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Examining the Relationship Between Acculturative Stress and Religion/Spirituality Among International Students

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Abstract

The purpose of this study was to explore the relationship between acculturative stress and religion/spirituality of international students. This study utilized Sandhu and Asrabadi's (1994) Acculturative Stress Scale for International Students (ASSIS) as well as the Santa Clara Strength of Religious Faith Questionnaire (SCSORF) created by Plante and Boccaccini (1997). Much research exists on how international students adapt and acculturate to a host country. This research will add to the body of literature that exists regarding how international students use their religion/spirituality to deal with acculturative stress. Students in this study were asked a number of questions from the ASSIS and SCSORF rating the level of their stress and religious faith engagement. Results indicate that as acculturative stress increased, religious faith engagement increased. Additionally, results showed that international students experience mostly moderate levels of acculturative stress and that the religious faith engagement of male international students was no different than the religious faith engagement of female international students. Chapter five includes additional findings, conclusions, discussion, and recommendations.

Dedication

This thesis is dedicated to everyone who has supported me through stressful moments of my life, particularly my sweet wife, Tania Ward. Her love, support, and encouragement has truly been a strength for me during this process. I also dedicate this thesis to my parents, Rhonda and Joe Ward. I would like to thank them for being willing to listen as I explained my thesis research to them during our phone conversations. Next, I would like to thank my spiritual parents, Andrew and Wanda Kay Robinson for their continual guidance, prayers, and accountability. Finally, I dedicate this thesis everyone involved at ACTS Campus Ministry in honor of their understanding and support for their pastor furthering his education.

Acknowledgements

I would like to acknowledge my first thesis advisor, Dr. Catherine Polydore, for her expertise and counsel in getting me started and holding me accountable all the way through my proposal. Additionally, I want to express my appreciation to my next thesis advisor, Dr. Eric Davidson, for his support, accountability, and feedback all the way through my thesis defense. I have been very fortunate to have worked with two great thesis advisors and have learned quite a bit from working with them! Furthermore, I wish to thank my two other committee members who were also phenomenal in helping me not only with this research, but also in other aspects of my life, Dr. Andrew Robinson and Dr. Ryan Hendrickson. Of course, this study would not have been possible without its participants. Therefore, I would like to thank every international student who participated in the survey. Lastly, I want to thank Eastern Illinois University and the College Student Affairs faculty and staff for providing me the opportunity to further my education.

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CHAPTER I

Introduction

Stress is a common factor that can negatively influence the lives of college students despite their ethnicity, country of origin, or gender (Bland et al., 2012). College students experience many stressors that impact their performance academically as well as their overall health. In addition to the stressors faced by their domestic counterparts, international students face unique stressors such as adapting to a new climate culturally and connecting with others socially (Bland et al., 2012). This stress, referred to by some as acculturative stress (Akhtar & Kröner-Herwig, 2015; Atri et al., 2007), can play a significant role in the college experience of international students. As international students transition to a new environment of higher education, their values and behaviors are likely to be challenged when compared with the American culture. Adapting to a new environment can, in turn, increase acculturative stress (Phinney, 1993). Acculturative stress can impact international students mentally, emotionally, socially, and academically (Patton et al., 2016b).

Research has shown that involvement in religious and spiritual engagement can serve as healthy coping mechanisms as international students adapt during stressful situations (Philip et al., 2019). Though international students have been known to add diversity to college and university campuses by hosting a range of religious or spiritual activities, there is little empirical research that shows how spirituality and religion impact international students in college (Andrade & Evans, 2009). International students who identify as religious or spiritual are arriving to institutions in America while searching for ways to faithfully engage in religious and spiritual activities (Chai et al., 2012; Hsu et al. 2009; Andrade & Evans, 2009). Though the

terms "religion" and "spirituality" are often defined differently, both can contribute to psychological, cognitive, social, and academic performance (Philip et al., 2019).

The research site, henceforth referred to as International University, aims to increase its international enrollment. This has been one of the many goals of International University as it seeks to promote a diverse and inclusive campus. In 2015, students from India formed the highest proportion in the international student population with 113 students (Butler, 2015). In 2016, the top leading countries of origin for the United States in that year were China, India, Saudi Arabia, South Korea, and Canada (Institute of International Education, 2016). In 2019, these countries were still the top leading countries of origin in America (Institute of International Education, 2019). Today, International University is continually working to increase its international student population. In 2019, out of approximately 7,800 students, about 320 international students chose to pursue their studies at International University (International University, 2019a). International University's international population has been comprised of students from diverse backgrounds, specifically from over 60 countries (International University, 2019b). It is evident that increased enrollment for international students has been a part of the International University's mission for years. With this given fact, it is also evident that International University's mid-campus size helps to create an intimate environment, making international students feel at home. An email response from Daniel Kline, personal communication, May 15, 2020 confirms this point, "One of the intentions of International University is to increase its international student population as well as continue to foster an atmosphere where they feel at home. One of the OISS goals is to continue to help international students transition and become acclimated with International University community."

By examining the relationship between religion/spirituality and acculturative stress of international students from an objective approach, more empirical research will be available which can contribute to further exploration of the international student experience. Additionally, improved programming and awareness could result for universities and colleges (Philip et al., 2019). As international students continue to enroll in U.S. institutions, colleges and universities will benefit from understanding the levels of acculturative stress that international students experience as well as the importance of religion and spirituality during the acculturation process.

Purpose of the Study

The purpose of the study was to examine the relationship between acculturative stress and religion/spirituality among international students at a rural, public institution in the Midwest. Another principal aim of this study was to add to the body of research about spirituality and religion relative to international students. This was achieved through a quantitative research design using measures of acculturative stress and religion/spirituality among a sample of international students enrolled at International University in the summer, 2020 semester. By examining this relationship, the researcher determined how religion/spirituality relates to the acculturative stress of international students.

Research Questions

The study was guided by one overarching research question: Is there a relationship between acculturative stress and religion/spirituality among international college students?

Hypothesis

In order to answer all of the above questions, quantitative analysis of a questionnaire was conducted. The following was the researcher's hypotheses of the proposed research question:

H1O: International students do not experience moderate to high levels of acculturative
stress.

H1A: International students experience moderate to high levels of acculturative stress.

H2O: There is not a significant relationship between religion/spirituality engagement and
acculturative stress.

H2A: There is a relationship between religion/spirituality engagement and acculturative
stress among international students.

H3O: There is not a significant difference in religious/spiritual engagement between male
and female international students.

H3A: There is a significant difference in religious/spiritual engagement between female
and male international students. This was an exploratory hypothesis.

Significance of Study

The presence of international students in higher education helps to diversify campuses
across the United States, while increasing enrollment. With International University's goal to
promote atmosphere of diversity as well as increase enrollment, it is imperative to the institution
to understand the stress of international students. When traveling from their home country,
international students can experience acculturative stress while adjusting to a new environment
(Thomas & Sumathi, 2016). Despite there being much research regarding international students
and acculturative stress, only a paucity of research on the affects that religion/spirituality have on
international students is available (Andrade & Evans, 2009).

The results of the study can help student affairs professionals determine whether religion
plays a significant role in the acculturation process of international students. Another benefit
from this study will be the comparison of international students' spirituality/religion and

acculturative stress in relation to gender. With this knowledge, universities, could get a glimpse of the impact that religious organizations on college campuses have on international students. In general, universities will be able to conceptualize how religion and spirituality can influence the college experience of international students.

Limitations and Delimitations of the Study

Limitations

There are a number of limitations that impacted the validity of this study. The first limitation regards access to participants. Potential participants have possibility chosen to not respond to emails. The second limitation will be the dependency of the researcher on the staff at International University. The researcher relied on a staff member in the Office of International Students and Scholars (OISS) to send the survey to all international students enrolled. Both of these limitations could have yielded a smaller sample size. This is a concern because large samples are desirable for quantitative studies. Thirdly, because of the global pandemic, international students undoubtably faced additional acculturative stress. Since acculturative stress is one of the variables that was examined in this study, participants might have indicated higher levels of stress than they would in normal conditions, which could threaten the study's validity.

Delimitations

The intended population for this study were all international students enrolled at a Midwestern university during the fall semester of 2020. Participants were to be 18 years or older. No other delimitations were placed on this study by the researcher regarding who could participate.

Definition of Terms

The following terms have been defined to provide understanding of their meaning in the context of this study.

- **acculturation:** Acculturation refers to any changes in beliefs, values, and behaviors of ethnic individuals as a result of contact with, and desired or undesired adaptation to, the dominant culture (Berry, 1993).

- **acculturative stress:** Acculturative stress was described as the decreased psychological health people might experience when coming into a new culture without enough adaptive resources to support a smooth transition, and it encompassed the behavioral, physical, and psychological health of international students (Akhtar & Kröner-Herwig, 2015; Atri et al., 2007).

- **international student:** An individual "who temporarily resides in a country other than their country of citizenship or permanent residence to receive education" (Poyrazli & Grahame, 2007, p. 29).

- **religion:** Religion was defined as, "a system of beliefs, practices, rituals, and symbols designed to facilitate closeness to the sacred or transcendent (God, high power, or ultimate truth/reality) and to foster an understanding of one's relationship and connection with others living together in a community" (Patton et al., 2016a, p.197). For the purpose of this study, the term "religion" will be used in conjunction with "spirituality."

- **spirituality:** Spirituality reflects a person's personal encounter with the sacred and is associated with developing life's meaning, recognizing one's purpose in life, and forming a personal relationship with the sacred or God (Donahoo & Caffey, 2010). For the purpose of this study, the term, "spirituality will be used in conjunction with "religion."

Summary

  The objective of this study was to examine the relationship between acculturative stress and religion/spirituality of international students. Chapter I included the introduction, the purpose of the study, research questions, hypotheses, significance of the study, limitations and delimitations of the study, and the definition of terms. Overall, this chapter contained a detailed introduction, articulating the foundation of this study.

CHAPTER II

Review of the Literature

This chapter examines current research on international student education in the United States, acculturative stress among international students, and religion/spirituality of international students. It begins by explaining how international student education has changed through the recent decades. Then, it examines how acculturative stress impacts international students. Research on religion/spirituality of international students is also included to trace its significance towards dealing with acculturative stress. In general, this chapter provides a review of the literature surrounding education in the U.S., acculturative stress, and religion/spirituality among the international student population. Finally, the chapter concludes by giving a description of cultural capital, model ethnic identity development, and spiritual identity development to aid in understanding how international students cope with acculturation.

International Student Education in the U.S.

The Fulbright Act (U.S. Public Law 584), signed by U.S. president Harry S. Truman in 1946, signified the start of a consistent increase of international students in higher education in the U.S (Cuyjet et al., 2016). This law would provide funding for foreign students to study in the U.S. for a particular period of time. By the 1964-1965 academic year, there were 82,045 international students enrolled in higher education in the U.S.; in 1974-1975, this number increased to 154,580; for 2014-2015, international student enrollment was at 974,926 (Cuyjet et al., 2016; Institute of International Education, 2015). Factors such as federal funding, student visas, and student employment (although limited) have all contributed to the increase in international students studying in the U.S historically. However, after nearly four decades of increased enrollment, which was briefly interrupted during the 9/11 attacks, there has been

a decline of almost 10% of new international student enrollment between the years of 2015 and 2018 due to factors such as the political environment surrounding immigration in the U.S., tighter interpretation of student visa enforcement, and competition by new colleges and universities from abroad (Grawe, 2019). International students' enrollment in higher education has become an important part of the landscape at universities and colleges (Wu et al., 2015). The higher education system of the United States outranks other foreign countries in attracting international students because it is abundantly diverse, promoting a welcoming attraction for international students (Education USA, 2020). In the U.S., international students can select from a diverse group of institutions that include private, public, very large or small, secular and religiously affiliated, urban, suburban, and rural (Education USA, 2020). Coming from various backgrounds with diverse beliefs, international students contribute to the makeup of an institution by helping to promote an atmosphere of diversity. International students also help contribute to academic prestige and revenue (Institute of International Education, 2016). Therefore, institutions will do well to understand the impact that acculturative stress can have on international students.

International Students and Acculturative Stress

There has been much research conducted on international students dealing with acculturative stress when adjusting to a new environment (Adam & Ward, 2016; Sullivan & Kashubeck-West, 2015; Ra & Trusty, 2015; Philip et al., 2019). A quantitative study conducted on 167 New Zealand Muslim students living in a Western country, supported the fact that acculturative stress can lower life satisfaction as well as increase psychological symptoms while adapting (Adam & Ward, 2016). This is crucial in understanding Muslim international students who experience discrimination and barriers to integration due to islamophobia (Adam & Ward,

2016). The results of another study conducted by Sullivan and Kashubeck-West (2015), which included 104 international students enrolled at a mid-sized public, urban university in the Midwestern United States, concluded that increased acculturative stress was linked to international students who were less supported socially. Thomas and Sumathi (2016) defined acculturative stress as "the stress that is caused when an individual is in a process of living and learning in a new environment" (p. 61). Acculturative stress can occur throughout this process (Thomas & Sumathi, 2016). When an international student enters a new environment, this can open doors for new challenges such as interacting with people from different cultures, different food selections, language barriers, and homesickness. International students cannot escape the cultural shock and change they experience during their studies in the U.S.; these changes can be attributed to the acculturation process (Wu et al., 2015). Acculturation refers to any changes in beliefs, values, and behaviors of ethnic individuals in order to adapt to the dominant culture (Berry, 1993). As international students face different challenges, this can cause them to acculturate with the environment surrounding them. Examples of acculturating include integration, marginalization, separation, and assimilation (Sullivan & Kashubeck-West, 2015). Acculturative stress can occur as international students adapt academically, culturally, and socially (Philip et al., 2019). Specifically, language barriers, adjustment to academic curriculum, desires to connect with peers, and make new friends can all contribute to the stress that international students face when transitioning to a new environment.

Furthermore, just as any other college student, international students can find different ways to cope with stress. How a student chooses to cope with any stress related occurrence can be ultimately determined by their beliefs, cultural values, or past experiences (Adam & Ward, 2016). Philip et al. (2019), in a qualitative study, found that international students can display

both positive coping mechanisms (creating friendships with people they could relate to in some way) and negative coping mechanisms (tendency to engage in coping behaviors to save face, or for fear of being judged by the host society members when dealing with acculturative stress). Thus, it is evident that acculturative stress can either lead to positive or negative coping behaviors. How a student chooses to cope with any stress-related phenomenon can ultimately affect their personal, academic and social well-being (Philip et al., 2019). For example, by choosing a negative coping strategy such as substance abuse, a student could potentially become addicted which could affect their development through college. Furthermore, this could eventually result in the student dropping out or suffering academically. On the contrary, by choosing a positive coping strategy such as joining a social group, the student could feel more connected to their environment as well enhance their development through college in a positive manner (Adam & Ward, 2016).

Religion and Spirituality of International Students

Religion and spirituality can play a significant role in an individual's life. However, there has been little empirical research on the effects of religion/spirituality on international students in higher education (Andrade & Evans, 2009). International students hold a broad range of religious/spiritual orientations, contributing to the diversity on university campuses (Andrade & Evans, 2009; Johnson & Hayes, 2003). With diverse backgrounds and varying beliefs, international students can aid in adding variety to colleges and universities. For many, religious/spiritual orientation is an integral part of their identity (Quinn, 2008). Therefore, it is apparent that religion and spirituality can play a prominent role in the life of an international student.

As students who are spiritually engaged transition to a new environment, religion/spirituality can provide personal empowerment and a strong social system as they search for a sense of belonging and security (Chai et al., 2012; Hsu et al., 2009). Since religion and spirituality can play a significant role in one's identity, the decisions that an international student chooses to make can also be greatly influenced. Thus, it seems that colleges and universities would do well to incorporate and promote the religious/spiritual programming and organizations on their campuses. As Philip et al. (2019) stated, "understanding the impact of acculturative stress and the possible adaptive coping associated with incorporating religion/spirituality could support improved programming for international students" (p. 28). With this notion in mind, college and universities could adapt and shape the atmosphere of their campuses to help international students thrive academically, socially, and personally. They could even assess whether they provide enough religious/spiritual programming, organizations, or opportunities for their current and prospective students.

Theoretical/Conceptual Framework

Cultural Capital

The term *cultural capital* is important for the power that it gives individuals in society to achieve goals and rise up the social ladder without having to have social or wealth capital (Throsby, 1999). Furthermore, more *cultural capital* can give individuals social mobility in a stratified society (Throsby, 1999). The three elements that go into cultural capital are: (a) being institutionalized with an education or specialized knowledge, (b) personified with speech, skills, and personality, and (c) objectified with style of dress or other belongings. Cultural capital is difficult to measure objectively but can be measured by how much value society places on the individual's non-financial assets (Throsby, 1999).

The cultural capital concept will aid in the framework of this study because religion/spirituality can also be difficult to measure objectively. Since religion/spirituality can play a role in shaping the perspective and identity of an individual, an international student could also potentially move up the social ladder in this way. An international student's religion/spirituality could potentially be an asset when it comes to connecting and engaging with others in a given society. Therefore, an international student's religion/spirituality could serve as a gateway to receive social support from others. An international student's cultural capital can determine how connected they are in a community. Hence, the cultural capital concept will also further the development of theoretical framework for this study.

Model Ethnic Identity Development

Jean Phinney's (1993, 1995) *model of ethnic identity development* consists of three stages and describes a linear model of ethnic identity achievement. Patton et al. (2016b) stated, "her model has been tested and studied more than any other related to ethnic identity" (p. 135).

Stage one of her model, *unexamined ethnic identity* (diffusion - foreclosure), is when the individual has not explored attitudes or feelings regarding their own identity. The individual may not perceive ethnicity as an issue, which could prevent them from committing an identity (diffusion). Conversely, an individual may acquire attitudes and feelings from family members during their childhood which could lead them to commit to an identity rather than exploring any others (foreclosure).

During stage two, *ethnic identity search* (moratorium), individuals progress toward exploring identities as they begin to encounter their own experiences, increasing their awareness of ethnic identity issues (Phinney, 1990 & 1993). Individuals in this stage may encounter discrimination, harassment, or even gradual recognition that their ethnicity is perceived as "less

than" by another group, therefore, "they actively explore but are not yet committed to the identity (moratorium)" (Patton et al., 2016b, p. 136).

In the final stage, *ethnic identity achievement*, the individual achieves a healthy bicultural identity by coming to terms with their ethnicity and conquering their self-identifying conflicts. Patton further stated, "as students accept membership in cultures that are minoritized in the United States, they gain a sense of ethnic identification while being open to other cultures" (Patton et al., 2016b, p. 136).

Phinney's (1993, 1995) Model of Ethnic Identity Development sheds light on the identity development process that ethnic groups progress through. This model can be significantly initiated in an individual's life if they were to travel to another country that is culturally different from their native location. Hence, it is imperative to conceptualize how the identity of an individual develops in regard to ethnicity.

Spiritual Identity Development Model

William James (1902, 1968) conducted early work connecting spirituality with identity development. Spirituality has been linked to shaping one's identity and decision making. Poll and Smith (2003) suggested that there are four stages of spiritual identity development, *pre-awareness* of spiritual identity, *awakening* of spiritual awareness, *recognition* of fragmented memories into consistent themes, and *integration of spiritual memories and experiences* into a spiritual identity with concomitant changes in behavior.

In the *pre-awareness* stage, individuals possess a limited connection and recognition of spirituality. Some may even disdain the notion of spiritual outlooks. During the *awakening* stage, individuals begin to build trust in spiritual matters. They are more prone to seek resources that will help them develop spiritually, especially in the midst of crisis. The *recognition* stage is

when individuals engage and internalize their spirituality. By recalling spiritual experiences and participating in prayer and public worship with others, individuals view their spirituality as a lifestyle. Finally, the *integration* stage is where individuals see spirituality as a major part of their identity. They identify and change areas of their lives in order to please God, even though they may face challenges (Poll & Smith, 2003). As individuals progress through the spiritual identity development model, their spiritual life begins to form deeper roots into their identity. According to Rockenbach and Mayhew (2014), "religion and spirituality can inspire a healthy campus pluralism that is well suited to enriching educational outcomes" (p. 44). Whether the international student's spiritual identity derives from that of a Jewish, Christian, Muslim, Buddhist, Hindu, etc. background, their religious beliefs play an integral role in how they adapt or cope with an environment or situation.

Summary

In order to further conceptualize whether religion and spirituality play a significant role towards international students' experience with acculturative stress, it is essential to understand their internal and external experiences. By examining international education at International University, how international students manage acculturative stress, and religion/spirituality of international students, there should be a further understanding as to whether religion/spirituality effects how international students cope with acculturative stress. The theories mentioned in this chapter will help to examine international students personally as well as socially. By enhancing the educational experience of international students, spirituality and religion can play a feasible role in helping a college or university succeed by providing a pleasant atmosphere for students. Higher graduation rates of international students help universities fulfill their mission to contribute to the global economy by providing services and furthering personal and intellectual

development (Andrade & Evans, 2009). The next chapter will present the methodology that will

be utilized in this study.

CHAPTER III

Methods

This chapter outlines the methodology of a study designed to examine the relationship between acculturative stress and religion/spirituality of international students. The design of study, participants, the research site, instruments, data collection, data collection, data analysis, and treatment of data are all described in this chapter.

Design of Study

This study was facilitated through the use of quantitative methodology. Quantitative methodology is regarded as a deductive approach towards research (Rovai et al., 2014). Two tests were conducted in this study. Since there was no attempt to influence the two variables, a correlational design was utilized in order to investigate the relationships among them. Additionally, an independent sample *t*-test was utilized to examine differences of religious engagement regarding sex. There is little concrete, empirical research that shows how spirituality and religion impact international students in college (Andrade & Evans, 2009). Therefore, by utilizing this methodology and design, more objective research became available regarding this area of study.

Participants

Out of the approximate 250 international students enrolled at the research site during the Fall 2020 semester, 57 (22.8%) participated in the study. An online survey was distributed through mass email to all international students from the Office of International Students and Scholars (OISS) during the month July in 2020. Each student had been enrolled for at least one semester at a U.S midsized Midwestern four-year state university.

The ages of participants ranged from 20 to 36 years old. With regards to year in school, the majority were graduate students 70.2% ($n = 40$). Participants were from approximately 20 different countries with the majority originating from India 31.4% ($n = 18$). The most represented major was computer technology 23.8% ($n = 14$). The number of months spent in the U.S. ranged from a minimum of six months to a maximum of 85 months as indicated in Table 1.

Table 1

Demographics of Study Participants

Demographic Variable	Frequency	Percentage
	(n)	(%)
Gender		
Male	30	52.6
Female	27	47.4
Age		
20	4	7.0
21 - 30	46	80.7
31 - 36	5	8.8
Unknown	2	3.5
Year in School		
Freshman	2	3.5
Junior	4	7.0
Senior	10	17.5
Graduate Student	40	70.2
Unknown	1	1.8

Table 1 continued

Demographics of Study Participants

Demographic Variable	Frequency	Percentage
	(n)	(%)
Months in the U.S.		
4 - 20	30	52.0
21 - 40	19	33.7
41 - 60	4	7.2
61 - 80	1	1.8
80 <	2	3.5
Unknown	1	1.8
Academic Major/Concentration		
Accounting	1	1.8
Biochemistry	1	1.8
Biological Sciences	3	5.3
Business Administration	3	5.3
Chemistry	5	8.8
Clinical Psychology	3	5.3
Communication Studies	3	5.3
Computer Science	2	3.5
Computer Technology	14	23.8
Construction Management	1	1.8
Economics	2	3.5
Education	2	3.5
Engineering Technology	1	1.8
English	1	1.8
Graphic Design (Art)	1	1.8
History	1	1.8
Human Services Program Administration	1	1.8
Kinesiology	1	1.8
Management Information Systems	1	1.8
Marketing	1	1.8
Psychology	1	1.8
Sustainable Energy	2	3.5
Technology	3	5.3
Unknown	3	5.3

Table 1 continued

Demographics of Study Participants

Demographic Variable	Frequency	Percentage
	(n)	**(%)**
Country of Origin		
Bangladesh	1	1.8
Brazil	1	1.8
Canada	1	1.8
China	2	3.4
Congo	1	1.8
Congo Kinshasa	1	1.8
France	1	1.8
Germany	1	1.8
Ghana	8	14.0
Honduras	1	1.8
India	18	31.4
Nigeria	5	8.8
Palestine	1	1.8
Romania	1	1.8
Saudi Arabia	2	3.4
South Korea	1	1.8
Spain	1	1.8
Sri Lanka	2	3.4
Uganda	1	1.8
Zambia	1	1.8
Zimbabwe	2	3.4
Unknown	4	7.0

Note. n = 57

Research Site

Data was collected at a mid-sized Midwestern university with a reported Fall 2020 on-campus enrollment of approximately 4,600 students (International University, 2020). The institution is located in a rural community with an estimated total population of about 20,200 residents (United States Census Bureau, 2018). The research site included students of diverse

racial and cultural backgrounds: Black/African American, Asian, Hispanic/Latino, White and others (IU, 2019a). In the fall of 2020, there were approximately 250 international students enrolled out of approximately 8,600 (International University, 2020). This site was selected because of the researcher's access to the population of international students.

Instruments

Demographic Questionnaire

The survey for this study included demographic questions (e.g., "What is your country of origin?" and "Which of the following best describes your racial and ethnic background?"). Participants were asked to choose from a list of options that best described them. Furthermore, in order to collect demographic information from participants, questions relating to their current year in school, academic major, age, and sex were also utilized in the survey.

Acculturative Stress Scale for International Students

This study utilized a modified version of the Acculturative Stress Scale for International Students (ASSIS) which was developed by Sandhu and Asrabadi (1994) to determine the acculturative stress that the students face. The initial version included 125 items (Sandhu & Asrabadi, 1994). However, the researcher utilized ten items for this study. These ten items were chosen so that four stress factors were represented: homesickness (4 items), perceived hate/rejection (2 items), culture shock (3 items), guilt (1 item). Participants responded using a five-point Likert scale scoring: 1 - *strongly disagree*, 2 - *disagree*, 3 - *not sure*, 4 - *agree*, 5 - *strongly agree*. The mean score of each factor was obtained. With the original instrument having a high reliability of 0.96 (Cronbach Alpha), this instrument was a good measure of acculturation since it had been utilized often and created for this specific purpose (Thomas & Sumathi, 2016).

Higher scores on the ASSIS indicated greater levels of acculturative stress, while lower scores represented lower levels of acculturative stress. Refer to Appendix A for full scale.

Santa Clara Strength of Religious Faith Questionnaire

The Santa Clara Strength of Religious Faith Questionnaire (SCSORF) was utilized in this study to measure faith and religious affiliation of international students. A modified version of this scale was utilized in this study. The only modification was the addition of the word "religion" being used in conjunction with "faith" in order to meet the relevance of this study. This ten-item self-report was created to measure religiosity (Plante & Boccaccini, 1997). Participants rated each item (e.g., "My relationship with God is extremely important to me," "My religion/faith impacts many of my decisions") using a five-point scale that ranged from *strongly disagree* to *strongly agree*. The SCSORF questionnaire was found to have high internal reliability (Cronbach Alpha = 0.95) and split-half reliability ($r = 0.92$) (Plante & Boccaccini, 1997). For this study, total possible scores ranged from 10-50. Higher scores indicated greater levels of religiosity, while lower scores represented lower levels of religiosity. Refer to Appendix A for full questionnaire.

Data Collection

An online survey was administered via email and Qualtrics to collect data on international students. The survey was sent to all international students by an administrator working in the Office of International Students and Scholars (OISS). The email contained information regarding the purpose of the study, as well as an estimated length of time the survey would take to complete. The survey remained open for four weeks. Subsequent to the initial distribution, weekly reminder emails were also sent throughout the four-week time frame in order to engage participation and attain the optimal sample size.

Data Analysis

Pre-analysis preparation

The survey responses were collected through Qualtrics and imported into the Statistical

Package for Social Sciences (SPSS) software for analysis. The data was then cleaned through

SPSS. All surveys that had a completion rate below 100% were deleted.

Data analysis

Descriptive statistics, Pearson's correlation formula, and an independent samples *t*-test

were conducted in order to test the following hypotheses:

H1O: International students do not experience moderate to high levels of acculturative

stress.

H1A: International students experience moderate to high levels of acculturative stress.

Frequencies, means, standard deviations, variances, and ranges were all collected to test

this hypothesis. Additionally, quartile percentages were utilized to indicate if participants

experienced low, moderate, or high acculturative stress. ASSIS aggregate scores that were below

26.00 (25th percentile), indicated low acculturative stress. ASSIS aggregate scores that were

between 26.00 and 37.00 indicated moderate acculturative stress. ASSIS aggregate scores that

were above 37.00 (75th percentile), indicated high acculturative stress.

H2O: There is not a significant relationship between religion/spirituality engagement and

acculturative stress.

H2A: There is a relationship between religion/spirituality engagement and acculturative

stress among international students.

The Pearson's correlation formula and effect size were used to determine relationships

between ASSIS aggregate scores and SCSORF aggregate scores. The effect size (r^2) for each

correlation was then determined. According to McLeod (2019), "effect size is a quantitative measure which indicates the strength of the relationship between two variables." An effect size from .10 to .29 indicated a small or weak correlation; an effect size from .3.0 to .4.9 represented a moderate correlation; and an effect size of .50 or greater represented a strong or large correlation. Correlations and effect sizes between SCSORF aggregate scores and ASSIS subscale scores of the four stress factors (homesickness, perceived hate/rejection, culture shock, guilt) were then examined to further investigate the relationship between acculturative stress and religion/spirituality among participants.

H3O: There is not a significant difference in religious/spiritual engagement between male and female international students.

H3A: There is a significant difference in religious/spiritual engagement between female and male international students.

An independent samples *t*-test was utilized to test the exploratory hypothesis. Frequencies, means, standard deviations were all collected. The degrees of freedom as well as the *t* and *p* values were all examined to determine if there was a difference in means among both sexes and whether there was significance.

Treatment of Data

Data was collected through Qualtrics and exported to SPSS for analysis. The data was then stored onto a flash drive. Following the completion of research and data analysis, any files that contained raw data were deleted. As required by the IRB policy, the data will be saved and stored for three years after the conclusion of the research study.

Summary

  This study was guided by a quantitative approach for data collection and analysis. Correlations and differences of means were observed in order to examine relationships between acculturative stress and religion/spirituality of international students as well as pinpoint distinctions based on gender. Chapter III discussed the proposed methodology of the study, which included the design of the study, sample, research site, instruments, and proposed data collection and analysis. Chapter IV will contain the quantitative results and findings from this study.

CHAPTER IV

Results

The researcher sought to find information regarding the degree of acculturative stress that international students experience. The researcher also sought to examine the relationship between the acculturative stress that international students face and their religion/spirituality engagement. In addition, the researcher also sought if there was a difference in religious/spiritual engagement in relation to gender among international students. By completing an online survey which included the modified Acculturative Stress Scale (ASSIS), students rated their level of experienced homesickness, cultural shock, perceived hate/rejection, guilt, on a five-point Likert scale from *strongly disagree* to *strongly agree*. Students were then asked to rate their religious/faith engagement using the Santa Clara Strength of Religious Faith Questionnaire (SCSORF), which also included a five-point Likert scale ranging from *strongly disagree* to *strongly agree*. Aggregate and subscale scores were computed from the responses for analysis. The aggregate and subscale scores were then analyzed using bivariate correlation and independent samples *t*-test analyses.

The degree to which international students experience acculturative stress

In order to test H1A: international students experience moderate to high levels of acculturative stress, aggregate and subscale scores from the modified ASSIS instrument were computed. This scoring method was identical to what the developers of this instrument, Sandhu and Asrabadi (1994), utilized.

ASSIS Aggregate Scores

Possible scores for the ASSIS instrument could range from 10.00 to 50.00. Higher scores indicated greater acculturative stress experienced by the participants. The mean aggregate score

for participants ($N = 57$) were computed ($M = 30.54$, $SD = 7.42$), with the actual scores ranging from 15.00 to 47.00. Since the original ASSIS instrument was not utilized to indicate low, moderate, and high acculturative stress of international students, percentiles were used for this study. ASSIS aggregate scores that were below 26.00 (25th percentile), indicated low acculturative stress. ASSIS aggregate scores that were between 26.00 and 37.00 (50th percentile) indicated moderate acculturative stress. ASSIS aggregate scores that were above 37.00 (75th percentile), indicated high acculturative stress. From this perspective, 15 (26.3%) participants indicted low acculturative stress, 33 (57.9%) participants indicated moderate acculturative stress, and 9 (15.8%) participants demonstrated high acculturative stress. Therefore, the alternative hypothesis was accepted. H1A: international students experience moderate to high levels of acculturative stress, was supported in the results.

ASSIS Subscale Scores

The scores on four subscales were calculated by adding the individual scores corresponding to the relative items. The total subscale score for the factor, homesickness (4 items), ranged from 4.00 to 20.00. Homesickness subscale scores were analyzed ($M = 10.21$, $SD = 3.60$). Additionally, the total subscale score for culture shock (3 items) ranged from 3.00 to 15.00 ($M = 9.46$, $SD = 2.87$). Furthermore, perceived hate/rejection (2 items) ranged from 2.00 to 10.00 ($M = 6.82$, $SD = 2.42$). Lastly, the subscale score for guilt (1 item) ranged from 1.00 to 5.00 ($M = 1.95$, $SD = 1.08$). Table 2 summarizes these findings.

Table 2

Measures of Central Tendency and Dispersion for Acculturative Stress Scale for International Students (ASSIS) Aggregate and Subscale Scores

Factors	Measures of Central Tendency and Dispersion						
	N	Mean	SD	Variance	Range	Min	Max
Homesickness	57	10.21	3.60	12.99	15.00	4.00	19.00
Culture Shock	57	9.46	2.87	8.22	11.00	4.00	15.00
Perceived Hate/Rejection	57	6.82	2.42	5.86	8.00	2.00	10.00
Guilt	57	1.95	1.08	1.16	4.00	1.00	5.00
Aggregate ASSIS	57	30.54	7.42	55.07	32.00	15.00	47.00

Table 3

Measures of Central Tendency and Dispersion for Santa Clara Strength of Religious Faith (SCSORF) Aggregate Scores

Factor	Measures of Central Tendency and Dispersion						
	N	Mean	SD	Variance	Range	Min	Max
Aggregate SCSORF	57	25.39	12.38	153.28	40.00	10.00	50.00

Relationship between religion/spirituality and acculturative stress of international students

To test H2A: there is a relationship between religion/spirituality engagement and acculturative stress among international students, a bivariate correlation was conducted to determine the relationship among both variables. Overall, a statistically significant direct correlation was discovered between overall aggregate ASSIS and aggregate SCSORF scores of international students ($r = .28$, $N = 57$, $p = .033$) as shown in Table 4. A small effect size was found ($r^2 = .0784$). Thus, as one increased, the other score increased. The alternative hypothesis

was accepted. H2A: there is a relationship between religion/spirituality engagement and acculturative stress among international students, was supported in the results.

    Furthermore, when examining relationships among the overall aggregate SCSORF score and ASSIS subscale scores, no statistically significant relationships were found. A positive weak relationship was found between respondents' aggregate SCSORF scores and experiencing homesickness ($r = .19$, $N = 57$, $p = .165$). A small effect size was found ($r^2 = .0361$). Additionally, positive weak correlations were discovered between respondents' aggregate SCSORF scores and experience with cultural shock ($r = .25$, $N = 57$, $p = .060$), with a small effect size ($r^2 = .0625$), and perceived hate/rejection ($r = .21$, $N = 57$, $p = .124$), which also had a small effect size ($r^2 = .0441$). Finally, a negative weak relationship was discovered between respondents' aggregate SCSORF scores and feeling guilt ($r = -.20$, $N = 57$, $p = .139$). A small effect size was found ($r^2 = .0400$). Table 4 summarizes these correlations.

Table 4

Correlations between Religious Faith and Acculturative Stress

	Aggregate ASSIS	Aggregate SCSORF	Homesickness	Culture Shock	Perceived Hate/Rejection	Guilt
Aggregate AISS	-					
Aggregate SCSORF	.28*	-				
ASSIS - Homesickness	.79**	.19	-			
ASSIS - Culture Shock	.75**	.25	.39**	-		
ASSIS - Perceived Hate/Rejection	.73**	.21	.40**	.43**	-	
ASSIS - Guilt	-.52**	-.20	-.25	-.22	-.51**	-

Note. * Correlation is significant at the 0.05 level (two-tailed).

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

Religious/spiritual engagement in relation to sex among international students

In order to test the exploratory hypothesis H3A: there is a significant difference in religious/spiritual engagement between female and male international students, an independent samples *t*-test was conducted. There was not a statistically significant difference between males and females, t (55) = -0.89, p = .38. The religious faith engagement of male international students (M = 24, SD = 12.40) was no different than the religious faith engagement of female international students (M = 26.93, SD = 12.41) as shown in Table 5. The 95% confidence interval for the difference in means was not significant, ranging from -9.52 to 3.67. Thus, the alternative hypothesis was rejected. H3O: there is not a significant difference in religious/spiritual engagement between female and male international students, was supported in the results.

Table 5

Gender Differences on Religious Faith Engagement

	Sex	N	M	SD	SEM	t	df	p
Religious/Spiritual Engagement	Males	30	24.00	12.40	2.26	-0.89	55	0.38
	Females	27	26.93	12.41	2.39			

Summary

In summary, participants' overall ASSIS scores indicated that they indeed have experienced variant levels of acculturative stress, thus, reflecting the scores of the four subscales. Furthermore, a significant relationship was found between students' overall acculturative stress scores and religious/spiritual engagement scores, with a very weak positive relationship occurring between religious faith and homesickness, weak positive relationships between religion/spirituality and cultural shock and perceived hate/rejection, and a negative weak

relationship occurring between religious faith and guilt. Finally, the religious/spiritual engagement of female international students, on average, was slightly greater than the religious/spiritual engagement of male international students**.**

CHAPTER V

Discussion

The purpose of this chapter is to provide a summary of the study as well as its results. A discussion and conclusions of the study are provided. Additionally, this chapter provides an overview of study limitations and recommendations for future research and professionals in higher education.

Summary of the Study

This study utilized a survey comprised of a modified version of Sandhu and Asrabadi's (1994) Acculturative Stress Scale (ASSIS) as well as Plante and Boccaccini's (1997) Santa Clara Strength of Religious Faith Questionnaire (SCSORF). This survey was sent electronically through email for the targeted population to complete through Qualtrics. Participants were asked questions to measure the acculturative stress they experienced as well as the strength of their religious faith engagement on a five-point Likert scale ranging from *strongly disagree* to *strongly agree*. *Agree* or *strongly agree* indicated a strong score. *Disagree* or *strongly disagree* indicated a weak score. The data was then analyzed through SPSS to calculate, frequencies, measures of central tendencies, and standard deviation on demographics variables. In order to determine (a) the degree to which international students experience acculturative stress, aggregate and subscale scores from the modified ASSIS instrument were computed. In order to determine (b) the relationship between religion/spirituality and acculturative stress among international students, a Pearson's Product correlation was analyzed. Finally, in order to determine (c) if there was a difference in religious/spiritual engagement in relation to gender among international students, an independent samples *t*-test was conducted.

Conclusions

1. International students experience various levels of acculturative stress, ranging from low to high.

2. Most international students appeared to experience moderate levels of acculturative stress.

3. Homesickness, culture shock, perceived hate/rejection, and guilt can contribute to the acculturative stress that international students experience.

4. Overall, acculturative stress and religion/spirituality are directly related.

5. International students may not turn to religion to cope, but the more stressors develop and increase, they could turn to religion to cope.

6. Sex does not impact religion/spirituality among international students.

Discussion

Overall, this study aimed to examine the relationship between the acculturative stress that international students experience and their religious faith engagement. Additionally, it was of interest to investigate whether international students experience low, moderate, or high levels of acculturative stress, as well as determine if there was a significant difference in religious faith engagement among international students in respect to sex. The findings in this research can help to enhance the understanding of administrators and educators of the role that religion/spirituality can play in the lives of international students as they adapt to new collegiate environments.

There has been much research on how acculturative stress impacts international students. Although each individual may face their own unique challenges, this study is consistent with the fact that international students indeed experience acculturative stress (Ra & Trusty, 2015; Sullivan & Kashubeck-West, 2015; Wu et al., 2015). In this study, 15 participants indicted low

acculturative stress, 39 participants indicated moderate acculturative stress, and 9 participants demonstrated high acculturative stress. Not only did these results reiterate the hypothesis, but they also reinforced the literature that already exists on this subject. Culture shock, homesickness, perceived hate/rejection, and guilt are just some of the factors that can contribute to acculturative stress among international students (Sandhu & Asrabadi, 1994).

A statistically significant direct correlation was discovered between overall aggregate ASSIS and aggregate SCSORF scores of participants. Thus, as one score increased, the other increased. On one hand, this means that stress could lead international students to religion/spirituality, which is consistent with the findings from the qualitative study conducted by Philip et al., (2019), which reported that participants relied on religious/spiritual coping strategies when faced with stressful situations. There are also a number of previous findings from qualitative studies that support the stress buffeting effects of religion/spirituality among international students (Andrade & Evans, 2009; Chai et al., 2012; Hsu et al., 2009). On the other hand, these results could also mean that religious international students could be more stressed. This could be possible when one considers an international student who may have been raised in a religious family and/or culture in a different country, but then decides to enroll at an institution in the U.S., only to find that their new country or college may challenge their traditions and religious customs, which could result in an increase of acculturative stress.

When examining relationships among the overall aggregate SCSORF score and ASSIS subscale scores, no statistically significant relationships were found in this study. Aggregate SCSORF scores were compared to the scores of the ASSIS subscales (homesickness, culture shock, perceived hate/rejection, guilt) individually, demonstrating no statistically significant relationships. This could mean that international students may not turn to religion/spirituality

when experiencing one stress factor; but rather, the more stressors develop and increase, they could then turn to religion/spirituality to cope.

Prior to this study, no research regarding differences in religion/spirituality between sexes in international students could be found. This study found no statistically significant difference between the religious faith engagement of male and female international students. As a result, new research is available concerning whether there is a significant difference in religious faith engagement in respect to sex among international students.

Limitations

There were a number of limitations regarding the study sample. First, this research was conducted at one mid-sized Midwestern institution with a small sample (n = 57). Results may have shown greater differences or different relationships if this study were conducted at a larger institution or among several institutions. Another limitation was that the questionnaire was only sent to official university email accounts. Since many students may use their personal accounts more regularly, sending to these accounts could have yielded a larger sample size. Lastly, the institution used in for this study is not very diverse regarding cultures and religion overall. Besides Christianity, the institution has a low number of faith groups/organizations that represent other religious backgrounds.

Recommendations for Future Research

After examining the findings of this study, the following are recommendations for future research on acculturative stress and religion/spirituality of international students.

1. Modifications of sample to include responses from more undergraduate international students. Out of the 57 participants in this study, 40 (70.2%) were graduate students.

2. Conduct the study using a larger number of participants through larger or multiple institutions. This could create more refined and robust results.

3. If possible, utilize a different instrument that was created to indicate whether international students experienced low, moderate, or high acculturative stress. Since the original ASSIS instrument was not used to indicate this, the researcher used quartiles to differentiate between low, moderate, and high acculturative stress.

4. Utilize a mixed methods approach by incorporating qualitative data to gather more personal experiences regarding acculturative stress and religion/spirituality from international students.

5. Improve operational definitions for variables. For example, "religion/spirituality" was utilized mostly in this study. But then, "religious faith" was also utilized when referring to how much international students engaged in their faith.

6. Replicate the study during a different time. This could indicate whether the COVID-19 pandemic potentially impacted the results of this study. Additionally, international students may not have been able to rely on or participate in religious events, activities, or collectives as a result of COVID mitigations.

7. Conduct a more thorough and intensive study on the production of acculturative stress of international students using regression modeling. This could be helpful in examining different variables that can attribute to acculturative stress, as well as determining which variables have greater impact on acculturative stress. This could even be conducted to focus primarily on whether undergraduate and graduate international students experience different stress factors.

8. Examine length of time in the U.S as a variable which impacts acculturative stress levels.

9. Examine whether there are differences in acculturative stress levels based on religious faith affiliations.

Recommendations for Student Affairs Professionals

The following are recommendations for student affairs professionals. This information can be utilized at institutions of higher education to improve experiences as well as services offered to international students.

1. *Campus programming:* Effective programming can help mitigate the acculturative stress that international students experience. For example, the orientation process can begin even before an international student arrives to campus. Information can be sent regarding academics, finances, transportation, housing, health insurance, etc. This can make a great first-impression for institutions. Making orientation programs online could also improve the flexibility of connecting with international students. Programs that help international students get acclimated to the structure and expectations of the institution can also help alleviate potential stress. Moreover, programs that help international students address the four stress factors mentioned in this study: homesickness, culture shock, perceived hate/rejection, and guilt, can be beneficial as well.

2. *Campus ministries/faith-based organizations*: Therefore, institutions can find ways to incorporate campus ministries or faith-based organizations on their campuses for international students who wish to grow in their religious faith. Additionally, students may want to participate in campus ministries and faith organizations regardless of their faith background. Student affairs professionals can work to familiarize themselves with any available campus ministries or faith-based organizations on their campus. Campus ministries and faith organizations could then be included in the process of recruitment

and orientation, which could also be done virtually in conjunction with other nearby colleges or universities who have other faith backgrounds that may be lacking in the host institution. This could improve the experience of international students who come from a religiously active environment.

3. *Campus workshops*: Campus workshops can help international students identify potential problems they may face at their new institution, familiarize them with the culture of their new environment, equip them with appropriate resources and/or methods to utilize while adapting, and teach them the expectations, rules, and potential consequences regarding academic standing, plagiarism, and/or financial/work obligation, etc. Making these workshops online can also increase flexibility for professionals.

4. *Social groups*: Due to potential factors such as culture shock, homesickness, perceived hate/rejection, and guilt, student affair professional can familiarize themselves with organizations and/or groups for international students on their campus. This can help alleviate any of these factors that they may be experiencing, while reminding of their home culture. This can also help them to foster more friendships.

5. *Support groups and counseling service*s: Through international student support groups, students who share similar experiences and challenges can encourage, support, and comfort one another. This can be a healthy way to cope during acculturation as they will have accountability and other students to relate to. Counseling services would also be a great way to provide an atmosphere where international students can share openly if they prefer one-on-one meetings.

6. *Don't overwhelm:* Since international students may already be dealing with stress upon

arriving in a new environment. Professionals at higher education institutions will do well

to not overload students with information, especially during the orientation process.

Summary

This chapter outlines the culmination of the study including conclusions on how much

international students experience acculturative stress, the relationship between acculturative

stress and religious faith among international students, and differences between male and female

international students regarding religious faith engagement. A discussion of the findings is

included as well as limitations to the study and recommendations for future research and higher

education.

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Appendix A

Demographic Questionnaire

1. Do you wish to continue?
   a) Yes
   b) No

2. Are you an international student at International University?
   a) Yes
   b) No

3. What is your age? _____

4. What is your gender?
   a) Male
   b) Female
   c) Other

5. How many months (estimation) have you been in the United States? _____

6. Which of the following best describes your racial and ethnic background?
   a) White
   b) Black or African American
   c) American Indian or Alaska Native
   d) Asian
   e) Native Hawaiian or Other Pacific Islander
   f) Hispanic/Latino/a
   g) Other

7. Current year in school?
   a) Freshman
   b) Sophomore
   c) Junior
   d) Senior
   e) Graduate Student

8. What is your academic major or program? _____

9. What is your country of origin? _____

Acculturative Stress Scale for International Students

Please answer the following questions about religious faith using the scale below. Indicate the level of agreement (or disagreement) for each statement.

1 = Strongly Disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

1. I feel sad leaving my relatives behind.

2. Homesickness bothers me.

3. I feel sad living in unfamiliar surroundings.

4. I miss the people and country of my origin.

5. I feel uncomfortable adjusting to new foods.

6. Multiple pressures are placed on me after migration.

7. I feel uncomfortable to adjust to new cultural values.

8. Others don't appreciate my cultural values.

9. Others are sarcastic toward my cultural values.

10. I feel guilty that I am living a different lifestyle here.

Santa Clara Strength of Religious Faith Questionnaire

Please answer the following questions about religious faith using the scale below. Indicate the level of agreement (or disagreement) for each statement.

1 = Strongly Disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

1. My religious faith is extremely important to me.

2. I pray daily.

3. I look to my religious faith as a source of inspiration.

4. I consider myself active in my faith, church, or campus ministry.

5. My religious faith is an important part of who I am as a person.

6. My relationship with God is extremely important to me.

7. I enjoy being around others who share my religious faith.

8. I look to my religious faith as a source of comfort.

9. My religious faith impacts many of my decisions.

10. My religious faith has improved since my arrival in the United States.

Appendix B

Hello!

You are invited to participate in a research study I am currently conducting titled, "Relationships between Acculturative Stress and Religion/Spirituality of International Students. The purpose of the study will be to determine if there is a significant relationship between religion/spirituality and the acculturative stress experienced by international students.

It would be most helpful to me if you would be willing to participate in this survey.

If you have further questions, please feel free to email me at lsward@eiu.edu or call me at (217) 220-7773.

Sincerely,
Ly'Jerrick Ward