valdez (2015) investigated the relationship between student-faculty and student meadjustment to college. They found that compared to students' background characteristics, students' relationships with faculty members act as strong predictors of college adjustment. Those predictors were most influential for students of color (Andrade, 2006). Also, Anaya & Cole (2001) examined the impact of relational skills on college students' academic achievement among international students; they found that relational skills, both academic and personal interactions, and perceived quality of student-faculty interaction were positively associated with international student's college grades. Yeh and Inose (2003) also claimed that relational skills had a positive association with the self-rated public speaking ability of male international students and perception of capacity to influence others for female international students.

Summary of the Literature Review

Some first-year international students may experience difficulties due to anxiety and depression. Some may even experience the harmful effects of culture shock. First-year international students often experience trouble adjusting to a new culture with different traditions, customs, and values (Birnbaum, Cardona, Milian, & Gonzalez, 2012; Reid & Dixon, 2012). However, American institutions provide a great opportunity for international students studying abroad because they offer many opportunities for research and other academic endeavors (Reid & Dixon, 2012). This study investigated the adjustment of the first-year undergraduate and graduated international students in the United States. The cultural experience of international students has a positive impact on bringing diversity and internationalization to the U. S. college communities. First-year international students appear to adapt better and achieve a faster sense of belonging in discussion-filled classrooms characterized by positive interaction (Glass, et al., 2013). For example, leadership programs that stress collaboration, and engage in events and activities sponsored by their own culture, enhance international students' sense of community interaction (Glass et al., 2013, p. 120). Having international students in colleges can create a diverse collegiate culture, educational experiences, and adjustment, which can be beneficial for American students and professors (Glass et al., 2013). Also, the experience of first-year international students in the United States may include their purposeful activities that contribute to higher levels of learning and personal development (Glass et al., 2013). Thus, more research is needed to understand better the adjustment of first-year international students attending higher education institutions in the United States of America.

CHAPTER III: RESEARCH DESIGN AND METHODOLOGY

The purpose of this study was to investigate the factors related to the first-year undergraduate and graduate international college students' adjustment to their new learning environment. The researcher examined how resilience, acculturative stress, and relational skills predicted first-year undergraduate and graduate international students' adjustment to college. This chapter includes the following sections: research questions addressed, research design implemented, description of participants recruited, data collection procedures utilized, survey measures administered, and data analyses conducted.

Research Questions

The study was guided with the following research questions:

1. Are there differences between the first-year undergraduate and graduate international college students' levels of resilience, relational skills, acculturative stress, and college adjustment?
2. Do resilience, relational skills, and acculturative stress predict a significant percentage of the variance in college adjustment among the first-year undergraduate and graduate international college students?
3. Is there a difference in model fit between undergraduate and graduate international students for the predictive model regressing resilience, relational skills, and acculturative stress on college adjustment?

Research Design

The quantitative study was conducted using an explanatory non-experimental design and a correlational design to evaluate research questions. Correlational designs can be used to examine the connections between two or more variables, thereby allowing researchers to make

future predictions using these variables' relationships (Heppner, Wampold & Kivlighan, 2008). In this study, the relationships between resilience, acculturative stress, and relational skills were used to make a predictive model of college adjustment using regression analysis. According to Tabachnick and Fidell (2013) regression analyses can be conducted using either a standard multiple regression, stepwise (statistical), or hierarchical (sequential) regression depending on how variables are entered in a regression equation, as well as the theoretical model from which the researcher is working (Meyers, Gamst, & Guarino, 2013).

For this study, a standard multiple regression was used to identify predictors of international students' adjustment to college. Based on the literature review for this study, there is no evidence to suggest a hierarchy or specific ordering approach for predictor variables (resilience, acculturative stress, and relational skills) to be entered into the analysis. Standard multiple regression allows the researcher to manipulate the variables in the regression equation in order to see the relationship between the predictor and criterion variables instead of finding the relationship between only one predictor variable and the criterion variable like in the hierarchical method of multiple regression. Multiple regression procedures are widely used in nonexperimental research due to their flexibility (Hoyt, Leierer, & Millington, 2006). Specifically, quantitative data were collected and analyzed to answer the research questions and gain insight into variables contributing to international students' college adjustment.

Participant Selection

Participants of this study were international students enrolled in graduate and undergraduate level courses at two South Texas universities. Only international students who had F1 student visas or defined themselves as international students were recruited for this study. The minimum age for the participants is 18, and non-probability convenience sampling was used

to select participants. In non-probability convenience sampling, the researcher relies on voluntary participation from the first-year undergraduate and graduate international students easily accessible to the researcher. The sample size was based on an a priori power analysis using G*Power 3.0.10 to calculate the minimum sample size needed to evaluate the research questions of this study (Faul, Erdfelder, Buchner, & Lang, 2009). Using a minimum power of .80, considered a suitable level of power by Cohen (2013), and assuming a medium effect size as $f^2=.15$, and a .05 alpha level, the estimated target sample size for the study was reported to be 86.

Data Collection Procedure

After Institutional Review Board (IRB) approval, data were collected over five weeks from the first week of February to the second week of March 2019. The aim was to recruit first-year undergraduate and graduate participants from different colleges and departments to reach more international students from different countries. A solicitation email was sent to professors and the International Student Office in different departments and different universities where international students can be recruited. The email included a brief explanation and purpose of the study. The researcher scheduled class visitations with professors who willingly gave 30 minutes of the class time to recruit volunteer research participants.

The researcher attended the first or last 30 minutes of scheduled classes to collect data. The researcher explained that the purpose of this study was to examine the factors related to the adjustment of the first-year undergraduate and graduate international students in the United States. The age criterion to participate was 18 years old or older. Participants were told their participation was voluntary and that their responses would remain anonymous. A survey package including an information letter, demographic form, and instrumentation measuring the study constructs (*Brief Resilience Scale [Smith et al., 2008], The Acculturative Stress Scale for*

International Students [Sandhu & Asrabadi, 1994, 1998], Relational Skills Inventory [Smith, 2019], and the Inventory of New College Student Adjustment [Watson & Lenz, 2018]) were given to volunteer participants. Before taking the survey, participants were asked to read an information letter. They were informed that the survey would take between 25-30 minutes to complete.

Instrumentation

Demographic Questionnaire

A demographic form was designed to collect data related to participants' gender, age, academic standing (e.g., graduate, undergraduate), and identified academic major. Additional questions were asked about their country of origin, name of the university, and years of residency in the United States. The above information will help in differentiating undergraduate from graduate international student groups.

Measures

Brief Resilience Scale

The Brief Resilience Scale (Smith et al., 2008) assesses resilience as the ability to recover or bounce back from stressful or difficult situations. The Brief Resilience Scale is a 6-item self-report scale in which respondents rate the degree to which they agree with an item using a 5-point Likert scale. Responses range from 1= "Strongly Disagree" to 5= "Strongly Agree." A total scale score for resilience is calculated by dividing the total score by 6, the number of items on the scale. Scores can range from 6 to 30, with higher scores indicating higher resilience. Smith et al. (2008) reported good internal consistency for the Brief Resilience Scale. Based on scores across two college student samples, the Cronbach's alpha reliability coefficient ranged from 0.80 to 0.91 (Smith et al., 2008).

Also, test-retest reliability was moderate with a 1-month test-retest reliability coefficient of 0.69 and a 3-month test-retest reliability coefficient of 0.62. Smith et al. (2008) assessed the convergent validity of the Brief Resilience Scale by examining correlations between the Brief Resilience Scale and other instruments. Smith et al. (2008) found positive correlations between the Brief Resilience Scale and measures of resilience, active coping, positive reframing, optimism, purpose in life, and social support. Further assessment of convergent validity revealed negative correlations between the Brief Resilience Scale and measures of pessimism, perceived stress, behavioral disengagement, depression, adverse effect, self-blame, denial, negative interactions, alexithymia, and physical symptoms (Smith et al., 2008).

The Acculturative Stress Scale for International Students

The Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994, 1998) was developed to measure cultural stress reported by international students living and studying in the U.S. ASSIS assessed students' perceptions of stresses experienced by circling a number that best described their response to each of the 36 items on a 5-point Likert-type scale, anchored by 1: Strongly disagree and 5: Strongly agree. Total scores could range from 36 to 180, with higher scores indicating higher levels of acculturation stress. Sandhu and Asrabadi (1994) reported that Cronbach alpha internal consistency for the scale was .95 among international students, like Yeh and Inose's value (2003) of .94. The scale has subscales of Perceived Discrimination 18 items. e.g., "Others are biased toward me"), Homesickness (4 items, e.g., "I feel sad leaving my relatives behind"), Perceived Hate (5 items, e.g., "People show- hatred toward me verbally"), Fear (4 items, e.g., "I feel insecure here"), Culture Shock/Stress Due to Change 13 items, e.g., "I feel uncomfortable to adjust to new foods"), Guilt (2 items, e.g., "I feel guilty that I am living a different lifestyle here"), and Not specific/miscellaneous (10 items which

did not fall under any of the other factors above, e.g., "I feel nervous to communicate in English").

Relational Skills Inventory

The Relational Skills Inventory (RSI) is a new instrument developed by Smith (2019), yet to be published, that uses 32 items to measure attributes of individuals as they engage in interpersonal relationships (Smith, 2019). The RSI includes four factors; general relational attributes (disposition toward self and others), core communication skills (listening, understanding and empathy), trust (trust in self and others), and creating a safe environment (ability to emit safety and openness), each of which are grounded in research and theory. The Relational Skills Inventory is based on Relational Leadership Theory (RLT) by Uhi-Bien (2006), Humanistic Theory by Rogers (1959), Trust Theory by Castelfranchi & Falcone (2010), and Social Cognitive Theory by Bandura (2001). Fifty-four items were initially constructed. A content analysis was conducted (Lawshe, 1975), narrowing the number of usable items to 32. The Relational Skills Inventory uses a 5-point Likert Scale ranging from 1 (not at all) to 5 (very much).

The Inventory of New College Student Adjustment

The Inventory of New College Student Adjustment (INCA) Watson and Lenz (2018) was developed to assist college employees in assessing adjustment problems experienced by first-year college students. The newly developed questionnaire consisted of two sub-scales including 14 items rated on a 4-point Likert scale to assess participant responses from 1 (strongly disagree) to 4 (strongly agree). The (INCA) sub-scales measure adjustment strain based on participants' responses to items within the following sub-scales: supportive network and belief in self. The Supportive network factor consisted of six items focusing on various dimensions of support

students receive from friends and family during college degrees. The Belief in Self factor consisted of eight items describing perceptions students have of themselves, the potential for success, and their abilities. In order to evaluate the INCA instrument, researchers (Watson and Lenz, 2018) performed CFA on student scores, and a good model fit was found for the two INCA subscales. A sample of 696 young adult Ghanaian college students reported alpha reliability coefficients of .74 for both the Belief in Self subscale and the Supportive Network subscale. Alpha coefficient of .83 for the Supportive Network, and .77 for the Belief in Self- demonstrating scores on the INCA subscales offered a degree of consistency and accuracy justifying its use in both research and clinical settings with first-year college students.

Data Analysis

Data were analyzed using Statistically Package for the Social Sciences (SPSS) 22.0 software. Before data analysis, data were screened for entry errors and missing data. Descriptive statistics, multiple regression models, Fisher's z transformation, and MANOVA were conducted to answer the research questions. Descriptive statistics were used to summarize and organize the data., such as means, standard deviations, percentages, and range scores. Additionally, model assumptions for each analysis were reported. The following methods of analysis were used to answer each of the research questions.

Research question 1: Are there differences between the first-year undergraduate and graduate international college students' levels of resilience, relational skills, acculturative stress, and college adjustment?

Descriptive statistics and MANOVA were used to see the levels of variables for first-year undergraduate and graduate and international students. MANOVA emphasizes the mean differences and statistical significance of differences among groups (Tabachnick & Fidell, 2013).

Dimitrov (2009) define MANOVA as an applicable analysis to study the differences between two or more groups (independent variables; IVs) on a combination of two or more dependent variables (DVs). In the current study, the difference between undergraduate and graduate international college students (IVs) was investigated with the levels of resilience, relational skills, acculturative stress, and college adjustment (DVs). Before proceeding with MANOVA, researchers need to evaluate model assumptions (Tabachnick & Fidell, 2013). For this study, the following model assumptions were assessed before running the primary analysis: independence, multivariate normality, linearity, and homogeneity of variance-covariance matrices. After confirming that all model assumptions were met, Wilks' Lambda and F test were analyzed for significance.

Research question 2: Do resilience, relational skills, acculturative stress predict a significant percentage of the variance in college adjustment among first-year undergraduate and graduate international students?

A standard multiple regression was conducted to answer this question. In this analysis, predictor variables are entered into the regression equation. In this study, the predictor variables (IVs) were resilience, relational skills, and acculturative stress. The criterion variable (DV) was college adjustment. The following model assumptions were applicable for this study: independence, normality, linearity, and multicollinearity. After checking model assumptions, the regression models were analyzed to determine the unique contribution of predictors on the criterion variable by evaluating the F test associated with model change.

Research question 3: Is there a difference in model fit between first-year undergraduate and graduate international students for the predictive model regressing resilience, relational skills, and acculturative stress on college adjustment?

Standard multiple regression was conducted for first-year undergraduate and graduated international students. To evaluate whether the two regression models were significantly different from one another, Fisher's z transformation was used. This analysis helps determine whether there is a statistically significant difference in the percentage of variance explained in the criterion variable (college adjustment) by the predictor variables (relational skills, acculturative stress, and resilience) between the models run for undergraduate and graduate students.

Chapter Summary

In this chapter, the research questions addressed, research design implemented, description of participants recruited, data collection procedures utilized, survey measures administered, and analyses conducted were discussed. The sample of the study included 95 undergraduate and graduated international college students at two universities in south Texas. Research questions were addressed using an explanatory, non-experimental, and correlational design. The instruments used to measure the study variables; Brief Resilience Scale (BRS), the Relational Skills Inventory (RSI), the Acculturative Stress Scale for International Students (ASSIS), and the Inventory of New College Student Adjustment (INCA), were introduced, and collected data were analyzed using descriptive statistics, MANOVA, multiple regression models, and Fisher's exact test to answer the research questions.

References

- Abdullah, M. C., Elias, H., Mahyuddin, R., & Uli, J. (2009) Adjustment among First Year Students in a Malaysian University. *European Journal of Social Science*, 8, 496-505.
- Abunab, H. Y., Dator, W. L. T., Salvador, J. T., & Lacanaria, M. G. C. (2017). Solitude, religious and cultural uniqueness in a foreign environment: Adjustments as an Arab student. *Journal of Religion and Health*, 56(5), 1701–1718. doi:10.1007/s10943-017-0425-x
- Akanwa, E. E. (2015). International Students in Western Developed Countries: History, challenges and prospect. *Journal of International Students*, 5(3), 271-284.
- Anaya, G., & Cole, D. G. (2001). Latina/o student achievement: Exploring the influence of student-faculty interactions on college grades. *Journal of College Student Development*, 42(1), 3-14.
- Andrade, M. S. (2006). International student persistence: Integration or cultural integrity. *Journal of College Student Retention*, 8(1), 57-81.
- Arora, S. (2015). *Achievement motivation and resilience among student athletes* (Doctoral Dissertation). Retrieved from Dissertations and Theses database. (UMI No. 3739175)
- Astin, A. W. (1993). What Matters in College: Four Critical Years Revisited. *The Journal of Higher Education*, 22(8), doi: 10.2307/1176821
- Aydinol, A. B. (2013). *Understanding the international student experience: Master's Theses and Doctoral Dissertations*. Paper 551.
- Bai, J. (2016). Perceived support as a predictor of acculturative stress among international students in the United States. *Journal of International Students*, 6, 93-106

- Baker, J. P., & Siryk, M. A. (1999). *SACQ: Student adaptation to college questionnaire manual*. Los Angeles, CA: Western Psychological Services.
- Baker, R. W., & Siryk, B. (1984). Measuring adjustment to college. *Journal of Counseling Psychology, 31*(2), 179-189. doi: 10.1037/0022-0167.31.2.179
- Baker, R. W., & Siryk, B. (1986). Exploratory intervention with a scale measuring adjustment to college. *Journal of Counseling Psychology, 33*(1), 31-38. doi: 10.1037/0022-0167.33.1.31
- Baker, R. W., & Siryk, B. (1987). *Student Adaptation to College Questionnaire (SACQ): Manual*. Los Angeles: CA: Western Psychological Services.
- Baker, R. W., & Siryk, M. A. (1989). *The student adaptation to college questionnaire: A WPS Test Score*. Los Angeles: CA: Western Psychological Services.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology, 52*, 1-26. <http://dx.doi.org/10.1146/annurev.psych.52.1.1>
- Banjong, D. N. (2015). International students' enhanced academic performance: Effects of campus resources. *Journal of International Students, 5*(2), 132-142.
- Bean, J. (1980). Dropouts and turnover: The synthesis and test of a causal model of student attrition. *Research in Higher Education, 12*(2), 155-187. doi: 10.1007/BF00976194
- Bean, J. (1982). Conceptual models of student attrition: How theory can help the institutional researcher. *New Directions for Institutional Research, 36*, 17-33. doi: 10.1002/ir.37019823604
- Berry, J. W. (2003). Conceptual approaches to acculturation. In K. M. Chun, P. Balls Organista, & G. Marín (Eds.), *Acculturation: Advances in theory, measurement, and applied*

- research* (pp. 17-37). Washington, DC, US: American Psychological Association.
- <http://dx.doi.org/10.1037/10472-004>
- Bhochiboya, A., Dong, Y., & Branscum, P. (2017). Sources of social support among international college students in the United States. *Journal of International students*, 7, 671-686.
- Birnbaum, M., Cardona, B., Milian, M., Gonzalez, M. (2012). Strangers in a strange land: How non-traditional international adult students see a United States University. *Journal of International Education and Leadership*, 2(2)
- Borgia, D., Bonvillian, G., & Rubens, A. (2011). Case study of Chinese and U. S. university college of business partnerships: Form, process, opportunities, and challenges. *Journal of Management Policy and Practice*, 12(1), 98-107
- Bradley, G. (2000). Responding effectively to the mental health needs of international students. *Higher Education*, 9(4), 417-433.
- Brunton, M., & Joffrey, L. (2014). Identifying the factors that influence the learner empowerment of international students. *International Journal of Intercultural Relations*, 43, 321-334. doi: 10.1016/j.ijintrel.2014.10.0030147-1767
- Buote, V. M., Pancer, S. M., Pratt, M. W., Adams, G., Birnie-Lefcovitch, S., Polivy, J., & Wintre, M. G. (2007). The importance of friends: Friendship and adjustment among first-year university students. *Journal of Adolescent Research* 22(6), 665-689. doi: 10.1177/0743558407306344
- Caamano-Isorna, F., Corral. M., Parada, M., & Cadaveira, F. (2008). Factors associated with risky consumption and heavy episodic drinking among Spanish university students. *Journal Students Alcohol Drugs*, 69(2), 308-12

- Castelfranchi, C., & Falcone, R. (2010). *Trust theory: A socio-cognitive and computational model*. Chichester: John Wiley & Sons.
- Chai, P. P. M., Krägeloh, C. U., Shepherd, D., & Billington, R. (2012). Stress and quality of life in international and domestic university students: Cultural differences in the use of religious coping. *Mental Health, Religion & Culture*, 15, 265-277.
doi:10.1080/13674676.2011.571665
- Charles-Toussaint G. C., & Crowson, H. M. (2010). Prejudice against international students: the role of threat perceptions and authoritarian dispositions in U.S. students. *The Journal of Psychology: Interdisciplinary and Applied*, 144(5), 413–428.
- Chavoshi, S., Wintre, M. G., Dentakos, S., & Wright, L. (2017). A developmental sequence model to university adjustment of international undergraduate students. *Journal of International Students*, 7(3), 703-727. doi: 10.5281/zenodo.57002
- Cheng, R., & Erben, A. (2012). Language anxiety experiences of Chinese graduate students at U.S. higher institutions. *Journal of Studies in International Education*, 16(5) 477-497
- Chickering, A. W., & Reisser, L. (1993). *Educational and identity*. 2nd Ed. San Francisco: Jossey-Bass
- Ching, Y., Renes, S. L., McMurrow, S., Simpson, J., & Strange, A. T. (2017). Challenges facing Chinese international students studying in the United States. *Educational Research and Reviews*, 12(8), 473-482.
- Cieslak, E. C. (1955). *The foreign student in American colleges: a survey and evaluation of administrative problems and practices*. Detroit, ME Wayne University Press

- Clark Oropeza, B. A., Fitzgibbon, M., & Baron, A. (1991). Managing mental health crises of foreign college students. *Journal of Counseling and Development*, 69, 280-284.
doi:10.1002/j.15566676.1991.tb01506.x
- Clarke, H. I., & Ozawa, M. (1970). The foreign student in the United States: With special reference to Martha (Naoko Ozawa). Madison, WIS: School of Social Work, University of Wisconsin
- Cohen, J. (2013). *Statistical power analysis for the behavioral sciences*. Hoboken, NJ: Routledge.
- Cole, D., & Ahmadi, S. (2010). Reconsidering campus diversity: An examination of Muslim students' experiences. *The Journal of Higher Education*, 81(2), 121–139.
- Coles, R., & Swami, V. (2012). The sociocultural adjustment trajectory of international university students and the role of university structures: A qualitative investigation. *Journal of Research in International Education*, 11(1), 87–100.
- Connor, K. M., & Davidson, J. R. T. (2003). Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). *Depression and Anxiety*, 18, 76–82.
- Constantine, M. G., Okazaki, S., & Utsey, S. O. (2004). Self-concealment, social self-efficacy, acculturative stress, and depression in African, Asian, and Latin American international college students. *American Journal of Orthopsychiatry*, 74, 230-241.
- Credé, M., & Niehorster, S. (2012). Adjustment to college as measured by the student adaptation to college questionnaire: A quantitative review of its structure and relationships with correlates and consequences. *Educational Psychology Review*, 24(1), 133-165. doi: 10.1007/s10648-011-9184-5

- Cutrona, C. E. (1989). Ratings of social support by adolescents and adult informants: Degree of correspondence and prediction of depressive symptoms. *Journal of Personality and Social Psychology*, 57(4), 723-730. doi: 10.1037/0022-3514.57.4.723
- Day, R., & Hajj, F. (1986). Delivering counseling service to international students: The experience of the American University of Beirut. *Journal of College Student Personnel*, 7, 353-357
- deAraujo, A. A. (2011). Adjustment issues of international students enrolled in American colleges and universities: A literature review. *Higher Education Studies*, 1, 2-8
- Dee, J., & Henkin, A. (1999). Challenges to adjustment to college e life n the United States: Experiences of Korean students. *International Students*, 29(1), 54-70
- DeRosier, M., Frank, E., Schwartz, V. and Leary, K. (2013) The Potential Role of Resilience Education for Preventing Mental Health Problems for College Students. *Psychiatric Annals*, 43, 538-544. doi:10.3928/00485713-20131206-05
- Desa, A., Yusoooff, F., & Abd Kadir, N. B. (2012). Acculturative stress among international postgraduate students at UKM. *Procedia-Social and Behavioral Sciences*, 59, 364-369
- Dillard, J., & Chisolm, G. (1983). Counseling the international student in a multicultural context. *Journal of College Student Personnel*, 3, 101-105
- Dimitrov, D. M. (2009). *Quantitative research in education: Intermediate and advanced methods*. Oceanside, NY: Whittier Publications, Inc.
- Duru, E., & Poyrazli, S. (2007). Personality dimensions, psychosocial-demographic variables, and English language competency in predicting level of acculturative stress among Turkish international students. *International Journal of Stress Management*, 14, 99-110

- Dworkin, J. (2005). Risk taking as developmentally appropriate experimentation for college students. *Journal of Adolescent Research*, 20(2), 219-241.
<http://doi.org/10.1177/0743558404273073>
- Eland, A., & Thomas, K. (2013). Succeeding Abroad: International Students in the United States. In H.C. Alberts & H.D. Hazen (Ed.), *International students and scholars in the United States: Coming from abroad*. (pp. 145-162). New York, NY, Palgrave Macmillan.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149-1160. doi:10.3758/brm.41.4.1149
- Fernandez, M. S. (1998). Issues in counseling Southeast Asian Students. *Journal of Multicultural Counseling and Development*, 16(4), 157-166. doi: 10.1002/j.2161-1912.1988.tb00406.
- Furukawa, T. (1997). Depressive symptoms among international exchange students, and their predictors. *Acta Psychiatrica Scandinavica*, 96(4), 241-246.
- Gareis, E. (2012). Intercultural friendships: Effects of home and host region. *Journal of International and Intercultural Communication*, 5, 309-328.
doi:10.1080/17513057.2012.691525
- Gebhard, J., G. (2012). International Students' Adjustment Problems and Behaviors. *Journal of International Students*, 2(2), 184-193.
- Gefen, D. R., & Fish, M. C. (2013). Adjustment to college in nonresidential first-year students: The roles of stress, family, and coping. *Journal of the First-Year Experience & Students in Transition*, 25(2), 95-115.

- Gillett, S. A., & Baskerville, R. (2012). Student Learning Preferences: International Students in Comparative Perspective. *International Journal of Learning*, 18(11).
- Gilligan, R. (2007). Adversity, resilience and the educational progress of young people in public care. *Emotional and Behavioral Difficulties*, 12, 135-145.
doi:10.1080/13632750701315631
- Glass, C. R. (2014). International Student Adjustment to College: Social Networks, Acculturation, and Leisure. *Journal of Park & Recreation Administration*, 32, 7-25.
- Glass, C. R., Gomez, E., & Urzua, A. (2014). Recreation, intercultural friendship, and international students' adaptation to college by region of origin. *International Journal of Intercultural Relations*, 42, 104-117. doi: 10.1016/j.ijintrel.2004.05.007
- Glass, C. R., Wongtrirat, R., & Buus, S. (2015). *International student engagement: Strategies for creating inclusive, connected, and purposeful campus environments*. Sterling, VA: Stylus
- Glass, J. L., Sassler, S., Levitte, Y., & Michelmore, K. M. (2013). What's so special BOUT stem? A comparison of women's retention in STEM and professional occupations. *Social Forces*, 92(2), 723-756. <https://doi.org/10.1093/sf/sot092>
- Glass, R. C., & Westmont, C. M. (2014). Comparative effects of belongingness on the academic success and cross-cultural interactions of domestic and international students. *International Journal of Intercultural Relation*, 38, 106-119. doi: 10.1016/j.ijintrel.2013.04.004
- Gnilka, P. B., Ashby, J. S., Matheny, K. B., Chung, Y. B., & Chang, Y. (2015). Comparison of coping, stress, and life satisfaction between Taiwanese and U.S. college students. *Journal of Mental Health Counseling*, 37, 234-249. doi: 10.17744/mehc.37.3.04

- Gomez, E., Urzua, A., & Glass, C. R. (2014). The impact of social networks and leisure on cultural adjustment. *Journal of Park and Recreation Administration*, 32(1), 7-25.
- Gullekson, N. L., & Tucker, M. L. (2012). An examination of the relationship between emotional intelligence and intercultural growth for students studying abroad. *Journal of the Academy of Business Education*, 13, 162-178.
- Hamboyan, H., & Bryan, A. K. (1995). International students: Culture shock can affect the health of students from abroad. *Canadian Family Physician*, 41, 1713-1716
- Han, S., Pistole, MC., Caldwell, JM, (2017). Acculturative stress, parental and professor attachment, and college adjustment in Asian international students. *Journal of Multicultural Counseling and Development*, 45(2), 111-126. doi:10.1002/jmcd.12068.
- Han, X., Han, X., Luo, Q., Jacobs, S., & Jean-Baptiste, M. (2013). Report of a mental health survey among Chinese international students at Yale University. *Journal of American College Health*, 61(1), 1-8.
- Hayes, R. L., & Lin, H. (1994). Coming to America: Developing social support systems for international students. *Journal of Multicultural Counseling and Development*, 22, 7-16. doi:10.1002/j.2161-1912.1994.tb00238.x
- Hays, R. B., & Oxley, D. (1986). Social network development and functioning during a life transition. *Journal of Personality and Social Psychology*, 50(2), 305-313. doi: 10.1037/0022-3514.50.2.305
- Heppner, P. P., Wampold, B. E., & Kivlighan, M. D. (2008). *Research design in counseling*. Belmont, CA: Thomson Higher Education.
- Heyn, M. E. (2013). *Experiences of male Saudi Arabian international students in the United States*. Dissertations. Paper 167.

- Hoffman, J. A., & Weiss, B. (1987). Family dynamics and presenting problems in college students. *Journal of Counseling Psychology*, 34(2), 157-163.
<http://dx.doi.org/10.1037/0022-0167.34.2.157>
- Holmes, B.F., & Vaughn, A.A. (2015). Evidence that international undergraduate students can succeed academically despite struggling with English, *Journal of International Students*. 5(3), 228-243.
- Hong, M. A., Jiangiang, L. (2013). How Chinese exchange students adapt to their academic course learning a US university: A fresh look at college English teaching in China. *Cross-Cultural Communication*, 9(3)-67-74. doi: 10.3968/j.ccc.1923670020130903.3058
- Hoyt, W. T., Leierer, S., & Millington, M. J. (2006). Analysis and interpretation of findings using multiple regression techniques. *Rehabilitation Counseling Bulletin*, 49(4), 223-233. doi: 10.1177/00343552060490040401
- Hwang, B.J., Bennett, R., & Beauchemin, J. (2014). International students' utilization of counseling services. *College Student Journal*, 48(3), 347-354.
- Institute of International Education. (2014). *Open doors 2014 Reports*. Retrieved from <https://www.iie.org/Why-IIE/Announcements/2014/11/2014-11-17-Open-Doors-Data>
- Institute of International Education. (2017). *IIE releases open door 2017 data*. Retrieved from <https://www.iie.org/Why-IIE/Announcements/2017/11/2017-11-13-Open-Doors-Data>
- Jackson, D. L., & Laanan, F. S. (2015). Desiring to fit: Fostering the success of community college transfer students in STEM. *Community College Journal of Research and Practice*, 39(2), 132-149.

- Jackson, D., Firtko, A. and Edenborough, M. (2007). Personal Resilience as a Strategy for Surviving and Thriving in the Face of Workplace Adversity: A Literature Review. *Journal of Advanced Nursing*, 60, 1-9. doi: 10.1111/j.1365-2648.2007.04412.x
- Ji-yeon, L., & Pistole, M. C. (2014). International student sociocultural adaptation: Gossip and place attachment contributions. *Journal of Mental Health Counseling*, 36(4), 345-359.
- Kaya, C., Tansey, T. N., Melekoğlu, M., & Çakıroğlu, O. (2015). Stress and life satisfaction of Turkish college students. *College Student Journal*, 49, 257-261.
- Kenedy, R., Monty, V., & Lambert-Drache, M. (2012). Transitions through pastoral peer mentoring: A qualitative analysis of the challenges and successes. *Journal of The First-Year Experience & Students in Transition*, 24(1), 79-100.
- Kenzie, J. (2013). Advancing the study of a movement: The status of methods and measures in first-year experience and student transition research. *Journal of The First-Year Experience & Students in Transition*, 25(2), 39-52.
- Kezar, A., & Moriarty, D. (2000). Expanding our understanding of student leadership development: A study exploring gender and ethnic identity. *Journal of College Student Development*, 41(1), 55-69.
- Khawaja, N. G., Moisuc, O., & Ramirez, E. (2014). Developing an Acculturation and Resilience Scale for use with culturally and linguistically diverse populations. *Australian Psychologist*, 49(3), 171–180. doi:10.1111/ap.12052
- Kirkcaldy, B., Furnham, A., & Siefen, G. (2004). The Relationship Between Health Efficacy, Educational Attainment, and Well-Being Among 30 Nations. *European Psychologist*, 9(2), 107-119. doi: 10.1027/1016-9040.9.2.107

- Klomegah, R. Y. (2007). Predictors of academic performance of university students: An application of the goal efficacy model. *College Student Journal*, 41, 407-415
- Komiya, N., & Eelss, G. T. (2001). Predictors of attitudes toward seeking counseling among international students. *Journal of College Counseling*, 4, 153-160.
doi:10.1002/j.21611882.2001.tb00195.x
- Korobova, N., & Starobin, S. S. (2015). A comparative study of student engagement, satisfaction, and academic success among International and American students. *Journal of International Students*, 5, 72-85.
- Kosheleva, E. Y., Amarnor, A. J., & Chernobilsky, E. (2015). Stress factors among International and Domestic students in Russia. *Procedia - Social and Behavioral Sciences*, 200, 460-466. doi:10.1016/j.sbspro.2015.08.096
- Kuh, G. & Hu, S. (2001). The effects of student-faculty interaction in the 1990s. *Review of Higher Education*, 24(3), 309-332.
- Kuh, G. D., Cruce, T. M., Shoup, R., Kinzie, J., & Gonyea, R. M. (2008). Unmasking the effects of student engagement on first-year college grades and persistence. *Journal of Higher Education*, 79(5), 540-563. doi: 10.1353/jhe.0.0019
- Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology*, 28(4), 563-575. <http://dx.doi.org/10.1111/j.1744-6570.1975.tb01393.x>
- Lee, J. J. (2015). *Engaging International Students*. In S. J. Quayle and S. R. Harper (Ed.), *Student Engagement in Higher Education: Theoretical Perspectives and Practical Approaches for Diverse Populations*, Second Edition (pp. 105-120). NY: Routledge.
- Lee, J. J., & Rice, C. (2007). Welcome to America? International student perceptions of discrimination. *Higher Education*, 53(3), 381-409.

- Lee, J.-S., Koeske, G. F., & Sales, E. (2004). Social support buffering of acculturative stress: A study of mental health symptoms among Korean international students. *International Journal of Intercultural Relations*, 28, 399–414.
- Lee, M. E., Abd-Ella, M., & Bums, L. (1981). Needs of foreign students from developing nations at U. S. colleges and universities. Washington, Dc: National Association of Foreign Student Affairs
- Lee, M. E., Abd-Ella, M., & Bums, L. (1981). Needs of foreign students from developing nations at U. S. colleges and universities. Washington, DC: National Association of Foreign Student Affairs.
- Lee, R.M. & Robbins, S.B. (2000). Understanding Social Connectedness in College Women and Men. *Journal of Counseling and Development*, 78, 484-491.
- Lee, J. H., Nam, S. K., Kim, A. R., Kim, B., Lee M. Y., & Lee, S. M. (2013). Resilience: A meta-analytic approach. *Journal of Counseling & Development*, 91, 269-279. doi: 10.1002/j.1556-6676.2013.00095.x
- Leong, P. (2015). Coming to America: Assessing the patterns of acculturation, friendship formation, and the academic experiences of international students at a U.S. college. *Journal of International Students*, 5(4), 459-474
- Li, J., Wang, Y., & Xiao, X. (2014). East Asian International Students and Psychological Wellbeing: A Systematic Review. *Journal of International Students*, 4(4), 301-313.
- Li, Y. P., Wong, J., & Toth, P. (2013). Asian international students' willingness to seek counseling: A mixed-methods study. *International Journal for the Advancement of Counselling*, 35(1), 1-15.

- Li, Y. P., Wong, J., & Toth, P. (2013). Asian international students' willingness to seek counseling: A mixed-methods study. *International Journal for the Advancement of Counseling*, 35(1), 1-15.
- Liao, K. Y. H., & Wei, M. (2014). Academic stress and positive affect: Asian value and self-worth contingency as moderators among Chinese international students. *Cultural Diversity and Ethnic Minority Psychology*, 20, 107-115. doi: 10.1037/a0034071
- Lieb, M. M. (2016). Meeting the needs of international students. *Journal of Alternative Perspectives in the Social Sciences*, 7, 400-422.
- Liu, L. (2011). An international graduate students' ESL learning experience beyond the classroom. *TESL Canada Journal*, 29(1) 77-92.
- Lowinger, R., He, Z., Lin, M., & Ghang, M. (2014). The impact of academic self-efficacy, acculturation difficulties, and language abilities on procrastination behavior in Chinese international students. *College Student Journal*, 48(1), 141-152.
- Lundberg, C. A., & Schreiner, L. A. (2004). Quality and frequency of faculty-student interaction as Predictors of Learning: An Analysis by Student Race/Ethnicity. *Journal of College Student Development*, 45(5), 549-565. doi:10.1353/csd.2004.0061
- Mamiseishvili, K. (2012). International student persistence in U.S. postsecondary institutions. *Higher Education: The International Journal of Higher Education and Educational Planning*, 64(1), 1-17
- Manese, J. E., Sedlacek, W. E., & Leong, F. T. L. (1988). Needs and perceptions of female and female international undergraduate students. *Journal of Multicultural Counseling and Development*, 24-29

- McFadden, C. (2014). Best Practices for Teaching International Students. *Journal of Modern Education Review*, 4(10), 737-741. doi: 10.15341/jmer(2155-7993)/10.04.2014/001
- Meloni, C. (1986). Adjustment problems of foreign students in U. S. colleges and universities. Washington, DC: ERIC Clearinghouse on Language and Linguistics.
- Mesidor, J. K., & Sly, K. F. (2014). Mental health help-seeking intentions among international and African American college students: An application of the theory of planned behavior. *Journal of International Students*, 4(2), 137-149.
- Mesidor, J. K., & Sly, K. F. (2016). Factors that contribute to the adjustment of international students. *Journal of International Students*, 6(1), 262-282.
- Meyers, L. S., Gamst, G., & Guarino, A. J. (2013). *Applied multivariate research: Design and interpretation*. Thousand Oaks, CA: Sage Publications.
- Misra, R., & Castillo, L. G. (2004). Academic Stress Among College Students: Comparison of American and International Students. *International Journal of Stress Management*, 11(2), 132-148. doi: 10.1037/1072-5245.11.2.132
- Morrell, D., Ravlin, L., Ramsey, J. R., Ward, A. K. (2013). Past experience, Cultural intelligence, and satisfaction with international business studies. *Journal of Teaching in International Business*, 24 (1).
- Myers-walls, A. J., Frias, V. L., Kwon, A. K., Meryl K.J.M., & Lu, T. (2011). Living life in two worlds: Acculturative stress among Asian international graduate student parents and spouses. *Journal of Comparative Family Studies*, 43(4), 455-478.
- Nasirudeen, A. M., Koh, W. N. J., Lau, L., L. C. A., Seng, L. L., & Ling, A. (2014). Acculturative stress among Asian international students in Singapore. *Journal of International Students*, 4(4), 363-373.

- Ng, T. W., Sorensen, K. L., & Eby, L. T. (2006). Locus of control at work: a meta-analysis. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 27(8), 1057-1087.
- Nguyen, A. D., & Benet-Martínez, V. (2013). Biculturalism and adjustment: A meta-analysis. *Journal of Cross-Cultural Psychology*, 44, 122-159
- Nilsson, J. E., Butler, J., Shouse, S., & Joshi, C. (2008). The relationships among perfectionism, acculturation, and stress in Asian international students. *Journal of College Counseling*, 11(2), 147-158. <http://dx.doi.org/10.1002/j.2161-1882.2008.tb00031.x>
- NilssonMesidor, J. K., Sly, K. F. (2014). Mental health help-seeking intentions among international and African American college students: An application of the theory of planned behavior. *Journal of International Students*, 4(2), 137-149.
- Oei, T. P., & Notowidjojo, F. (1990). Depression and loneliness in overseas students. *International Journal of Social Psychiatry*, 36(2), 121-130. doi: 10.1177/002076409003600205
- Onabule, A. I., & Boes, S., R. (2013). International students' likelihood to seek counseling while studying abroad. *Journal of International Students*, 3(1), 52-59.
- Open doors report on international educational exchange (2015, November 16). Retrieved from <http://www.iie.org/en/Why-IIE/Announcements/2015-11-16-Open-Doors-Data>
- Ozen, N. S., Ercan, I., Irqil, E., & Sigirli, D. (2010). Anxiety prevalence and affecting factors among university students. *Asia Pacific Journal Public Health*, 22(1), 127-33. doi: 10.1177/1010539509352803

- Ozer, S. (2015). Predictors of international students' psychological and sociocultural adjustment to the context of reception while studying at Aarhus University, Denmark. *Scandinavian Journal of Psychology*, 56(6), 717-725. doi: 10.1111/sjop.12258
- Pan, J. Y. (2011). A resilience-based and meaning-oriented model of acculturation: A sample of mainland Chinese postgraduate student in Hong Kong. *International Journal of Intercultural Relations*, 35, 592–603.
- Pan, J.-Y., Fu Keung Wong, D., & Ye, S. (2013). Post-migration Growth Scale for Chinese international students: Development and validation. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 14(6), 1639–1655.
doi:10.1007/s10902-012-9401-z
- Pederson, P. B. (1991). Introduction to the special issue on multiculturalism as a fourth force in counseling. *Journal of Counseling and Development*, 70(1), 4-4. doi: 10.1002/j.1556-6676.1991.tb01553.x
- Peng, L., Zhang, J., Li, M., Li, P., Zhang, Y., Zuo, X. and Xu, Y. (2012). Negative Life Events and Mental Health of Chinese Medical Students: The Effect of Resilience, Personality, and Social Support. *Psychiatry Research*, 196, 138. doi: 10.1016/j.psychres.2011.12.006
- Pittman, L.D. & Richmond, A. (2008). University Belonging, Friendship Quality, and Psychological Adjustment during the Transition to College. *The Journal of Experimental Education*, 76, 343-362. doi: 10.3200/JEXE.76.4.343-362
- Popp, N., Hums, M. A. & Greenwell, C.T. (2010). A comparison of international and domestic student-athletes measuring social adjustment and institutional attachment to college, *International Journal of Sport Management*, 11, 326-346.

- Poyrazli, S., & Kavanaugh, P. (2006). Marital status, ethnicity, academic achievement, and adjustment strains: The case of graduate international students. *College Student Journal*, 40, 767-780.
- Probertson, M., Line, M., Jones, S., & Thomas, S (2000). International students, learning environments and perceptions: a case study using the Delphi technique. *Higher Education Research and Development*, 19(1), 89–102.
- Quaye, S. J., & Harper, S. R. (2014). *Student engagement in higher education: Theoretical perspectives and practical approaches for diverse populations*. Routledge.
- (R. L. Smith, personal communication, May 1, 2019).
- Rabia, H. A., & Karkouti, I. M. (2017). A qualitative investigation of the factors affecting Arab international students' persistence in the United States. *College Student Journal*, 51(3), 347–354.
- Rajapaksa, S., & Dundes, L. (2002/2003). It's a long way home: International student adjustment to living in the United States. *College Student Retention*, 4, 15-28.
- Ravert, R. D. (2009). "You're only young once": Things college students report *Journal of Adolescent Research*, 24(3), 376-396. doi: 10.1177/0743558409334254
- Reid, L. M., & Dixon, A. L. (2012). The counseling supervision needs of international students in U.S. institutions of higher education: A culturally-sensitive supervision model for counselor educations. *Journal for International Counselor Education*, 4, 29-41.
- Rice, K. G., Choi, C. C., Zhang, Y., Morero, Y. I., & Anderson, D. (2012). Self-critical perfectionism, acculturative stress, and depression among international students. *The Counseling Psychologist*, 40(4), 575-600

- Ridley, D. (2004). Puzzling experiences in higher education: critical moments for conversation. *Studies in Higher Education*, 91-107. <https://doi.org/10.1080/1234567032000164895>
- Rienties, B., Beusaert. B., Grohnert. T., Niemantsverdriet. S., & Kommers. P. (2011). Understanding Academic Performance of International Students: The Role of Ethnicity, Academic and Social Integration. *Journal of High Educ*, 63, 685-700
- Rogers, C. R. (1959). A theory of therapy, personality, and interpersonal relationships, as developed in the client-centered framework. In S. Koch (Ed.), *Psychology: A Study of a Science*: Vol. 3 (pp. 184-256). New York, NY: McGraw-Hill.
- Ross, H., & Chen, Y. (2015). Engaging Chinese International Undergraduate Students in the American University. *Learning and Teaching: The International Journal of Higher Education In The Social Sciences*, 8(3), 13
- Russel. J., Rosenthal, D., & Thomson, G. (2010). The international student experience: Three style of adaptation. *Higher Education*, 60(2), 235-249.
- Russell, R. K., & Petrie, T. A. (1992). Academic adjustment of college students: Assessment and counseling. In S. D. Brown & R. W. Lent (Eds.), *Handbook of counseling psychology* (pp. 485-511). Oxford, England: John Wiley & Sons.
- Ryan, R.M. and Deci, E.L. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist*, 55, 68. <http://dx.doi.org/10.1037/0003-066X.55.1.68>
- Sabbadini, M., Naldi, M., Packman, W., Youngblom, J., & Weil, J. (2013). International genetic counseling students' perspective on their training experience in the United States. *Journal of Genetic Counseling*, 22(6), 817–829. doi:10.1007/s10897-013-9648-5

- Sakurako, M. (2000). Addressing the health concerns of international students. *Journal of Counseling and Development*, 78(2), 137-144
- Sakurako, M. (2000). Addressing the mental health concerns of international students. *Journal of Counseling and Development*, 78(2), 137-144
- Sam, D. L. & Berry, J. W. (2010). Acculturation: When individuals and groups of different cultural backgrounds meet. *Perspectives on Psychological Science*, 5, 472-481.
- Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports*, 75, 435-448.
doi:10.2466/pr0.1994.75.1.435
- Sandhu, D.S., & Asrabadi, B.R. (1998). *An acculturative stress scale for international students: A practical approach to stress measurement*. In C.P. Zalaquett and R.J. Wood (Eds.), *Evaluating stress: A book of resources*, v.2. (pp. 1-33). London: The Scarecrow Press.
- Sawir, E., Marginson, S., Forbes-Mewett, H., Nyland, C., & Ramia, G. (2012). International student security and English language proficiency. *Journal of Studies in International Education*, 16, 434-454
- Sax, L. J., Bryant, A. N., & Harper, C. E. (2005). The differential effects of student-faculty interaction on college outcomes for women and men. *Journal of College Student Development*, 46(6), 642-657.
- Schwartz, S. J., Cote, J. E., & Arnett, J. J. (2005). Identity and agency in emerging adulthood: Two developmental routes in the individualization process. *Youth & Society*, 37(2) 201-229

- Sherry, M., Thomas, P., & Chui, W. H. (2010). International student: A vulnerable student population. *Higher Education: The International Journal of Higher Education and Educational Planning*, 60(1), 33-46
- Sherry, M., Thomas, P., & Chui, W. H. (2010). International student: A vulnerable student population. *Higher Education: The International Journal of Higher Education and Educational Planning*, 60(1), 33-46
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: assessing the ability to bounce back. *International Journal of behavioral medicine*, 15(3), 194-200.
- Smith, R. A., & Khawaja, N. G. (2014). A group psychological intervention to enhance the coping and acculturation of international students. *Advances in Mental Health*, 12(2), 110-124. doi:10.5172/jamh.2014.12.2.110.
- Sodowsky, G. R., & Plake, B. S. (1992). A study of acculturation differences among international people and suggestions for sensitivity to within-group differences. *Journal of Counseling & Development*, 71(1), 53-59. <http://dx.doi.org/10.1001/j.1556-6676.1992.tb02171.x>
- Spencer-Rodgers, J. (2001). Consensual and individual stereotypic beliefs about international students among American host nationals. *International Journal of Intercultural Relations*, 25(6), 639-657. [http://dx.doi.org/10.1016/S0147-1767\(01\)00029-3](http://dx.doi.org/10.1016/S0147-1767(01)00029-3)
- Stroebe, M. S., van Vliet, T., Hewstone, M., Willis, H. (2002). Homesickness among students in two cultures: Antecedents and consequences. *British Journal of Psychology*, 93(2), 147-68. doi: 10.1348/000712602162508

- Student and Exchange Visitor Information System. (2013). *General summary quarterly review*. Retrieved from <https://www.ice.gov/doclib/foia/sevis/sevis-by-the-numbers-quarterly-july2013.pdf>
- Swenson, L. M., Nordstrom, A. H., Hiesta, M. (2008). The role of peer relationship in adjustment to college. *Journal of College Student Development*, 49(6): 551-567
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed). Boston, MA: Pearson Education.
- Telbis, N. M., Helgeson, L., & Kingsbury, C., (2013). International students' confidence and academic success. *Journal of International Students*, 1(2), 43- 49.
- Terui, S. (2011). Second language learners 'coping strategy in conversations with native speakers, *Journal of International Students*, 2(2),168-183
- Tinto, V. (1975). Dropouts from higher education: A theoretical synthesis of recent literature. *A Review of Educational Research*, 45, 89-125.
- Tinto, V. (1986). Theories of student departure revisited. In John C. Smart (ed.), *Higher Education: Handbook of Theory and Research*, Vol H (pp. 359-384). New York: Agathon Press.
- Tinto, V. (1987). *Leaving college, rethinking the causes and cures of student attrition*. Chicago: University of Chicago Press.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed). Chicago, IL: The University of Chicago Press.
- Torrente, G., & Vazsonyi, A. T. (2008). The salience of the family in antisocial and delinquent behaviors among Spanish adolescents. *The Journal of Genetic Psychology*, 169(2), 187-97. doi: 10.3200/GNTP.169.2.187-198

- Uchino, B.N. (2009) Understanding the Links between Social Support and Physical Health: A Life-Span Perspective with Emphasis on the Separability of Perceived and Received Support. *Perspectives on Psychological Science*, 4, 236- 255. doi:10.1111/j.1745-6924.2009.01122.x
- Uhi-Ben, M. (2006). Relational leadership theory: Exploring the social processes of leadership and organizing. *The Leadership Quarterly Yearly Review of Leadership*, 17(6), 654-676. doi: 10.1016/j.leaqua.2006.10.007
- Urban, E. L., & Bierlein Palmer, L. (2014). International students as a resource for internationalization of higher education. *Journal of Studies in International Education*, 18(4), 305-324.
- Valdez, G. (2015). US higher education classroom experiences of undergraduate Chinese international students. *Journal of International Students*, 5(2), 188-200
- Valdez, G. (2015). US higher education classroom experiences of undergraduate Chinese international students. *Journal of International Students*, 5(2), 188-200
- Wang, C.D. & Castaneda-Sound, C. (2008). The Role of Generational Status, Self-Esteem, Academic Self-Efficacy and Perceived Social Support in College Students' Psychological Well-Being. *Journal of College Counseling*, 11, 101 -118. doi: 10.1002/j.2161-1882.2008.tb00028.x
- Wang, C.D. and Castaneda-Sound, C. (2008) The Role of Generational Status, Self-Esteem, Academic Self-Efficacy and Perceived Social Support in College Students' Psychological Well-Being. *Journal of College Counseling*, 11, 101-118.
<http://dx.doi.org/10.1002/j.2161-1882.2008.tb00028.x>

- Wang, J. (2009). A study of resiliency characteristics in the adjustment of international graduate students at American universities. *Journal of Studies in International Education*, 13, 22-45. doi: 10.1177/1028315307308139
- Wang, K.T, Wei, M., Zhao, R., Chuang, C. & Li, F. (2015). The cross-cultural loss: Development and psychometric evaluation. *Psychological Assessment*, 27(1), 42-53.
- Ward, C., Bochner, S., & Furnham, A. (2001). The psychology of culture shock (2nd ed.). Hove, UK: Routledge.
- Watson, J. C., & Lenz, A. S. (2018). Development and evaluation of the Inventory for New College Student Adjustment. *Journal of College Student Retention: Research, Theory & Practice*, 0(0), 1-16.
- Weill, L. (1982). Advising international students at small colleges. *NACADA Journal*, 2(1), 52-56
- Wilks, S.E. & Spivey, C.A. (2010). Resilience in Undergraduate Social Work Students' Social Support and Adjustment to Academic Stress. *Social Work Education*, 29, 276-288. doi:10.1080/02615470902912243
- Wilks, S.E. (2008). Resilience Amid Academic Stress: The Moderating Impact of Social Support among Social Work Students. *Advances in Social Work*, 9, 106-125.
- Wintre, M. G., Bowers, C., Gordner, N., & Lange, L. (2006). Re-Evaluating the University Attrition Statistic: A Longitudinal Follow-Up Study. *Journal of Adolescent Research*, 21(2), 111-132. <http://dx.doi.org/10.1177/0743558405385658>
- Wintre, M.G. & Yaffe, M. (2000). First-Year Students' Adjustment to University Life as a Function of Relationships with Parents. *Journal of Adolescent Research*, 15, 9-37. doi:10.1177/074355840 0151 00

- Wirawan, H., & Bandu, M. T. (2016). A review of self-efficacy training for international student. *The International Journal of Information and Learning Technology*, 33(2), 115-128.
- Wright, C. & Schartner, A. (2013). "I can't...I won't?" International students at the threshold of social interaction. *Journal of Research in International Education*, 12, 113-128.
- Yakunina, E. S., Weigold, I. K., Weigold, A., Hercegovac, S., & Elsayed, N. (2013). International students' personal and multicultural strengths: Reducing acculturative stress and promoting adjustment. *Journal of Counseling & Development*, 91(2), 216-223. doi:10.1002/j.15566676.2013. 00088.x
- Yeh, C. J., & Inose, M. (2003). International students reported English fluency, social support satisfaction, and social connectedness as predictors of acculturative stress. *Counselling Psychology Quarterly*, 16(1), 15-28. doi:10.1080/0951507031000114058
- Yi, J. K., Jun-Chin, G. I., Jenny, K., & Kishimoto, Y. (2003). Utilization of counseling services by international students. *Journal of Instructional Psychology*, 30(4), 333-342
- Young, J. T. (2017). Confucianism and accents: Understanding the plight of the Asian international students in the U. S. *Journal of International Students*, 7(3), 433-448, doi: 10.5281/zenodo.570022.
- Yusliza, M. Y., and Shankar, C. (2010). 'Adjustment in International Students in Malaysian Public University.' *International Journal of Innovation, Management and Technology*, 1(3), 275-278.
- Yusoff, Y. M. (2012). Self-efficacy, perceived social support, and psychological adjustment in international undergraduate students in a public higher education institution in Malaysia. *Journal of Studies in International Education*, 16(4), 353-371. doi:10.1177/1028315311408914

- Zhang, J. & Goodson, P. (2011). Predictors of international students' psychosocial adjustment to life in the United States: A systematic review. *International Journal of Intercultural Relations*, 35, 139-162
- Zhang, J., Mandl, H. & Wang, E. (2010). Personality, acculturation, and psychosocial adjustment of Chinese international students in Germany. *Psychological Reports*, 107, 511 – 525
- Zhang, Y. & Mi, Y. (2013). Another look at the language difficulties of international students. *Journal of Studies in International Education*, 14, 371-388.
- Zhang, Y. (2016). International students in transition: Voices of Chinese doctoral students in a U.S. research university. *Journal of International Students*, 6(1), 175-194.

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AppeIndex A: IRB Approval Letter



OFFICE OF RESEARCH COMPLIANCE
Division of Research and Innovation
3500 Ocean Drive, Unit 3400
Corpus Christi, Texas 78404
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Human Subjects Protection Program

Institutional Review Board

DATE: February 12, 2019

TO: Robert Smith, College of Education and Human Development

CC: Ogunola Oyeniya, College of Education and Human Development
College of Graduate Studies (gradcollege@tamucc.edu)

FROM: Office of Research Compliance

SUBJECT: Exempt Determination

On February 12, 2019, the Texas A&M University-Corpus Christi Institutional Review Board reviewed the following submission:

Type of Review:	Exempt
Title:	A Comparison of First Year Undergraduate and Graduate International Students' Adjustment to College
Principal Investigator:	Robert Smith
IRB ID:	155-18
Funding Source:	None
Documents Reviewed:	155-18_CORRECTED IRB 2_12_2019 155-18_CORRECTED Informed Consent 2_12_2019 IRB Documents-Robert Smith-Ogunola Oyeniya 2_12_2019

Texas A&M University-Corpus Christi Institutional Review Board reviewed the project and based on the information provided has determined the research meets exempt category: 45 CFR 46.104(d)(2) (Research involving use of educational tests, survey procedures, interview procedures or observation of public behavior).

Therefore, this project has been determined to be exempt from IRB review. You may proceed with this project.

Reminder of Investigator Responsibilities: As principal investigator, you must ensure:

1. **Informed Consent:** Ensure informed consent processes are followed and information presented enables individuals to voluntarily decide whether to participate in research.
2. **Amendments:** This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. Any planned changes require an amendment to be submitted to the IRB to ensure that the research continues to meet criteria for exemption. The Amendment must be approved before being implemented.
3. **Completion Report:** Upon completion of the research project (including data analysis and final written papers), a Completion Report must be submitted.
4. **Records Retention:** All research related records must be retained for three (3) years beyond the completion date of the study in a secure location. At a minimum these documents include: the research protocol, all questionnaires, survey instruments, interview questions and/or data collection instruments associated with this research protocol, recruiting or advertising materials, any consent forms or information sheets given to participants, all correspondence to or from the IRB or Office of Research Compliance, and any other pertinent documents.



OFFICE OF RESEARCH COMPLIANCE
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O 361.825.2497

Human Subjects Protection Program

Institutional Review Board

5. **Adverse Events:** Adverse events must be reported to the Research Compliance Office immediately.
6. **Post-approval monitoring:** Requested materials for post-approval monitoring must be provided by dates requested.

Please do not hesitate to contact the Office of Research Compliance with any questions at irb@tamucc.edu.

Respectfully,

Anissa
Ybarra

Digitally signed
by Anissa Ybarra
Date: 2019.02.12
16:00:52 -06'00'

Office of Research Compliance

Appendix B: Invitation to Participate

Study Title: *A Comparison of First-Year Undergraduate and Graduate International Students Adjustment to College*

Greetings International Students,

This email is to invite you to participate in a doctoral research study regarding your adjustment to college. Odunola Oyeniya is a doctoral student in the Counselor Education Program. She is doing research regarding the first-year undergraduate and graduate international students' adjustment to college for her dissertation. The survey is voluntary, but your participation will be highly appreciated.

To be eligible to be in this study, you must be over the age of 18 and an international student who has spent at least a semester in the United States and must be in good academic standing. Participants who meet the above criteria can complete the survey via survey link below. The survey should take approximately 25-30 minutes to complete. The survey will start 2/15/2019 and end on 3/30/2019.

Please contact the researcher Odunola Oyeniya at ooyeniya@islander.tamucc.edu with questions or concerns about the informed consent, the online survey, or with general questions about the study. You may also contact the dissertation chair, Dr. Robert Smith at robert.smith@tamucc.edu

https://tamucc.co1.qualtrics.com/jfe/form/SV_b1M1vT43DQHTTWB

Thank you!



Odunola Oyeniya

Appendix C: Informed Consent



CONSENT TO PARTICIPATE IN A RESEARCH STUDY AT TEXAS A&M UNIVERSITY-CORPUS CHRISTI

A Comparison of First-Year Undergraduate and Graduate International Students' Adjustment to College.

WHO IS DOING THIS STUDY?

A study team led by Dr. Robert Smith is doing this research study. Other research professionals may help them. We are asking you to be a part of this research study. Please read the information below and ask questions about anything that you do not understand before you make a choice.

WHY IS THIS STUDY BEING DONE?

The purpose of this research study is to examine the factors related to undergraduate and graduate international students' adjustment to their new learning environment.

WHO CAN BE IN THIS STUDY?

We are asking you to be a part of this research study because you are an international student currently enrolled in college.

To be eligible to be in this study, you must be over the age of 18 and international student who have spent at least a semester in the United States and must be in good academic standing.

To learn more about who can be in this study, see Appendix: Study Participants.

WHAT WILL HAPPEN TO ME IN THIS STUDY?

Being in this study involves answering questions in a survey on factors related to first year undergraduate and graduate international students' college experiences.

If you agree to be in this study, you will be in this study for approximately 30 minutes.

If you decide to be in this study, the following things will happen:



- Your participation will **involve collecting information about you**. See Appendix: Study Procedures- Collecting Information to learn more.
 - You will be **asked to answer some questions** by filling out questionnaire. These questionnaires will take about 30 minutes to complete. See Appendix: Study Procedures- Questionnaire to learn more.
-

WHAT ARE THE RISKS OF THE STUDY?

There are minimal risks in this study and not greater than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. The main risk may include:

- You will be asked about adjusting to college. Sample questions that you may be asked are: I am aware of what others are feeling, I tend to bounce back quickly after hard times, homesickness bothers me, and my study habits are effective. You do not have to answer questions you do not want to. You can exit the survey and stop at any time.
- This study is anonymous. Names and IP addresses are not collected in this study.
- Anonymity of participants is held if findings of this study are made public through publications, or presentations.

If you have any of these problems or changes in the way you feel about participating in the study, you should tell the study team as soon as possible.

WHAT ARE THE BENEFITS OF BEING IN THIS STUDY?

There may be no direct benefit to you from being in this research study.

WHAT ABOUT EXTRA COSTS?

Participation in this study will not result in any costs to you.

WHAT WILL I RECEIVE FOR BEING IN THIS STUDY?

You will not receive any payment for participating in this study.

WHAT ARE THE ALTERNATIVES TO BEING IN THIS STUDY?

You may choose not to participate.

WHAT ARE MY RIGHTS AS A STUDY PARTICIPANT?

Being in a research study is voluntary. You do not have to be in this study. If you choose not to participate, there will be no penalty or loss of benefits to which you are otherwise entitled.

What if I change my mind?

You may withdraw from the study at any time without penalty.

WHO SHOULD I CALL IF I HAVE QUESTIONS OR PROBLEMS?

Dr. Robert Smith is in charge of this research study. **You may call Dr. Robert Smith at 362-825-2307 with questions at any time during the study. You may also call Odunola Oyeniyi at 361-660-9885 with any questions you may have.**

You may also call Texas A&M University-Corpus Christi Institutional Review Board (IRB) with questions or complaints about this study at irb@tamucc.edu or 361-825-2497. The IRB is a committee of faculty members, statisticians, researchers, community advocates, and others that ensures that a research study is ethical and that the rights of study participants are protected.

Appendix: Study Participants

Up to 86 participants will be in this study from 2 different settings. Participants will be asked to be in this study from Texas A&M University-Corpus Christi and Texas A&M University-Kingsville. Participants will be undergraduate and graduate international students who have spent at least a semester in universities in the United States and must be at least 18 years.

Appendix: Study Procedures - Collecting Information

Your participation will involve providing information regarding factors related to U.S. international students experience and adjustment to college. If you chose, you do not have to provide information to the study.

Appendix: Study Procedures - Questionnaire

Undergraduate and graduate international students' will be asked to complete surveys. Sample questions that you may be asked are:

- I am aware of what others are feeling
- I tend to bounce back quickly after hard times



- Homesickness bothers me
- My study habits are effective.

You do not have to answer questions if you are uncomfortable. You can exit the survey and stop at any time.

Appendix: Confidentiality

A research record will be created and kept in the private office in Counseling and Educational Psychology Department, at the Early Childhood Development Center. The research record may include documents that have age, gender, name of the university, student status.

Participant information is anonymous. Research data will not identify participants.

Appendix: Withdraw

If you withdraw from the study early for any reason, the information that already has been collected will be destroyed and no further information will be collected for the study. The information cannot be traced back to you individually. Because you cannot be identified from the information there is no further risk to your privacy.

Appendix D: Demographic Forms and Instruments

Demographic Forms

Please complete the following demographic questions.

1. Age: _____

2. Gender: (circle one)

- ☐ Male
- ☐ Female

3. Country of Origin: (circle one)

- ☐ Australia
- ☐ Bangladesh
- ☐ Canada
- ☐ China
- ☐ Colombia
- ☐ Ecuador
- ☐ Egypt
- ☐ Ghana
- ☐ India
- ☐ Iran
- ☐ Japan
- ☐ Jordan
- ☐ Kuwait
- ☐ Mexico
- ☐ Nepal
- ☐ Nigeria
- ☐ Norway
- ☐ Oman
- ☐ Pakistan
- ☐ Philippines
- ☐ Russia
- ☐ Saudi Arabia
- ☐ South Korea
- ☐ Spain
- ☐ Sri Lanka
- ☐ Taiwan
- ☐ Thailand
- ☐ Turkey
- ☐ United Kingdom
- ☐ Venezuela
- ☐ Vietnam

4. When did you arrive in the United States? _____

5. Course of Study: _____

6. Degree Level: (circle one)

- ☐ Bachelors
- ☐ Master's

- Doctoral

7. Name of the University: (choose one)

- Texas AM Univeristy-Corpus Christi
- Texas A&M University-Kingsville

The Brief Resilience Scale (Smith et al., 2008)

Directions: Please respond to each item by circling a letter.

<i>Questions</i>		<i>Response</i>				
		<i>Strongly Disagree</i> <i>A</i>	<i>Disagree</i> <i>B</i>	<i>Neutral</i> <i>C</i>	<i>Agree</i> <i>D</i>	<i>Strongly Agree</i> <i>E</i>
1	I tend to bounce back quickly after hard times	A	B	C	D	E
2	I have a hard time making it through stressful events	A	B	C	D	E
3	It does not take me long to recover from a stressful event	A	B	C	D	E
4	It is hard for me to snap back when something bad happens	A	B	C	D	E
5	I usually come difficult times with little trouble	A	B	C	D	E
6	I tend to take a long time to get over setbacks in life	A	B	C	D	E

The Acculturative Stress Scale for International Students (Sandhu & Asrabadi, 1994, 1998)

Please respond to each item by circling a letter.

	<i>Questions</i>	<i>Response</i>				
		<i>Strongly Disagree A</i>	<i>Disagree B</i>	<i>Neutral C</i>	<i>Agree D</i>	<i>Strongly Agree E</i>
1	Homesickness bothers me.	A	B	C	D	E
2	I feel uncomfortable to adjust to new foods.	A	B	C	D	E
3	I am treated differently in social situation.	A	B	C	D	E
4	Others are sarcastic toward my cultural values.	A	B	C	D	E
5	I feel nervous to communicate in English.	A	B	C	D	E
6	I feel sad living in unfamiliar surroundings.	A	B	C	D	E
7	I fear for my personal safety because of my different cultural background.	A	B	C	D	E
8	I feel intimidated to participate in social activities.	A	B	C	D	E
9	Others are biased toward me.	A	B	C	D	E
10	I feel guilty to leave my family and friends behind.	A	B	C	D	E
11	Many opportunities are denied to me.	A	B	C	D	E
12	I feel angry that my people are considered inferior here	A	B	C	D	E
13	Multiple pressures are placed upon me after migration.	A	B	C	D	E
14	I feel that I receive unequal treatment.	A	B	C	D	E
15	People show hatred toward me nonverbally.	A	B	C	D	E
16	It hurts when people don't understand my cultural values.	A	B	C	D	E

17	I am denied what I deserve.	A	B	C	D	E
18	I frequently relocate for fear of others.	A	B	C	D	E
19	I feel low because of my cultural background.	A	B	C	D	E
20	Others don't appreciate my cultural values.	A	B	C	D	E
21	I miss the people and country of my origin.	A	B	C	D	E
22	I feel uncomfortable to adjust to new cultural values.	A	B	C	D	E
23	I feel that my people are discriminated against.	A	B	C	D	E
24	People show hatred toward me through actions.	A	B	C	D	E
25	I feel that my status in this society is low due to my cultural background.	A	B	C	D	E
26	I am treated differently because of my race.	A	B	C	D	E
27	I feel insecure here.	A	B	C	D	E
28	I don't feel a sense of belonging (community) here.	A	B	C	D	E
29	I am treated differently because of my color.	A	B	C	D	E
30	I feel sad to consider my people's problems.	A	B	C	D	E
31	I generally keep a low profile due to fear.	A	B	C	D	E
32	I feel some people don't associate with me because of my ethnicity.	A	B	C	D	E
33	People show hatred toward me verbally.	A	B	C	D	E
34	I feel guilty that I am living a different life-style here.	A	B	C	D	E
35	I feel sad leaving my relatives behind.	A	B	C	D	E
36	I worry about my future for not being able to decide whether to stay here or to go back.	A	B	C	D	E

The Inventory of New College Student Adjustment (Watson & Lenz, 2018)

Directions: Please read each question carefully and answer according to your level of agreement with each item since you have been at the university using the following scale:

Strongly Disagree	Disagree	Agree	Strongly Agree
SD	D	A	SA

1	My study habits are effective	SD	D	A	SA
2	Past experiences help me cope with the demands of college	SD	D	A	SA
3	I believe I handle university well	SD	D	A	SA
4	My classmates value my opinions	SD	D	A	SA
5	Challenging courses make me a better student	SD	D	A	SA
6	My friends support me as I work toward my goals	SD	D	A	SA
7	Most people would describe me as levelheaded	SD	D	A	SA
8	I always see the good in situations	SD	D	A	SA
9	I am enjoying college life	SD	D	A	SA
10	My friends help me to grow in important ways	SD	D	A	SA
11	My family's support makes me feel stronger	SD	D	A	SA
12	My friends really care about supporting me	SD	D	A	SA
13	I know what I will do after graduation	SD	D	A	SA
14	I can be real with at least a few of my friends	SD	D	A	SA

PREFACE TO SUMMARY MANUSCRIPT

Changes to the Project

From the time of proposal to defense, no significant changes were made to this study; the pool of participants was comprised of first-year undergraduate and graduate international student-samples from two universities in South Texas who received the same research questions which were then analyzed using the original analysis plan. Only minor changes were made during the stage of data collection because it took longer than expected due to some challenges in getting the actual number yielded by the power analysis. We added two weeks to the data collection timeline in order to obtain the questionnaire responses from at least 86 students in order to be able to find differences between the first-year undergraduate and graduate international students' adjustment to college life, should they exist.

Identification of the Target Journal

I am hopeful that the manuscript for this study will be published in the Journal of International Students. The journal aims to publish scholarly peer-reviewed articles regarding international students in tertiary education, secondary education, and other educational settings that make significant contributions to research, policy, and practice in the realm of international education worldwide. JIS is especially interested in submissions which make a significant and original contribution to areas such as cross-cultural studies regarding the acculturation of immigrant students, intergroup relations, intercultural communications, and international student experiences in higher education institutions and programs. Some examples of these programs include private, public, and for-profit institutions which make this manuscript a good fit based on its purpose to see how relational skills, acculturative stress, and resilience predict the adjustment of the first-year undergraduate and graduate international students in the U.S. universities. This

journal's impact factor is 1:35, with a 28% acceptance rate and is also ranked number 19 in higher education.

According to the Journal of International Students, the submission must represent an original work that has not been published elsewhere nor submitted to another journal for publication. The submission must indicate that the Institutional Review Board (IRB) human subjects' approval was secured or explained why it was not required. The submission must be written in a language that is engaging, direct, and lively, as well as using active voice whenever possible. The submission must report sample size, population, and effect size if applicable, and include the definition of the international student as defined by its government or institution. The submission needs to cite current theoretical or empirically based literature, including relevant articles published in the Journal of International Students, and all identifying information must be removed from each document and file name.

Moreover, submissions should be prepared according to the Publication Manual of the American Psychological Association (APA), Sixth Edition, including title page (without author names), abstract, keywords, in-text citations, pagination, headings, tables, figures, and reference lists. In addition, there are four manuscript types for this journal: research articles (4,500-7,500 words), research in brief (1,750- 2,000), study abroad experiences/reflections (1,000-2000 words), and book/dissertation/film/website reviews (750-1,200 words); title page, references, tables, and figures are not included in the word count. I am aiming to publish my manuscript within the section of JIS containing research articles because it is focused on quantitative research related to the journal's overall publication goals. Also, authors are encouraged to review current issues of the journal for examples of published articles, as well as to familiarize themselves with the journal's aims and scopes. Finally, JIS encourages authors to review the

criteria used to evaluate manuscripts in the journal’s double-blind peer review process, which we had done before writing the manuscript.

Committee Commentary and Student Feedback

During my dissertation defense on June 19, 2019, at 11:00 a.m., which lasted approximately two hours, I presented my defense to all of my committee members at the Early Childhood Development Center which is located on the TAMU-CC campus. Below are the comments from my committee and my responses.

Table 1.

Dissertation Proposal Hearing Comments and Responses

Comments from Committee Members	Responses
<p>1) “Great job explaining. You did well explaining the purpose and significance, but it needs to be emphasized in your write-up. You need to further discuss and expand on it. Results need further explanation. The data analysis is there, but the results need to be discussed further. What does this mean? Example: No statistical significance found with adjustment and none with resilience. Please speak to this and also describe</p>	<p>I added more information to the discussion, implication for future research, and conclusion sections of my manuscript. I further explained the significant differences found in acculturative stress and relational skills among undergraduate and graduate students’ adjustment, as well as the factors that may contribute to these differences. I also further elaborated on the fact that there was no significant difference found in resilience among these groups and tied these discussions</p>

<p>it further in your paper. With College Adjustment- no difference between groups (undergrad vs. grad students). What does this mean? These two groups both experienced adjustments, but what this may imply if they adjust differently. Tie this to need for further research” (Nelson).</p>	<p>factors into my section dedicated to future research.</p>
<p>2) “Lambda: explain in your own words. Relational skills- why is this significantly between undergraduate and graduate students ?” (Nelson).</p>	<p>I responded to Dr. Nelson’s question by explaining that graduate students’ age may contribute to the difference in relational skills due to the graduate students being more mature. Graduate students also may have attended schools in English speaking countries where they may have also gained prior job skills, and thus relational skills giving them an advantage compared to less experienced undergraduate students. I believe that the information in my dissertation has proven a significant difference between the first-year undergraduate and graduate international students regarding relational skills.</p>

<p>3) “Even if you re-run the data, you have to sit back and explain what this means. You need to expand and compare to other studies and what this means. Use the term “may” and lead into your further research and implications after your discussion” (Nelson).</p>	<p>I re-ran the data with the help of Dr. Watson, and I corrected all the errors made in my previous draft. I also compared the findings to other studies and explained the meaning behind their similarities and differences. I expressed the indefinite nature of my research with the use of the word, “may,” as was necessary throughout my dissertation.</p>
<p>4) “Pg 88 - language needs to be removed. Include the feedback after defense in the Appendix. Changes that are suggested today versus how you implemented these changes. You never mentioned how you cleaned the data. This may have influenced your data. You have to clean the data and talk about it. Journals are demanding this, moving forward” (Nelson).</p>	<p>I included the feedback after the defense in my “preface to summary manuscript” section and responded how I implemented these changes. I also explained, in detail within my “data analysis” section, the ways in which I cleaned the data in order to ensure more reliable results.</p>
<p>5) “Explain your results. Citations- your citations are out of order throughout document. They need to be in alphabetical order (for example, pg 30). (Berry comes before F name).</p>	<p>I have corrected my previous citations by arranging them alphabetically throughout the paper. I have also created new citations where necessary, and I have inserted, “may” into my</p>

<p>There are also places where you make claims but have no citations to support it. If you cannot find citations, change the wording to many students may...” (Nelson).</p>	<p>sentences to indicate that these statements lack supporting information from my sources.</p>
<p>6) “Look at the table with mean scores for acculturative stress- the higher your score, the more stressed you are. Graduate students have more stress. However, you just told us that graduate student have less? Adjusting to the culture AND environment. Write up why this is different from what you expected. Look at the standard deviation. What does it mean? The range of how scores are spread out. Look at your range and SD on this table (Table 1). This seems to be off. Take a look at your standard deviation values” (Watson).</p>	<p>I corrected the mistakes I made regarding a few numbers that I initially included in “Table 1,” and in my “discussion” section, I explained the significance of these adjusted numbers. I re-ran the data with the support of Dr. Watson and corrected the mean scores for the resilience, relational skills, acculturative stress, and college adjustment, as well as standard deviation factors. I also corrected one mistake I made in “Table 2,” and thus, revised the information in my “discussion” section as was necessary due to the adjusted results of my findings.</p>

<p>7) “You report in results, there is no significant result for Adjustment and Resilience, but this does not match your table. Table 2- this shows it is significant. Maybe re-run the data to see if you have write-up correct, and the table is wrong, or vice versa” (Watson).</p>	<p>I re-ran the data with the help of Dr. Watson for the resilience and adjustment factors and made the necessary corrections.</p>
<p>8) “Pg. 105- Do not go too far beyond the scope of your study. “.... Will improve their overall wellbeing.” You did not have a measure of social adjustment, etc... so do not include this info. Limit this part to the variables you looked at. Focus on “belief in self” (Watson).</p>	<p>I removed the phrase, “will improve overall wellbeing,” from my dissertation in order to keep within the boundaries of the initial scope of my study.</p>
<p>9) “Talk a little more about the article and journal: tell us more about it. Do you feel the manuscript follows the sample journal articles you reviewed from this journal?” (Smith).</p>	<p>I described the Journal of International Students and explained why I believed it was a good fit for my manuscript. I also explained how I used the sample journal articles’ formats as guidelines for my manuscript.</p>

10) “If you use the word “will”- you must have citations to back this up. Instead, he recommends using “may” or “perhaps” (Smith).	I have changed the word, “will” to “may,” as necessary throughout my paper.
11) “Please send your raw data and output to Dr. Smith. Include all of your changes in the chart in the appendix. “May” or “perhaps” is better than “will.” DO NOT use “will.” Be careful of this language, because it can overextend what you found in this study. The new instrument- there are no psychometric properties to report, but you should touch on this in your limitations. Check with Samantha on Relational Skills measure write up info. However, you can still include in limitation, just not a big limitation since it is part way there” (Smith).	I sent my raw data to Dr. Smith the following day after my defense. I also changed where I used “will” to “may” throughout the paper. I discussed the psychometric properties of the Relational Skills Inventory through the information I received from Samantha. I included this information in the “instrumentation” and “limitation” sections.
12) “Values on table 1- acculturative stress- this number seems off. If the	I re-ran the data and corrected the acculturative stress in Table 1. I further

<p>numbers are different, how would you explain why graduate students are or are not more adjusted. Be able to explain it either way, no matter what the data shows” (Billiot).</p>	<p>explained the results in my “discussion” section.</p>
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CHAPTER IV: MANUSCRIPT

A COMPARISON OF FIRST-YEAR UNDERGRADUATE AND GRADUATE INTERNATIONAL STUDENTS' ADJUSTMENT TO COLLEGE

ABSTRACT

Predictors of first-year undergraduate and graduate international students' adjustment to college were examined using an online survey in 2019. The research sample was comprised of 95 students from South Texas, and findings showed a statistically significant difference between the first-year undergraduate and the graduate international students as related to college adjustment. Further analysis discovered significant relationships among the predictor and criterion variables, resilience, relational skills, and acculturative stress, that significantly explained 55% of the variance in the adjustment of these international students. The researchers provided implications for educators, college counselors, and college administrators, as well as provided directions for future research.

Keywords: first-year undergraduate and graduate international students, relational skills, resilience, acculturative stress, college adjustment

INTRODUCTION

Each year, thousands of international students from countries across the globe travel to the United States to obtain degrees of higher education in colleges and universities in all fifty states (Brunton & Joffrey, 2014). These students play an important role by contributing to the diversity and internationalization of their campuses, classrooms, and communities; they also enrich the university environment by helping faculty and students develop skills for working with people from different cultural backgrounds (Smith, & Khawaja, 2014). All students face adjustment challenges when entering college. However, first-year international students face unique challenges as they pursue a college degree outside of their home country (Yakunina, Weigold, Weigold, Hercegovac, & Elsayed, 2013). Some of these challenges are universal while others are specific, depending on the institution in which one undertakes their studies (Sabbadini, Naldi, Packman, Yungblom, & Weil, 2013). These challenges include, but are not limited to language, anxiety, depression, climate changes, cultural changes, financial hardships, political problems, and homesickness, which unfortunately are culture shocks that these students cannot escape when studying in the U.S (Ji-yeon, & Pistole, 2014; Nasirudeen, Koh, Lau, Seng, & Ling, 2014; Rabia & Karkouti, 2017; Smith, & Khawaja, 2014; Telbis, Helgeson, & Kingsbury, 2013; Wang, Wei, Zhao, Chuang, & Li, 2015; Yakunina, Weigold, Weigold, Hercegovac, & Elsayed, 2013).

Engaging in activities with students from the United States helps international students become more involved in college life (Glass & Westmont, 2014). In order to cope with adjusting to college Glass, Gomez and Urzua (2014) suggested that international students get involved in religious activities that can connect them with domestic student because isolation, especially in the university-level study, is fraught with many difficulties that cause stress. Entering U.S.

universities and colleges can be an overwhelming life and cultural transition for most first-year international students (Telbis, Helgeson, & Kingsbury, 2013). For many undergraduate students, going away to college is the first of many critical significant changes such as living away from the security of home and family, apprehension of their new independence, and fear of growing responsibility. These everyday stresses and challenges associated with university study are substantially increased for the 1,097,729 international students currently in the United States because in addition to these typical challenges, graduate study is another drastic change requiring international students to become better skilled at time management while juggling their additional academic requirements, on top of the pressures caused by acculturation (IIE, 2017; Lowinger, He, Lin, & Ghang, 2014). Some aspects of international students' acculturation may give rise to adjustment problems which can be stressful physically, socially, or psychologically (Mesidor, & Sly, 2014; Morrell, Ravlin, Ramsey, & Ward, 2013; Onabule, & Boes, 2013).

Based on its purpose, this study is designed to answer three research questions: (1) Are there differences between first-year undergraduate and graduate international college students' levels of resilience, relational skills, acculturative stress, and college adjustment? (2) Do resilience, relational skills, acculturative stress predict a significant percentage of the variance in college adjustment among first-year undergraduate and graduate international students? (3) Is there a difference in model fit between first-year undergraduate and graduate international students for the predictive model regressing resilience, relational skills, and acculturative stress on college adjustment?

BACKGROUND AND LITERATURE REVIEW

The United States has historically been the most frequent destination for international students owing to its high-quality higher education system, welcoming culture, and relatively

open labor market (Banjong, 2015; Eland, & Thomas, 2013; Gillett, & Baskerville, 2010). The plight of the international student in the U.S. university educational system is well documented in terms of language, adaptation, and cultural barriers, (Hong & Jianqiang, 2013; Sherry, Thomas, & Chui, 2010; Yakunina, Weigold, Weigold, Hercegovac, & Elsayed, 2013) yet this population persists in seeking this education because the perceived benefits still outweigh the challenges they may face (Borgia, Bonvillian, & Rubens, 2011). Cultural adjustments are one of the most common social challenges first-year international students face while studying abroad and the available literature on this topic emphasizes the importance of acclimation and integration of these students (Cheng & Erben, 2012; Mamiseishvili, 2012).

College Adjustment

Adjustment, derived from the Latin word *ad-justare*, is the process by which one balances one's needs and the obstacles in his or her environment. Yi et al. (2003) identified five areas in which first-year international students are likely to experience adjustment issues; these areas included academics, physical health, finances, vocation, and personal/social conflicts. Similarly, Gebhard (2012) also studied these issues and found that students encountered problems in adjustment in three primary areas: academic, social interaction, and emotional reaction to their new environment. Language barriers, unfamiliarity with available resources and how to access those resources, as well as lack of an established social support system and social network compound the problems experienced in these areas (Leong, 2015; Smith & Khawaja, 2011) and often manifest in depression, loneliness, and isolation (Valdez, 2015). Wang et al. (2015) used the term, "cross-cultural loss" (pg 263) to describe the process in which international students struggle to adjust to the loss of things familiar to them (e.g., personal relationships and the educational system of their home countries) while trying to adjust to a new culture and

environment. They found that cross-cultural loss decreased with life satisfaction, positive affect, general self-efficacy, and social connection with their peers and academic community, all of which are indicators of increased cultural adjustment or acculturation.

Acculturative Stress

Acculturative stress represents a growing threat to the health of many first-year international students as they seek knowledge in this new cultural environment (Li, Wang, & Xiao, 2014). A study conducted by Russell et al. (2010) where 900 international students were surveyed showed that 41% of these students experienced substantial levels of stress in their first year of college in the U.S. Moreover, many challenges occur in the academic setting and language is considered one of the most significant academic issues hindering smooth adjustment for these students (Reid & Dixon, 2012; Trice, 2004). Probertson, Line, Jones, & Thomas (2000) surveyed collegiate non-educational staff's experiences with international students, and their findings indicated that most staff members were not empathetic to these students' language deficits, which is an unfortunately common occurrence that usually creates further senses of social isolation and anxiety. In a longitudinal study investigating characteristics of first-year international students, Mamiseishvili (2012) found that students who are less fluent in English may have more trouble integrating into peer groups and experience lower levels of academic tenacity.

Similarly, a study by Poyrazli and Kavanaugh (2006) suggested that these various challenges often put international students at a higher risk for academic difficulties when compared to domestic students. According to Gomez, Urzua, and Glass (2014), low acculturation has also been found to be associated with psychological symptoms such as depression and suicide among international students. This research suggests that the main concerns for this

group of international students include language deficits, a lack of group interaction, and academic difficulties. These concerns may have adverse effects on their relational skills and contribute to their adjustment problems.

Resilience

Resilience is an important variable associated with adaptation to the university environment (Wang, 2009). Research shows resilience reduces the risk of psychological distress, assists with the management of academic demands, and improves academic outcomes, while also facilitating effective coping strategies when faced with academic pressures (Wintre, & Yaffe, 2000). A lack of resilience can cause these students to potentially face adverse affects on their mental health, increases in psychological distress, and result in greater overall adjustment problems (Pittman, & Richmond, 2008; Wintre, & Yaffe, 2000). Previous research on resilience has primarily focused on individuals affected by short and long-term adversities such as registering for classes and completing assignments, as well as academic stressors and environmental pressures respectively (Lee & Robbins, 2000; Wang & Castaneda-Sound, 2008; Zhang, 2016). Overall, global findings suggest that resilience in the university environment is positively associated with better mental health, as well as successful transition and adjustment to university life, which indicates that international students need to build good resilience strategies in order to motivate themselves to succeed in their new academic environment (Peng, et al. 2012; Wang, & Castaneda-Sound, 2008; Wilks, & Spivey, 2010).

Relational Skills

In addition to resilience, international students must interact with their peers in order to develop relational skills which have been proven to create positive increases in both areas of student adjustment and overall satisfaction with college life, unfortunately many scholars have

noted that international students learn differently than their domestic counterparts (e.g. Kezar, & Moriarty, 2000; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Kuh, & Hu, 2001). Based on a qualitative study with 24 international students from over 15 countries, Lee and Rice (2007) asserted that international students who studied in the U. S. often felt uncomfortable participating in group-work or interacting with their classmates because of their constant worries about their English. Some researchers have examined the impact of student-faculty interaction on international student development and learning outcomes, one of which was McFadden (2014) who found that these student-faculty interactions are positively associated with a wide range of student outcomes, such as students' self-assessed leadership abilities and social self-confidence (Lee, & Rice, 2007; Lundberg, & Schreiner, 2004).

Russel and Petrie (1992) have studied factors related to students' adjustment to college and found that personal or individual factors such as resilience and anxiety are essential factors influencing students' adjustment to college. The inclusion of personal factors to social and academic integration as presented by Russel and Petrie (1992) were expansions of this original research conducted by Tinto (1975) and Bean (1980, 1982). Russel and Petrie (1992) show that these personal factors, in addition to those of previous studies, play essential roles in students' decisions to withdraw from college or persist and graduate. Baker and Siryk (1989) presented a wide-ranging dimension of college adjustment factors as they incorporated the theories of Bean (1980, 1982), Russel, and Petrie (1992), Tinto (1975, 1986) when developing a comprehensive measure for better student adjustment strategies. They assumed that starting university life, which is a significant challenge for most students, requires adjustment to a variety of demands and is a multifaceted process. They also stressed that social and institutional attachments, as well as individual or personal factors, are essential aspects that affect students' college adjustment and

their overall decisions to graduate. Therefore, it is important to examine the unique three factors of resilience, acculturative stress, and relational skills as they predict the adjustment of the first-year undergraduate and graduate international students in the United States.

RESEARCH METHOD

In this study, the relationships between resilience, acculturative stress, and relational skills were used to make a predictive model of the first-year undergraduate and graduate international students' college adjustment using regression analysis. Multiple regression procedures are widely used in nonexperimental research due to their flexibility (Hoyt, Leierer, & Millington, 2006) and for this study, a standard multiple regression was used to identify the aforementioned predictors of this adjustment to college life. Standard multiple regression allows the researchers to manipulate the variables in the regression equation in order to see the relationship between the predictor and criterion variables, instead of finding the relationship between only one predictor variable and the criterion variable such as in the hierarchical method of multiple regression. Specifically, quantitative data were collected and analyzed to answer the research questions and gain insight into variables contributing to international students' college adjustment.

Procedures

After Institutional Review Board (IRB) approval, data were collected over six weeks beginning the first week of February and ending the second week of March 2019. The aim was to recruit first-year undergraduate and graduate participants from different colleges and departments to reach more international students from different countries. A solicitation email, which included a brief explanation and purpose of the study, was sent to professors and the International Student Offices within different universities where international students were

recruited. We scheduled class visitations with professors who willingly gave up 30 minutes of their class time in order to help us recruit volunteer research participants.

The age criterion to participate was 18 years old or older. Participants were told their participation was voluntary and that their responses would remain anonymous. A survey link including an information letter, demographic form, and instrumentation measuring the study constructs (*Brief Resilience Scale [Smith et al., 2008]*, *The Acculturative Stress Scale for International Students [Sandhu & Asrabadi, 1994, 1998]*, *Relational Skills Inventory [Smith, 2019]*, and *the Inventory of New College Student Adjustment [Watson & Lenz, 2018]*) were given to volunteer participants. Before taking the survey, participants were asked to read an information letter.

Participants

Participants of this study were first-year international students enrolled in graduate and undergraduate level courses at two south Texas universities. A total of 95 participants attended to this study. Of the completed surveys, 40 participants were in the undergraduate international student group and 55 participants were in the graduate international student group. An a priori power analysis yielded a total sample size of 86 to find statistical significance with a moderate effect size ($f^2 = .15$). Based on this result, the sample size of 95 used in this study was deemed enough for finding between groups differences should they exist. The mean age of the undergraduate participants was 21.60 years ($SD = 3.7$; range: 18-35 years). More men ($n = 24$, 60%) than women ($n = 16$, 40%). Participants hailed from a variety of countries, including Australia ($n = 1$, 2.5%) Bangladesh ($n = 4$, 10%), China ($n = 4$, 10%), Sri Lanka ($n = 2$, 5%), Vietnam ($n = 5$, 12.5%), India ($n = 6$, 15%), Taiwan ($n = 2$, 5%), Nigeria ($n = 5$, 12.5%), South Korea ($n = 2$, 5%), Ecuador ($n = 3$, 7.5%), Jordan ($n = 4$, 10%), Ghana ($n = 1$, 2.5%), and

Venezuela ($n = 1$, 2.5%). With respect to college major, participants reported their college majors as Science and Engineering ($n = 24$, 60%), Business and Management ($n = 8$, 20%), Education ($n = 1$, 2.5%), Liberal Arts ($n = 2$, 5%), and Nursing ($n = 5$, 12.5%). Twenty-six participants (65%) reported that they arrived in August 2018, and 14 participants (35%) reported they arrived in January 2019. Moreover, the mean age of the graduate participants was 29.19 years ($SD = 3.9$; range: 22-40 years). More men ($n = 37$, 67.3%) than women ($n = 18$, 32.7%). Participants reported their academic levels as master's ($n = 48$, 87.3%), and doctoral ($n = 7$, 12.7%). Participants hailed from a variety of countries, including Bangladesh ($n = 3$, 5.5%), China ($n = 11$, 20%), Vietnam ($n = 2$, 3.7%), India ($n = 22$, 40%), Taiwan ($n = 2$, 3.7%), Nigeria ($n = 10$, 18.2%), Ecuador ($n = 1$, 1.8%), Jordan ($n = 2$, 3.7%), Nepal ($n = 1$, 1.8%) and Ghana ($n = 1$, 1.8%). With respect to college major, participants reported their college majors as Science and Engineering ($n = 35$, 63.6%), Business and Management ($n = 11$, 20%), Education ($n = 2$, 3.6%), Liberal Arts ($n = 4$, 7.3%), and Nursing ($n = 3$, 5.5%). With respect to when the participants arrived in the U.S, 44 participants (80%) reported that they arrived in August 2018, and 11 participants (20%) reported they arrived in January 2019.

Measures

Participants were asked to complete the following five sections of the survey:

Demographic Information. Demographic information related to participant's age, gender, country of origin, academic major, degree level (e.g., bachelor's, master's, or doctoral), years of residency in the U.S., and name of the university.

The Brief Resilience Scale (Smith et al., 2008). Brief resilience Scale assesses resilience as the ability to recover or bounce back from stressful or difficult situations. The Brief Resilience Scale is a 6-item self-report scale in which respondents rate the degree to which they agree with

an item using a 5-point Likert scale. Responses range from 1= “Strongly Disagree” to 5= “Strongly Agree.” A total scale score for resilience is calculated by dividing the total score by 6, the number of items on the scale. Scores can range from 6 to 30, with higher scores indicating higher resilience. Smith et al. (2008) reported good internal consistency for the Brief Resilience Scale. Based on scores across two college student samples, the Cronbach’s alpha reliability coefficient ranged from 0.80 to 0.91 (Smith et al., 2008).

The Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994, 1998). The Acculturative Stress Scale for International Students was developed to measure cultural stress reported by international students living and studying in the U.S. ASSIS assessed students' perceptions of stresses experienced by circling a number that best described their response to each of the 36 items on a 5-point Likert-type scale, anchored by 1: Strongly disagree and 5: Strongly agree. Total scores could range from 36 to 180, with higher scores indicating higher levels of acculturation stress. Sandhu and Asrabadi (1994) reported that Cronbach alpha internal consistency for the scale was .95 among international students, like Yeh and Inose's value (2003) of .94.

The Relational Skills Inventory (Smith, 2019). The Relational Skills Inventory has 32 items and was developed to measure attributes of individuals as they engage in interpersonal relationships (Smith, 2019). The RSI includes four factors; general relational attributes (disposition toward self and others), core communication skills (listening, understanding and empathy), trust (trust in self and others), and creating a safe environment (ability to emit safety and openness), each of which are grounded in research and theory. The Relational Skills Inventory is based on Relational Leadership Theory (RLT) by Uhi-Bien (2006), Humanistic Theory by Rogers (1959), Trust Theory by Castelfranchi & Falcone (2010), and Social Cognitive

Theory by Bandura (2001). Fifty-four items were initially constructed. A content analysis was conducted (Lawshe, 1975), narrowing the number of usable items to 32. The Relational Skills Inventory uses a 5-point Likert scale ranging from 1 (not at all) to 5 (very much).

The Inventory of New College Student Adjustment (Watson & Lenz, 2018). The Inventory of New College Student Adjustment was developed to assist college employees in assessing adjustment problems experienced by first-year college students. The newly developed questionnaire consisted of two sub-scales including 14 items rated on a 4-point Likert scale to assess participant responses from 1 (strongly disagree) to 4 (strongly agree). The (INCA) sub-scales measure adjustment strain based on participants' responses to items within the following sub-scales: supportive network and belief in self. A sample of 696 young adult Ghanaian college students reported alpha reliability coefficients of .74 for both the Belief in Self subscale and the Supportive Network subscale (see Appendix B).

Analysis

For this study, data were analyzed using the Statistical Package for the Social Sciences (SPSS) 22.0 software. Before data analysis, data were screened for entry errors and missing data. Missing values were replaced with the series mean. Descriptive statistics, multiple regression models, Fisher's z transformation, and MANOVA were conducted to answer the research questions. Descriptive statistics were used to summarize and organize the data., such as means, standard deviations, percentages, and range scores. Furthermore, model assumptions for each analysis were reported. A total of 103 participants attended this study. The data utilized in the study were derived from a single administration of the RSM ($n= 103$), the RMS ($n= 102$), the ASSIS ($n=100$), and the INCA ($n=102$). Eight cases were removed from the graduate and undergraduate international student groups, reducing the initial sample from $n=103$ to $n=95$.

RESULTS

Research Question 1

We conducted a one-way MANOVA to see the differences in levels of variables for the first-year undergraduate and graduate international students. An alpha level of .05 was utilized as the criterion for determining statistical significance. Descriptive statistics for the independent variables across the first-year undergraduate and graduate international students' college adjustment are presented in Table 2. It was found that there was no significant difference between undergraduate and graduate international students with the levels of resilience, relational skills, acculturative stress, and college adjustment. $F(11, 162) = 1.51, p > .05$; Wilk's $\lambda = 0.12$, partial $\eta^2 = .51$. Using Wilks's Lambda, there was a significant effect of student groups on the number of relational skills and acculturative stress, $\Lambda = 93, F(4, 54) = 7.53, p = .001$. However, separate univariate ANOVAs on students' groups revealed a non-significant effect on resilience, $F(4, 89) = 7.53, p = .233$ (See Table 3).

Research Question 2

We performed a standard multiple regression analysis to evaluate the relationship between resilience, relational skills, acculturative stress, and college adjustment (see Table 4). Resilience, relational skills, and acculturative stress were added to the model as predictor variables with college adjustment as the criterion. This is because the literature did not indicate a strong relationship between resilience, relational skills, acculturative stress, and college adjustment. The researchers of this study believe that unique factors such as relational skills, resilience, and acculturative stress will provide a better understanding of the differences between these two groups of students when adjusting to their new learning environment. Therefore, the

three predictor variables were added to the model as predictor variables to determine the extent to which they improve the prediction of college adjustment.

These predictor variables (resilience, acculturative stress, and relational skills) statistically predicted college adjustment, $F(3, 90) = 36.72, p < .001, R^2 = .550$. Relational skills and acculturative stress added statistically significantly to the prediction, $p < .05$, and resilience did not add statistically significantly to the prediction, $p > .05$. In other words, relational skills and acculturative stress were positively correlated with undergraduate and graduated international students' college adjustment while resiliency was not positively correlated with undergraduate and graduate international students' college adjustment (see Table 4).

Research Question 3

To address research question 3, we ran a series of simultaneous multiple regression analyses to examine the relationships between resilience, relational skills, acculturative stress, and college adjustment and to compare the models derived from undergraduate and graduate international students. The amount of variance accounted for by the predictor variables was 49% for undergraduate students and 55% for graduate students. Comparing model fit for the undergraduate and graduate international student groups revealed no significant difference between their respective R^2 values, Fisher $Z = -0.42, p > .05$. A comparison of the structure of the models from the two groups also was conducted by applying the model derived from international graduate students to the data from undergraduate international students and comparing the resulting crossed R^2 with the direct R^2 obtained initially from this group. The direct $R^2 = .46$ and crossed $R^2 = .50$ were not significantly different, Fisher $Z = -1.112, p > .05$,

indicating that the apparent differential structure of the regression weights from the two groups described above do not warrant further interpretation and investigation.

DISCUSSION AND IMPLICATIONS

This study examined the extent to which relational skills, resilience, and acculturative stress predict first-year undergraduate and graduate international students' adjustment to college. In general, this study found a difference between these two groups of students in terms of relational skills and acculturative stress. However, the findings showed no difference in resilience among the two groups of students when adjusting to college. This suggests both undergraduate and graduate international students come to the U.S. to cope with challenging issues, which is crucial as it may help them adjust to life stressors and pressures. Relational skills are essential factors contributing to the adjustment of international students (Duru & Poyrazli, 2007). Hendrickson, Rosen, & Aune (2011) found that nearly 40 percent of undergraduate international students reported having no close American friends as a result of "internal factors," such as limited language proficiency or shyness. Beyond language proficiency, undergraduate international students may not always be interested in initiating contact with domestic students, faculty, or staff which may cause additional reasons for low relational skills among this group (Kuo & Tsai, 1986). Borland and Pearce (2002) reported that undergraduate international students' language knowledge without relational skills is not enough to adjust to college. Compared to graduate students, undergraduate students are more likely to be younger and have fewer professional experiences that build relational skills. Other factors that may lead to the better adjustment of graduate students to their college lives are their years of experience adjusting to academic demands, and building their various adult-life skills, such as cooking for themselves and managing their time between their school-life and home-life responsibilities.

Two other factors that may have helped graduate students' adjustment to college life, which does not yet apply to undergraduate students, are the advantages of having previously attained familiarity with their community of professors, as well as the benefit of smaller class sizes. Moreover, time pressure and homesickness have been found to be the most stressful experiences among undergraduate international students (Erichsen & Bolliger 2011). Academic alienation, future academic prospects, work demands, unfamiliarity with the educational and cultural norms, and anxiety have also been found to be added stressors for undergraduate international students (Poyrazli, Kavanaugh, Baker, & Al-Timimi, 2004).

Another pattern we found in the college adjustment of undergraduate international students is how this group reported relatively lower mean scores for relational skills, resilience, college adjustment, and reported a higher mean score for acculturative stress compared to graduate students group (see Table 2). Given this difference, the barriers in communication, language, age, life experience, and culture shock may contribute to low relational skills, low resilience, and a higher level of acculturative stress, which can eventually lead to lower college adjustment for undergraduate students. The standard multiple regression analysis in this study showed that relational skills and acculturative stress strongly predict the first-year undergraduate and graduate international students' adjustment to college. This finding suggests there is a difference in how undergraduate and graduate international students adjust to college based on relational skills and acculturative stress. Komiya and Eelss (2001) state that international students face challenges in developing satisfying social relationships and met numerous stressors and challenges towards accomplishing their academic goals in their new learning environment. Therefore, higher education institutions/administrators are strongly encouraged to improve the integration of international students on American campuses in order to increase their adjustment

process. For example, introduce international students to where they can connect and interact with the domestic students, international alumni, and university staff who can offer support at the beginning of every semester when they are new to the system.

In the regression analysis for this study, resilience did not predict how undergraduate and graduate international students adjust to college. This result suggests that undergraduate and graduate international students may have made advanced preparation and may be more confident about thriving during their adjustment process in the U.S. before leaving their home countries. International students bring with them many assets that can help them successfully adjust to their new learning environment, which is characterized by feelings of excitement (Ramsay, Jones, & Barker, 2007). As a result, these students may feel good about themselves and are ready to start their new adventure through the support they receive from friends and family and the perceptions they have of themselves and potential for success. They may feel a sense of accomplishment because they are learning in a foreign land, and their dreams have come true (Holmes & Vaughn, 2015; Gillett & Baskerville, 2010). It is essential for the university systems to incorporate resilience training programs into the international students' orientation to possibly increase their level of self-confidence. Although this population of students starts college with resilience, there is a need to assist them in maintaining their level of initiative.

Consistent with previous findings (e.g., [Constantine, Okazaki, & Utsey (2004); Gomez, Urzua, & Glass (2014); Jou & Fudaka (1996)]) the results of this study also showed that relational skills and acculturative stress were positively associated with undergraduate and graduate international students' adjustment to college. Studies have shown that international students learn relational skills by interacting with faculty, staff, family members, as well as socializing with their peers and the community. Healthy relational skills among first-year

international students reduce stress, resolve conflict, improve communication, increase understanding, and promote joy (Jou, & Fukada, 1996; Misra, & Castillo, 2004). Using a statewide college-adjustment dataset, this study found that acculturative stress is also a significant and negative predictor of adjustment among international students. This finding suggests that colleges and universities that serve international students should provide a wide range of social support networks, as well as indicate new directions for counseling these students who are dealing with acculturative stress. As observed in their domestic peers, international students can benefit from athletics, student clubs, counseling, volunteering, and various extra-curricular activities. By participating in these activities, this group of students may increase the likelihood of developing relationships which may minimize acculturative stress and maximize belief in self.

Another important finding of this study is that the unique combination of the three predictor variables reported no significant differences between the first-year undergraduate and graduate international students, which is vital because studies related to these students' adjustment to college have not previously examined relational skills, resilience, and acculturative stress simultaneously. It appears from the findings of this study that these variables play a vital role in the adjustment process for these students. On the contrary, while there is no difference in the model fit for the two groups, our results from the regression analysis showed that the relational skills and acculturative stress variables were significant among these students (see Table 4). These findings point out the need for further studies on different factors (e.g., achievement motivation, self-efficacy, and positive affect), which may help in predicting the adjustment of both undergraduate and graduate international students in U.S. colleges and universities. Other areas for research include and what skills or competencies can be improved

upon for the university administrators, faculty, and staff when working with these students to help them become more involved in college life.

Adjusting to U.S. college and university culture can be a very stressful experience for both undergraduate and graduate international students. Some can go through the process quicker and with less stress while others go through these stages finding it challenging to adjust, which led researchers to identify relational skills as an essential factor for the adjustment of these students (Andrade, 2006; Antonio, 2001). Constantine, McKinlay, Pattison, and Gross (1996); Duru, and Poyrazli (2007); Terui (2011) posit that the peers and faculty members that students interact with may also have a positive influence on these adjustment issues. Therefore, practices such as group projects, workshops, conferences, presentations, classroom discussions, and other campus activities should be more actively organized not only to help better connect international students with domestic students and people in their new community, but also to increase their self-belief. Campus programs may be beneficial to international students primarily if led by an international professor or staff who already has a similar background to adjusting to U.S. colleges/universities. This may help international students feel more comfortable in asking questions that may assist in their adjustment. Additionally, international students need to acclimate to the unique U.S. culture which can be achieved by going to social gatherings (e.g. churches, mosques, parties, and carnivals) as well as through media (e.g. watching television, partaking in Facebook, listening to the radio, and reading newspapers) which can actively help their adjustment process. Based on the findings of this study, assisting with international students' relational skills, stress reduction, and resiliency development may improve their self-belief and overall adjustment to college.

LIMITATIONS

This study was limited in the following ways: first, the small sample size was compiled of students who had been in the United States for at least one year, and second, the number of universities was limited to only two in South Texas. Therefore the results may not be generalizable to all international students in the United States. In addition, while the dataset used in this study provided vital information related to the adjustment of international students, which was also crucial to the students themselves as well as the university administrators, this study was limited to the investigation of the three predictor variables based on the adjustment of first-year undergraduate and graduate international students attending universities in the United States. There may be other variables (e.g., self-efficacy, positive affect, and achievement motivation) that can provide additional information on international students, but more research is needed to examine other factors for the adjustment of these students. The Inventory for New College Student Adjustment (INCA) (Watson & Lenz, 2018) was designed for first-year, first semester students at the undergraduate level. In this study, the INCA was used to investigate the adjustment of the first-year undergraduate and graduate international students in college. Also, while the psychometric properties support three of the four measures included in this study, the Relational Skills Inventory is supported by its content validity only. An Exploratory Factor Analysis (EFA) and a Confirmatory Analysis (CFA) are currently being conducted on the RSI. Moreover, response bias due to the use of self-reported questionnaires increases the error of possibilities in the validity and reliability of this study.

CONCLUSION

Using quantitative research methods, this study compared first-year undergraduate and graduate international students' factors predicting adjustment to college life. Moreover, to

increase generalizability, this study included students from different countries. The findings indicated that these students are different in terms of relational skills and acculturative stress when they come to study at universities and colleges in the U.S. On the other hand, the adaptation experience also encourages international students to develop approaches to overcome difficult situations in their new learning environment. During the first-year at U.S. colleges, international students are generally private in their social lives; keeping their own company or interacting only with other international students. The adjustment to the U.S. culture takes time, effort, and requires much differentiated support. Having a better understanding of how international students adjust to college in terms of resilience, relational skills, and acculturative stress, is vital to university staff and students alike, as it is the first step in improving the rate at which these students adjust to their new campus lives abroad. Therefore, to meet the needs of these first-year international students, educators should modify syllabi and curricular experiences as well as make themselves available outside of the classroom for further private personal academic inquiries. Moreover, college counselors should be motivated to implement relational, and stress management focused training programs for these students to function both socially and psychologically. Finally, the university administrators should be encouraged to find improved methods in order to connect international students with domestic students, and with community members, in order to help them better adapt to and succeed in their new cultural setting.

REFERENCES

- Andrade, M. S. (2006). International student persistence: Integration or cultural integrity. *Journal of College Student Retention*, 8(1), 57-81.
- Antonio, A.L. (2001). The role of interracial interaction in the development of leadership skills and cultural knowledge and understanding. *Research in Higher Education*, 42, 539-617.
- Baker, R. W., & Siryk, M. A. (1989). *The student adaptation to college questionnaire: A WPS Test Score*. Los Angeles: CA: Western Psychological Services.
- Banjong, D. N. (2015). International students' enhanced academic performance: Effects of campus resources. *Journal of International Students*, 5(2), 132-142.
- Bean, J. (1980). Dropouts and turnover: The synthesis and test of a causal model of student attrition. *Research in Higher Education*, 12(2), 155-187. doi: 10.1007/BF00976194
- Bean, J. (1982). Conceptual models of student attrition: How theory can help the institutional researcher. *New Directions for Institutional Research*, 36, 17-33. doi: 10.1002/ir.37019823604
- Borgia, D., Bonvillian, G., & Rubens, A. (2011). Case study of Chinese and U. S. university college of business partnerships: Form, process, opportunities, and challenges. *Journal of Management Policy and Practice*, 12(1), 98-107
- Borland, H., & Pearce, A. (2002). Identifying key dimensions of language and cultural disadvantage at university. *Australian Review of Applied Linguistics*, 25(2), 101-127.
- Brunton, M., & Joffrey, L. (2014). Identifying the factors that influence the learner empowerment of international students. *International Journal of Intercultural Relations*, 43, 321-334. doi: 10.1016/j.ijintrel.2014.10.0030147-1767

- Cheng, R., & Erben, A. (2012). Language anxiety experiences of Chinese graduate students at U.S. higher institutions. *Journal of Studies in International Education*, 16(5), 477-497
- Constantine, M. G., Okazaki, S., & Utsey, S. O. (2004). Self-concealment, social self-efficacy, acculturative stress, and depression in African, Asian, and Latin American international college students. *American Journal of Orthopsychiatry*, 74, 230-241.
- Duru, E., & Poyrazli, S. (2007). Personality dimensions, psychosocial-demographic variables, and English language competency in predicting level of acculturative stress among Turkish international students. *International Journal of Stress Management*, 14, 99-110.
- Eland, A., & Thomas, K. (2013). Succeeding Abroad: International Students in the United States. In H.C. Alberts & H.D. Hazen (Ed.), *International students and scholars in the United States: Coming from abroad*. (pp. 145-162). New York, NY, Palgrave Macmillan.
- Erichsen E., & Bolliger D. (2011). "Towards understanding international graduate student isolation in traditional and online environments", *Educational Technology Research and Development*, 59, 309–326.
- Gebhard, J., G. (2012). International students' adjustment problems and behaviors. *Journal of International Students*, 2(2), 184-193
- Gillett S. A., & Baskerville R. (2010). "Student learning preferences: International students in comparative perspective". *International Journal of Learning*, 18(11), 155–175.
- Glass, C. R., Gomez, E., & Urzua, A. (2014). Recreation, intercultural friendship, and international students' adaptation to college by region of origin. *International Journal of Intercultural Relations*, 42, 104-117. doi: 10.1016/j.ijintrel.2004.05.007
- Glass, R. C., & Westmont, C. M. (2014). Comparative effects of belongingness on the academic success and cross-cultural interactions of domestic and international students.

- International Journal of Intercultural Relation*, 38, 106-11. doi: 10.1016/j.ijintrel.2013.04.004
- Gómez, E., Urzúa, A., & Glass, C. R. (2014). International student adjustment to college: Social networks, acculturation, and leisure. *Journal of Park and Recreation Administration*, 32(1), 7-25.
- Hendrickson, B., Rosen, D., & Aune, R. K. (2011). An analysis of friendship networks, social connectedness, and satisfaction levels of international students. *International Journal of Intercultural Relations*, 35, 281-295. doi: 10.1016/j.ijintrel.2010.08.001
- Holmes, B. F., & Vaughn, A. A. (2015). Evidence that international undergraduate students can succeed academically despite struggling with English. *Journal of International Students*, 5(3), 228-243.
- Hong, M. A., Jiangiang, L. (2013). How Chinese exchange students adapt to their academic course learning a US university: A fresh look at college English teaching in China. *Cross-Cultural Communication*, 9(3)-67-74. doi: 10.3968/j.ccc.1923670020130903.3058
- Hoyt, W. T., Leierer, S., & Millington, M. J. (2006). Analysis and interpretation of findings using multiple regression techniques. *Rehabilitation Counseling Bulletin*, 49(4), 223-233. doi: 10.1177/00343552060490040401
- Institute of International Education. (2017). *Open Doors Data. Open Doors Report on International Educational Exchange*. Retrieved from <http://www.iie.org/Research-and-Publications/Open-Doors/Data#.WDtFZ9IrLIW>
- Ji-yeon, L., & Pistole, M. C. (2014). International student sociocultural adaptation: Gossip and place attachment contributions. *Journal of Mental Health Counseling*, 36(4), 345-359

- Jou, Y. H., & Fukada, H. (1996). The cause and influence of transitional stress among Chinese students in Japan. *Journal of Social Psychology, 136*, 501-509.
- Kezar, A., & Moriarty, D. (2000). Expanding our understanding of student leadership development: A study exploring gender and ethnic identity. *Journal of College Student Development, 41*(1), 55-69.
- Komiya, N., & Eelss, G. T. (2001). Predictors of attitudes toward seeking counseling among international students. *Journal of College Counseling, 4*, 153-160.
doi:10.1002/j.21611882.2001.tb00195.x
- Kuh, G. & Hu, S. (2001). The effects of student-faculty interaction in the 1990s. *Review of Higher Education, 24*(3), 309-332.
- Kuh, G. D., Cruce, T. M., Shoup, R., Kinzie, J., & Gonyea, R. M. (2008). Unmasking the effects of student engagement on first-year college grades and persistence. *Journal of Higher Education, 79*(5), 540-563. doi: 10.1353/jhe.0.0019
- Kuo, W. H., & Tsai, Y. M. (1986). Social networking, hardiness and immigrant's mental health. *Journal of Health and Social Behavior, 27*, 133-149. doi:10.2307/2136312
- Lee, J. J., & Rice, C. (2007). Welcome to America? International student perceptions of discrimination. *Higher Education, 53*(3), 381-409.
- Lee, R.M. & Robbins, S.B. (2000). Understanding Social Connectedness in College Women and Men. *Journal of Counseling and Development, 78*, 484-491.
- Leong, P. (2015). Coming to America: Assessing the patterns of acculturation, friendship formation, and the academic experiences of international students at a U.S. college. *Journal of International Students, 5*(4), 459-474

- Li, J., Wang, Y., & Xiao, X. (2014). East Asian International Students and Psychological Wellbeing: A Systematic Review. *Journal of International Students*, 4(4), 301-313.
- Lowinger, R., He Z., Lin, M., & Ghang, M. (2014). The impact of academic self-efficacy, acculturation difficulties, and language abilities on procrastination behavior in Chinese international students. *College Student Journal*, 48(1), 141-152.
- Lundberg, C. A., & Schreiner, L. A. (2004). Quality and frequency of faculty-student interaction as Predictors of Learning: An Analysis by Student Race/Ethnicity. *Journal of College Student Development*, 45(5), 549-565. doi:10.1353/csd.2004.0061
- Mamiseishvili, K. (2012). International student persistence in U.S. postsecondary institutions. *Higher Education: The International Journal of Higher Education and Educational Planning*, 64(1), 1-17
- McFadden, C. (2014). Best Practices for Teaching International Students. *Journal of Modern Education Review*, 4(10), 737-741. doi: 10.15341/jmer(2155-7993)/10.04.2014/001
- Mesidor, J. K., & Sly, K. F. (2016). Factors that contribute to the adjustment of international students. *Journal of International Students*, 6(1), 262-282.
- Misra, R., & Castillo, L. G. (2004). Academic Stress Among College Students: Comparison of American and International Students. *International Journal of Stress Management*, 11(2), 132-148. doi: 10.1037/1072-5245.11.2.132
- Morrell, D., Ravlin, L., Ramsey, J. R., Ward, A. K. (2013). Past experience, Cultural intelligence, and satisfaction with international business studies. *Journal of Teaching in International Business*. 24 (1)

- Nasirudeen, A. M., Koh, W. N. J., Lau, L., L. C. A., Seng, L. L., & Ling, A. (2014). Acculturative stress among Asian international students in Singapore. *Journal of International Students*, 4(4), 363-373.
- Onabule, A. I., & Boes, S. R. (2013). International students' likelihood to seek counseling while studying abroad. *Journal of International Students*, 3(1), 52-59.
- Peng, L., Zhang, J., Li, M., Li, P., Zhang, Y., Zuo, X. and Xu, Y. (2012). Negative Life Events and Mental Health of Chinese Medical Students: The Effect of Resilience, Personality, and Social Support. *Psychiatry Research*, 196, 138. doi: 10.1016/j.psychres.2011.12.006
- Pittman, L.D. & Richmond, A. (2008). University Belonging, Friendship Quality, and Psychological Adjustment during the Transition to College. *The Journal of Experimental Education*, 76, 343-362. doi: 10.3200/JEXE.76.4.343-362
- Poyrazli, S., & Kavanaugh, P. (2006). Marital status, ethnicity, academic achievement, and adjustment strains: The case of graduate international students. *College Student Journal*, 40, 767-780
- Poyrazli, S., Kavanaugh, P. R., Baker, A., & Al-Timimi, N. (2004). Social support and demographic correlates of acculturative stress in international students. *Journal of College Counseling*, 7, 73-82.
- Probertson, M., Line, M., Jones, S., & Thomas, S. (2000). International students, learning environments and perceptions: a case study using the Delphi technique. *Higher Education Research and Development*, 19(1), 89–102
- (R. L. Smith, personal communication, March 1, 2019)

- Rabia, H. A., & Karkouti, I. M. (2017). A qualitative investigation of the factors affecting Arab international students' persistence in the United States. *College Student Journal*, 51(3), 347–354.
- Ramsay, S., Jones, E., & Barker M. (2007). Relationships between adjustment and support types: Young and mature-aged local and international first year university students. *Higher Education*, 54(2), 247-265.
- Reid, L. M., & Dixon, A. L. (2012). The counseling supervision needs of international students in U.S. institutions of higher education: A culturally-sensitive supervision model for counselor educations. *Journal for International Counselor Education*, 4, 29-41.
- Russel. J., Rosenthal, D., & Thomson, G. (2010). The international student experience: Three style of adaptation. *Higher Education*, 60(2), 235-249.
- Russell, R. K., & Petrie, T. A. (1992). Academic adjustment of college students: Assessment and counseling. In S. D. Brown & R. W. Lent (Eds.), *Handbook of Counseling Psychology* (pp. 485-511). Oxford, England: John Wiley & Sons.
- Sabbadini, M., Naldi, M., Packman, W., Youngblom, J., & Weil, J. (2013). International genetic counseling students' perspective on their training experience in the United States. *Journal of Genetic Counseling*, 22(6), 817–829.doi:10.1007/s10897-013-9648-5
- Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports*, 75, 435-448.
doi:10.2466/pr0.1994.75.1.435
- Sandhu, D.S., & Asrabadi, B.R. (1998). *An acculturative stress scale for international students: A practical approach to stress measurement*. In C.P. Zalaquett and R.J. Wood (Eds.), *Evaluating stress: A book of resources*, v.2. (pp. 1-33). London: The Scarecrow Press.

- Sherry, M., Thomas, P., & Chui, W. H. (2010). International student: A vulnerable student population. *Higher Education: The International Journal of Higher Education and Educational Planning*, 60(1), 33-46
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: assessing the ability to bounce back. *International journal of behavioral medicine*, 15(3), 194-200.
- Smith, R. A., & Khawaja, N. G. (2014). A group psychological intervention to enhance the coping and acculturation of international students. *Advances in Mental Health*, 12(2), 110-124. doi:10.5172/jamh.2014.12.2.110.
- Telbis, N. M., Helgeson, L., & Kingsbury, C., (2013). International students' confidence and academic success. *Journal of International Students*, 1(2), 43- 49.
- Terui, S. (2011). Second language learners 'coping strategy in conversations with native speakers, *Journal of International Students*, 2(2), 168-183
- Tinto, V. (1975). Dropouts from higher education: A theoretical synthesis of recent literature. *A Review of Educational Research*, 45, 89-125.
- Tinto, V. (1986). Theories of student departure revisited. In John C. Smart (ed.), *Higher Education: Handbook of Theory and Research*, Vol H (pp. 359-384). New York: Agathon
- Trice A. G. (2004). "Mixing it up: International graduate students' social interactions with American students", *Journal of College Student Development*, 45(6), 671–687.
- Valdez, G. (2015). US higher education classroom experiences of undergraduate Chinese international students. *Journal of International Students*, 5(2), 188-200
- Wang, C.D. & Castaneda-Sound, C. (2008). The Role of Generational Status, Self-Esteem, Academic Self-Efficacy and Perceived Social Support in College Students' Psychological

- Well-Being. *Journal of College Counseling*, 11, 101 -118. doi: 10.1002/j.2161-1882.2008.tb00028.x
- Wang, J. (2009). A study of resiliency characteristics in the adjustment of international graduate students at American universities. *Journal of Studies in International Education*, 13, 22-45. doi: 10.1177/1028315307308139
- Wang, K.T, Wei, M., Zhao, R., Chuang, C. & Li, F. (2015). The cross-cultural loss: Development and psychometric evaluation. *Psychological Assessment*, 27(1), 42-53
- Watson, J. C., & Lenz, A. S. (2018). Development and evaluation of the Inventory for New College Student Adjustment. *Journal of College Student Retention: Research, Theory & Practice*. 0(0) 1-16.
- Wilks, S.E. & Spivey, C.A. (2010). Resilience in Undergraduate Social Work Students' Social Support and Adjustment to Academic Stress. *Social Work Education*, 29, 276-288. doi:10.1080/02615470902912243
- Wintre, M.G. & Yaffe, M. (2000). First-year students' adjustment to university life as a function of relationships with parents. *Journal of Adolescent Research*, 15, 9-37. doi:10.1177/074355840 015100
- Yakunina, E. S., Weigold, I. K., Weigold, A., Hercegovac, S., & Elsayed, N. (2013). International students' personal and multicultural strengths: Reducing acculturative stress and promoting adjustment. *Journal of Counseling & Development*, 91(2), 216-223. doi:10.1002/j.15566676.2013. 00088.x
- Yeh, C. J., & Inose, M. (2003). International students reported English fluency, social support satisfaction, and social connectedness as predictors of acculturative stress. *Counselling Psychology Quarterly*, 16(1), 15-28. doi:10.1080/0951507031000114058

- Yi, J. K., Jun-Chin, G. I., Jenny, K., & Kishimoto, Y. (2003). Utilization of counseling services by international students. *Journal of Instructional Psychology*, 30(4), 333-342
- Zhang, Y. (2016). International students in transition: Voices of Chinese doctoral students in a U.S. research university. *Journal of International Students*, 6(1), 175-194.

APPENDICES

Appendix A

Table 2

Means and Standard Deviations for Student Groups and Four Variables

Variable	<i>Undergraduate</i>		<i>Graduate</i>		α
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
1. Relational Skills	97.50	15.84	119.35	22.51	.97
2. Resilience	3.37	1.11	3.61	1.41	.68
3. Acculturative Stress	121.02	29.11	113.75	33.39	.98
4. College Adjustment	37.40	5.79	41.32	4.83	.93

* $p < .05$

Table 3

Multivariate and Univariate Analyses of Variance for Student Groups Measures

Source	Multivariate		Univariate			
	df	F ^a	Relational Skills	Resilience	Acculturative Stress	College Adjustment
Student Groups (SG)	4, 54	7.53*	26.64*	7.53	18.65*	4.18

* $p < .05$

Table 4

Summary of Regression Model for Resilience, Relational Skills, and Acculturative Stress as Predictors of College Adjustment

Variable	<i>B</i>	<i>SEB</i>	β	<i>t</i>	<i>sr</i>²	<i>F</i>	<i>R</i>²
						36.7*	.55
Relational skills	.507	.068	.677	7.39*	.615		
Resilience	.133	.320	.041	.417	.044		
Acculturative Stress	-.084	.023	-.287	3.72*	.365		

Note. N = 95. CI = confidence interval.

* $p < .05$.

Appendix B: Demographic Forms and Instruments

Demographic Forms

Below, please, complete the following demographic questions

1. **Age:** _____

2. **Gender:** (circle one)

- ☐ Male
- ☐ Female

3. **Country of Origin:** (circle one)

- ☐ Australia
- ☐ Bangladesh
- ☐ Canada
- ☐ China
- ☐ Colombia
- ☐ Ecuador
- ☐ Egypt
- ☐ Ghana
- ☐ India
- ☐ Iran
- ☐ Japan
- ☐ Jordan
- ☐ Kuwait
- ☐ Mexico
- ☐ Nepal
- ☐ Nigeria
- ☐ Norway
- ☐ Oman
- ☐ Pakistan
- ☐ Philippines
- ☐ Russia
- ☐ Saudi Arabia
- ☐ South Korea
- ☐ Spain
- ☐ Sri Lanka
- ☐ Taiwan
- ☐ Thailand
- ☐ Turkey
- ☐ United Kingdom
- ☐ Venezuela
- ☐ Vietnam

4. **When did you arrive in the United States?** _____

5. **Course of Study:** _____

6. **Degree Level:** (circle one)

- ☐ Bachelors
- ☐ Master's

- Doctoral
- 7. **Name of the University:** (choose one)
 - Texas AM University-Corpus Christi
 - Texas A&M University-Kingsville

The Inventory of New College Student Adjustment (Watson & Lenz, 2018)

Directions: Please read each question carefully and answer according to your level of agreement with each item since you have been at the university using the following scale:

Strongly Disagree	Disagree	Agree	Strongly Agree
SD	D	A	SA

1	My study habits are effective	SD	D	A	SA
2	Past experiences help me cope with the demands of college	SD	D	A	SA
3	I believe I handle university well	SD	D	A	SA
4	My classmates value my opinions	SD	D	A	SA
5	Challenging courses make me a better student	SD	D	A	SA
6	My friends support me as I work toward my goals	SD	D	A	SA
7	Most people would describe me as levelheaded	SD	D	A	SA
8	I always see the good in situations	SD	D	A	SA
9	I am enjoying college life	SD	D	A	SA
10	My friends help me to grow in important ways	SD	D	A	SA
11	My family's support makes me feel stronger	SD	D	A	SA
12	My friends really care about supporting me	SD	D	A	SA
13	I know what I will do after graduation	SD	D	A	SA
14	I can be real with at least a few of my friends	SD	D	A	SA

The Brief Resilience Scale (Smith et al., 2008)

Directions: Please respond to each item by circling a letter.

<i>Questions</i>		<i>Response</i>				
		<i>Strongly Disagree</i> <i>A</i>	<i>Disagree</i> <i>B</i>	<i>Neutral</i> <i>C</i>	<i>Agree</i> <i>D</i>	<i>Strongly Agree</i> <i>E</i>
1	I tend to bounce back quickly after hard times	A	B	C	D	E
2	I have a hard time making it through stressful events	A	B	C	D	E
3	It does not take me long to recover from a stressful event	A	B	C	D	E
4	It is hard for me to snap back when something bad happens	A	B	C	D	E
5	I usually come through difficult times with little trouble	A	B	C	D	E
6	I tend to take a long time to get over setbacks in life	A	B	C	D	E

The Acculturative Stress Scale for International Students (Sandhu & Asrabadi, 1994, 1998)

Please respond to each item by circling a letter.

	<i>Questions</i>	<i>Response</i>				
		<i>Strongly Disagree</i> A	<i>Disagree</i> B	<i>Neutral</i> C	<i>Agree</i> D	<i>Strongly Agree</i> E
1	Homesickness bothers me.	A	B	C	D	E
2	I feel uncomfortable to adjust to new foods.	A	B	C	D	E
3	I am treated differently in social situation.	A	B	C	D	E
4	Others are sarcastic toward my cultural values.	A	B	C	D	E
5	I feel nervous to communicate in English.	A	B	C	D	E
6	I feel sad living in unfamiliar surroundings.	A	B	C	D	E
7	I fear for my personal safety because of my different cultural background.	A	B	C	D	E
8	I feel intimidated to participate in social activities.	A	B	C	D	E
9	Others are biased toward me.	A	B	C	D	E
10	I feel guilty to leave my family and friends behind.	A	B	C	D	E
11	Many opportunities are denied to me.	A	B	C	D	E
12	I feel angry that my people are considered inferior here	A	B	C	D	E
13	Multiple pressures are placed upon me after migration.	A	B	C	D	E
14	I feel that I receive unequal treatment.	A	B	C	D	E
15	People show hatred toward me nonverbally.	A	B	C	D	E
16	It hurts when people don't understand my cultural values.	A	B	C	D	E
17	I am denied what I deserve.	A	B	C	D	E

18	I frequently relocate for1 fear of others.	A	B	C	D	E
19	I feel low because of my cultural background.	A	B	C	D	E
20	Others don't appreciate my cultural values.	A	B	C	D	E
21	I miss the people and country of my origin.	A	B	C	D	E
22	I feel uncomfortable to adjust to new cultural values.	A	B	C	D	E
23	I feel that my people are discriminated against.	A	B	C	D	E
24	People show hatred toward me through actions.	A	B	C	D	E
25	I feel that my status in this society is low due to my cultural background.	A	B	C	D	E
26	I am treated differently because of my race.	A	B	C	D	E
27	I feel insecure here.	A	B	C	D	E
28	I don't feel a sense of belonging (community) here.	A	B	C	D	E
29	I am treated differently because of my color.	A	B	C	D	E
30	I feel sad to consider my people's problems.	A	B	C	D	E
31	I generally keep a low profile due to fear.	A	B	C	D	E
32	I feel some people don't associate with me because of my ethnicity.	A	B	C	D	E
33	People show hatred toward me verbally.	A	B	C	D	E
34	I feel guilty that I am living a different lifestyle here.	A	B	C	D	E
35	I feel sad leaving my relatives behind.	A	B	C	D	E
36	I worry about my future for not being able to decide whether to stay here or to go back.	A	B	C	D	E

The Relational Skills Inventory, which was the fourth instrument used for this study, has yet to be published. It was written by Dr. Robert L. Smith in the Department of Counseling and Educational Psychology at Texas A&M University-Corpus Christi. Three examples of this scale are:

1. I am aware of what others are feeling.
2. I make it a point to empower others.
3. I try to understand the culture of others.

For more information about this scale, you can contact Dr. Smith at robert.smith@tamucc.edu.