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**An examination of the relationship between acculturation, Islamic religious practice, and academic performance among Saudi Arabian students in the United States**

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AN EXAMINATION OF THE RELATIONSHIP BETWEEN ACCULTURATION, ISLAMIC  
RELIGIOUS PRACTICE AND ACADEMIC PERFORMANCE AMONG SAUDI ARABIAN  
STUDENTS IN THE UNITED STATES

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RELIGIOUS PRACTICE, AND ACADEMIC PERFORMANCE AMONG SAUDI ARABIAN  
STUDENTS IN THE UNITED STATES

A

DISSERTATION

Presented to the Faculty of the Graduate School of

St. Mary's University in Partial Fulfillment of the Requirements

for the Degree of

DOCTOR OF PHILOSOPHY

In

Counselor Education and Supervision

by

Marzook A. Aldhafeeri, M.Ed.

San Antonio, Texas

April 2022

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## **Abstract**

# AN EXAMINATION OF THE RELATIONSHIP BETWEEN ACCULTURATION, ISLAMIC RELIGIOUS PRACTICE AND ACADEMIC PERFORMANCE AMONG SAUDI ARABIAN STUDENTS IN THE UNITED STATES

Marzouk Aldhafeeri

St. Mary's University, 2022

Dissertation Adviser: R. Esteban Montilla, Ph.D.

Recent data have indicated that universities in the United States (U.S.) host as many as 21,933 students from Saudi Arabia, making Saudi Arabia one of the top four countries for international students attending U.S. universities. Several research studies have indicated that religiosity and acculturation influence student's performance. However, there is a scarcity of studies that assessed the relationships among acculturation, religious practices, and the academic performances among Saudi Arabian students in the U.S. The purpose of this study was to examine the relationship among acculturation, religiosity, and academic performance among Saudi Arabian students in the United States. This study was a cross-sectional quantitative survey design with a sample of 393 Saudi students enrolled in U.S. universities. Islamic religious practices and beliefs were measured by the Religiosity of Islam Scale, whereas acculturation was measured by the Vancouver Index of Acculturation. The findings of this study indicate that the overall mean GPA was 3.56, and female students had significantly higher overall GPA than male students. The results show that there was a statistically significant, weak positive relationship between religious practices and academic performance, and a significant, weak negative

relationships between acculturation heritage and religious practices and beliefs. The study findings also indicate that religious practice and gender were significant predictor of academic performance. Other factors, such as religious beliefs and acculturation were not predictors of academic performance.

*Keywords:* Religiosity, Saudi Arabia, Academic Performance, Acculturation



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## **Chapter One: Introduction**

Recent data have indicated that universities in the United States (U.S.) host as many as 21,933 students from Saudi Arabia, making Saudi Arabia one of the top four countries for international students attending U.S. universities in 2021 (The Institute of International Education, 2021). Close to 50% of these Saudi Arabian students are in the U.S., thanks to a scholarship program provided by the Ministry of Education in Saudi Arabia. The past decade has seen a dramatic increase in the Saudi Arabian student population in the U.S. due to a deal brokered in 2005 between then-U.S. President George Bush and King Abdullah bin Abdul-Aziz Al Saud of Saudi Arabia. The deal provided an opportunity for many Saudi Arabian students to travel to the U.S. in pursuit of high education on government scholarships (Al Ramadan, 2016).

The sponsorship program sends students to English speaking countries, with the U.S. being the most preferred option. These students are provided with full tuition, as well as stipends for health insurance and monthly needs (Saudi Arabian Cultural Mission, 2017).

Many of these students experience social, cultural, and academic issues as they move through the acculturation process that accompanies their studies in the U.S. For example, a 2017 study of the experiences of Saudi Arabian students in the U.S. indicated that they experienced numerous social and cultural differences, including gender expectations, food, socially acceptable ways of dressing, and religious practices. Other differences arose from the overall behavior of the youth, hospitality of the Americans, and friendliness of Americans (Young & Snead, 2017). The study also pointed out the difficulties in language and academic progression experienced by the students, as well as the unavailability of resources for international students and issues with speaking the English language (Young & Snead, 2017).

Islam is a major world religion that is practiced by Muslims and was promulgated by Prophet Muhammad in Arabia in the 7<sup>th</sup> century. “Islam” is an Arabic word that literally means “surrender.” As such, Muslims are expected to surrender to Allah’s will, the sole creator, restorer, and sustainer of the whole world. In this will, humans are expected to submit by strongly adhering to the teachings of Allah contained in the Quran, which contains the revelations of Muhammad, Allah’s messenger. Muslims are expected to engage in several devotional practices believed to increase their consciousness to God (taqwa) and have disciplined attitudes toward other people (Ali et al., 2004).

Studies have indicated that the educational and cultural background of Saudi Arabian students contribute to their academic performances while in the U.S. The major challenge for these students is learning the English language. Being a predominantly Arabic-based religion, Saudi Arabian students are so grounded in speaking Arabic that transitioning to English poses a significant challenge to them. Since English is the language of instruction in the U.S., Saudi Arabian students face significant challenges grasping and writing their assignments and examinations in English, thereby affecting their performances at U.S. universities (Al Remaih,2016).

In Saudi Arabia, women are not allowed to make decisions without first consulting their male relatives. In addition, they are not allowed to be in public places without male relatives. This gender segregation also means that males and females are segregated at Saudi Arabian universities; however, in the U.S., such segregation does not exist. In fact, group assignments and projects often require the sexes to work together. In the U.S., women are expected to study with men, freely interact with other students of both sexes, and go to public places without being accompanied by men. Therefore, Saudi Arabian students are often faced with major problems



regarding interactions with fellow students, especially of the opposite sex, and, as such, may be reluctant to join beneficial research groups or undertake collaborative projects, further negatively impacting their education and performance at U.S. universities (Song, 2019).

In a study conducted by Shaw (2010), he found that Saudi Arabian students in the U.S. experience diverse cultures and new learning approaches that impact their academic successes. Their diverse cultural experiences include the learning environment of the American classroom. This includes students experiencing mixed gender classes.

Abdel Razek (2012) also recognized different factors associated with Islamic beliefs and practices that may limit the participation of Saudi Arabian students in U.S. classrooms and their social situations. For example, he explained that, while there are only limited restrictions on foods in American society, many foods are taboo in Islam. As such, Islamic students often face additional social restrictions when interacting with U.S. students. Refusing to alter or ignore their Islamic upbringings to acclimate to American society may cause Islamic students to face challenges in their education and societal interactions. A closer look at the acculturation of Saudi Arabian students, their Islamic religious practices, and how they affect the overall academic performance of the Saudi Arabian students while at U.S. universities will be conducted in the study.

### **Problem Statement**

International education (i.e., pursuing educational studies outside an individual's country of residence) provides a great experience to students as it gives them opportunities to gain valuable insights that may not be available to them in their home countries. Despite these benefits, research has indicated that international students tend to experience significant differences, including those related to cultural and environmental challenges, between their

countries of origin and the countries in which they decide to pursue their education (Garza & Guzman, 2015).

Saudi Arabian students pursuing further education in the U.S. are often faced with yet new challenges related to language, difficulties in finance, and cultural and societal norms that are markedly differ from those in their country of origin. These issues are strongly related to the unique culture of Saudi Arabia that is heavily connected to conservative Islamic practices (Alajlan, 2016).

Recent research has indicated that many students from Saudi Arabia have managed to cope with their new environment. For example, Yakaboski et al. (2018) undertook a study of Saudi Arabian graduate students in order to examine their experiences and interactions with faculty, staff, and other students at U.S. institutions. The results showed that Saudi Arabian students had positive interactions when dealing with both professors and staff, and both male and female Saudi Arabian students were almost always satisfied with their academic experiences.

However, many Saudi Arabian students struggle to adjust to their new environments, which has a significant impact on their overall academic performances (Al Ramadan, 2016). These adjustment issues tend to stem from their strong Islamic backgrounds and associated restrictions, such as limits on inter-gender interactions, dietary restrictions, and limits of public interactions for women without the company of a trusted male relative. In addition, they struggle to grasp English, the language of instruction in the U.S., because the Islamic religion is heavily centered on communication in Arabic. Due to the restrictions placed on the students by Islam, Saudi Arabian students also face major problems regarding interactions with fellow students, especially of the opposite gender. As such, they are reluctant to join beneficial research groups or undertake collaborative projects; both decisions may negatively impact their overall academic

performances. As some mainstream teaching may seem out-of-line with Islamic teachings, the students may also have difficulty grasping the material, which may also impact their academic performances (Albahlal, 2019).

Due to the above information, this study investigated the impact of acculturation and Islamic religious practices on the overall academic performances of Saudi Arabian students pursuing studies in the U.S. This research paper attempted to fill a gap in the existing literature. The research also sought to explore the subject matter on the relationships among religious practices and beliefs, acculturation, and the academic performance of Saudi Arabian students in the U.S.

### **Purpose of the Study**

The goal of this study was to examine the relationships among acculturation, Islamic religious practices, and the academic performance of Saudi Arabian students in the U.S. The study utilized the Vancouver Index of Acculturation (VIA; Ryder et al., 2000), which includes 10 items that assess heritage acculturation and 10 items that assess mainstream acculturation. The study will also use the Religiosity of Islam Scale (RoIS) by Masri and Priester (2007), which includes 19 items. Based on the contents of the Holy Qur'ān and the theoretical distinction between religious beliefs and behaviors. Items that reflect cultural influences or political beliefs will be avoided.

In order to measure the participants' demographic characteristics, the researcher created a demographic questionnaire. This questionnaire contained questions related to gender, age, years of residency in the U.S., and marital status. The participants' academic performances was measured using their current GPA. The participants consisted of a random selection of Saudi Arabian students who are pursuing their studies in the U.S.

To achieve the study's goal, a quantitative survey design was used. According to Babbie (2011), the survey design should assist the researcher in eliciting the opinions and expectations of the participants on the study subject. In this research, a Qualtrics online survey questionnaire was used to gather details about the students' acculturation, demographic information, religious practices, and academic achievements. After the data has been collected, the Statistical Package for Social Sciences (SPSS) was utilized to examine the data.

### **Research Questions**

The following research questions guided this study:

1. What are the relationships among Islamic religious practices, acculturation, and the academic performances of the students in the study?
2. Do religious practices and acculturation influence students' academic performances?
3. Do demographic characteristics (i.e., gender, age, having children, marital status, and years of residency in the U.S.) predict students' academic performances?

### **Justification and Significance of the Study**

The knowledge generated from this study will be valuable to individuals and stakeholders and will help improve the overall academic of Saudi Arabian students at universities in the U.S. In addition, the study will generate vital information for the Saudi Arabian government that will allow it to design programs aimed at orienting Saudi Arabian students before they travel to Western countries so that they are more prepared for the differences that they will encounter. The findings of this study will provide information that will be vital in allowing counseling centers to provide targeted assistance to Saudi Arabian students who may be experiencing psychological problems due to their inability to acculturate to the American way of life (Almutairi, 2020).

Additionally, the results will help U.S. universities create culturally sensitive learning programs and proper orientation programs for Saudi Arabian students (Garza & Guzman, 2015).

### **Limitations of the Study**

As a scarcity of studies on the relationships among acculturation, religious practices, and the academic performances of Saudi Arabian students in the U.S. exist, it is difficult to find data on this population to address this study subject in detail. The usage of self-reported indicators may also be a restriction. The participants may choose a response that puts them in a more socially appropriate role but does not accurately represent their actual circumstances. The researcher will also use a self-reported GPA to assess each student's academic success. Participants are not permitted to reveal the GPA that more closely reflects their true academic success. Another limitation of this study is that it will utilize convenience sampling, which may or may not represent other Saudi Arabian students' results.

### **Definition of Key Terms**

#### ***Acculturation***

Acculturation is the process of assimilation and integration into a new, dominant culture. Four types of acculturations exist: marginalization, integration, separation, and separation.

#### ***Academic Performance***

Academic performance refers to the grades that a student obtains at the end of an academic period. The period can be a semester, an academic year, or a designated period stated by the instructor or institution.

#### ***Islam***

Islam is a monotheistic religion often referred to as 'Abrahamic' that teaches belief in only one God (Allah) and Muhammad as the messenger. The six articles of faith in Islam are

oneness of God, existence of angels, existence of a book (Quran) authored by God revealed to Muhammad, belief all messengers, belief in the last day, and belief in divine predestination.

*Saudi Arabia Students*

Saudi Arabian students are students from Saudi Arabia who are studying in the U.S.

## **Chapter Two: Literature Review**

### **Introduction**

This chapter presents a review of the literature related to Islamic practices and how they play a role in explaining the acculturation and academic performances of Saudi Arabian students studying at universities in the U.S. The literature review is meant to present studies that provide information relevant to answering the research questions.

### **Acculturation in General**

Despite a huge influx of Arab-Americans in the U.S., and the continuing emigration from the Arab world to America, no clear understanding exists of the term ‘acculturation’ or its impact on their overall psychological adjustment. Acculturation can be traced to anthropological studies in the 1880s when it was used to understand the process when more than two autonomous cultures met (Jamil, 2015). The term ‘acculturation’ refers to the general process and the effects (i.e., psychological, cultural) of intercultural contact (Anisa, 2011; Berry, 1997).

Acculturation involves a person’s sense of self and is comprised of an individual’s behaviors, attitudes, cultural identify, and values. For instance, behavioral changes can involve ‘portraying or exhibiting the cultural practices of their cultural heritage and learning of the host community or host culture’ (Anisa, 2011; Berry, Poortinga, Segall, & Dasen, 2002).

Acculturation is used to understand the dynamic interactions between a person’s culture of settlement and culture of origin. Therefore, Berry (2005) maintained that acculturation is ‘a dual process of psychological and cultural change that occurs as a result of interactions between two or more people or cultural groups, and each group member.

The new culture that the individual is adjusting to may not necessarily be superior to his/her own culture, but rather is dominant in their new environment. Acculturation is beneficial,

as it enables people with a different culture to incorporate themselves in the prevalent culture. The process of acculturation may necessitate an individual adopt the traditions of the new culture, but not necessarily abandon their own culture(s) and traditional practices. The effects associated with acculturation are evident at multiple levels into primary devotee of the dominant culture as well as those that are trying to get assimilated into this new dominant culture (Berry, 2005). There are four acculturation strategies: assimilation, integration, separation, and marginalization (Berry, 2003).

### **Assimilation**

Spieberger (2004) indicated that assimilation is the process by which a minority group or culture tries to resemble a society's majority group or takes on the values, behaviors, culture, and beliefs of another group fully or partially. Abe (2017) suggested that assimilation could also entail expanding the existing cultural repertoire instead of replacing the ancestral culture. The term assimilation is also used when immigrants relocate to a new location. The immigrants develop a new attitude towards their original culture; their new way of thinking is influenced by the interaction with the new culture. The entrance of thousands of international students into the U.S. every year means that there is a cross-cultural adaptation (Wang et al., 2017).

Ward (2001) found that international students' assimilation is both psychological and socio-cultural. Psychological assimilation refers to the satisfaction with the other culture while socio-cultural assimilation refers to the ability of the students to fit into the new culture. Ward (2001) found that for both graduate and undergraduate students' assimilation with the local culture occurred after spending at least 24 months in the country. Tinto's (1993) theory argues that international students have to assimilate into the culture of their host country so that they can be successful during their studies. On the other hand, García-Vázquez (1995) found that students



could maintain their first culture without significantly affecting their academic achievement which indicated a limited relationship between acculturation and academic achievement.

Kuh and Love (2000) rejected the arguments by Tinto (1993), because it is not easy for students from different cultures to assimilate because customs and cultures do not fit.

Additionally, international students receive resistance from the domestic culture. Yao (2015) also questioned the arguments of Tinto (1993) because the arguments suggest that the responsibility for integration is on the part of the international students. It does not put any responsibility or assign duties to the domestic students and the university. The university needs to provide a supportive and conducive environment for students' interaction and development.

### **Integration**

In the Student Integration Model (SIM), Tinto (1975) defined integration as a sense of belonging whereby the individual students feel like they are a part of one or more communities and groups at the university and feel supported for being present at the university. Merola, Coelen and Hofman (2019) identified two forms of integration, social and academic integration. Vazirani (2018) indicated that there are three forms of integration within the university, which include social, academic and organizational integration. Social integration focuses on the development and frequency of interaction between students and their teachers, and the students and the local community. Kudo (2016) indicated that strategies for integration include extracurricular activities. Social integration is achieved by participating in social events and taking every opportunity to exchange views with other students.

Academic integration involves national and international students' interactions within the classroom and working together to achieve academic work. Academic integration also refers to the extent to which the student adapts to the academic way-of-life (Rienties et al., 2011). Baker

and Siryk (1999) indicated that academic adjustments is measured by the degree to which the individual students can adjust to the rigor and demands of receiving higher education.

Colmenero and Pantoja (2016) showed that the greatest level of integration comes about due to teachers' efforts, teachers' creation of inclusive environments through the use of diverse texts, teachers' consideration of bilingual students, and teachers encouraging participation from all students. International students struggle to integrate into their host countries, due to various factors, such as language barriers, sociocultural barriers, and pedagogic variations (Poyrazil & Grahame, 2007).

### **Separation**

Separation occurs when the student refuses to associate or adapt to the culture of the hosts. In this case, the student resolves to preserve their cultural origins. The student results to retreat into his/her ethnic enclave (Berry, 1992). In some cases, separation is displayed by having a strong attachment to the native culture and a negative disposition towards the new culture or other intercultural groups. This attitude makes it difficult for the international students to acculturate to the dominant culture and way of life (Boruhis et al. 2009).

Studies have shown that separation has an effect on the academic performance of international students. Taboada et al. (2017) found that international students who preferred the separation orientation had negative academic performance. The researchers found a positive association between academic performance and students who took the adjustment persuasion. According to Smith and Khawaja (2011), adopting a separation orientation can be stressful because it leads to marginalization and failure to absorb the new environment which includes the new modes of learning which ultimately leads to academic challenges.

## **Marginalization**

Messiou (2012) indicated that marginalization is related to the concepts of inclusion and exclusion with social exclusion and marginalization being considered as interchangeable. Messiou (2012) conceptualized marginalization into four categories whereby marginalization which is experienced by the individual and is recognized by others. In the second scenario, marginalization is experienced by the individual but not recognized by others. Thirdly, the individual is classified by others as being part of a marginalized population, but the individual does not think of themselves as being marginalized. Finally, marginalization could be experienced by the individual but also denied by the individual. The arguments by Messiou (2012) indicated that marginalization is the state and the feeling about being in that state.

Armstrong et al. (2011) argued that inclusion and exclusion are interrelated and interdependent processes, however, equating exclusion as the opposite of inclusion is overly simplistic. Razer et al., (2013) indicated that social exclusion is the state in which the individuals or groups lack effective participation in major activities or do not receive the benefits of the society of which they are a part. Naqvi (2019) indicated that the marginalization of international students in western universities stems from the idea that western universities knowledge was superior and would thus be a benefit to students, especially those from developing nations. This imperialist attitude created a hierarchy in the provision of education between western students and the rest of the world. Grek (2009) and Sellar and Lingard (2013) argued that universities and institutions of higher education are part of the complex contemporary capitalist system which are based on globalization, neoliberalism, and marginalization.

## **Acculturation of Muslims**

Religion is a crucial factor in understanding the acculturative experience of Muslim Arab Americans. For example, Amer and Hovey (2007) found differences in acculturation and depression based on the participants' religious affiliations. They discovered that Christians were more likely to report higher levels of assimilation and integration than Muslims, while Muslims reported a higher level of separation than their Christian counterparts. Christian Arab-Americans were said to experience higher life satisfaction and acculturation in the U.S. than Muslim Arab-Americans (Amer & Hovey, 2007).

In addition, previous studies found Muslim Arab-Americans felt that their religious affiliation was positively associated with perceived discrimination, but negatively associated with acculturation (Anisa, 2011; Awad, 2010). Muslim Arab-Americans, in particular adult Muslims, have suffered from discrimination, greater cultural immersion, and less dominant society immersion compared to their Christian Arab-American counterparts. Just like other religions, Islam has diverse interior movements identical from each other, in norms, beliefs, values, and traditions. Ibrahim and Dykeman (2011) indicated that such differences play an important role in the process of acculturation, where different radical Islamic opinions limits the process of acculturation (Ibrahim & Dykeman, 2011).

According to Anisa et al. (2014), one in four Americans believe that the Islamic religion is associated with violence and hatred; this belief has greatly impacted Muslim communities in the U.S. For instance, prejudice and acculturation are more complicated for young Muslim Arab-Americans as they enter adolescence (Ajrouch, 2004; Anisa et al., 2014).

Nearly 3 million Muslims have left their culture of origin, needing to adapt to a different culture while in the U.S. Theories related to migration suggest that these people undergo the

process of acculturation just like other cultures undergoing the challenges of getting to know about the practices and eventually having to accept and adapt to the culture in the U.S. Theories have focused on Muslim students and the changes, as well as retention, they must experience regarding their beliefs, behaviors, ideas, and traditions (Sam & Berry, 2010 ;Anisa et al., 2014).

### **Acculturation of Saudi Arabians in the U.S.**

Previous studies have indicated that immigrants in the U.S. experience difficulties, ranging from social discrimination to economic and political challenges (Ajrouch, 2004; Anisa et al., 2014). Jamil (2015) added that these immigrants also experience drastic changes upon arriving to the U.S, and most experience culture shock to some degree. The process of acculturation differs from one immigrant to another (Jamil, 2015).

Saudi Arabian students' influx into the U.S. has led to the cultural acculturation process becoming a part of the culture in the U.S. The process differs from immigration, which is associated with various reasons from having a better life to avoidance of prosecution from the original culture. Saudi Arabian students undergo a formal process of getting to the U.S, as they are sponsored by their government with the scholarship they receive (Al Ramadan, 2016).

The students in the U.S. that are from Saudi Arabia face a wide range of cultural changes, as most of the students are Muslim, as Muslim is the primary religion in Saudi Arabia. These students face challenges upon their arrival into the U.S. Also, they are not alone, but many of them have a family and their tribe with them engaging in cultural and social activities together (Alhazmi & Nyland, 2013).

Students from Saudi Arabia who choose to study in the U.S. tend to do so because they are seeking better lives for themselves and their family members, which they believe they can achieve via a better education. However, when they arrive in the U.S., they are often unprepared

for the drastic changes from their home culture to their new, host culture, especially in regard to religious obligations and language. Poyrazli and Grahame (2007) found that international students suffer many obstacles when trying to adapt to life in America, including in their academic lives, related to health insurance, related to transportation, and via discrimination. Their acculturation issues often fall into one of four categories: marginalization, assimilation, integration, or separation (Schwartz et al., 2010).

Marginalization is so hard for them to achieve due to a very robust Saudi culture and thus integration is the most ideal choice for most of these Saudi Arabian students. However, their unique Saudi heritage presents a series of potential barriers to their acculturation into the U.S. society while they are pursuing their education. The differences in culture and religion; distinctiveness in the moral and ethical values; gender perceptions; demonization and stereotyping of Arabs in the media; and their unique Islamic religious practices are a major hindrance to their acculturation process (Yan & FitzPatrick, 2016).

The difficulties cultural activity that females' Saudi Arabian students find difficult to match when they get to the U.S. is the limitations that are exposed to the female students. In the first place, it is not easy for the female students to travel out of Saudi Arabia without the company of the husband, making the single students have a difficult time making it to the educational centers within the States if the purpose is for pleasure, education, or even medical purposes (Alqefari, 2015).

Abu-Bader, Tirmazi, & Ross-Sheriff (2011), are more concerned about the couples entering the U.S., in that they are expected to undergo through acculturation process in order to adjust to the new culture, and society. This implies that acculturations form another phase of resettlements. Besides, Amer & Bagasra (2013) show that diverse cultures cause psychological

and cultural changes. The new immigrants go through cultural shocks and distress, and as time goes, they experience personal stability, assimilation, and growth.

### **Academic Performance**

The appearance of international understudies into US Universities has extensively international students regard the active communication with local American students crucial for understanding their culture and scholarly climate. Thusly, it is important for universities to offer the best experience to international students to maintain their progress and distinction. However, the international students coming from entirely different cultural backgrounds face challenges that directly affect their academic performance (Alhazmi & Nyland, 2013).

A study by Rienties et al. (2012) attempted to explain the relationship that exist between the academic capacity and the students that are of different culture. The international students do not sufficiently adjust well and perform well in the host country if they are not supported well in a social way having to adapt to a strange culture., international students with a non-Western background are less integrated compared to other. In contrast students with a (mixed) western ethnic background perform well on academic, and they achieved high GPAs.

The results of Alsharari's (2019) similar study showed that the orientation process for these students exposed the students to number of challenges that included unsteady performance as they have much focus on the stress brought about the new environment and culture. The stress factor led to the students having low marks that they can potentially achieve, this was especially during their early period in the U.S.

A study conducted by Rueger et al. (2010) showed that both genders within the youth age depended on cultural support factors to attain high academic performance. All the adaptation factors that were studied had positive impacts on controlling the participants' anxiety,

depression, self-esteem, and academic excellence for adolescents with each source of social support offering a unique predictor for the males. Rueger et al. (2010) revealed the importance of gender and motivating these students to perform to their full potential and improve their social and cultural life. These adolescents need care and attention to reach their full potential in terms of academic excellence.

In a study by Momanyi, Too, & Simiyu (2015) which was conducted on 489 students from 16 different schools with the purpose of investigating the effect of students' age on academic performance indicated students' age had a significant effect on the student's academic performance. Gender gaps were also discovered in studies on education, with females outperforming males (Kupczynski, Brown, Holland, & Uriegas, 2014).

Tan and Winkelman (2014) confirmed the impact of stress levels, personality traits, and coping styles on the academic performance of international students. The students reported that stressors challenged their abilities to cope.

### **Saudi Arabian International Students**

The goals of education as presented by the government in Saudi Arabia are to meet the religious, economic, and social needs of the country and decrease illiteracy (Saudi Arabia Cultural Mission to the U.S., 2017). The Ministry of Higher Education, which was established in 1975, supervises the scholarships of Saudi Arabian students studying abroad and oversees the educational and cultural mission offices in various countries (Saudi Arabia Cultural mission to the US, 2017).

During the 1950-1951 academic school year, Saudi Arabia, for the first time, sent students to the U.S. to study and obtain advanced degrees (Heyn, 2013). Today, 21,933 Saudi



Arabian students are enrolled in American universities (The Institute of International Education, 2021).

Data from the Ministry of Higher Education (2018) in Saudi Arabia provided the demographic information for the Saudi Arabian students studying in the U.S. The data showed that the majority of the students (70%) were male and traveled to the U.S. with their family members. Their fields of preference were engineering, information technology, finance, management, and the humanities. A few students were enrolled in medical and physic-related programs.

A 2017 study of the experiences of Saudi Arabian students in the U.S. indicated that these students were aware of numerous social and cultural differences. This includes gender differences and differences related to food, socially acceptable styles of dressing, and religious practices. Other differences arose from the overall behavior of the youth, hospitality of Americans, a series of activities and academic programs in the offing at the US Universities (Young & Snead, 2017).

Related studies have also indicated that a lack of proficiency in expressing themselves and using the English language was a major challenge that hindered the proper progression of Saudi Arabian students pursuing studies at U.S. universities. Being the language of instruction in U.S. universities, these Saudi Arabian students often struggled to grasp the content, especially during their first few years and would not favorably compete with their counterparts (especially those from English-speaking countries) in U.S. Universities. Additionally, since the majority of these students did not travel with family members or were studying at universities that had few Saudi Arabian students, they often felt alienated and suffered from homesickness. These issues

were further exacerbated by the cultural divide between Saudi Arabian and U.S. students, as it hindered their interactions (Al-Musaiteer, 2015; Young & Senad, 2017).

According to Razek and Coyner (2013), students from Saudi Arabia who came to the U.S. to study experienced problems with language, as well as social and cultural concerns. The study also found that Saudi Arabian students had a difficult time interacting with American students, due to the differences in their cultures. These students also often felt that they could not freely participate in class discussions and other education forums.

Another study by Al-Sahafi and Shin (2017) focused on factors that may interfere with the academic effectiveness and cultural adjustment of Saudi Arabian students studying in Australia. This study used both quantitative and qualitative methods to examine a survey of 100 students. The results found that language proficiency was the main barrier to academic prosperity for most of the students. In addition, the Saudi Arabian students faced challenges related to homesickness, loneliness, and the unique assessment methods used in Australia. These issues were faced by all of the students studied, regardless of gender, age, or education level.

### **Challenges of Saudi Arabian Students in the U.S.**

Saudi Arabian students face many challenges when they come to the U.S. to study, such as language barriers, academic progression, new educational styles, and cultural shock (Young & Senad, 2017). In her study, Al-Murshidi (2014) contended that their lack of knowledge of the English language is one of the major issues affecting Saudi Arabian students studying at U.S. universities as their diminished abilities related to oral communication and expression significantly influenced their academic performances. A study by Wu et al. (2015) showed that international students experienced challenges regarding linguistic difficulties, even though they

had studied English prior to starting their academic studies, social inclusion, and cultural adjustments.

Stoynoff (1997) conducted a study to investigate the major factors affecting most international students' academic success. The findings showed a correlation between their language proficiency and academic performance. In addition, a lack of confidence in the language of instruction was among the challenges faced the international students. This issue mainly impacted their tests, written assignments, note-taking, and understanding of the text.

Li, Chen, and Duanmu (2010) analyzed the impact of cultural differences on international students' academic performances. Outside of their language proficiency issues, the students had a difficult time understanding the host culture, which negatively impacted their academic performances and social lives.

A study by Al-Jasir (1994) showed that students from Saudi Arabia who come to the U.S. to study also experience psychological problems associated with being away from their families. For example, when they become depressed, they do not have their normal support system to turn to, causing their depression to worsen. This depression is often coupled with anxiety, both of which negatively impact their academic performances. Female students often experience additional anxiety because they are having to live without a male figure to often refer to for guidance and protection (Al-Jasir, 1994).

## **Islam**

The religion of Islam was founded in the 7<sup>th</sup> century when the first words of the Holy Qur'an were revealed to the Prophet Muhammed (Ali et al., 2004). There are five pillars of Islam that every Muslim must follow to worship Allah. These include a profession of faith,

prayer, Al-Zakat (i.e., donations to the less fortunate), fasting during Ramadhan, and a pilgrimage to Mecca.

A profession of faith is the first pillar and, while simple, is a profound statement that expresses a Muslim's complete acceptance of and total commitment to Islam (Saudi Arabian Embassy, 2016). Prayer is the second pillar of Islam. Salah, the name used to refer to the obligatory prayers that all Muslims must perform five times a day, portrays the direct link between the person praying and Allah (Ali, Liu, & Humedian, 2004). A devout Muslim can pray from anywhere, including mosques, homes, and schools by facing the holy city of Mecca (Heyn, 2013; Yackley-Franken, 2007). Al-Zakat, or giving a certain percentage of one's annual earnings to help the less fortunate in society, is the third pillar. This percentage can be in money, agricultural crops, liquefied elements, or gold. These contributions are meant to aid in the construction of compassion and solidarity in society (Senturk, 2007). Fasting during the holy month of Ramadhan, the 9<sup>th</sup> month of the lunar calendar, is the fourth pillar. During this time, Muslims are not allowed eat or drink until sunset each day (Ali et al., 2004). The Hajji, the fifth pillar, specifies that a Muslim is expected to go to Mecca for pilgrimage at least once in his/her lifetime. Those who lack the financial resources to do a Hajji are exempt from this pillar (Gole, 2017).

A study conducted by Kawangit and Gulen (2015) aimed to identify the relationship between religious practices and the academic achievements of Muslim convert students in Malaysia. The findings showed that the Muslim convert students had a lower mean level of faith (2.59) and religious practices (2.66), while the morals of the students have a moderate level of mean (3.18). The results of the Pearson correlation analysis showed a significant relationship among religious faith practices ( $r = .731, p < 0.01$ ), worship ( $r = .737, p < 0.01$ ), morals ( $r = .691,$

p <0.01) and the academic achievement of the Muslim convert students. This result showed that the religious practices of the Muslim convert students were low. The study also found that the students' religious practices were particularly weak in regard to praying, reading the Quran every day, performing prayers before and after praying, praying each time after prayers, greeting when he meets other people, and fasting during Ramadan without excuse.

Another study by Ali et al. (2019) focused on determining the perceptions of teachers and students related to religious practices and values and determining the impact of religious practices and values on the academic achievements of the students. The findings showed that the majority of the teachers agreed that giving knowledge of religious practices and values should be obligatory for a teacher. Similarly, the majority of the students agreed that students should seek knowledge about religious practices and values for their educational achievements. Almost all of the students and teachers agreed that Islamic religious practices and values had more distinct impacts on the students' academic achievements.

### **Religious Practice: Prayer**

An Islam prayer or Salat helps Muslims to connect with Allah, in thanksgiving and repentance of their sins, and incline them closer to Allah. The worshiper, in this case attempts to imitate Creator, in His greatest attributes, and continuously get transformed from a worldly person to a religious servant of Allah. Prayer is a prescription that purifies the heart and soul. It helps Muslims to establish a living communion with their Creator (Al-Islam, 2021). Islam is so engrained in the Saudi culture that during the times of prayer, virtually all businesses close and even non-Muslim women that go to Saudi for a visit are often compelled, sometimes voluntarily, to cover their heads in veils just like the Saudi women (Ahmed, 2017).

According to Al-Krenawi and Graham (2000), the preference for communal prayers, as opposed to individual prayers, creates a sense of belonging and oneness amongst the believers. It should be noted that large congregations for prayers in mosques, particularly on Friday, is an indication of the oneness of Muslims across the world. Allah (God) has enjoined prayer on Muslims and imposed on them five prayers per day, and each prayer has a specific time, so it is not correct to offer a prayer over a prayer or to delay a prayer beyond its due date.

The Early morning prayer (Salatu-Fajr) is the first prayer. Muslims start the day with Fajr prayer, as its timing comes from the beginning of dawn to sunrise. It is a loud prayer and consists of two rak'ahs.

The Noon prayer (Salatu-Zuhr) is the second of the obligatory prayers. Its time comes when the sun turns from the middle of the sky to the direction of sunset. It extends until the shade of everything becomes like it except in the midday, that is, until the time of Asr begins, and it is a secret prayer and consists of 4 rak'ahs.

The Mid-After noon prayer (Salatu Asr) asr prayer is the third obligatory prayer. It consists of four rak'ahs. These are performed in the same way as the noon prayer and in a low voice. Its time comes at the end of the time of noon until sunset.

The Sunset prayer (Salat-Maghrib) the maghrib prayer is the fourth obligatory prayer. It is a loud prayer of 3 rak'ahs. Its time begins with sunset and its absence and continues until the red twilight disappears so that it does not have a trace on the west side.

The Evening prayer (Salat Isha) isha prayer is the fifth and last prayer of the day. It is a loud prayer. This prayer consists of 4 rak'ahs, and its time enters the sunset of the red twilight and extends to the break of the true dawn (Abdalati, 1998).

The Friday prayer is like the ritual prayers, or salat, performed during the rest of the week, except that on Friday the Imam or prayer leader delivers a two-part sermon known as the khutbah. There is a pause between the two parts of the sermon to allow for a time of personal prayer or du'a. It is a loud prayer and consists of two rak'ahs (Abdalati,1998).

A study by Elias et al (2005) included 145 students undergraduate Muslim students enrolled in a Malaysian university. The authors developed a 24-item instrument to measure the students' religiosity. Students' academic performances were determined using their Cumulative Grade Point Averages (CGPA). The results indicated that no significant correlation was found between the religiosity of the students in the study and their academic performances.

Another study by Taghavinia et al (2015) examined students' beliefs, emotions, religious rituals, and consequences. The sample included 385 medical students enrolled at an Iranian university (141 males and 244 females). The data collection tool consisted of a demographic questionnaire and the 26-item Gluck-Stark's questionnaire containing four aspects of beliefs, emotions, religious rituals, and consequences. The findings of this study showed that the students were mostly weak in performing religious rituals and practicing religion. No positive correlation was found between religiosity and academic achievement.

### **Religious Practice: Reading the Quran**

The Muslim teachings are entirely dependent on the teachings from Quran. The faith, the culture that the Muslim conform to, the dressing style, and other religious activities are tied to the instructions from Quran. The book cuts across all the activities of Muslim practices making it part of the activities that every Muslim must follow to be part of the religion (Tarlo, 2010). The Holy Quran acts as guidance and must be adopted by all Muslims. The culture that the Muslims follows is from Quran. Al-Nawawi (2006, p. 368).

It is impossible to understand the impact of Islam religion on the general culture of Saudi Arabia. All Saudi Arabians are Muslims, and they believe in the prophet Muhammad and the Quran (Heyn, 2013). Reading the Quran is mandatory for Muslims, regardless of their gender. It is a religious duty to read the holy book of Quran, with proper understanding. Therefore, the Quran is a comprehensive source of knowledge that leads believers to the truth of Islamic teachings (Qazisaffar, 2020).

Jalil et al. (2014) conducted a study designed to determine the effect of listening to the Quran without its musical tone (Tartil) on the mental health of personnel at Zahedan University. The results showed significant differences between the test and control groups in their mean mental health scores after listening to the Quran ( $P = 0.037$ ). No significant gender differences in the test group before and after the intervention were found ( $P = 0.806$ ). These results suggest that listening to the Quran could be recommended by psychologists as a method by which to improving mental health and achieve greater calm.

### **Religious Practice: Attending a Mosque**

A mosque is a place of worship for Muslims (Heyn, 2013). Worshipping in a mosque allows Muslims to pray with others and have religious discussions. Praying together in the mosque helps Muslims understand that all humanity is one. To Muslims, a mosque is a symbolic holy presence on the Earth (Ruff, 2016). Most teachers in mosques are considered to be Imams (i.e., ulama or religious scholars) and they use their teachings to connect the Quran to all aspects of everyday life (Alkandari, 2004).

In the community, the mosque plays several roles. This includes serving as a community center, social center, and educational center. All Muslim men are required to attend mosque and



newcomers to the faith are required to learn about the Islamic religion and the Quran by studying at the mosque (Ruff, 2016).

A study by Karam (2011) inquired about the role of the mosque. The research sought to find out if the mosque, as an institution, in any sense plays a different role than that of churches or synagogues in political participation. There was a survey of Muslim Americans across eleven cities: Seattle, WA, Dearborn, MI, San Diego, CA, Irvine, CA, Riverside, CA, Los Angeles, CA and Raleigh Durham, NC, Chicago, IL, Dallas, TX, Houston, TX, Washington D.C., and Oklahoma City, OK. The sample represents a diverse cross-section of American cities and the Muslim population. A sample of 1410 Muslims was included. The findings suggested that an association exists between higher levels of involvement in mosque-related activities and participation in American politics. The mosque emerges as an important indicator for Muslim social and political integration into American society and there is nothing inconsistent with the mosque and American democracy.

## **Chapter Three: Methodology**

This chapter describes the study's purpose, research questions, hypotheses, research design, population and sampling, instrumentation, data collection procedure, data analysis, and ethical considerations.

### **Purpose of the Study**

The purpose of this study was to examine the relationships among acculturation, Islamic religious practices, and the academic performances of Saudi Arabian students in the U.S.

### **Research Questions**

The following research questions guided this study:

1. What is the relationship among Islamic religious practices, acculturation, and academic performance?
2. Do religious practices and acculturation influence students' academic performance?
3. Do demographic characteristics (gender, age, having children, marital status, and years of residency in the U.S.) predict students' academic performance?

### **Conceptual Framework**

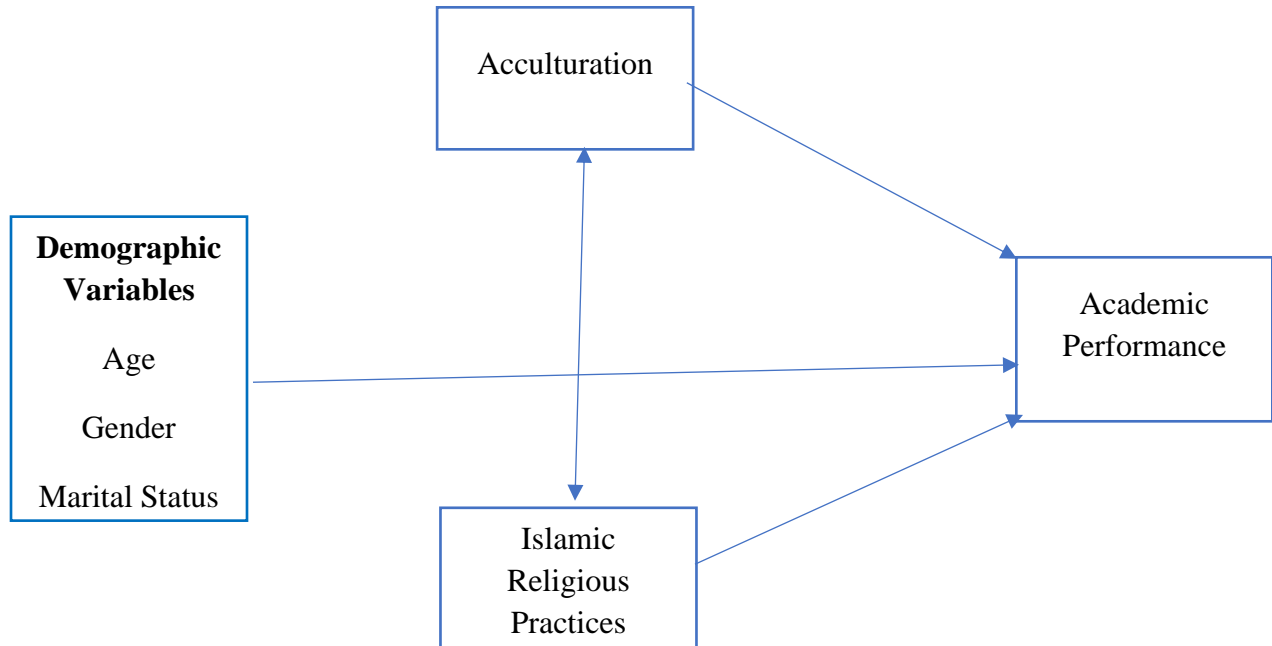
Postpositivist assume that truth may exist but the limitations of humans' ability to understand and directly observe phenomena must be considered when researchers make claims about truth (Letourneau & Allen, 1999). Postpositivist acknowledge that human limitations, experiences, and values make knowing the objective reality a challenge (Tanlaka, Ewashen, & King-Shier, 2019). Therefore, postpositivist assume that truths are both provisional and relative (Michael, 1998). Postpositivist regard certain research instruments, such as self-reports, interviews, and questionnaires, as tools that can improve the ability of the researcher to infer but they do not make the researcher know the truth with certainty (Tanlaka et al., 2019). According

to post positivism, while complete objectivity is impossible to accomplish, we should strive to be as objective or neutral as possible (Cook & Campbell, 1979). In this study, instruments that have demonstrated good validity and reliability will be used, and research hypotheses were constructed and will be tested. Therefore, statistical analyses will be conducted to test the constructed hypotheses and the inferential statistics and interpretation of study findings will be considered as approximations of truth.

Figure 1 shows the conceptual framework of the study that was developed and derived from the literature review. In this study, it was hypothesized that some demographic variables (i.e., age, gender, having children, and years of residency in the U.S.) influence academic performance. Furthermore, acculturation and Islamic religious practices were hypothesized to influence academic performance. Therefore, the effect of demographic variables, acculturation, and Islamic religious practices on academic performance were examined as well as the relationship among Islamic religious practices, acculturation, and academic performance.

**Figure 1**

*Conceptual Framework of the Study*



**Research Design**

This study utilized a cross-sectional survey design (i.e., a quantitative research method) using a self-administered survey to collect data from participants at one point in time. A cross-sectional survey research design is appropriate for this study because the researcher aims to collect data from a large sample over a short time period. Babbie (2010) explained that cross-sectional research “involves observations of a sample, or cross-section, of a population or phenomenon that are made at one point in time” (p. 106). According to Creswell (2014), quantitative research can be defined as “an approach of testing objective theory by examining the relationships among variables.”

In this research, a variety of techniques support and justify the use of the quantitative research methods. First, researchers can save time and reduce effort by using statistical data.

Data are in the form of numbers and statistics, often arranged in tables, charts, figures. Second, having the ability to generalize the results to a population gives strength to this method. Third, objectivity can be achieved using this method, The research study can usually be replicated, given its high reliability. Fourth, the ability to reach many participants from different resources adds value to the results, the results are based on larger sample sizes that are representative of the population (Bryman, 2001; Cohen, Manion & Morrison, 2011; Trochim, Donnelly & Arora, 2015). The survey design is appropriate for this study because the researcher is collecting data from Saudi Arabian students in the U.S. to examine the relationships among acculturation, Islamic religious practices, and academic performances.

### **Population and Sampling**

The target population for this study is male and female Saudi Arabian students aged 18 and older who are studying at U.S. universities. According to Gall and Borg (2007), an accessible population can be identified as participants whom researchers can reach and from which they can draw a sample of respondents who meet the criteria of the study. In this study, a convenience sampling method (also known as availability sampling) was used. Gall et al. (2007) stated that convenience sampling is a type of sampling that researchers can access easily to achieve the goals of the study. Raosoft, an online sample size calculator, was used to estimate the sample size. Based on a 5% margin of error and a 95% confidence interval, a sample size of 377 was needed.

### **Instrumentation**

The study survey contains two parts. Part 1 contains questions about the student's demographic information, such as gender, age, having children, years of residency in the U.S., marital status, and cumulative grade point average (GPA). The GPA was used to measure the

student's academic performance. Part 2 of the study survey contains two scales: Religiosity of Islam Scale (RoIS) and Vancouver Index of Acculturation (VIA).

Islamic religious practices were measured using the RoIS developed by Masri and Priester (2007). The RoIS contains 19 items developed based on the contents of the Holy Qur'an and the theoretical distinction between religious beliefs and behaviors. This scale has two subscales: Islamic Beliefs and Islamic Behavioral Practices. The Islamic Beliefs subscale contains nine items with a reliability of .66 (Cronbach's alpha), whereas the Islamic Behavioral Practices subscale contains 10 items with a reliability of .81 (Cronbach's alpha). The Islamic Beliefs subscale is measured on a 7-point Likert scale ranging from strongly disagree to strongly agree, whereas the Islamic Behavioral Practices subscale is measured using a 5-point Likert scale ranging from never to always (Masri & Priester, 2007).

The VIA was created by Ryder, Alden, and Paulhus (2000) and was used to measure the student's acculturation. The VIA includes 10 items assessing heritage acculturation and 10 items assessing mainstream acculturation. These items are presented back-to-back and are identical with the exception of the referenced culture. The heritage acculturation subscale asks questions about the respondent's own culture, whereas the mainstream acculturation subscale measures the respondent's acquisition and adaptation to the American cultural values and practices.

Acculturation pertains to an individual's desire to maintain the practices, beliefs, values and social culture of their ethnic background or that was followed by their family; mainstream acculturation pertains to an individual's desire to change their practices, values, and social orientations to fit with the new culture.

The mainstream culture in the U.S. would be the dominant culture that is held by a significant proportion of the population, whereas heritage culture would be the culture from the

Saudi Arabian students' background. For example, item 1 reads "I often participate in my Saudi cultural traditions," and item 2 reads "I often participate in mainstream North American cultural traditions." Additional acculturation domains assessed include beliefs in values, preferences for entertainment, and maintenance of cultural practices. The items were rated on a 9-point scale ranging from 1 (strongly disagree) to 9 (strongly agree) with higher scores indicating greater acculturation to the referenced culture. The subscale scores were calculated by computing the mean of the 10 subscale items. In the original study, the reliability (Cronbach's alpha) of the heritage dimension ranged from .91 to .92, whereas the mainstream dimension ranged from .85 to .89 (Ryder et al., 2000).

### **Data Collection Procedure**

The Qualtrics platform was used to design an electronic survey to collect data from study participants. The Principal Investigator (PI) of this study sent the link to the survey to all Saudi students who study in the U.S. Inclusion criteria included being at least 18-year-old, currently matriculated at U.S. university, and has studied for at least one semester. Furthermore, study survey was sent to Saudi students studying at U.S. colleges and universities via social network platforms. The first page of the electronic survey included eligibility criteria screening. If a participant does not meet the study criteria, the participant was not able to participate and was sent to the end of the survey. If a participant met the eligibility criteria, a consent form was displayed which contain information about the purpose of the study, data collection procedure, voluntary role of participation, participants' anonymity and confidentiality, potential benefits, and risks, and estimated time to complete the study survey. The principal investigator sent weekly reminder to students to participate in the study for up to three reminders.

## **Data Analysis**

The collected data were imported from Qualtrics to IBM's Statistical Package for the Social Sciences (SPSS) for analysis. Data cleaning and coding were conducted before conducting the data analysis. Any questionnaire that was less than 10% complete, was not included in the analysis. Descriptive and inferential statistics, such as frequency distribution, mean, and standard deviation, were conducted to describe the study sample and assess the normality of the study variables. For question 1, Pearson correlation statistics was used to examine the relationships among Islamic religious practices, acculturation, and academic performance. For question 2, a multiple linear regression analysis was used to examine whether religious practices and acculturation influence the students' academic performances. For question 3, a multiple linear regression analysis was conducted to determine whether demographic characteristics (i.e., gender, age, having children, marital status, and years of residency in the U.S.) predict students' academic performances.

## **Ethical Considerations**

Institutional Review Board (IRB) approval were obtained before conducting the study. Two IRB approvals were obtained from St. Mary's University and SACM before conducting the study. The PI sent the link to the study survey to all Saudi Arabian students studying at U.S. colleges and universities. No identifiable information, such as name, email address, IP address, phone number, or university name, were collected from the participants. A consent form containing the purpose of the study, data collection procedure, voluntary role of participation, participant's anonymity and confidentiality, potential benefits and risks, estimated time to complete the study survey, and contact information for the PI was displayed at the beginning of



the survey before participant begins. If a participant agreed to participate, then he/she was not forced to answer any questions, as all questions were made optional.

## **Chapter Four: Result**

### **Introduction**

The main purpose of this research study was to examine the relationships among acculturation, Islamic religious practices, and the academic performance among Saudi students in the U.S. This study used a cross-sectional survey design and collected data from Saudi students studying at U.S. universities using an online survey. This chapter includes study findings and answer the research questions. Descriptive statistics and inferential statistics are presented and interpreted. The data of this study was analyzed using the IBM Statistical Package for the Social Sciences (SPSS) version 28.

### **Demographic Characteristics of the Sample**

The target sample was 384 and a total of 433 online surveys were received. After removing incomplete survey (less than 10%), the final sample included 393 responses. Table 1 shows the demographic characteristics of the study participants. The majority of the study participants were males (66%) and approximately 33% of the participants were female. The average age was 31 years ( $SD = 5.9$ ). Approximately 76% of the participants were between 18 and 34 years old, and around 21% were between 35 and 44 years old. Around 63% of the study participants were between 25 and 34 years old, and most of them were males. Overall, less than 3% of the study participants were older than 44 years.

**Table 1*****Sample Distribution by Age and Gender***

	What is your gender?									
	Male		Female		Other		Prefer not to say		Total	
	f	%	f	%	f	%	f	%	f	%
18 to 24	32	8.1%	21	5.3%	0	0.0%	0	0.0%	53	13.5%
25 to 34	172	43.8%	71	18.1%	1	0.3%	3	0.8%	247	62.8%
35 to 44	49	12.5%	34	8.7%	0	0.0%	0	0.0%	83	21.1%
45 and more	7	1.8%	3	0.8%	0	0.0%	0	0.0%	10	2.5%
Total	260	66.2%	129	32.8%	1	0.3%	3	0.8%	393	100.0%

Table 2 shows the sample distribution by gender, children, marital status, and number of years participants resided in the U.S. Around 37% of the participants were single, 61% were married, and less than 2% were divorced. Approximately 53% of the participants had children, and around 47% of the participants resided in the U.S. for more than 5 years, but less than 10 years. Approximately 34% of the participants resided in the U.S. for 2 to 4 years. Only 3% of the participants resided in the U.S. for more than 10 years.

**Table 2*****Sample Distribution Gender, Have Children, Status Marital and years resided in USA***

		<u>What is your gender?</u>					
			Male	Female	Other	Prefer not to say	Total
What is your marital status?	Single	f	103	42	0	1	146
		%	26.2%	10.7%	0.0%	0.3%	37.2%
	Married	f	155	82	1	2	240
		%	39.4%	20.9%	0.3%	0.5%	61.1%
	Divorced	f	2	3	0	0	5
		%	0.5%	0.8%	0.0%	0.0%	1.3%
	Other	f	0	2	0	0	2
		%	0.0%	0.5%	0.0%	0.0%	0.5%
	Total	f	260	129	1	3	393
		%	66.2%	32.8%	0.3%	0.8%	100.0%
Do you have children?	Yes	f	130	75	0	2	207
		%	33.1%	19.1%	0.0%	0.5%	52.7%
	No	f	130	54	1	1	186
		%	33.1%	13.7%	0.3%	0.3%	47.3%
	Total	f	260	129	1	3	393
		%	66.2%	32.8%	0.3%	0.8%	100.0%
How many years have you resided in the Unites States?	Less than 1 year	f	22	8	0	1	31
		%	5.6%	2.0%	0.0%	0.3%	7.9%
	From 1 - 2 years	f	21	11	0	0	32
		%	5.3%	2.8%	0.0%	0.0%	8.1%
	From 2 - 4 years	f	84	47	0	2	133
		%	21.4%	12.0%	0.0%	0.5%	33.8%
	From 5 - 10 years	f	126	57	1	0	184
		%	32.1%	14.5%	0.3%	0.0%	46.8%
	More than 10	f	7	6	0	0	13
		%	1.8%	1.5%	0.0%	0.0%	3.3%
	Total	f	260	129	1	3	393
		%	66.2%	32.8%	0.3%	0.8%	100.0%

Table 3 presents the percentage of study participants by their state of residency. Around 21% of the study participants resided in Texas. Around 18% of the participants resided in Ohio and Illinois. Approximately 7.6% of the participants were from Virginia, and 7.4% were from Florida. Only 3.6% of the study participants studied in the U.S. but were outside the U.S. during the time of data collection.

**Table 3**

*Participants by States of Residency*

State	F	%
Alabama	7	1.8
Arizona	2	0.5
Arkansas	2	0.5
California	6	1.5
Colorado	4	1.0
Connecticut	7	1.8
District of Columbia	3	0.8
Florida	29	7.4
Georgia	20	5.1
Idaho	2	0.5
Illinois	36	9.2
Indiana	10	2.5
Iowa	1	0.3
Kansas	1	0.3
Kentucky	8	2.0
Maryland	1	0.3
Massachusetts	2	0.5
Michigan	10	2.5
Minnesota	1	0.3
Mississippi	1	0.3
Missouri	13	3.3
Montana	1	0.3
Nebraska	1	0.3
New Jersey	2	0.5
New Mexico	2	0.5
New York	7	1.8
North Carolina	5	1.3

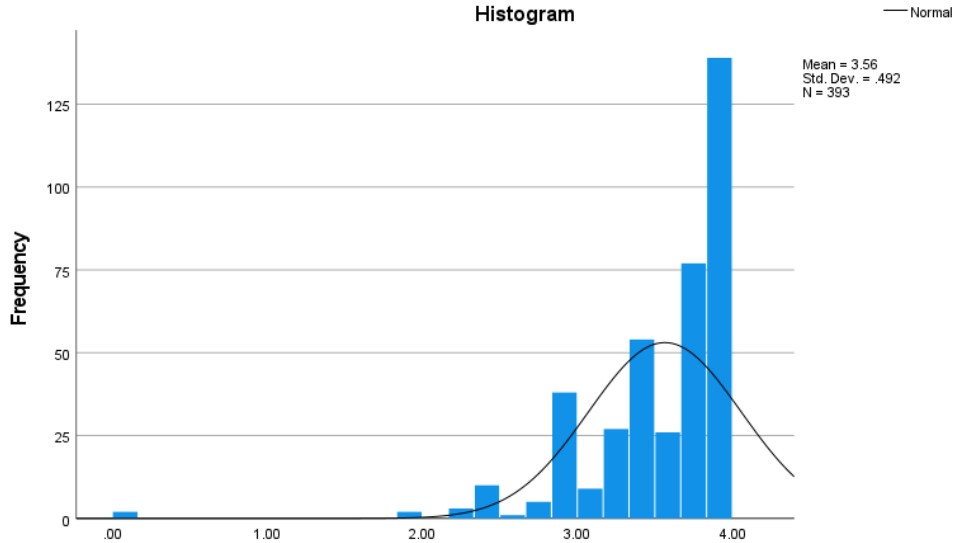
North Dakota	4	1.0
Ohio	36	9.2
Oklahoma	1	0.3
Oregon	3	0.8
Pennsylvania	24	6.1
Rhode Island	1	0.3
South Carolina	1	0.3
Tennessee	6	1.5
Texas	83	21.1
Utah	1	0.3
Virginia	30	7.6
Washington	3	0.8
Wisconsin	2	0.5
Others	14	3.6
<hr/>		
Total	393	100%
<hr/>		

### Overall GPA

Figure 2 shows a histogram of the overall GPA. The overall mean GPA mean was 3.56 ( $SD = 0.49$ ).

**Figure 2**

***GPA Distribution***



What is your Overall GPA (cumulative GPA) at your university now (type a number, For example, 2.5, 3, 3.3, 4)?

The median GPA was 3.71, and around 25% of the participants had a GPA below 3.35 and 25% of the overall sample had a GPA higher than 3.92. Only less than 10% of the participants had a GPA less than 3.00 (see Table 4).

**Table 4**

***Percentiles of Overall GPA***

	Percentiles						
	5	10	25	50	75	90	95
Overall GPA	2.70	3.00	3.35	3.71	3.92	4.00	4.00

When comparing the overall mean GPA by gender, female participants had significantly higher overall GPA ( $M = 3.72, SD = 0.31$ ) than male participants ( $M = 3.49, SD = 0.55$ ),  $t(382.22) = -5.35, p < .001$  (see Table 5). On the other hand, when comparing overall mean

GPA by marital status, married students had higher GPA ( $M = 3.60$ ,  $SD = 0.50$ ) than single students ( $M = 3.51$ ,  $SD = 0.47$ ), but the difference was not statistically significant,  $t(380) = -1.737$ ,  $p = .083$  (see Table 5).

**Table 5**

*Differences for GPA by Gender and Marital Status*

	Gender				
	<i>N</i>	<i>M</i>	<i>SD</i>	P-Value	
Overall GPA	Male	260	3.49	0.55	< .001 <sup>a</sup>
	Female	129	3.72	0.30	
	Marital Status				
	<i>N</i>	<i>M</i>	<i>SD</i>	P-Value	
	Single	145	3.51	0.47	0.083 <sup>a</sup>
	Married	237	3.60	0.50	

<sup>a</sup> *Independent two-samples t-test*

**Acculturation**

The Vancouver Index of Acculturation (VIA) which is a self-report bidimensional instruments was used to measure the student’s acculturation. The VIA includes 10 items assessing heritage acculturation and 10 items assessing mainstream acculturation. The heritage acculturation subscale asks questions about the respondent’s own culture, whereas the mainstream acculturation subscale measures the respondent’s acquisition and adaptation to the American cultural values and practices. For example, item 1 reads “I often participate in my Saudi cultural traditions,” and item 2 reads “I often participate in mainstream North American cultural traditions.” Table 6 shows the mean acculturation scores by gender and marital status. When comparing the mean heritage score by gender, although male participants had lower heritage mean ( $M = 6.99$ ,  $SD = 1.53$ ) than female participants ( $M = 7.25$ ,  $SD = 1.44$ ), the difference was not statistically significant,  $t(380) = -1.591$ ,  $p = .112$ . On the other hand, the male participants had higher mainstream mean ( $M = 5.50$ ,  $SD = 1.38$ ) than female participants ( $M =$



5.11,  $SD = 1.35$ ), and the difference was statistically significant,  $t(380) = 2.569$ ,  $p = .011$ . Single students had lower heritage mean ( $M = 6.87$ ,  $SD = 1.64$ ) than married students ( $M = 7.21$ ,  $SD = 1.39$ ), and the difference was statistically significant,  $t(268.207) = -2.074$ ,  $p = .039$ . In contrary, single participants had higher mainstream mean ( $M = 5.53$ ,  $SD = 1.29$ ) than married participants ( $M = 5.28$ ,  $SD = 1.43$ ), but the difference was not statistically significant,  $t(380) = 1.670$ ,  $p = .096$ .

**Table 6**

*Mean Acculturation Scores by Gender and Marital Status*

Variable	Gender			
Heritage	<i>N</i>	<i>M</i>	<i>SD</i>	P-Value
Male	258	6.99	1.53	0.112 <sup>a</sup>
Female	124	7.25	1.44	
Marital Status				
Heritage	<i>N</i>	<i>M</i>	<i>SD</i>	P-Value
Single	145	6.87	1.64	0.039 <sup>a</sup>
Married	237	7.21	1.39	
Gender				
Mainstream	<i>N</i>	<i>M</i>	<i>SD</i>	P-Value
Male	258	5.50	1.38	0.011 <sup>a</sup>
Female	124	5.11	1.36	
Marital Status				
Mainstream	<i>N</i>	<i>M</i>	<i>SD</i>	P-Value
Single	145	5.53	1.29	0.096 <sup>a</sup>
Married	237	5.28	1.43	

<sup>a</sup> *Independent two-samples t-test*

Table 7 presents the distribution frequency for the items of the acculturation scale. Only 28% of the participants indicated that they participated in American cultural traditions, whereas approximately 64% of the participants indicated that they participate in their heritage cultural traditions. Around 23% of the respondents indicated that they would marry an American person, whereas approximately 74% of the respondents preferred marrying a person from their heritage culture. Around 67% of the respondents said they enjoyed entertainment in their heritage culture, and 74% of the respondents said they enjoyed American entertainment.

**Table 7*****Frequency Distribution for Acculturation Scale***

		(1)								(9)
		Disagree	2	3	4	5	6	7	8	Agree
I participate in heritage cultural traditions.	F	22	15	16	24	63	38	55	32	128
	%	5.6%	3.8%	4.1%	6.1%	16.0%	9.7%	14.0%	8.1%	32.6%
I participate in American cultural traditions.	F	39	40	50	67	87	46	23	17	24
	%	9.9%	10.2%	12.7%	17.0%	22.1%	11.7%	5.9%	4.3%	6.1%
I willing to marry a person from my heritage culture.	F	30	8	11	11	43	24	34	37	195
	%	7.6%	2.0%	2.8%	2.8%	10.9%	6.1%	8.7%	9.4%	49.6%
I willing to marry a white American person.	F	148	48	34	20	55	20	20	14	34
	%	37.7%	12.2%	8.7%	5.1%	14.0%	5.1%	5.1%	3.6%	8.7%
I enjoy social activities same heritage culture	F	10	9	12	14	44	35	60	52	157
	%	2.5%	2.3%	3.1%	3.6%	11.2%	8.9%	15.3%	13.2%	39.9%
I enjoy social activities with American people.	F	14	22	18	27	89	55	64	38	66
	%	3.6%	5.6%	4.6%	6.9%	22.6%	14.0%	16.3%	9.7%	16.8%
I feel comfortable interacting with people of the same heritage culture	F	5	5	8	12	43	34	57	56	173
	%	1.3%	1.3%	2.0%	3.1%	10.9%	8.7%	14.5%	14.2%	44.0%
I feel comfortable interacting with typical American people.	F	10	10	25	28	77	52	70	44	77
	%	2.5%	2.5%	6.4%	7.1%	19.6%	13.2%	17.8%	11.2%	19.6%
	F	13	24	24	21	48	47	56	34	126

I enjoy entertainment my heritage culture. % 3.3% 6.1% 6.1% 5.3% 12.2% 12.0% 14.2% 8.7% 32.1%

I enjoy American entertainment. F 10 8 12 19 54 40 58 62 130  
% 2.5% 2.0% 3.1% 4.8% 13.7% 10.2% 14.8% 15.8% 33.1%

		(1)	D	2	3	4	5	6	7	8	(9) Agree
I behave in ways that are typical of my heritage culture.	f	8	10	9	26	54	59	73	46	108	
	%	2.0%	2.5%	2.3%	6.6%	13.7%	15.0%	18.6%	11.7%	27.5%	
I often behave in ways that are typically American.	f	36	32	46	55	84	37	42	31	30	
	%	9.2%	8.1%	11.7%	14.0%	21.4%	9.4%	10.7%	7.9%	7.6%	
I maintain or develop the practices of my heritage culture.	f	13	4	13	23	51	48	67	53	121	
	%	3.3%	1.0%	3.3%	5.9%	13.0%	12.2%	17.0%	13.5%	30.8%	
I maintain or develop American cultural practices.	f	41	31	40	55	89	49	42	18	28	
	%	10.4%	7.9%	10.2%	14.0%	22.6%	12.5%	10.7%	4.6%	7.1%	
I believe in the values of my heritage culture.	f	6	5	5	14	31	33	45	54	200	
	%	1.5%	1.3%	1.3%	3.6%	7.9%	8.4%	11.5%	13.7%	50.9%	
I believe in mainstream American values.	f	26	24	50	58	84	65	40	13	33	
	%	6.6%	6.1%	12.7%	14.8%	21.4%	16.5%	10.2%	3.3%	8.4%	
I enjoy the jokes and humor of my heritage culture.	f	9	6	4	12	29	25	47	55	206	
	%	2.3%	1.5%	1.0%	3.1%	7.4%	6.4%	12.0%	14.0%	52.4%	
	f	42	16	29	39	67	55	41	40	64	

I enjoy white American jokes and humor.	%	10.7%	4.1%	7.4%	9.9%	17.0%	14.0%	10.4%	10.2%	16.3%
I am interested in having friends from my heritage culture	f	5	7	12	13	37	43	51	39	175
	%	1.3%	1.8%	3.1%	3.4%	9.7%	11.3%	13.4%	10.2%	45.8%
I am interested in having white American friends	f	12	12	16	21	50	60	65	38	119
	%	3.1%	3.1%	4.1%	5.3%	12.7%	15.3%	16.5%	9.7%	30.3%

## **Religiosity**

Table 8 shows the frequency distribution for religiosity practices and Table 9 shows the frequency distribution for religiosity beliefs. Around 73% of the participants indicated that either they wear the hijab or their wives wear hijab, and 62% of the participants said they go to the mosque. The majority (92.2%) of the participants reported that they pray five times a day, and only around 5% of the respondents reported that they drink alcohol or gamble. Around 73% of the participants reported that they do not smoke. Regarding the religiosity beliefs, the majority of the participants had high religiosity beliefs. Approximately 96% of the respondents believed that the final and complete religion is Islam, that the Qur'an is the final word of Allah, and they perform ablution before praying.

**Table 8*****Frequency Distribution for Religiosity Practices***

		1 Alway	2 Usually	3 Sometimes	4 Rarely	5 Never
1. I wear the hijab as a woman (for women). My wife wears the hijab (for men)	F	287	32	27	13	34
	%	73.00%	8.10%	6.90%	3.30%	8.70%
2. I go to the mosque on Friday	F	194	51	41	41	66
	%	49.40%	13.00%	10.40%	10.40%	16.80%
3. I give Zakah	F	297	35	27	13	21
	%	75.60%	8.90%	6.90%	3.30%	5.30%
5. I pray five times a day	F	334	29	15	10	5
	%	85.00%	7.40%	3.80%	2.50%	1.30%
7. I read the Qur'an more than two times a week	F	126	59	105	82	21
	%	32.10%	15.00%	26.70%	20.90%	5.30%
10. I gamble	F	10	15	32	26	310
	%	2.50%	3.80%	8.10%	6.60%	78.90%
14. I drink alcohol	F	6	14	27	25	321
	%	1.50%	3.60%	6.90%	6.40%	81.70%
15. When I go to social gathering, I sit separate from the other gender	F	116	92	119	43	23
	%	29.50%	23.40%	30.30%	10.90%	5.90%

17. I don't smoke	F	247	39	29	37	41
cigarettes	%	62.80%	9.90%	7.40%	9.40%	10.40%

**Table 9**

***Frequency Distribution for Religiosity Beliefs***

		1 Stron gly Agree	2 Mostly Agree	3 Somewh at Agree	4 Neither Agree nor Disagree	5 Somewh at Agree	6 Mostly Disagree	7 Strongly Disagree
4. I believe that the final and complete religion is Islam	F	356	18	3	10	0	0	6
	%	90.60%	4.60%	0.80%	2.50%	0.00%	0.00%	1.50%
6. I believe that a woman can wear perfume when she goes out	f	108	34	29	44	61	42	75
	%	27.50%	8.70%	7.40%	11.20%	15.50%	10.70%	19.10%
8. I don't believe that men can shake hands with women	f	48	29	51	67	36	50	112
	%	12.20%	7.40%	13.00%	17.00%	9.20%	12.70%	28.50%
9. I believe Jinn exist	f	267	47	36	25	3	5	10
	%	67.90%	12.00%	9.20%	6.40%	0.80%	1.30%	2.50%
11. I believe that the Qur'an is the final word of Allah	f	359	11	5	8	2	4	4
	%	91.30%	2.80%	1.30%	2.00%	0.50%	1.00%	1.00%



12. I seek knowledge because it is a Muslim religious duty	f	266	60	27	25	4	3	8
	%	67.70%	15.30%	6.90%	6.40%	1.00%	0.80%	2.00%
13. I don't believe Allah created angels from light in order that they worship Him	f	337	23	9	17	0	0	7
	%	85.80%	5.90%	2.30%	4.30%	0.00%	0.00%	1.80%
16. I believe that a man can marry up to four wives	f	204	25	51	42	8	15	48
	%	51.90%	6.40%	13.00%	10.70%	2.00%	3.80%	12.20%
18. I believe that Hajj is obligatory only once during the lifetime of a Muslim	f	316	24	17	20	1	4	11
	%	80.40%	6.10%	4.30%	5.10%	0.30%	1.00%	2.80%
19. I perform ablution before I pray	f	362	12	10	5	4	0	0
	%	92.10%	3.10%	2.50%	1.30%	1.00%	0.00%	0.00%

## Hypothesis 1

Hypothesis 1 predicted that Islamic religious practices have a significant relationship with acculturation and academic performance and acculturation has a significant relationship with academic performance. To investigate the relationship among Islamic religiosity, acculturation, and academic performance and this hypothesis, Pearson's product-moment correlation statistic was used (see Table 10). As predicted, there is a statistically significant, weak positive relationship between religious practices and academic performance,  $r(393) = .133, p = .008$ . Moreover, there were statistically significant, weak negative relationships between acculturation heritage and religious practices and beliefs,  $r(393) = -.141, p = .005$ , and  $r(393) = -.383, p < .001$ , respectively. On the other hand, the relationships between academic performance and acculturation heritage, acculturation mainstream, and religious beliefs were not statistically significant ( $p > .05$ ).

**Table 10**

*Correlation Statistics Among Islamic Religiosity, Acculturation, and Academic Performance*

Variable	1	2	3	4	5
1. Overall GPA	—				
2. Heritage subscale	.025	—			
3. Mainstream subscale	-.054	.172**	—		
4. Beliefs subscale	-.019	-.383**	.065	—	
5. Practices subscale	.133**	-.141**	.027	.471**	—

*Note.* \*\*\* $p < .005$

## Hypothesis 2

Hypothesis 2 stated that Islamic religious practices and acculturation would influence academic performance. A linear regression was run to investigate the effects of religious practices, religious beliefs, and acculturation on academic performance (see Table 11). The predictor variables were: (a) religious practices, (b) religious beliefs, (c) mainstream acculturation, and (d) heritage acculturation. Hypothesis 2 predicted that all of the predictor variables to be significant predictors. Hypothesis 2 was partially supported. The regression model is statistically significant,  $F(4, 388) = 2.940, p = .020$ , accounting for 3% of the variation in academic performance. Among the predictor variables, only religious practice was a significant predictor of academic performance ( $p = .002$ ). Religious beliefs, heritage subscale, and mainstream subscale did not predict academic performance ( $p > .05$ ).

**Table 11**

***Regression Analysis Summary for Acculturation and Religiosity Predicting Academic Performance.***

Variable	B	B	t	p
(Constant)	3.295		16.111	<.001
Heritage subscale	.008	.026	.463	.644
Mainstream subscale	-.020	-.057	-1.110	.268
Beliefs subscale	-.062	-.091	-1.482	.139
Practices subscale	.174	.181	3.182	.002

*Note.*  $R^2 = 0.03$ , B = unstandardized coefficients,  $\beta$  = standardized coefficients

### Hypothesis 3

Hypothesis 3 predicted that demographic characteristics, such as age, gender, marital status, having children, and years of residence in the U.S. predict academic performance. A linear regression was run to assess the effects of the demographic characteristics on academic performance (see Table 12). Hypothesis 4 met partial support. The regression model is statistically significant,  $F(5, 371) = 2.752, p = .019$ , accounting for 4% of the variation in academic performance. Among the predictor variables, only gender was a significant predictor of academic performance ( $p = .001$ ). Age, having children, marital status, and number of years in the U.S. did not predict academic performance ( $p > .05$ ).

**Table 12**

*Regression Analysis Summary for Demographic Variables Predicting Academic Performance.*

Variable	B	B	t	p
(Constant)	3.312		12.491	<.001
Gender	.152	.166	3.222	.001
Age	.000	.004	.068	.946
Marital Status	.026	.032	.456	.649
Children	-.039	-.040	-.544	.587
Years residing in the U.S.	.017	.033	.615	.539

*Note.*  $R^2 = 0.03$ , B = unstandardized coefficients,  $\beta$  = standardized coefficients

### Discussion

The purpose of this section is to summarize and compare the findings of this research study with findings from the literature. The aim of this study was to examine the relationships among acculturation, Islamic religious practices, and the academic performance of Saudi

Arabian student in the U.S., and how the demographic characteristics such as age, gender, marital states, having children, and years of residency in the United States are related to the student's academic performance.

This research study was guided by the following research questions:

1. What is the relationship among Islamic religious practices, acculturation, and academic performance?
2. Do religious practices and acculturation influence students' academic performance?
3. Do demographic characteristics (gender, age, having children, and years of residency in the United States) predict students' academic performance?

### **Research Question One**

Students who study abroad may follow their own culture and have to adapt to the American cultural values and practices. They may find it difficult to follow their religious beliefs and practices and that may influence their academic performance. Muslim Arab-Americans, in particular adult Muslims, have suffered from discrimination, greater cultural immersion, and less dominant society immersion compared to their Christian Arab-American counterparts. Previous research studies have indicated that immigrants in the United States experience difficulties, ranging from social discrimination to economic and political challenges (Ajrouch, 2004; Anisa et al., 2014). Such difficulties and discrimination can negatively impact the student's academic performance. Poyrazli and Grahame (2007) found that international students suffer many obstacles when trying to adapt to life in America, including struggling academically.

According to Razek and Coyner (2013), Saudi students who came to the U.S. to study experienced language, social and cultural issues. The study also found that Saudi Arabian students had a difficult time interacting with American students due to the differences in their

cultures. They often felt that they could not freely participate in class discussions and other education forums. Li, Chen, and Duanmu (2010) analyzed the impact of cultural differences on international students' academic performances. Outside of their language proficiency issues, the students had a difficult time understanding the host culture, which negatively impacted their academic performances and social lives.

Therefore, this study examined the relationships among Islamic religious practices, acculturation, and academic performance. In this study, there was a positive relationship between religious practices and academic performance, and a negative relationship between acculturation and religious practices and beliefs. On the other hand, the relationship between academic performance and acculturation was not statistically significant. Such findings may indicate that there are other variables that influence acculturation or mediate the relationship between acculturation and academic performance such as religious practices and beliefs. Religious practices and beliefs may mediate the relationship between acculturation and academic performance. Examining the mediating effects of religious practices on the relationship between acculturation and academic performance is warranted.

### **Research Question Two**

The findings of this study showed that Islamic religious practices and acculturation influence academic performance. According to Razeq and Coyner (2013), Saudi who went to the U.S. to study, faced language, social, and cultural issues. These students found it difficult to interact with American students due to the cultural differences. Such difficulties prevented them from participating in classroom discussion. The difficulties that Saudi students face may influence their academic performance. Therefore, the goal of this research question was to examine the influence of religious beliefs, religious practices, and acculturation on academic

performance. The findings of this study indicated that religious practices influenced academic performance and was a significant predictor of academic performance. Similar results were obtained by Zubairu and Sakariyau (2016) who found that there was a significant positive relationship between religiosity and academic performance. The findings of this study showed that academic performance was not significantly influenced by acculturation. A study by Li, Chen, and Duanmu (2010) showed that students who had difficulty understanding the host culture struggled academically. On the other hand, García-Vázquez (1995) found that a limited relationship between acculturation and academic achievement.

### **Research Question Three**

The findings of this study indicated that gender was a significant predictor of academic performance. Female students had significantly higher than GPA than male students. Such finding is consistent with previous research studies that showed that female students performed academically better than male students (Kupczynski, Brown, Holland, & Uriegas, 2014).

Other variables such as age, marital status, having children, and years of residency in the United States did not significantly predict student's academic performance. In a study by Momanyi, Too, & Simiyu (2015), age had a significant effect on academic performance. Given that the majority of the students in this study were between 25 and 34 which represents a homogeneous sample of students, this may make the analysis of the relationship between age and academic performance to be invalid. Similarly, the majority of the study sample were married students which makes the sample homogeneous and limit statistical analysis.

## **Chapter Five: Summary, Implications, and Recommendations**

### **Summary**

In 2021, there were around 21,933 students from Saudi Arabia studying in the U.S., making Saudi Arabia one of the most represented countries (The Institute of International Education, 2020). In 2005, a deal signed by the U.S. and Saudi governments provided an opportunity for many Saudi students to pursue higher education at U.S. universities (Al Ramadan, 2016). Many of these students experienced different types of issues including social, cultural, and academic issues as they moved through the acculturation process that accompanied their studies in the U.S. Shaw (2010) found that Saudi students in the U.S. experienced diverse cultures and new learning approaches that impacted their academic successes. Saudi students who study in the U.S. are often faced with financial, cultural, and societal norms that are markedly different from those in their country of origin. Such issues are strongly related to the unique culture of Saudi Arabia that is heavily connected to conservative Islamic practices (Alajlan, 2016).

Understanding religion is important for understanding the acculturative experience of Muslim Arab Americans. Amer and Hovey (2007) found differences in acculturation and depression based on the participants' religious affiliations. The authors found that Christian Arab Americans were said to experience higher life satisfaction and acculturation in the U.S. than Muslim Arab Americans (Amer & Hovey, 2007). Similarly, other studies have found that there is a strong relationship between religious affiliation and acculturation among Muslim Arab Americans (Anisa, 2011; Awad, 2010). Previous research studies focused on assessing the relationship between language and academic performance (Al-Murshidi, 2014), while others focused on the relationship between cultural adjustment and academic effectiveness (Alsaifi &



Shin, 2017). There is a scarcity of studies that assessed the relationships among acculturation, religious practices, and the academic performances of Saudi Arabian students in the U.S.

Despite the benefits, educators, parents, students, and governments have found that international students have a difficult time when pursuing their higher education (Wu, Garza & Guzman, 2015). International students going into international universities have been found to face challenges in the new life and the cultural transition (Erichsen & Bolliger, 2011). The challenges include language barriers, challenges in adjusting to a new approach to learning, difficulty in expressing themselves to their classmates and tutors, stress, anxiety, financial challenges, new accommodation, culture shock and social interactions (Wu et al., 2015).

Therefore, this study investigated the impact of acculturation and Islamic religious practices on the overall academic performances of Saudi Arabian students pursuing studies in the U.S. This research paper attempted to fill a gap in the existing literature and explore the subject matter on the relationships among religious practices and beliefs, acculturation, and the academic performance of Saudi Arabian students in the U.S. The conceptual framework of this study was developed and derived from the literature review. In this study, it was hypothesized that some demographic variables (i.e., age, gender, having children, and years of residency in the U.S.) influence academic performance. Furthermore, acculturation and Islamic religious practices were hypothesized to influence academic performance

This study utilized a cross-sectional survey design using an online self-administered survey to collect data from participants at one point in time. An online survey was distributed to Saudi students who are studying in the U.S. via social platforms and WhatsApp messaging app. The study survey included information about students' demographic information, acculturation and religious beliefs and practices. In this study, the final sample included 393 Saudi students.

In this study, the majority of the participants were males (66%) and between 18 and 34 years, and the average age was 31 years ( $SD = 5.9$ ). The overall mean GPA was 3.56 ( $SD = 0.49$ ). The median GPA was 3.71, and around 25% of the participants had a GPA below 3.35 and 25% of the overall sample had a GPA higher than 3.92. Findings of this study showed that only less than 10% of the participants achieved a GPA of less than 3.00. In this study, the female participants had significantly higher overall GPA ( $M = 3.72, SD = 0.31$ ) than male participants ( $M = 3.49, SD = 0.55$ ),  $t(382.22) = -5.35, p < .001$ . Moreover, married students had higher GPA ( $M = 3.60, SD = 0.50$ ) than single students ( $M = 3.51, SD = 0.47$ ), but the difference between the two groups was not statistically significant.

In this study, the acculturation was measured in term of heritage and mainstream cultures. The male students had lower heritage mean ( $M = 6.99, SD = 1.53$ ) than female participants ( $M = 7.25, SD = 1.44$ ), but the difference between the two groups was not statistically significant. When compared by marital status, single students had lower heritage mean ( $M = 6.87, SD = 1.64$ ) than married students ( $M = 7.21, SD = 1.39$ ), and the difference between them was statistically significant ( $p = .039$ ). Regarding the mainstream subscale of acculturation, the male participants had higher mainstream mean ( $M = 5.50, SD = 1.38$ ) than the female participants ( $M = 5.11, SD = 1.35$ ), and the difference was statistically significant ( $p = .011$ ). Moreover, although the single participants had higher mainstream mean ( $M = 5.53, SD = 1.29$ ) than married participants ( $M = 5.28, SD = 1.43$ ), the difference was not statistically significant.

Less than 30% of the participants indicated that they participated in American cultural traditions, whereas around two thirds of the participants indicated that they maintained and participated in their heritage cultural traditions. Approximately 74% of the respondents preferred marrying a person from their heritage culture. Around 73% of the participants indicated that they

either wore the hijab or their wives wore the hijab, and the majority of them reported going to the mosque. More than 92% of the participants reported that they prayed five times a day.

In this study, the relationship between religiosity, acculturation, and academic performance was examined. The results of this study showed that there was a statistically significant, weak positive relationship between religious practices and academic performance,  $r(393) = .133, p = .008$ , and a significant, weak negative relationships between acculturation heritage and religious practices and beliefs,  $r(393) = -.141, p = .005$ , and  $r(393) = -.383, p < .001$ , respectively. However, in this study, there were no significant relationships between academic performance and acculturation heritage, acculturation mainstream, and religious beliefs. The study also examined the predictors of academic performance. Among the predictor variables, only religious practice was a significant predictor of academic performance ( $p = .002$ ). Other factors, such as religious beliefs and acculturation were not predictors of academic performance. The findings of this study also showed that gender was a significant predictor of academic performance ( $p = .001$ ). However, age, having children, marital status, and number of years in the U.S. did not predict academic performance.

### **Limitations**

This study utilized a cross-sectional survey design, and the participants completed an online survey. Completing an online survey may yield different results than paper questionnaires. Such limitation may lead to unwanted bias and makes the generalizability of the study findings difficult. The study was conducted during the COVID-19 pandemic, in which the majority of the U.S. universities were conducting lectures online. Such transition may have prevented Saudi students from participating in classroom environments and thus limited their ability to acculturate and adapt to the American culture. This may also explain why the relationship

between acculturation and academic performance was not significant. Although the study included a large sample of Saudi students, the majority of the study participants were males and between 18 and 34 years old. Such findings may limit the generalizability of the study findings.

This study was quantitative in nature and employed questionnaire-based data collection method. This may limit the ability to understand how and why acculturation and religiosity affect students' academic performance. The aim of the study was to investigate the relationship among acculturation, religiosity, and academic performance. However, the study did not assess the mediating effect of religiosity on the relationship between acculturation and academic performance. Assessing such relationship is therefore warranted. In this study, the acculturation was measured using Vancouver Index of Acculturation (VIA) which measures only two aspects of acculturation, which is a limitation in this study. Furthermore, the academic performance was measured by self-reported GPA. Such measurement may be inaccurate given that academic performance is more than just GPA.

### **Implication and Recommendations**

The findings of the study suggest that acculturation and religious beliefs do not significantly affect the academic performance of Saudi Arabian students. The findings show that religious practices significantly affect the performance of students. It is therefore, recommended that universities in the U.S. should look at ways to make it easier for Muslim students to practice their faith. The study established that gender has a significant effect on the academic performance of the students who participated in the study. These findings suggest that the universities need to focus and provide support based on gender. The universities need to tailor classes and activities to take into consideration the gender requirements of Saudi Arabian students.

The findings show that acculturation does not significantly impact academic performance. These findings suggest that the study participants were able to transition to their new lives easily. It is thus recommended that the universities continue to implement the acculturation programs that are in place because they are proving to be effective. Moreover, the Saudi government should encourage Saudi students to get engaged in the American culture which is beneficial to them and may improve their academic performance.

### **Recommendations for Future Studies**

The study established that demographic factors only contribute to 4% of the variation in the level of academic performance amongst Saudi Arabian students in the U.S. This suggests that further studies are needed to understand what other factors affect the performance of the Saudi Arabian students in the US. In the study, the researcher measured acculturation using two measures, the heritage subscale and the mainstream subscale which both indicated that acculturation did not significantly affect academic performance. Future studies need to be conducted using other measures. Furthermore, future research studies should investigate the mediating effects of religiosity on the relationship between acculturation and academic performance.

The researcher found that religious practices, when measured using the practices subscale had a positive and significant effect on academic performance while when using the beliefs subscale was negative and statistically insignificant effect. The study recommends that further studies be conducted with an expansion in the religions investigated. Future studies should investigate the effect of other religions such as Judaism, Hinduism, Jainism, Shinto, Sikhism, Taoism and Zoroastrianism. This study only focused on Saudi Arabian students in the U.S. Future studies should investigate these relationships among Saudi students leaning in other

countries. Future research studies should also utilize different research methods, such as mixed-method and qualitative designs to better understand the relationship among religiosity, acculturation, and academic performance.

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## Appendices

### Appendix A: Demographic Questionnaire

What is your gender?

- Male
- Female
- Other

What is your age (Type a number)? For example, 18,20,24,30, 32

What is your marital status?

- Single
- Married
- Widow
- Divorced
- Other

Do you have children?

- Yes
- No

What is your overall GPA (Cumulative GPA) at your university now (Type a number, For example, 2.5, 3, 3.3, 4)?

How many years have you resided in the Unites States?

- Less than 1 year
- From 1 - 2 years
- From 2 - 4 years
- From 5 - 10 years

- More than 10

Where do you currently reside?

## Appendix B: Religiosity of Islam Scale (RoIS)

Below are statements concerning your religious life. Please indicate your reaction to each statement by circling the answer that best fits you. There are no wrong or right answers. Your answers will remain completely confidential. We are interested only in getting your point of view.

**1. I wear the hijab as a woman (for women). My wife wears the hijab (for men)**

1 Always    2 Usually    3 Sometimes    4 Rarely    5 Never

**2. I go to the mosque on Friday**

1 Always    2 Usually    3 Sometimes    4 Rarely    5 Never

**3. I give Zakah**

1 Always    2 Usually    3 Sometimes    4 Rarely    5 Never

**4. I believe that the final and complete religion is Islam**

1 Strongly Agree    2 Mostly Agree    3 Somewhat Agree    4 Neither agree nor Disagree  
5 Somewhat Disagree    6 Mostly Disagree    7 Strongly Disagree

**5. I pray five times a day**

1 Always    2 Usually    3 Sometimes    4 Rarely    5 Never

**\*6. I believe that a woman can wear perfume when she goes out<sup>1</sup>**

1 Strongly Agree    2 Mostly Agree    3 Somewhat Agree    4 Neither agree nor Disagree  
5 Somewhat Disagree    6 Mostly Disagree    7 Strongly Disagree

**7. I read the Qur'an more than two times a week**

1 Always    2 Usually    3 Sometimes    4 Rarely    4 Never

**\*8. I believe that men can shake hands with women**

1 Strongly Agree    2 Mostly Agree    3 Somewhat Agree    4 Neither agree nor Disagree

5 Somewhat Disagree 6 Mostly Disagree 7 Strongly Disagree

**9. I believe Jinn exist**

1 Strongly Agree 2 Mostly Agree 3 Somewhat Agree 4 Neither agree nor Disagree

5 Somewhat Disagree 6 Mostly Disagree 7 Strongly Disagree

**\*10. I gamble**

1 Always 2 Usually 3 Sometimes 4 Rarely 4 Never

**11. I believe that the Qur'an is the final word of Allah**

1 Strongly Agree 2 Mostly Agree 3 Somewhat Agree 4 Neither agree nor Disagree

5 Somewhat Disagree 6 Mostly Disagree 7 Strongly Disagree

**12. I seek knowledge because it is a Muslim religious duty**

1 Strongly Agree 2 Mostly Agree 3 Somewhat Agree 4 Neither agree nor Disagree

5 Somewhat Disagree 6 Mostly Disagree 7 Strongly Disagree

**13. I believe Allah created angels from light in order that they worship Him, obey Him and carry out His commands**

1 Strongly Agree 2 Mostly Agree 3 Somewhat Agree 4 Neither agree nor Disagree

5 Somewhat Disagree 6 Mostly Disagree 7 Strongly Disagree

**\*14. I drink alcohol**

1 Always 2 Usually 3 Sometimes 4 Rarely 4 Never

**15. When I go to social gathering, I sit with my own gender separate from the other gender**

1 Always 2 Usually 3 Sometimes 4 Rarely 4 Never

**16. I believe that a man can marry up to four wives**

1 Strongly Agree 2 Mostly Agree 3 Somewhat Agree 4 Neither agree nor Disagree

5 Somewhat Disagree 6 Mostly Disagree 7 Strongly Disagree

**\*17. I smoke cigarettes**

1 Always 2 Usually 3 Sometimes 4 Rarely 4 Never

**18. I believe that Hajj is obligatory only once during the lifetime of a Muslim**

1 Strongly Agree 2 Mostly Agree 3 Somewhat Agree 4 Neither agree nor Disagree

5 Somewhat Disagree 6 Mostly Disagree 7 Strongly Disagree

**19. I perform ablution (wash face, hands, arms, head, and feet with water) before I pray**

1 Always 2 Usually 3 Sometimes 4 Rarely 4 Never



### Appendix C: Vancouver Index of Acculturation (VIA)

Please circle one of the numbers to the right of each question to indicate your degree of agreement or disagreement.

Many of these questions will refer to your heritage culture, meaning the original culture of your family (other than American). It may be the culture of your birth, the culture in which you have been raised, or any culture in your family background. If there are several, pick the one that has influenced you most (e.g., Irish, Chinese, Mexican, African). If you do not feel that you have been influenced by any other culture, please name a culture that influenced previous generations of your family. Your heritage culture (other than American) is:

- |   | Disagree | Agree           |
|---|----------|-----------------|
| 1. I often participate in my heritage cultural traditions.                          | 1        | 2 3 4 5 6 7 8 9 |
| 2. I often participate in mainstream American cultural traditions.                  | 1        | 2 3 4 5 6 7 8 9 |
| 3. I would be willing to marry a person from my heritage culture.                   | 1        | 2 3 4 5 6 7 8 9 |
| 4. I would be willing to marry a white American person.                             | 1        | 2 3 4 5 6 7 8 9 |
| 5. I enjoy social activities with people from the same heritage culture as myself.  | 1        | 2 3 4 5 6 7 8 9 |
| 6. I enjoy social activities with typical American people.                          | 1        | 2 3 4 5 6 7 8 9 |
| 7. I am comfortable interacting with people of the same heritage culture as myself. | 1        | 2 3 4 5 6 7 8 9 |
| 8. I am comfortable interacting with typical American people.                       | 1        | 2 3 4 5 6 7 8 9 |
| 9. I enjoy entertainment (e.g. movies, music) from my heritage culture.             | 1        | 2 3 4 5 6 7 8 9 |

10. I enjoy American entertainment (e.g. movies, music). 1 2 3 4 5 6 7 8 9
11. I often behave in ways that are typical of my heritage culture. 1 2 3 4 5 6 7 8 9
12. I often behave in ways that are typically American. 1 2 3 4 5 6 7 8 9
13. It is important for me to maintain or develop the practices of my heritage culture. 1 2 3 4 5 6 7 8 9
14. It is important for me to maintain or develop American cultural practices. 1 2 3 4 5 6 7 8 9
15. I believe in the values of my heritage culture. 1 2 3 4 5 6 7 8 9
16. I believe in mainstream American values. 1 2 3 4 5 6 7 8 9
17. I enjoy the jokes and humor of my heritage culture. 1 2 3 4 5 6 7 8 9
18. I enjoy white American jokes and humor. 1 2 3 4 5 6 7 8 9
19. I am interested in having friends from my heritage culture. 1 2 3 4 5 6 7 8 9
20. I am interested in having white American friends 1 2 3 4 5 6 7 8 9

## **Appendix D: Informed Consent and Invitation Letter**

Title: An examination of the relationship between acculturation, Islamic religious practice, and academic performance among Saudi Arabian students in the United States

Student Researcher: Marzouk A Aldhafeeri.

Faculty Adviser: R. Esteban Montilla, Ph.D., Department of Counseling and Human Services

I am voluntarily participating in the above-mentioned research study. I realize that I may continue as a participant or withdraw from participating at any time. In either case, my responses will be kept confidential. I will not be asked for my identity, so the researcher will not be able to connect my responses with who I am.

The purpose of this study is to examine the relationship between acculturation, Islamic religious practice, and academic performance among Saudi Arabian students in the United States.

I realize that there will be no financial compensation for my participation in this study. My participation will be solely to help the investigator(s) better understand the purpose of this research is to examine and investigate the relationship among acculturation, Islamic religious practice, and academic performance. The data collected from the study will be used strictly for educational purposes.

Although participating in this study will take approximately 10 to 15 minutes of my time, participation should not impact me in any other way.

If I have any questions about the study, I understand the investigator(s) will answer these questions. I may contact the Principal Investigator (Marzouk A Aldhafeeri), at St. Mary's University Counselor Education and Supervision program, maldhafeeri@mail.stmarytx.edu. I may also contact the faculty adviser for this research, R. Esteban Montilla, Ph.D., at rmontilla@stmarytx.edu.

If you have any questions about your rights as a research subject or concerns about this research study please contact the Chair, Institutional Review Board, St. Mary's University at 210-436-3736 or email at IRBCommitteeChair@stmarytx.edu. **ALL RESEARCH PROJECTS THAT ARE CARRIED OUT BY INVESTIGATORS AT ST. MARY'S UNIVERSITY ARE GOVERNED BY THE REQUIREMENTS OF THE UNIVERSITY AND THE FEDERAL GOVERNMENT.**

To participate in this study, I must meet ALL the following requirements:

- Be a Saudi student studying in the United States
- Be 18 years old or older
- Have finished any English language prerequisites to beginning my degree program
- Be enrolled in an undergraduate (Bachelor's degree) or graduate degree program
- Have finished at least my first semester in my program of study

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