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Attitudes Toward Organ Donation Among Saudi Arabians

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ATTITUDES TOWARD ORGAN DONATION AMONG SAUDI ARABIANS

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DEDICATION

I dedicate my dissertation to my beloved Daughters and Sons; Hattan, Remas, Fahad, Ramayl, and Reema, and their mother who has been with me throughout this journey, patiently waiting on numerous occasions for me to finish working, so I can sit and talk to them or even take them out. Whose present in my life made me a stronger and hard worker.

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CHAPTER 1: INTRODUCTION

The advances in medicine and technology help to make organ transplantation quicker and more efficient, yet, the demand exceeds the available supply of organs due to the increase in the number of patients who have dysfunctional or failing organs. For example, from 1979 to 2018, the overall total number of transplanted kidneys in Saudi Arabia is 12,519, while the number of patients who suffer from kidneys failures as of 2018 exceeds 19,000 (the Saudi Center of Organ Transplantation, 2018). The long waiting list leaves a growing number of patients who suffer or die without receiving life-saving organ transplant surgery. Also, according to the Saudi Center of Organ Transplantation (SCOT) in 2018, of 637 patients who were medically evaluated as brain-dead that year, 86% of the survivors were approached to consent to donate, and only 29% consented to donate. Despite these facts, where the demand for organ transplants is high, and there is a shortage of organ supplies in Saudi Arabia, there is only one transplant center recognized and approved by the government (SCOT) This study examined Saudi Arabians' attitudes about organ donation. Researchs conducted in several countries around the world suggests that different social factors drive people to support organ donation, as well as other factors that prevent them from donating their organs. The attitudes toward organ donation vary by acculturation (Salim et al., 2010), religion (Ozer et al., 2010), knowledge (Saleem et al., 2008), and race/ethnicity (Yuen et al., 1998).

A small number of studies have examined Saudi Arabians' attitudes toward organ donation. The large population in Saudi Arabia suggests there may be a sizeable pool of potential organ donors in the country. According to the General Authority of Statistics, the Saudi Arabian population exceeds 30 million people, of whom 20 million are citizens,

with more than 15 million of them between the ages 20 and 45 years old. There is a gap in the literature about Saudi Arabians' and residents' attitudes about donor donation. Information is also needed to understand the characteristics of registered organ donors and organ received, including age, gender, education, and income.

Further, as the literature suggests, attitudes toward organ donation vary by acculturation (Salim et al., 2010), Religion (Ozer et al., 2010), knowledge (Saleem et al., 2008), and race/ethnicity (Yuen et al., 1998). As a result of this study, there is a clearer understanding of the attitudes toward organ donation among people living in Saudi Arabia. The results show correlates of factors that encourage or prevent Saudis from donating their organs. The analysis examined whether attitudes about organ donation among Saudi Arabians vary by sociodemographic characteristics: age, gender, participant's education, monthly income. As well, acculturation dimensions: Interest in Western Media & Travel, Adopt the Western Culture, and Attachment to Saudi Culture. This chapter reviews data on supply and demand for organs in Saudi Arabia, describes religious views of organ donation, and concludes with the specific aims of this study and its significance.

Supply and Demand in Saudi Arabia

According to SCOT, there are two types of waiting lists. One called the active waiting list, and the other called the work-up waiting list. The active waiting list includes patients who been evaluated, and the hospital has secured the organ and is ready for transplant. The work-up waiting list consists of patients who are still undergoing medical evaluation and are waiting for a potential organ to recover. Table 1 indicates that there is

a wide gap between the two types of waiting lists for kidney transplants. The work-up waiting list consists of more patients than does the active list. The difference in the number of people on the two lists indicates the slow processing at the hospitals in evaluating a patient's health status, delays in recovering an organ, and a large shortage of organ supplies in Saudi Arabia.

Table 1: The Saudi Arabia waiting list for kidney transplants as of 2018

Waiting List	Number of Cases
Active	2,848
Work-up	11,768
Total	14,616

Source: The Saudi Center for Organ Transplantation, 2018

According to SCOT, there is an increase in end-stage renal disease in the Saudi Arabia of about 7% annually. The primary causes of end-stage kidney disease are diabetes and hypertension are on the rise, and this increases the need for kidney dialysis and kidney transplants. (Tables 2 and 3).

Table 2: Total new cases of end-stage renal disease in Saudi Arabia by year

Year	New Cases
2000	1,733
2010	2,846
2015	4,108
2018	5,038

Source: The Saudi Center for Organ Transplantation, 2018

Table 3: Total Hemodialysis Patients in Saudi Arabia in recent years

Year	Number of Hemodialysis Patients
2014	14,366
2015	15,590
2016	16,135
2017	18,270
2018	19.033

Source: The Saudi Center for Organ Transplantation, 2018

According to SCOT, from 1979 until 2018, the organ transplantations performed in Saudi Arabia were 12,519 kidneys, 2,503 liver, 403 hearts, 353 lungs, and 72 pancreases (Table 4). These transplantations considered a low number in the span of more than 38 years when bearing in mind the continuous increase of organs failure among the

population of Saudi Arabia. These low number of transplantations was due to both a shortage of registered donors, potential donor, and a lack of consent to donate among the residents of Saudi Arabia.

Table 4: Total transplantations performed by organ type in Saudi Arabia

Organ Type	Transplant preformed 1979-2018
Kidney	12,519
Liver	2,503
Heart	403
Lung	353
Pancreas	72

Source: The Saudi Center for Organ Transplantation, 2018

According to SCOT's 2018 annual report, the center received all data for brain deaths with healthy organs from the hospitals. There were many cases of brain deaths over the years in Saudi Arabia. However, according to the data, the consent to donate is notably remained low compared to the cases of brain deaths. Table 5 shows the number of cases of brain death with potential organ to donate by consent by year. From these data, we can clearly see the consent number was decreased in 2018 compared to 2010, and 2014. Fewer people were willing to consent to donate the organs of a brain-dead relative.

Table 5: Brain deaths with healthy organs to donate, by year, and donation consent

Year	Cases	Donation Consent
2010	615	115
2012	710	93
2014	570	169
2018	637	110

Source: The Saudi Center for Organ Transplantation, 2018

The advancement in medicine and technology help to make organ transplantation quicker and more efficient and can increase the number of organ transplantation. However, the demand is still greater than the organs received or transplants performed. This high demand supports the idea that even with the advancement in medicine and technology, the rate of organ donation remarkably remains low. Moreover, in Saudi

Arabia, like in the United States and many other countries around the world, the demand exceeds the available supply of organs, due to the increase in the number of patients who have dysfunctional or completely faulty organs, and the decline in the number of organs received. This low supply of organs leaves a growing number of patients to suffer or die without receiving life-saving organ transplant surgery.

There are several organs or parts of organs that can be donated when a person is still alive. Donating a kidney is the most frequent donation from a living donor. This possibility is because a person can live with only one of the two kidneys, and one kidney can provide the necessary function needed to remove body waste. A person can donate one of the liver's two lobes. The liver cells can grow or regenerate, to nearly its original size. Also, a donor can donate part of the pancreas, part of a lung, skin, bone, blood marrow, and blood stem cells. (U.S. Department of Health & Human Services, 2014).

Although the organs from one donor can save or help as many as 50 people (Michigan Department of Health, 2014). The number of organs donated, or recovered, in Saudi Arabia is still less than the number needed to save many lives. The high demand for an organ, along with the short supply, is a concern for the government, health professionals, patients, and patients' families. Many province leaders are trying to increase public awareness of the importance of organ donation. In Saudi Arabia, a person can become a donor by registering at the Saudi Center for Organ Transplantation. After registering as a donor, the person listed in the national database as an organ donor.

The Religious view of organ donation in Saudi Arabia

In Saudi Arabia today, religious views on the issue of organ donation are transitioning from the previous view of complete opposition to the current view of supporting organ donation, especially among the Council of Senior Scholars. The Council of Senior Scholars is considered Saudi Arabian's highest religious body, and the direct advisers to the King on religious issues. The King appoints the members of the senior scholars. The Council of Senior Scholars, at its 45th Session held in the City of Altaif on August 27, 1996, discussed the issue of organ donation. After discussion and deliberation on the subject, the Council decided not to accept the idea that a person can be "brain-dead," so it is not permissible to donate that person's organs. (The General Presidency of Scholarly Research and Ifta, 1996)

The Sheikh Abdulaziz Bin Baz, who served as the Chief of the Council of Senior Scholars in Saudi Arabia from 1992 until his death in 1999, stated the issue is a matter of consideration, a subject of contemplation, and the prudent way is not to donate anything, and not allow anyone to cut the body after death. He also mentioned the issue is controversial among Muslim scholars. Some of them believe that organ donation is permitted under the Islamic Faith. Others argue that organ donation is forbidden under the Islamic Faith. He explains that the controversial views are related to the idea that a human being has no ownership of the body, that it is the property of Allah (Compilation of Fatwas, Letters, and Lectures of Sheikh Abdulaziz Bin Baz, 2010).

The Sheikh Mohammed Alothaimeen, who was a member of the Council of Senior Scholars in Saudi Arabia from 1986 until his death in 2001, was asked about organ

donation. He stated that a person does not have the ownership to donate any organ in life or death. He continues to add a person or his/her next of kin does not have the right to donate organs. He stated that organ donation is prohibited at all, and it is not admissible to donate a kidney, lung, eye, or any other type of organs in life or death. He considered the issue of organ donation at all is forbidden by the Islamic faith and explains that this is related to the idea that a man does not have ownership over his body.

The issue is controversial among Muslim scholars where some believe organ donation is acceptable, while others contend that donation of organs, even in a brain-dead situation, is unacceptable. (The General Presidency of Scholarly Research and Ifta, Retrieved, 2018).

In 2013 the Sheikh Abdullah Almutlaq, a member of the Council of Senior Scholars in Saudi Arabia since 2001, signed a donor card (Memri, 2016). The case went viral in Saudi Arabia, as he was the first member of the Council of Senior Scholars ever to be openly willing to donate organs. Also, in a public lecture, he stated that donating an organ is an act of charity. However, he stated that organ donation only permitted under several conditions. First, the necessity of the organ to the recipient, whether the organ will save the recipient's life or help him/her to function well. Second, the insured safety of the donor and the recipient from life-threatening risks. Third, the doctors must certify the possibility of transferring an organ safely and harmlessly. Fourth, the likelihood of the process being successful. Under these conditions, organ donation is permitted.

Significance of Study

Only a small number of studies have examined Saudi Arabians' attitudes toward

organ donation. Given the high demand for organs and the small number of donors, there is a need to understand why few Saudis sign up as organ donors. The large population in Saudi Arabia suggests there may be a sizeable pool of potential organ donors in the country. To be aware of why people make these decisions helps to develop interventions that encourage people to donate. and the results of this study may provide guidance for the development of educational programs designed to increase knowledge of organ donation and how to sign up with the registry. As a result of such efforts, more people may sign donor cards, more people can receive an organ, and more lives can be saved.

The dissertation is organized in the following manner: Chapter 2 discusses prior studies of organ donation and describes the conceptual model and the hypotheses to be tested. Chapter 3 explains the methodology of the study and the demographic characteristics of the sample. Chapter 4 describes the level of acculturation of the sample and the scales created to measure various dimensions of acculturation. Chapter 5 reports attitudes about organ donation of the sample and describes the creation of two scales to measure those attitudes. Chapter 6 focuses on the regression analysis and the results of the hypothesis testing. Chapter 7 summarizes the study results, examines the strengths and weaknesses of the study, and discusses directions for future research and policy implications.

CHAPTER 2: LITERATURE REVIEW

Research conducted in several countries around the world suggests that different social factors drive people to support organ donation, as well as other factors that prevent them from donating their organs. The attitudes toward organ donation vary by acculturation (Salim et al., 2010), religion (Ozer et al., 2010), knowledge (Saleem et al., 2008), and race/ethnicity (Yuen et al., 1998). In this part, we will review some of the studies that looked at these factors and their relation to attitudes toward organ donation.

Defining Acculturation

According to Redfield et al. (1936:149), "acculturation is defined as phenomena that resulted from a continuous contact between groups of individuals having different cultures, causing changes of the original cultural patterns of one or both groups." Rogler et al. (1991) defined acculturation as the process in which immigrants adjust their behaviors and attitudes to those of the host society. Graves (1967) suggested that acculturation occurs when people from two distinct cultures are placed in direct and continuous contact that results in changes in the worldview of minority groups to the direction of the dominated group. Berry (2008) suggested when groups from different cultures have direct contact with each other, a process of acculturation begins. Cabassa (2003) suggested that changes related to acculturation are observed across many domains, including attitudes, values, behaviors, and cultural identity.

Based on Barry (1992), people experiencing acculturation encounter two issues. One involves the decision of whether a person's own cultural identity and customs are of value and should be retained. The other involves the desirability of inter-culture contact, deciding whether relations with other cultures are of value and should be sought.

Studies on acculturation

Salim et al. (2010) identified factors that impact willingness to donate an organ among Hispanic Americans. The central research question was: what factors motivate Hispanic Americans to register to become an organ donor? The study used a quantitative research method using telephone surveys. To answer the main question, Salim et al. (2010) completed telephone surveys that contained twenty-one questions to measure demographic and socioeconomic factors, cultural factors, awareness, knowledge, and beliefs toward organ donation, as well as the willingness to be an organ donor. The questions determined the participant's awareness, beliefs, and attitudes about organ donation.

The study sample consisted of 524 individuals who were self-identified Hispanic American, between the 18-44 years of age, 39% were male, and lived in one of four southern California neighborhoods close to a major metropolitan with high percentages of Hispanic Americans. The study sample was drawn randomly from lists of Hispanic surnames in the four targeted zip codes. The final analysis of the study included 350 participants who completed all questions.

The study defined willingness to register to donate as the participants who answered the question, "How likely are you to register to become an organ donor?" Those who were very likely to register or had registered were combined into one category. The study measured awareness by asking the participants about their general awareness of organ donation programs, their awareness of the driver's license signup, and their knowledge of the signup process. To measure the belief, they asked the participants if

they believe organ donation helps others, if they believe organ donation is considered a social responsibility, if they are willing to donate to a stranger, and if they believe that disfiguring the body is cruel. As well, the authors used three factors to measure acculturation by direct questions about family influence, religious influence, and level of acculturation. The study used the participants' generation, years of life in the United States, and language preference to measure the level of acculturation.

The results showed that the mean age of the participants was 43 years, and 39% were male. Of these participants, 31% expressed willingness to register as organ donors, and 69% were not willing to register. The results of the study indicate no significant difference between the participants who stated they are willing to donate and those who were not willing to donate in terms of age, sex, income, and place of residence. Importantly, the study found that among Hispanic Americans, low acculturation, religion, belief, and family influence affected the intent to register for organ donation. As well, they found that the less acculturated participants were significantly less likely to donate or support organ donation.

Some limitations of the study were: the researchers did not account for socioeconomic factors such as income and education as they drew their sample from low–socioeconomic areas. Focusing on the only low-socioeconomic areas may result in a misunderstanding or misinterpretation of the questions. As well, according to authors, all the interviews were done during the day time, which resulted in a lack of many males aged 18 to 31 years included in the random sample. Lastly, the study did not consider the effect of the socioeconomic difference between the lower-class Hispanic Americans and

middle or upper-class Hispanic Americans.

Siegel et al. (2005) examined Hispanics' attitudes toward organ donation, knowledge of the signup process, the likelihood of using several different methods of signup, and how differences in language preference among Hispanics (a measure of acculturation) is related to attitudes about organ donation. The study design was based on the arrangement that Hispanics are not a homogeneous group and can be separated based on language preference. The central research question was: how a difference in language preference among Hispanics was related to differences in attitudes about of organ donation?

To answer the main question, Siegel et al. (2005) used a quantitative research method of telephone interviews that contained questions to assess participants' knowledge and attitudes toward organ donation process, how likely the participants would use several different methods of organ donor registration, and language preference, by asking the participants which language they normally use to speak.

The study used a computer-generated random-digit-dialing telephone system to select household numbers from a commercial Spanish surname telephone list in Maricopa County, Arizona. The researchers contacted 1,083 households. The final study sample consisted of 603 interviews with a mean age of 37 years, and 67% were females.

The study measured acculturation by asking the participants about the language they prefer to speak. As well, they measured the knowledge, beliefs, and attitudes toward organ donation by a set of statements such as: I don't know how to sign up, don't have time to sign up, I am not ready to sign up, I would sign up if asked to, and I want to be an

organ donor. As well, the study asked the participants about the method of organ donor registration they preferred, and statements about the participants' knowledge and beliefs about organ donor registration.

The results revealed that participants who preferred to use Spanish only were less likely to register or support organ donation than those who preferred not to use Spanish only. As well, the participants who prefer to speak Spanish were significantly more likely to state they do not have time to sign up, and were less likely willing to be organ donors.

Some limitations of the study; the researchers did not account for Hispanic Americans who did not use Spanish surnames. This approach may result in the absence of many potential subjects. Also, they did not measure income directly by asking the participants about their income. Rather they used the zip code to measure this variable as reported in the U.S. Census, and this might result in a lack of a proper measure of the socioeconomic status of the sample. Finally, the study used only the language preference as the main factor to compare the two groups of the participants.

Lopez et al. (2011) were interested in determining the attitudes toward organ donation after death among the immigrant population in Spain. The central research question was: what are the factors influencing attitudes toward organ donation the immigrant population in Spain? The authors drew their study argument based on previous literature. The study used a quantitative research method. To answer the main question, Lopez et al. (2011) used Psycho-Social Aspects of Donation Questionnaire, an instrument to collect data about attitudes toward donation and transplant in the general population in Spain.

The study used a random sample of the immigrant non-Spanish nationals residing in the Spanish State who were 18 years and older. The final sample of the study consisted of 1,202 participants. The study measured acculturation by asking about; the participants' length of residence in Spain, their relations with Spaniards, and their relations with the family of origin. The study measured the organ donation variables by the willingness to donate, and the willingness to donate organs of a deceased relative.

The study found that there were variations in attitudes about organ donation between the participants related to the geographic area of origin. They found that people who were originally from Western Europe and Latin America notably have higher percentages of willingness to donate, being donors, and being enthusiastic about donating compared to people from Northern Africa, Sub-Saharan Africa, and Asia.

Some of the limitations of the study; the participants from Sub-Saharan and Asian combined represented only 7% of the sample, which may result in misrepresentation of these two subgroups' attitudes toward organ donation. Also, the sample of the study had less than 2% of the participants who were either Catholics or Muslims, which is a problem when they considered religion as a major factor in the study. As well, the study only looked at the attitudes in terms of cadaveric donation and not donations from living donors.

Phama and Spigner (2004) were interested in Asian American respondents' knowledge and opinions about organ donation and transplantation as well as their willingness to donate an organ. Phama et al. (2004) used a self-administered survey that contained thirty-nine items.

The study used a convenience sample of 350 Vietnamese Americans who were attending church or studying at the University of Washington in Seattle. The final study sample consisted of 287 participants who completed the survey with a mean age of 31 years, and 51% were females.

The study measured the opinion/knowledge statements such as; I am undecided about organ donation, it's a good thing to do but not for me, I don't want to be an organ donor, and I would want the opportunity to get an organ if I needed it. The study used sixteen knowledge-based statements to measure knowledge about organ donation, and transplantation such as; Asians wait longer for kidney transplants than whites, More people die from an auto accident and gunshot wounds than heart disease, Sometimes, organs sold for money in the U.S., and transplant recipients can live more years. The study measured acculturation by asking direct questions about: years lived in the U.S, the language spoken at home, and the language they used every day.

The results showed that 29% of the participants had signed an organ donor card, and an additional 21% were willing to donate. The results of the study indicated that those with more knowledge about organ donation and transplantation were more willing to donate. As well, the study found that the participants who reported living in the U.S the longest were more willing to donate their organs.

Some limitations of the study were: the study used a convenience sampling approach, which considered to have a high level of vulnerability to selection bias and influences beyond the control of the researchers. As well, the study used a questionnaire that previously used on a study of high school students, which might affect the results of

this study as the students in their sample represented only 21%.

Fahrenwald and Stabnow (2005) examined the sociocultural factors that influence decisions about organ and tissue donation among American Indians. The central research question was: what are the personal and environmental characteristics related to organ or tissue donation? The authors' based their study on previous findings that sociocultural practices influence people's decisions toward organ donation. The study used a qualitative research method. To answer the main question, Fahrenwald et al. (2005) used in-depth face-to-face interviews that contained open-ended questions to examine personal and environmental matters related to organ or tissue donation. The questions were asked to determine how personal and environmental practices influence organ donation. The study used a snowball sampling technique to recruit twenty-one Oglala Lakota Sioux participants who were 19 years and older and living on the Pine Ridge Indian Reservation in South Dakota.

The study measured acculturation by asking about: the traditional beliefs related to organ and tissue donation, the participant's thoughts about these cultural beliefs, the location of the Reservation, and if the issues of organ and tissue donation are unique to where the participants live. The open-ended questions used by the study to measure the acculturation were: Are there any traditional beliefs related to the issue of organ and tissue donation? What are your thoughts about these cultural beliefs? What about the location of the Reservation? Are there issues about organ and tissue donations that are unique about where you live?

The results found that participants who deviated from traditions were more likely

to accept the idea of organ donation. As well, traditional beliefs about the body remaining intact were negatively impact the support for organ donation.

Some of the limitations of the study: the study sample was too small to be generalizable. As well, the study included only members of the one tribe due to the lack of the presence of other tribes in the study location. Also, the study sample was considered to have a high level of selection bias.

Padela et al. (2010) examined the factors influencing the Arab Americans' attitudes toward organ donation, and tested the association between socioeconomic status, religion, health status, and acculturation on attitudes toward organ donation. The central research question was: what are the attitudes and barriers toward organ donation and transplantation among Arab Americans? The authors drew their study argument based on previous literature.

To answer the main question, Pedela et al. (2010) used a quantitative research method by analyzing the secondary data of the 2003 Detroit Arab American Study. The data analysis contained questions to assess Arab attitudes toward organ donation. The study used a dual-frame probability sample design, with an area probability frame to select area segments from the year 2000 census tracts in which 10% or more residents self-identified as having Arab or Chaldean ancestry. A total of 1809 participants were selected. The final study sample consisted of 1,016 adults who completed the interviews. The mean age was 44, and 54% were females.

The study measured acculturation by asking the participants about their English proficiency, their length of residence in the U.S., and citizenship status. They measured

the organ donation variable by the question: What did the participants think about organ donation after death?

The results indicated that there was a significant relationship between attitudes toward organ donation and acculturation measures. The participants who carried U.S citizenship or resided in the U.S for more than ten years were more likely to support organ donation. Also, the study found that English proficiency was positively associated with believing in organ donation.

Some limitations of the study: the study included participants of Chaldean-American, who are not considered historically or in the present days as Arabs (Mason, 2018). As well, the study used secondary data to examine the Arab attitudes in the greater Detroit area, as the authors stated they were limited to the measures included within this survey. Also, the survey they used did not comprehensively assess attitudes toward organ donation.

Gauher et al. (2013) were interested in determining the attitudes toward organ donation among the younger generation of Indian and Pakistani who were UK-educated. The central research question was: what are the factors influencing attitudes toward organ donation among Indians and Pakistanis? The authors based their arguments on previous literature. The study used a qualitative research method. To answer the main question, Gauher et al. (2013) used nine focus groups, and eight semi-structured interviews that included thirty-nine items related to knowledge and opinion about organ donation. The study used a purposive sampling technique to recruit 58 participants who identified as U.K. secondary school educated university students aged 18–25 years, and of Indian and

Pakistani origin.

The study measured acculturation by asking about: if the participants were adapted to British culture, and by describing the impact of their cultures as they understood it on organ donation. The study measured the organ donation variables by the willingness to discuss wishes with family, their respect for their families' view toward organ donation, and the allocation of donor /recipient organ donation.

The study found that the combination of religion and culture was very strong to impose a negative attitude toward organ donation. Due to the idea that religiously and culturally the human body must remain indicted, thus donating organs is not an option. The results revealed that the younger generation who adopted British culture were more likely to accept organ donation.

Some limitations of the study: the study used a convenience sampling approach, which considered to have a high level of selection bias and influences beyond the control of the researchers. The study sample too was small to be generalizable. In addition, the study included only the second generation of the immigrants who had undergone their secondary school education in the U.K., which limited the ability to test the acculturation effect on organ donation across a more diverse population of immigrants.

Studies on Religion

Ozer et al. (2010) used a 20- items administrated questionnaire conducted with 641 religion officials including Imam, and Quran educator, in Kahramanmaras province in Turkey to study knowledge, attitudes, and behaviors toward organ donation among these religion officials. The authors used religion officials in order to measure the impact

of religion on organ donation, as these individuals have a powerful influence on Turkish society. The mean age was 37 years, and males represented 73% of the sample.

The study found that 88% of the participants considered organ donation is acceptable according to their faith. Among those participants finding organ donation acceptable, Imams and males were more likely to support organ donation than Quran educators and females. However, the researchers found that only less than 2% of the entire sample have an organ donation card, and less than 2% of the entire sample indicated they were willing to donate. A total of 58% of the participants stated they knowledge about organ donation. The religious officials indicated they gained information about organ donation through in-service training by the Directorate of Religious affairs.

Some limitations of the study: the study was not generalizable due to the nature of the sample. As well, the study did not control for the effect of the Imams, and Quran educator opinion on the general public.

Marck et al. (2012) administered an online questionnaire consisting of 133- items sent to 811 members of the College of Emergency Nursing Australia and members of the Australasian College of Emergency Medicine. They assessed general beliefs and personal attitudes toward organ and tissue donation. The study measured the religion variable by asking the participants direct questions about their religion. The authors surveyed the emergency department clinicians with a 20% response rate. The sample age distribution was between 21 and 65 years, and 54% of the participants were females. The study stated that 63% of the participants reported an Australian or New Zealand background, of whom 67% were born or lived in Australia for more than 20 years. A total

of 48% were atheist or nonreligious.

Marck et al. found that 96% of the participants support organ donation, and 98% agreed that organ donation could save lives. Also, they found that atheists were more likely to support organ donation comparing to those who indicated a religious affiliation. As well, Buddhist, Hindu, and Muslims were less likely to donate compared to participants of other religions.

Some limitations of the study: the response rate was low as 20% of the intended population. As well, as the authors stated the survey was edited to suit the online survey format, which might in turn effected the validity of the instrument.

Krupic et al. (2017) used group discussions conducted in 4 focus groups, each group had 8 participants for a total of people. These groups consisted of religious immigrants from four different countries; Bosnia and Herzegovina, Somalia, Lebanon, and Kosovo. Respondents were 30 years and older who lived in Sweden for more than ten years. The focus groups examined what factors influence the decision about organ donation. The authors measured religion by inviting participants who identified themselves as religious, and the interview transcripts of the religious aspects of organ donation among the participants. The mean age was 58 years, with an equal gender distribution of 16 participants of each.

The results indicated that across all the religions of the sample, Islam, Catholicism, Orthodox, and Christianity, there was an agreement to organ donation. However, the participants as well stated they believe the human body belongs to God and think the body should be buried intact from their religious perspective.

Some limitations of the study: the study was not generalizable due to the nature of the sample, as the study invited participants based on their self-identified as religious. As well, some of the participants were not speaking Swedish and relayed on interpreters through the dissections.

Khalaila (2013) used a cross-sectional study with a self-administered questionnaire conducted on a convenience sample of 563 students of Zefat Academic College in Zefat, Israel. The authors measured religion by structuring statements about whether religion influenced their attitudes toward organ donation, including "Organ donation compatible with my religion, I would only accept an organ from a person belong to my religion." They measured religiosity level by self-definition using a 4-point scale ranging from; secular to very religious. The mean age was 23 years, who were mostly unmarried women.

The results indicated that 43% of the sample were Muslims, followed by Jews, with only 24% of the participants defined themselves as religious. The study indicated that 60% of the sample were willing to donate. However, only 18% had an organ donor card. The results showed that 30% of the participants stated that organ donation is acceptable by religion. A total of 30% indicated that there is a difference in donating blood or organs from their religious perspective. Furthermore, 18% agreed to donate or receive an organ from a coreligionist only.

Some limitations of the study: as the authors stated the study could not determine the causal effect between the independent variables and the willingness to donate organs in the future. As well, the study was not generalizable due to the nature of the sample.

Davis et al. (2006) used eleven focus groups included 120 participants, with 4 to 21 people in each group involving Black participants of United Kingdom living in the boroughs of Lambeth, Southwold, and Lewisham to assess the influence of the religion on organ donation among the black Caribbean and black African populations. A purposive sampling approach was used to recruit the participants of the study. The study measured religion by transcribing the interview discussions of the focus group. The age of the sample ranged from 18 to 60 years old, with an equal gender distribution of males and females.

The authors found religion influencing the decisions to become an organ donor in all discussions. As well, religion was viewed as a barrier to organ donation, with some feeling unsure if their religion allowed them to become organ donors. The study found that black Africans cited religion as the main reason to accept or reject organ donation. One of the participants stated that "some people, because of their religion, won't accept an organ." another stated, "I am allowed to accept, but I am not sure if my faith allows me to give" (Davis et al., 2006: 238).

Some limitations of the study: As the authors stated the study used a preestablished groups, which caused a limitation on the data analysis. As well, the study was short exploratory, and was not generalizable due to the nature of the sample.

Hayward et al. (2003) used a semi-structured focus group interview to explore the meanings of organ donation with 27 participants, 10 of whom were Muslims from Pakistani origin, and 17 were of white English heritage. They were between 27 and 50 years of age, and living in North England.

The study found there was a difference in religious influence between the Muslim and white English subjects. For Muslims, there was a strong emphasis on the Islamic position on organ donation. The white English did not cite religion as a factor influencing organ donation. The Muslims were concerned about interfering with the God-given order, and raised concerns about body intactness and whether the body returned to Allah physically or metaphysically.

Some limitations of the study: the study was not generalizable due to the nature of the sample as only 27 participants were in the study. As well, the study focused mainly on the idea of donating eyes and hearts.

Studies on Knowledge

Saleem et al. (2008) used face-to-face interviews based on a structured pre-tested questionnaire conducted with 408 participants from selected areas in Karachi, Pakistan, to study knowledge, attitudes, and practices toward organ donation. The mean age was 34 years for male participants and 28 years for the female participants. A total of 56% of the participants were females, and 97% were Muslims. The study measured knowledge of the participants through a set of questions about the meaning of organ donation, awareness of donation by living or cadavers, risks involved in organ donation, and the sources of information about organ donation.

The researchers found that overall knowledge about organ donation was associated with the level of education. In their sample, 60% of the participants indicated having adequate knowledge about organ donation. A total of half of the participants knew that organs could be donated from cadavers, while 37% knew that organs could be

donated from a living person. They found that participants indicated that doctors are responsible for educating donors, as well as the recipients, of the risks involved in organ transplantation.

Some limitations of the study: the study was not generalizable due to the nature of the sample as the authors acknowledge that by using the convenience sampling caused an inferior to probability in its representativeness of the population. As well, the study did not account for segments of the society, particularly socioeconomically deprived areas to assess the importance of knowledge and practices among those who were economically deprived.

Haustein et al. (2004) used a five-pages survey conducted with 185 non-acutely ill outpatients visiting a private family physician's office within 20 miles of a large Unites States transplant center. The male participants represented 34%, while 66% of the sample was females, and 76% were white.

The study measured knowledge of the participants through a set of questions regarding information about organ donation, such as: Do you know much about organ donation? Do you know anyone who has had a transplant? Have you thought about organ donation before today? The researchers found that an increase in education level, having seen public information about organ donation, and knowing someone who had been a cadaveric organ donor was significantly associated with willingness to donate. Also, they found that more than half of the participants were willing to donate because they had prior knowledge about organ donation. Haustein et al. (2004) concluded that it is necessary to maximize public awareness and knowledge about organ donation and transplantation to

increase the number of possible organ donors.

Some limitations of the study: the study was not generalizable due to the nature of the sample as the authors used a convenience sampling approached, which might cause an inferior to probability in its representativeness of the population. As well, the small number of the total participants.

Rodrigue et al. (2009) used a non-random sampling approach to recruit the next of kin of the deceased donor eligible to participate in semi-structured telephone interviews that were conducted with 285 next of kin from organ procurement organization to examine the source of information that influences organ donation decisions. The mean age was 49 years, 78% were white, and 80% were female. The study measured knowledge of the participants through a set of domains, such as: the exposure to organ donation information, and the information source,

The researchers found that participants were more likely to donate the next of kin deceased organs if they had more information about organ donation. More exposure to information about organ donation increases positive attitudes and beliefs toward organ donation compared to those who have less exposure.

Some limitations of the study: the study was not generalizable due to the nature of the sample as the authors applied the study on only one organ procurement center. The degree to which these data can be generalized beyond the southeastern United States is unknown the authors stated.

Studies on Race/Ethnicity

Yuen et al. (1998) used a 25-item survey conducted on a convenience sample of 163 participants to examine the difference in awareness, attitudes, and behavior regarding organ donation. The mean age was 37 years, mostly female (75%). A total of 58 Hispanics, 47 African Americans, 43 whites, and 12 classified themselves as other.

The researchers found that African-Americans were the least willing to donate compared to other racial groups. Most of the participants were willing to receive an organ. However, respondents were less willing to donate their eyes over other organs. Moreover, more than 85% of the participants have heard of heart, liver, and kidney donation, but fewer participants heard of lung donation. Furthermore, they found that more whites stated signing a donor card is morally right comparing to other racial groups.

Some limitations of the study: the study was not generalizable due to the nature of the sample as the authors used a convenience sampling approached, which might cause an inferior to probability in its representativeness of the population. As well, the small number of the total participants.

Alden and Cheung (2000) used a survey questionnaire to recruit a random sample of 2000 participants in an urban area in a western state to examine the differences in beliefs, attitudes, and behavior regarding organ donation among Asian Americans and European Americans. The final sample included 752 participants, and the response rate was 38%. The mean age was 41 years, mostly female (62%), of which 42% European Americans, 38% Japanese Americans, 12% Chinese Americans, 7% were Filipino Americans, and 2% Korean Americans.

The researchers found that Asian-Americans have negative attitudes toward organ donation than European Americans. Alden and Cheung (2000) believe that the negative attitudes of Asian-Americans were affected by their cultural beliefs more than European-Americans, even though they did not find a significant relationship between cultural beliefs and organ donation in both racial groups. Also, they found that communal orientation was not a significant predictor of attitudes toward organ donation for either racial groups.

Some limitations of the study: the study was not generalizable due to the nature of the sample as the authors stated the vast majority of the participants, were highly educated with high income, which might cause an inferior to probability in its representativeness of the population. As well, the authors treated the Asian American as single ethnic group even though the participants were not evenly distributed among Asian countries.

Manninen et al. (1985) used a telephone survey of a national probability sample conducted on 2,065 participants in connection with the national heart transplantation study to examine the knowledge, attitudes, and behaviors regarding organ donation. The study sample included participants 18 years and older and 51% were females.

The results indicated that 93% of the participants were knowledgeable about organ donation. Manninen et al. (1985) found that 53% were willing to donate. The researchers found that there was a variation between different racial groups regarding the willingness to donate; the non-whites were less likely to donate organs than whites. The whites were more likely to have positive attitudes toward organ donation across all organ

donation variables that included; carrying organ cards, donate relative organs, donate own kidney, own corneas, own heart, and liver.

Some limitations of the study: as the authors stated the telephone interview may not be suitable for collecting data on attitudes toward organ donation. As well, the administers of the survey read a brief explanation of brain death to the participants, and then asked them if they thought brain death should be used as the legal definition of death, which might result in bias responses.

Hypothesis

Hypothesis 1. Controlling for age, gender, level of education, and monthly income, participants with greater Interest in Western Media & Travel will be more likely to have positive attitudes toward organ donation.

Hypothesis 2. Controlling for age, gender, level of education, and monthly income, respondents who more likely to Adopt Western Culture will be more likely to have positive attitudes toward organ donation.

Hypothesis 3. Controlling for age, gender, level of education, and monthly income, respondents with the least Attachment to the Saudi culture will be more likely to have positive attitudes toward organ donation.

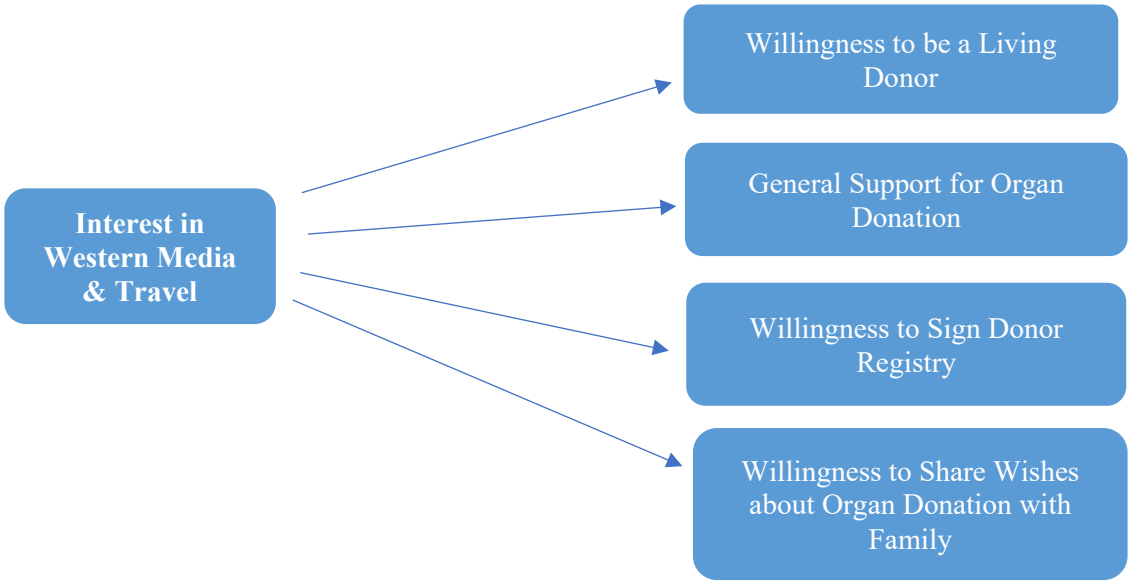
Thus, more acculturated Saudi Arabians to Western Cultures are more likely to participate in organ donation over less acculturated Saudi Arabians. These hypotheses based on the evidence that the less acculturated Saudi Arabians are to Western Cultures, the more likely they are to adhere to the opinions of the conservative religious clergies who opposed organ donation. The Sheikh Mohammed Alothaimeen, who was a member

of the Council of Senior Scholars in Saudi Arabia until his death in 2001, was asked about organ donation. He stated that a person does not have the ownership to donate any organ in life or death. He continues to add a person or his/her next of kin does not have the right to donate organs. He stated that organ donation is prohibited at all, and it is not admissible to donate organs in life or death. He considered the issue of organ donation at all is forbidden by the Islamic faith and explains that this is related to the idea that a man does not have ownership over his body.

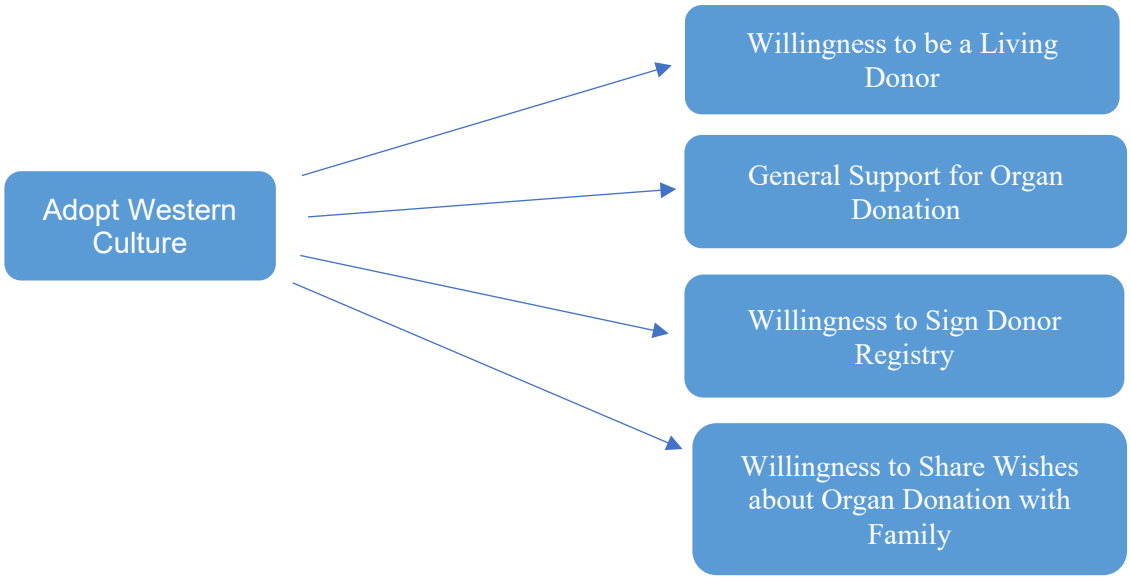
The literature review shows little research has been conducted on Saudi attitudes about organ donation. This study hypothesizes that more acculturated Saudi Arabians to Western cultures are more likely to consider organ donation over less acculturated Saudi Arabians. The acculturation variables are Interest in Western Media & Travel, Adopt Western Culture, and Attachment to Saudi culture. In these analyses, the following sociodemographic variables will be control variables: age, gender, level of education, and monthly income.

In the next chapter, we will focus on the study methodology and the sample characteristics.

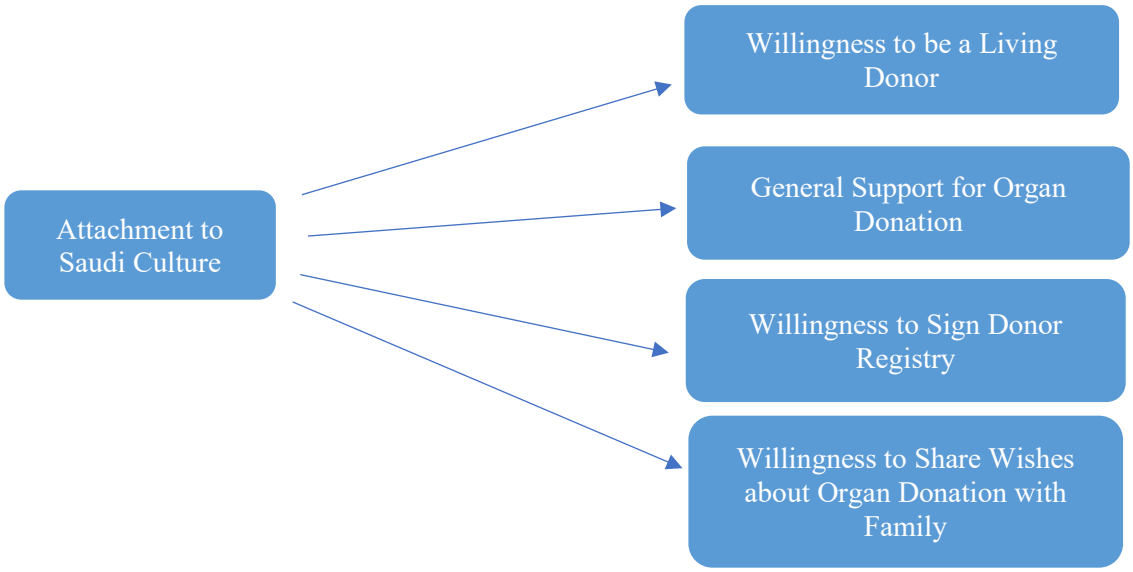
FIGURE 1. MODELS TESTED
Model 1: **Interest in Western Media & Travel**.
Hypothesis 1



Model 2: Adopt Western Culture.
Hypothesis 2



Model 3: Attachment to Saudi culture.
Hypothesis 3



CHAPTER 3: METHODS AND SAMPLE CHARCTERISTICS

Study Methods

The study used a quantitative approach to examine Saudi Arabians' attitudes toward organ donation. Based on the literature, the study examined the relationship between a set of control, independent and dependent variables. The control variables consisted of age, gender, participant's education, and the monthly income. This list of variables was narrowed down to four control variables for the purpose of the regression analysis, as explained below. The independent variables consisted of acculturation measures, Interest in Western Media & Travel, Adopt Western Culture, and Attachment to Saudi Culture. Attitudes toward organ donation were defined as 1) Willingness to be a living donor, 2) General support for organ donation, 3) Willingness to register as an organ donor on the national donor registry, and 4) Willingness to share wishes of organ donation with one's family,

Research conducted in several countries around the world suggests that there are different social factors that drive people to support organ donation, as well as other factors that prevent them from donating their organs. The attitudes toward organ donation vary by age (Yeung et al., 2000), gender (Yuen et al., 1998), income (Boulware et al. 2006), marital status (Rodrigue et al. 2006), educational level (Morgan et al. 2002), culture (Alden et al., 2000, Yuen et al., 1998), acculturation (Salim et al., 2010), religion (Ozer et al., 2010), knowledge (Saleem et al., 2008), and race/ethnicity (Yuen et al., 1998).

Study Instrument:

A quantitative method using a self-administered questionnaire was distributed to Saudi Arabians to examine their attitudes toward organ donation. The list included all

faculty members, staff, and students in the College of Social Sciences at the Imam Muhammad ibn Saud Islamic University.

The questionnaire was designed and built-in Arabic using Qualtrics online survey. See Appendix A for the English versions of the survey. The attitudes, willingness, and acculturation questions were close-ended and used response categories based on a five-point Likert scale. The questionnaire included questions about demographic information, a set of questions used by the 2012 National Survey of Organ Donation Attitudes and Behaviors. (U.S. Department of Health and Human Services, 2012), questions by Rumsey et al. (2003), questions used by the Saudi Center of Organ Transplantation Survey, and questions about acculturation? from the "Suinn-Lew Asian Self-Identity Scale" (2009).

A professional translator converted the English version of the questions into Arabic. The translator is an assistant professor of applied linguistics and translations at the college of languages and translations at IMSIU. The self-administered questionnaire was timed, pre-tested, and took, on average, 12 minutes.

The questionnaire consisted of a total of sixty-three items, eight items about the participant sociodemographic information, which included questions about the participant age, gender, marital status, participant's education, paternal education level, maternal education level, income, and occupation. Two multiple-choice items about the participants' regional affiliation, and three Yes/ No items about the participant's, parental, and grandparent migration status. Other questions included an item about the participant family size, a Yes/No question about the participant bonds with tribal members, an item about the participant's ideological beliefs and an item about allowing women to drive.

Contact with the West was measured by multiple-choice items about: the participant travel outside Saudi Arabia, if the participant worked, studied, and traveled to the United States or Europe. There were multiple-choice items about the participant's interaction with Westerners and engagement with Western media. 13 items on a 5-point Likert scale to measure the participant's level of acculturation.

In terms of attitudes toward organ donation, there were 7 items on a 5-point Likert scale asking the participants about organ donation. 7 items on a 4-point Likert scale asking the participants about organ allocation preference, two Yes/No items about the willingness to grand permission to organ donation, three Yes/No items about the participants' experience with organ donation/transplantation, and. two Yes/No items asking the participants if they shared wishes with their family about organ donation.

Data Collection:

The study population was the entire population of the College of the Social Sciences at the Imam Muhammad ibn Saud Islamic University (CSS@IMSIU). The population consisted of people who work or study at the college by the time of data collection. The College of the Social Sciences at IMSIU has almost 12,000 students, faculty members, and staff (males and females). Using the IMSIU email system, the survey link was sent to the entire population of the college of the social sciences (faculty members, staff, and students) with a letter explaining the study's aims and objectives, and encouraging their voluntary participation.

Permission to access student, faculty member, and staff email records obtained from (CSS@IMSIU) Authority for conducting the study and distributing the survey

among the population in the college of social sciences. Wayne State University's Institutional Review Board approved the research. Due to the fact the survey results were anonymous and confidential, the participants' identities were not known to the researcher. This eliminated the odds of conflicts-of-interests due to the researcher's status at IMSIU.

The survey started on January 19th. 2019, and ended on February 14th, 2019. Two reminders were sent to the potential participants. The response rate was around 8% of the total population. A total of 893 people completed the survey.

Methods of analysis:

Using Statistical Package for the Social Sciences (SPSS), I performed several statistical tests to assess the relationship between the independent and dependent variables in order to understand the Saudis' attitudes toward organ donation. These tests included exploring the frequencies and percentages of the sample's demographic characteristics. I analyzed how attitudes about organ donation vary by age, gender, participant's education, paternal education level, maternal education level, income, acculturation to western cultures, preference for western media, attachment to Saudi culture, social norms, family background, and regional affiliation. Factor analysis was used to construct scales for acculturation and attitudes toward organ donations. Ordinary least square regression was used to predict attitudes toward organ donation when the dependent variable was ordinal. Logistic regression was used to predict the dependent variable when it was dichotomous.

Data Cleaning

Before the analysis, the collected data were checked and prepared. The data were checked for questions that had high frequencies of missing data or the responses showed

a skewed distribution. After reviewing the data, I decided to eliminate several items from the final analysis. The variables that were eliminated from the analysis are described below.

The question about marital status was eliminated from the final analysis. Most respondents were students, so few were married. A total of 86.1% of the sample was single, 12.7% were married, and 0.8 % were divorced. Thus, marital status was not used as a control variable in the analysis. (Table 6).

Table 6: Distribution of Respondents' occupation

Table 6	Marital status	N	Valid Percent
Valid	Married	113	12.7
	Single	768	86.1
	Divorced	7	0.8
	Widowed	4	0.4
	Total	892	100.0
Missing	System	1	
Total		893	

The question about the occupation was eliminated from the final analysis because students totaled 90.6% of the sample, and most were not employed. The staff participants were 1.8%, and faculty were at 7.6% (Table 7).

Table 7: Distribution of Respondents' occupation

Table 7	Occupation	N	Valid Percent
Valid	Student	809	90.6
	Staff	16	1.8
	Faculty	68	7.6
	Total	893	100.0
Missing	System	0	
Total		893	

Respondents who born and raised in Saudi Arabia comprised 96.6% of the sample, hence, I decided to eliminate the participants' migration from the main analysis. The respondents who migrated to Saudi Arabia were 3.3% (Table 8).

Table 8: Distribution of Respondents' migration status

Table 8	Migration status	N	Valid Percent
Valid	Yes	29	3.3
	No	863	96.7
	Total	892	100.0
Missing	System	1	
Total		893	

Due to the fact that the vast majority of the participants' parents were born and raised in Saudi Arabia (93.3% of the sample), I decided to eliminate the participant's parents' migration from the main analysis. The participants' parents who were migrated to Saudi Arabia totaled 6.4% (Table 9).

Table 9: Distribution of Respondents' parents' migration status

Table 9	Parent migration status	N	Valid Percent
Valid	Yes	57	6.4
	No	833	93.6
	Total	890	100.0
Missing	System	3	
Total		893	

The question about the participant's grandparents' migration status was eliminated from the final analysis.as 90.6% of grandparents were born and raised in Saudi Arabia. Only 9.2% of grandparents migrated to Saudi Arabia (Table 10).

Table 10: Distribution of Respondents' grandparents' migration status

Table 10	Grandparents' migration status	N	Valid Percent
Valid	Yes	82	9.2
	No	809	90.8
	Total	891	100.0
Missing	System	2	
Total		893	

The question about whether the participants have traveled to the United States or Europe was eliminated from the final analysis, as 76.1% of respondents stated they had not visited either country (Table 11).

Table 11: Distribution of Respondents' who traveled to U.S and Europe

Table 11	Traveled to	N	Valid Percent
Valid	The U.S.	43	4.8
	Europe	134	15.1
	The U.S. and Europe	36	4.0
	None of the above	677	76.1
	Total	890	100.0
Missing	System	3	
Total		893	

The question about whether the participants have studied in the United States or Europe was eliminated from the final analysis, because 91.5% answered no. (Table 12).

Table 12: Distribution of Respondents' who studied in the U.S or Europe

Table 12	Studied in	N	Valid Percent
Valid	The U.S.	34	3.8
	Europe	38	4.3
	The U.S. and Europe	3	0.3
	None of the above	810	91.5
	Total	885	100.0
Missing	System	8	
Total		893	

The question about if the participants have worked in the United States or Europe was eliminated from the final analysis as 98.7% of respondents had not worked in either location (Table 13).

Table 13: Distribution of Respondents' who worked in the U.S or Europe

Table 13	Worked in	N	Valid Percent
Valid	The U.S.	5	0.6
	Europe	6	0.7
	None of the above	875	98.7
	Total	886	100.0
Missing	System	7	
Total		893	

Variable definitions:

Demographic variables

The participants' age was defined by asking an open-ended question: How old are you? and was coded in years. The average age of respondents was 23.37 years, and the median age was 22 years, with a standard deviation of 5.82. The gender variable was

defined by asking the participants a closed-ended question with two options; Male (coded as 1) or Female (coded as 0). A total of 74% were males and 26% were females (Table 14).

Table 14: Distribution of Respondents' gender

Table 14	Gender	N	Valid Percent
Valid	Female	232	26
	Male	661	74
	Total	893	100.0
Missing	System	0	
Total		893	

The education variable was defined by asking the participants a closed-ended question about the highest degree they have completed with five options; High school, Associate's degree, Bachelor's degree, Master's degree, and Doctoral degree. In terms of participants' education level, most participants completed high school and were enrolled in college, whereas fewer participants had a graduate degree (Table 15). For the regression analyses, the education variable was recoded as 1='Less than Bachelor', and 2='Bachelor', 3='Masters', and 4='Doctoral'.

Table 15: Distribution of Respondents' education

Table 15	Education	N	Valid Percent
Valid	High School	564	63.4
	Associate's	16	1.8
	Bachelor's	227	25.5
	Master's	52	5.8
	Doctoral	31	3.5
	Total	890	100.0
Missing	System	3	
Total		893	

The paternal education variable was defined by asking the participants a closed-ended question about their father's highest degree completed with six options; Less than High school, High School, Associate's degree, Bachelor's degree, Master's degree, and Doctoral degree. In terms of Paternal education, most participants' fathers did complete

high school, while fewer participants had a graduate degree. As well, more than 33.6% did not complete high school (Table 16).

Table 16: Distribution of Respondents' fathers' education

Table 16	Paternal education	N	Valid Percent
Valid	Less than high School	299	33.6
	High School	265	29.8
	Associate's	56	6.3
	Bachelor's	180	20.2
	Master's	49	5.5
	Doctoral	41	4.6
	Total	890	100.0
Missing	System	3	
Total		893	

The maternal education variable was defined by asking the participants a closed-ended question about their mother's highest degree completed with six options; less than High school, High School, Associate's degree, Bachelor's degree, Master's degree, and Doctoral degree. Most participants' mothers did not complete high school (49.7%). However, 21.5% of mothers had at least a bachelor's degree. A total of 1.7% completed a doctoral degree (Table 17). The regression models used the respondent's education rather than the parent's education.

Table 17: Distribution of Respondents' mothers' education

Table 17	Maternal education	N	Valid Percent
Valid	Less than high School	441	49.7
	High School	213	24.0
	Associate's	42	4.7
	Bachelor's	160	18.0
	Master's	16	1.8
	Doctoral	15	1.7
	Total	887	100.0
Missing	System	6	
Total		893	

The income variable was defined by asking the participants a closed-ended question about their personal monthly income in Saudi Riyal, which has a fixed price to the U.S dollar equal to $0.27. The income question had seven options; No Income, Less than SR3,999, SR4,000-8,999, SR9,000-12,999, SR13,000-16,999, SR17,000-17,999,

and SR 21,000 and more. For the regression analyses, income variable was recoded as 0= 'No Income', 1= 'Less than SR 3,999', 2= 'SR 4,000-8,999', 3= 'SR 9,000-12,999', 4= 'SR 13,000-16,999', 5= 'SR 17,000-17,999', and 6= 'SR 21,000 and more. In terms of the participants' income, 30.6% reported no income. Over 39% reported they earned less than SR 3,999 a month, which equals less than U.S. $1,066. While fewer than 20% have a monthly income of SR 9,000 or more. (Table 18).

Table 18: Distribution of Respondents' monthly income

Table 18	Income	N	Valid Percent
Valid	No income	272	30.6
	Less than 3,999	353	39.7
	4,000-8,999	94	10.6
	9,000-12,999	60	6.7
	13,000-16,99	43	4.8
	17,000-20,999	29	3.3
	21,000 and more	39	4.4
	Total	890	100.0
Missing	System	3	
Total		893	

The participant's family size was defined by asking an open-ended question How many adults, aged 18 or older live in your household? The family size variable then was recoded to a dummy variable that represent the number of adults living with participants' in the household, labeled family size where 1='1-3 adults', 1= '4-6 adults', 3= '7-9 adults', and 4=10 and more. In terms of the number of adults 18 years and older living with the participants in the same house (family size), 40% reported a household size of 1-3, 42.4% lived with at least 6 adults in the same house, and 17.6% reported living with more than 6 adults in the same house.

Table 19: Distribution of Respondents' family size

Table 19	Family size	N	Valid Percent
Valid	1-3	330	40.0
	4-6	349	42.4
	7-9	107	13.0
	10 and more	38	4.6
	Total	824	100.0
Missing	System	69	
Total		893	

Regional affiliation variables

The participants' regional affiliation was defined by asking two closed-ended questions for those who were raised in Saudi Arabia; "In which part of Saudi Arabia, you were raised (geographical location)", and "If you were raised in Saudi Arabia, where did you grow up? In the desert, rural area, or a city?"

I recoded the variable that represents the province where the participant has been raised in Saudi Arabia into a new dummy variable labeled were you raised? where 0= 'Other', and 1='Central'. In terms of the province where the participants were raised in Saudi Arabia, most participants reported they were raised in the Central province; it was much less common among the sample to be raised in the Western province (Table 20).

Table 20: Distribution of the province where the participants raised in Saudi Arabia

Table 20	Province	N	Valid Percent
Valid	South	101	11.3
	North	45	5.0
	East	58	6.5
	West	31	3.5
	Central	642	72.0
	None	15	1.7
	Total	892	100.00
Missing	System	1	
Total		893	

I recoded the variable that represents the area where the participant grew up in Saudi Arabia into a new dummy variable labeled "Where did you grow up?" where 0= 'Other,' and 1='City'. In terms of the type of area where the participants grew up in Saudi

Arabia, most participants reported they grew up in a city (83.6%). Very few grew up in a desert area (Table 21).

Table 21: Distribution of the Area where the participants grew up in Saudi Arabia

Table 21	Area	N	Valid Percent
Valid	Desert	32	3.6
	Rural	114	12.8
	City	746	83.6
	Total	892	100.00
Missing	System	1	
Total		893	

Thus, the sample for my study was about 75% male, average age was 23.37, most were singles, and raised in the Central part of Saudi Arabia in a city. About 67% of their fathers had completed high school compared to 24% of their mothers. The respondents were predominantly university students. They had little income and 40% lived in households with 1-3 adults.

Chapter 4 focuses on the acculturation levels of the study participants and describes the scales that were developed to describe the different types of acculturation measures used to predict attitudes toward organ donation.

CHAPTER 4: ACCULTURATION

This chapter discusses the acculturation variables and the level of acculturation among the study sample. The chapter concludes with an explanation of how the acculturation scales were created. The results indicate various dimensions of acculturation among the participants.

Distribution of Acculturation Measures

Table: 22 shows the distribution of participants based on their relationship with tribal members. The participants who maintained a close relationship with tribal members represented 77.1%, whereas the participants who did not have a bonding relationship with tribal members comprised 22.9%. The result showed that more than three-quarters of the participants were in close contact with other tribe members.

Table 22: Distribution of Respondents' contact with their tribe

Table 22	Tribal contact	N	Valid Percent
Valid	Yes	688	77.1
	No	204	22.9
	Total	892	100.0
Missing	System	1	
Total		893	

Table 23 shows the distribution of participants by self-identified ideological beliefs in response to this question: "How do you identify your ideological beliefs?". The participants who identify their ideological beliefs as being "conservative" represent 49.8%. A similar proportion identified themselves as "somewhat conservative" (47.5%), while 2.7% identified themselves as not conservative. The result showed most of the participants identified themselves as conservative or somewhat conservative, and fewer considered themselves as not being conservative when answering this question.

Table 23: Distribution of Respondents' Ideological beliefs

Table 23	Ideological beliefs	N	Valid Percent
Valid	Conservative	443	49.8
	Somewhat conservative	422	47.5
	Not conservative	24	2.7
	Total	889	100.0
Missing	System	4	
Total		893	

Table 24 shows the distribution of participants by their response to the statement, "As far as behaviors and values, I am not a conservative." The participants who strongly agree and agree with the statement represent 26.5%, whereas the participants who strongly disagree and disagree comprise 48.5%, while 25% indicate neither agree nor disagree.

Table 24: Distribution of participants according to their ideological beliefs

Table 24	Not conservative	N	Valid Percent
Valid	Strongly disagree	125	14.3
	Disagree	298	34.2
	neither agree nor disagree	218	25.0
	Agree	193	22.1
	Strongly agree	38	4.4
	Total	872	100.0
Missing	System	21	
Total		893	

The results from the previous two tables indicate that being a conservative accounted for almost half of the sample. There was a total of 48.5% of participants who disagreed with the statement "as far as behaviors and values, I am not a conservative," and there were 49.8% of the participants who identify themselves as conservative.

Table 25 shows the distribution of participants by their ability to speak other languages. The participants who speak languages other than Arabic represent 39.7%, whereas the participants who do not comprise 60.3%. This shows that most of the participants were not speaking another language besides Arabic.

Table 25: Distribution of ability to speak other languages

Table 25	Speaking other languages	N	Valid Percent
Valid	Yes	354	39.7
	No	538	60.3
	Total	892	100.0
Missing	System	1	
Total		893	

Table 26 shows the distribution of participants by their frequent travels outside Saudi Arabia during the past five years. The participants who never traveled outside Saudi Arabia totaled 35.5%, whereas the participants who traveled at least once outside of Saudi Arabia were 64.5%.

Table 26: Distribution of participants frequent travel outside Saudi during the past five years

Table 26	Travel outside Saudi	N	Valid Percent
Valid	Never	316	35.5
	1-3 times	303	34.0
	4-6 times	151	16.9
	7-9 times	38	4.3
	10 & more	83	9.3
	Total	891	100.0
Missing	System	2	
Total		893	

Table 27 shows the distribution of participants by their frequency of interactions in the past year with people from the U.S and Europe. The participants who never interacted with people from the U.S and Europe represented 71.8%, whereas the participants who interacted at least once comprised 28.2%. Thus, most of the participants had never interacted with people from the U.S and Europe.

Table 27: Distribution of participants frequent interaction with people from the U.S and Europe

Table 27	Interaction with Westerners	N	Valid Percent
Valid	Never	638	71.8
	1-3 times	140	15.8
	4-6 times	44	5.0
	7-9 times	13	1.5
	10 & more	53	6.0
	Total	888	100.0
Missing	System	5	
Total		893	

Table 28 shows the distribution of participants by how many times they watched TV shows, movies, or any type of media from the U.S and Europe in the past month. The participants who had never watched TV shows, movies, or any type of media from the U.S and Europe was 28.7%, whereas the participants who watched at least once comprised 71.3%. The results show that most participants watched TV shows from the U.S and Europe at least once during the past month.

Table 28: Distribution of participants times of watching TV shows, movies or any type of media

Table 28	Watching TV shows	N	Valid Percent
Valid	Never	254	28.7
	1-3 times	243	27.4
	4-6 times	99	11.2
	7-9 times	27	3.0
	10 & more	263	29.7
	Total	886	100.0
Missing	System	7	
Total		893	

Table 29 shows the distribution of participants' relationship with people who have adopted Western culture. The participants who had a relationship with people who have adopted Western culture represented 43.4%, while 56.6% had not. The result of the distribution shows that less than half of the participants had a relationship with people who adopted Western culture.

Table 29: Distribution of participants' relationship with people who have adopted Western culture

Table 29	Relationship	N	Valid Percent
Valid	Yes	387	43.4
	No	504	56.6
	Total	891	100.0
Missing	System	2	
Total		893	

Table 30 shows the distribution of participants by their response to the statement, "I like to watch Western news programs." The participants who strongly agree and agree with the statement represent 27.5%, whereas the participants who strongly disagree and

disagree comprise 50.8%, while 21.6% indicate neither agree nor disagree. A bit more than a quarter like watching Western news. Over half of all respondents disagree with the statement.

Table 30: Distribution of Respondents' who like to watch Western news

Table 30	Like watching TV shows	N	Valid Percent
Valid	Strongly disagree	136	15.5
	Disagree	309	35.3
	neither agree nor disagree	189	21.6
	Agree	199	22.7
	Strongly agree	42	4.8
	Total	875	100.0
Missing	System	18	
Total		893	

Table 31 shows the distribution of participants by their response to the statement, "I like to watch Western movies, weekly drama, and weekly comedy shows." A total of 74.9 %, strongly agreed or agreed, 15.6% disagreed or strongly disagreed, while 9.5% neither agreed nor disagreed. Most of the participants like watching Western TV, movies, and shows.

Table 31: Distribution of Respondents' who like to watch Western TV shows

Table 31	Watching Western TV shows	N	Valid Percent
Valid	Strongly disagree	53	6.1
	Disagree	83	9.5
	neither agree nor disagree	83	9.5
	Agree	389	44.5
	Strongly agree	266	30.4
	Total	874	100.0
Missing	System	19	
Total		893	

Table 32 shows the distribution of participants by their response to the statement, "I like to listen to Western music." The participants who strongly agree and agree with the statement represented 47.7%, whereas the participants who strongly disagree and disagree comprise 38.9%, while 13.7% indicate neither agree nor disagree. Almost half of the participants like to listen to Western music.

Table 32: Distribution of Respondents' who like to listen to Western music

Table 32	Listening to Western music	N	Valid Percent
Valid	Strongly disagree	137	15.7
	Disagree	203	23.2
	neither agree nor disagree	120	13.7
	Agree	287	32.8
	Strongly agree	128	14.6
	Total	874	100.0
Missing	System	19	
Total		893	

Table 33 shows the distribution of participants by their response to the statement, "If I had the opportunity, I would like to travel throughout Europe and America." The participants who strongly agree and agree with the statement represent 79.2%, while 10.2% strongly disagreed or disagreed, and 10.6% indicated neither agree nor disagree. The distribution indicates that a large percentage of the participants would like to travel throughout Europe and America.

Table 33: Distribution of Respondents' who would like to travel to Europe and America

Table 33	Would like to travel to the West	N	Valid Percent
Valid	Strongly disagree	41	4.7
	Disagree	48	5.5
	neither agree nor disagree	93	10.6
	Agree	300	34.2
	Strongly agree	394	45.0
	Total	876	100.0
Missing	System	17	
Total		893	

Table 34 shows the distribution of participants by their response to the statement, "I speak English at home." The participants who strongly agree and agree with the statement represented 43.5%, whereas the participants who strongly disagree and disagree comprised 41.4%, while 15.1% indicated neither agree nor disagree. The participants of the sample were almost equally divided between agreeing and disagreeing with the statement that they spoke English at home.

Table 34: Distribution of Respondents' speaking English at home

Table 34	Speaking English at home	N	Valid Percent
Valid	Strongly disagree	129	14.7
	Disagree	234	26.7
	neither agree nor disagree	132	15.1
	Agree	283	32.3
	Strongly agree	98	11.2
	Total	876	100.0
Missing	System	17	
Total		893	

Table 35 shows the distribution of participants by their response to the statement, "I want to adopt (or take up) the Western way of life." The participants who strongly agree and agree with the statement represented 15.4%, whereas the participants who strongly disagree and disagree comprised 63.9%, while 20.8% indicated neither agree nor disagree. From the distribution, we see that more than half of the participants do not want to adopt the Western way of life.

Table 35: Distribution of Respondents' who want to Adopt the Western Way of Life

Table 35	Western way of life	N	Valid Percent
Valid	Strongly disagree	294	33.6
	Disagree	265	30.3
	neither agree nor disagree	182	20.8
	Agree	95	10.9
	Strongly agree	39	4.5
	Total	875	100.0
Missing	System	18	
Total		893	

Table 36 shows the distribution of participants by their response to the statement, "I dress mostly like other Westerns." The participants who strongly agreed and agreed with the statement was 16.4%, whereas the participants who strongly disagree and disagree comprise 69.1%, while 14.5% indicated neither agreement nor disagreement. More than two-thirds of the participants do not dress like Westerners, while a minority of participants stated they do so.

Table 36: Distribution of Respondents' who Dress Like Westerns

Table 36	Dress like Westerns	N	Valid Percent
Valid	Strongly disagree	304	34.8
	Disagree	300	34.3
	neither agree nor disagree	127	14.5
	Agree	116	13.3
	Strongly agree	27	3.1
	Total	874	100.0
Missing	System	19	
Total		893	

Table 37 shows the distribution of participants by their response to the statement, "Following tribal, familial, and social expectations are important." The participants who strongly agree and agree with the statement represented 64.2%, whereas the participants who strongly disagreed and disagreed comprised 13.8%, and 22% indicated they neither agreed nor disagreed. The result shows that most of the participants stated they agreed that following, tribal, familial, and social expectations are important, while few of the participants disagreed.

Table 37: Distribution of Respondents' Saying Following Expectations Are Important

Table 37	Following expectations	N	Valid Percent
Valid	Strongly agree	188	21.6
	Agree	371	42.6
	neither agree nor disagree	191	22.0
	Disagree	84	9.7
	Strongly disagree	36	4.1
	Total	870	100.0
Missing	System	23	
Total		893	

Table 38 shows the distribution of participants by their response to the statement, "One should not deviate from tribal, familial, and social norms." The participants who strongly agree and agree with the statement represent 44.2%, whereas the participants who strongly disagree and disagree comprise 18.6%, while 37.2% indicated neither agree nor disagree. The result shows that almost half of the participants would not be likely to deviate from tribal, familial, and social norms, while more than one-third are ambivalent

about such deviation.

Table 38: Distribution of Respondents Saying Not to Deviate from Social Norms

Table 38	Not deviate	N	Valid Percent
Valid	Strongly agree	118	13.6
	Agree	266	30.6
	neither agree nor disagree	324	37.2
	Disagree	106	12.2
	Strongly disagree	56	6.4
	Total	870	100.0
Missing	System	23	
Total		893	

Table 39 shows the distribution of participants by their response to the statement, "I like to retain (or keep) the heritage culture." The participants who strongly agree and agree with the statement represent 76.9%, whereas the participants who strongly disagree and disagree comprise 7.4%, while 15.6% indicate neither agree nor disagree. The distribution shows that more than three-quarters of the participants would like to retain their heritage culture, while a small number of the participants disagreed.

Table 39: Distribution of Respondents Who Like to Retain the Heritage Culture

Table 39	Retain the Heritage Culture	N	Valid Percent
Valid	Strongly agree	298	34.2
	Agree	372	42.7
	neither agree nor disagree	136	15.6
	Disagree	42	4.8
	Strongly disagree	23	2.6
	Total	871	100.0
Missing	System	22	
Total		893	

Table 40 shows the distribution of participants by their response to the statement, "Most of my closest friends are from the same tribe." The participants who strongly agree and agree with the statement represented 26.8%, whereas the participants who strongly disagree and disagree comprised 61.0%, while 12.1% indicated neither agree nor disagree. The results indicate that more than half of the participants do not have a close relationship with friends of the same tribe, while about a quarter of the participants said

they had close friends from their tribe.

Table 40: Distribution of Respondents who Say their Closest friends of the Same Tribe

Table 40	Closest Friends are from the Same tribe	N	Valid Percent
Valid	Strongly agree	62	7.1
	Agree	172	19.7
	neither agree nor disagree	105	12.1
	Disagree	367	42.1
	Strongly disagree	165	18.9
	Total	871	100.0
Missing	System	22	
Total		893	

Table 41 shows the distribution of participants by their response to the statement, "Most of my closest friends are from the same religion." The participants who strongly agree and agree with the statement represented 89.1%, whereas the participants who strongly disagree and disagree comprised 5.3%, and 5.6% indicated neither agree nor disagree. The result indicates that a large proportion of the participants have friendships with persons of the same religion. Very few had close friends that practiced a different religion.

Table 41: Distribution of Respondents who Say Their Closest friends from the Same Religion

Table 41	Closest Friends are from the Same Religion	N	Valid Percent
Valid	Strongly agree	596	68.3
	Agree	181	20.8
	neither agree nor disagree	49	5.6
	Disagree	28	3.2
	Strongly disagree	18	2.1
	Total	872	100.0
Missing	System	21	
Total		893	

In summary, the majority of respondents had a close relationship with tribal members. Most never had a relationship with people who adopted Western culture and had never interacted with people from the U.S. or Europe, although they would like to travel there. Some had traveled outside Saudi Arabia. However, many spoke another language beside Arabic, including English at home. While many did not like to watch

Western news, they did watch shows on television, movies, and other types of media from the U.S and Europe 10 or more times during the previous month. They liked to listen to Western music. However, most of the participants did not want to adopt the Western way of life.

While many defined their ideological beliefs as conservative, there was consensus that allowing women to drive was positive. Most of the participants said following tribal, familial, and social expectations are important, one should not deviate from tribal, familial, and social norms, and they would like to retain their heritage culture. Most of the participants said they do not have many close friends from the same tribe. Lastly, most of the participants said their closest friends are from the same religion.

Creating Acculturation Scales

The descriptive data from this study suggest that acculturation may be multidimensional. Based on Barry (1992), people experience two significant issues concerning acculturation. One involves the decision of whether one's own cultural identity and customs are of value and should be retained. The other involves the desirability of inter-culture contact, deciding whether relations with other cultures are of value and should be sought. Based on these assumptions, I performed a factor analysis on the acculturation items Q51 through Q61. I eliminated two acculturation statements from the factor analysis. The first was the statement about the participants' friendship with tribal members. The second was the statement about participants' friendship with friends of the same religion. The first item lowered the proportion of variance explained by 3%, and the second item had only 5.3% of participants who disagreed with the statement.

Factor analysis was performed on the acculturation items with 1.0 as the Eigenvalue to measure the loading of the factors. Then, three factors were extracted on Rotated Component Matrix. These three factors explained 58% of the variance. I coded these factors as: Interest in Western Media and Travel, Attachment to Saudi culture, and Adopt the Western Culture (Table 42).

Table 42: Acculturation Factor Analysis

Table 42	Interest in Western Media & Travel	Attachment to Saudi Culture	Adopt Western Culture
Western tv-shows	.834		
Western travel	.796		
Western music	.725		.297
Western news	.436		.344
Following tribal, familial, and social expectations are important		.870	
One should not deviate from tribal, familial, and social norms		.781	
I like to retain (or keep) the heritage culture		.760	.235
Western way of life	.282		.788
Dress like Westerns	.275		.724
Not conservative			.572
English at home	.436		.474

Using the result of the extracted factors, I computed new variables by calculating the means of the statements in the same factor. A reliability test was performed to ensure the items are reliable. The new variables coded as Interest in Western Media & Travel, Adopt the Western Culture, Attachment to Saudi Culture. The Western media variable computed several acculturation statements: Western television shows, Western travel, Western music, and Western news. The alpha Cronbach as shown in Table 43 for these combined statements, was .724.

Table 43: Reliability Statistics for Interest in Western Media & Travel

Table 43	Cronbach's Alpha	N of Items
	.724	4

Adopt the Western Culture variable computed of several acculturation statements; the Western way of life, dress like Westerns, English at home. The alpha Cronbach as shown in table 44 for these combined statements, was .738. The statement of not conservative was eliminated because it lowered the alpha to be less than.70.

Table 44 Reliability Statistics for Adopt Western Culture

Table 44	Cronbach's Alpha	N of Items
	.701	4

The attachment to Saudi culture variable computed of several acculturation statements; Following tribal, familial, and social expectations are important, one should not deviate from tribal, familial, and social norms, and I like to retain (or keep) the heritage culture. The alpha Cronbach as shown in table 45 for these combined statements, was .738.

Table 45 Reliability Statistics for Attachment to Saudi Culture

Table 45	Cronbach's Alpha	N of Items
	.738	3

Collinearity Diagnostics was performed to ensure there is no collinearity within the computed variables (Table 46)

Table 46	Collinearity Statistics	Tolerance	VIF
1	Adopt the Western Culture	.983	1.017
	Attachment to Saudi Culture	.983	1.017
	Dependent Variable: Interest in Western Media & Travel		
2	Adopt Western Culture	.711	1.406
	Interest in Western Media & Travel	.711	1.406
	Dependent Variable: Attachment to Saudi Culture		
3	Interest in Western Media & Travel	.999	1.001
	Attachment to Saudi Culture	.999	1.001
	Dependent Variable: Adopt the Western Culture		

This chapter discussed the distribution of the variables related to acculturation, including the level of acculturation among the study sample, and the creation of the scales of acculturation. The results showed various dimensions of acculturation among the participants. I performed several factor analyses to create acculturation scales, and three factors were extracted. These three factors explained 58% of the variance and were coded as: Interest in Western Media & Travel, Adopt the Western Culture, Attachment to Saudi Culture. These three factors were used in this study as the independent variables to examine how each can predict attitudes toward organ donation among the Saudi sample.

Chapter 5 reports the respondents' attitudes about organ donation and the use of factor analysis to develop scales for attitudes about organ donation.

CHAPTER 5: ATTITUDES TOWARD ORGAN DONATION

This chapter discusses the distribution of different attitudes about organ donation, including; support for organ donation, willingness, and preference for living donation, willingness to register as an organ donor on the national donor registry, willingness to share wishes of organ donation with one's family. This chapter concludes with a description of the factor analysis used to create scales about attitudes toward organ donation.

General Attitudes toward Organ Donation.

Table 47 shows the distribution of participants by their responses to the question, "Have you granted permission to donate an organ?". Almost 95.8% of the participants had not granted permission to donate an organ, while 4.2% granted permission to donate an organ prior to completing the survey. Thus, the vast majority of respondents did not grant permission to donate.

Table 47: Distribution of Respondents who granted permission to donate an organ

Table 47	Granted Permission	N	Valid Percent
Valid	Yes	37	4.2
	No	854	95.8
	Total	891	100.0
Missing	System	2	
Total		893	

Table 48 shows the distribution of participants by their responses to the question, "Would you be willing to sign up to be a donor with the national donor registry?". Almost 70.9% of the participants were unwilling to sign up to be a donor, while 29.1% were willing to sign up for organ donation. Thus, the vast majority of respondents were not willing to sign the donor registry.

Table 48: Distribution of Respondents' willingness to sign up to be a donor

Table 48	Willing to sign up	N	Valid Percent
Valid	Yes	260	29.1
	No	633	70.9
	Total	893	100.0
Missing	System	0	
Total		893	

Table 49 shows the distribution of participants by their responses to the question, "Are you willing to discuss your wishes about organ donation with your family?". The participants who were willing to discuss their wishes about organ donation with their family represented 28.6%, while 71.4% did not want to discuss their wishes with the family.

Table 49: Distribution of Respondents' willingness to discuss wishes with family

Table 49	Willing to share wishes with family	N	Valid Percent
Valid	Yes	254	28.6
	No	635	71.4
	Total	889	100.0
Missing	System	4	
Total		893	

Table 50 shows the distribution of participants by their response to the statement, "In general, are you with the donation of organs for transplants." The participants who strongly agreed or agreed with organ donation totaled 42.3%, while 15.7% either disagreed or strongly disagreed. Many were ambivalent, 42% neither agreed or disagreed with organ donation.

Table 50: Distribution of Respondents' General Attitudes about Organ Donation

Table 50	In general, are with organ donation?	N	Valid Percent
Valid	Strongly disagree	65	7.4
	Disagree	73	8.3
	neither agree nor disagree	371	42.0
	Agree	206	23.3
	Strongly agree	168	19.0
	Total	883	100.0
Missing	System	10	
Total		893	

Table 51 shows the distribution of participants by their response to the statement, "Organ and tissue donation are against my religion." Less than 10% strongly agreed or agreed that organ donation is against their religion (7.9%), while about a quarter of the subjects strongly disagreed or disagreed (25.2%). About two-thirds (66.9%), neither agreed nor disagreed. This ambivalent response may reflect a lack of knowledge about what their religion says about organ donation or the conflicting views of religious clerics about organ donation.

Table 51: Distribution of respondents' feelings organ donation against Religion

Table 51	Organ donation against religion	N	Valid Percent
Valid	Strongly agree	35	4.0
	Agree	34	3.9
	neither agree nor disagree	585	66.9
	Disagree	86	9.8
	Strongly disagree	135	15.4
	Total	875	100.0
Missing	System	10	
Total		893	

Table 52 shows the distribution of participants by their response to the statement, "Organ donation allows something positive to come out of a person's death." The participants who strongly agreed or agreed with the positive impact of organ donation after death represented 23.8%. The participants who strongly disagreed or disagreed comprised 18.4%. A total of 57.7% neither agreed nor disagreed, suggesting that the majority felt uncertain about the benefits of organ donation.

Table 52: Distribution of Respondents Saying Organ Donation Allows Something Positive

Table 52	Organ donation is positive	N	Valid Percent
Valid	Strongly disagree	81	9.2
	Disagree	81	9.2
	neither agree nor disagree	506	57.7
	Agree	128	14.6
	Strongly agree	81	9.2
	Total	877	100.0
Missing	System	16	
Total		893	

Table 53 shows the distribution of participants by their response to the statement, "Organ donation is consistent with my moral values and beliefs." The participants who strongly agreed or agreed with the notion that organ donation is consistent with their moral values and beliefs represented less than one-third of the sample (31.2%), whereas the participants who strongly disagreed or disagreed comprised 10.9% More than half the people (57.9%) neither agreed nor disagreed, indicating they were unsure how organ donation matched their moral values and beliefs.

Table 53: Distribution of Respondents Saying Organ Donation Consistent with Values and Beliefs

Table 53	Organ Donation Consistent with Values and Beliefs	N	Valid Percent
Valid	Strongly disagree	42	4.8
	Disagree	53	6.1
	neither agree nor disagree	507	57.9
	Agree	169	19.3
	Strongly agree	104	11.9
	Total	875	100.0
Missing	System	18	
Total		893	

Table 54 shows the distribution of participants by their response to the statement, "I would agree to an organ transplant if my life were in danger." The participants who strongly agreed or agreed represented 64.5%, whereas the participants who strongly disagreed or disagreed comprised 6.6%, and 28.9% indicated they neither agreed or disagreed. It is interesting that the majority of the sample would not accept a donated organ if their lives were in danger.

Table 54: Distribution of Respondents Who Would Agree to Transplants if Life in Danger

Table 54	Willing to receive an organ	N	Valid Percent
Valid	Strongly disagree	31	3.5
	Disagree	27	3.1
	neither agree nor disagree	253	28.9
	Agree	286	32.7
	Strongly agree	278	31.8
	Total	875	100.0
Missing	System	18	
Total		893	

Table 55 shows the distribution of participants by their willingness to donate after death. The participants who stated they are very likely willing to donate represented 23.6%, whereas the participants who stated they somewhat likely totaled 28.9%. On the other hand, 23.6% indicated they are not very likely willing, and 23.9% said they were not at all willing to donate. About a quarter of respondents chose each of the four responses.

Table 55: Distribution of Respondents Who Willing to Donate After Death

Table 55	Willing to donate after death	N	Valid Percent
Valid	Very likely	206	23.6
	Somewhat likely	252	28.9
	Not very likely	206	23.6
	Not at all likely	209	23.9
	Total	873	100.0
Missing	System	20	
Total		893	

Attitudes about Being a Living Donor for Specific Types of Recipients

Table 56 shows the distribution of participants by their willingness to donate an organ while alive to a family member. The participants who stated they were very likely was 62.3%, and 21.1% were somewhat likely to donate. On the other hand, 16.6% were not very likely or not at all likely to donate an organ. Thus, over 83% were very or somewhat likely to donate an organ to a member of their family.

Table 56: Distribution of Respondents Who Willing to Donate Organ to Family Member

Table 56	Willing to donate to a family member	N	Valid Percent
Valid	Very likely	549	62.3
	Somewhat likely	186	21.1
	Not very likely	83	9.4
	Not at all likely	63	7.2
	Total	881	100.0
Missing	System	12	
Total		893	

Table 57 shows the distribution of participants by their willingness to donate an organ while alive to a friend. The results indicate a smaller likelihood of donating to a friend compared to a family member. About two-thirds of participants were very likely

or somewhat likely to donate an organ to a friend. On the other hand, 21% indicated they are not very likely, and 12.2% stated they were not at all willing to donate to a friend. This result suggests that willingness to donate an organ may depend on the donor's relationship to the recipient.

Table 57: Distribution of Respondents Who Willing to Donate an Organ to a Friend

Table 57	Willing to donate to a friend	N	Valid Percent
Valid	Very likely	220	25.0
	Somewhat likely	367	41.8
	Not very likely	185	21.0
	Not at all likely	107	12.2
	Total	879	100.0
Missing	System	14	
Total		893	

Table 58 shows the distribution of participants by their willingness to donate an organ while alive to a patient of the same religion. The participants who stated they are very likely willing or somewhat likely to donate an organ patient of the same religion represent 41.6%. A total of 58.4% stated they were not very likely or not at all willing to donate. These findings support the idea that the recipient characteristics matter in terms of willingness to donate.

Table 58: Distribution of Respondents Who Willing to Donate an Organ to a Patient of the Same Religion

Table 58	Willing to donate to a patient of the same religion	N	Valid Percent
Valid	Very likely	98	11.2
	Somewhat likely	266	30.4
	Not very likely	333	38.0
	Not at all likely	179	20.4
	Total	876	100.0
Missing	System	17	
Total		893	

Table 59 shows the distribution of participants by their willingness to donate an organ while alive to a patient of a different religion. Respondents were unlikely to donate to someone of a different religion. Nearly three-quarters of respondents (73.6%) were not very likely or not willing at all to donate to someone who practiced a different religion. Only 26.4% indicated any willingness to donate to someone who was not a member of

their religious group. The recipient's religion would be an important factor in the decision to donate an organ.

Table 59: Distribution of Respondents Who Willing to Donate an Organ to a Patient of a Different Religion

Table 59	Willing to donate to a patient of a different religion	N	Valid Percent
Valid	Very likely	72	8.2
	Somewhat likely	159	18.2
	Not very likely	269	30.7
	Not at all likely	375	42.9
	Total	875	100.0
Missing	System	18	
Total		893	

Table 60 shows the distribution of participants by their willingness to donate an organ while alive to a patient of the same tribe. A little more than half of the respondents (52.5%) said they were not very willing or not at all willing to donate to a member of their tribe, while 47.6% said they were very likely or somewhat likely to donate to a tribe member.

Table 60: Distribution of Respondents Who Willing to Donate an Organ to a Patient of Same Tribe

Table 60	Willing to donate to a patient of the same tribe	N	Valid Percent
Valid	Very likely	121	13.9
	Somewhat likely	294	33.7
	Not very likely	262	30.0
	Not at all likely	196	22.5
	Total	873	100.0
Missing	System	20	
Total		893	

Table 61 shows the distribution of participants by their willingness to donate an organ while alive to a patient from their local area. Over two-thirds of the participants, 67.6% said they were not very likely or not at all likely to donate to someone from their local area, while 32.5% said they were very willing or somewhat willing to donate to someone from their local area. These results are consistent with the patterns observed thus far: respondents are more likely to donate to a family member or friend compared to other persons.

Table 61: Distribution of Respondents Who Willing to Donate an Organ to a Local Area Patient

Table 61	Willing to donate to a patient from the local area	N	Valid Percent
Valid	Very likely	75	8.6
	Somewhat likely	209	23.9
	Not very likely	306	35.0
	Not at all likely	285	32.6
	Total	875	100.0
Missing	System	18	
Total		893	

These data show that few participants, 4.2% who have signed up to be a donor, and 71% of the respondents were unwilling to sign up for organ donation. However, attitudes toward organ donation were multidimensional. For example, the attitudes about donations were different when the participants were asked if they would donate to a family or friend compared to a person who was from a different religion or tribe. There was ambivalence about whether something positive comes out of organ donation after death, whether .it was consistent with their values and beliefs, whether the donation was against their religion, and in general, were they with organ donation. Given these findings, it was important to explore whether these questions represented distinct aspects of attitudes about organ donation. Factor analysis was conducted to further understand the nature of the dimensions of attitudes about organ donation.

Factor analysis of Attitudes toward Organ Donation

Confirmatory factor analysis was performed by choosing the questions that logically measured a concept on attitudes toward organ donation with 1.0 as the Eigenvalue to measure the loading of the factors. Then, two factors were extracted on Rotated Component Matrix. These two factors explained 63% of the variance. I coded these factors as; Willingness to Be a Living Organ Donor, and the General Support for Organ Donation (Table 62)

The Willingness to Be a Living Organ Donor variable was computed by calculating the means of several statements; willing to donate to a family member, willing to donate to a close friend, willing to donate to a patient of the same religion, willing to donate to a patient of a different religion, willing to donate to a patient of the local area, and willing to donate to a patient of the same tribe. The general support for organ donation variable computed by calculating the means of several statements; consistent with moral value, willing to receive an organ, organ donation is positive, and general view of organ donation.

Table 62: Factor analysis of Organ Donation Attitudes

Table 62	Willingness to be a living organ donor	General support for organ donation
Willing to donate to a patient of the same religion	.899	
Willing to donate to a patient of the local area	.879	
Willing to donate to a patient of the same tribe	.848	
Willing to donate to a patient of a different religion	.825	
Willing to donate to a close friend	.756	
Willing to donate to a family member	.413	.366
Consistent with more value		.799
Willing to receive an organ		.742
Organ donation is positive		.704
General view of organ donation	.415	.692

A reliability test was performed to ensure the willingness to be a living organ donor variable was reliable. The alpha Cronbach as shown in the table 71 for these calculated means was .885.

Table 63: Reliability Statistics for Willing to Be Live Donor

Table 71	Cronbach's Alpha	N of Items
	.885	6

A reliability test was performed to ensure the general support for organ donation variables was reliable. The alpha Cronbach as shown in table 72 for these calculated means, was .775.

Table 64: Reliability Statistics for General Support for Organ Donation

Table 72	Cronbach's Alpha	N of Items
	.775	5

In the next chapter, we will test the study hypotheses using these factors, as well as using two more dependent variables, namely, the Willingness to Sign Donor Registry, and the Willingness to Share Wishes about Organ Donation with Family.

CHAPTER 6: MULTIVARITE MODELS TO PREDICT ATTITUDES ABOUT ORGAN DONATION

The results of multivariate regression models test the hypotheses that acculturation predicts attitudes about organ donation. All regressions control for respondents' age, gender, level of education, and monthly income. There are four types of measures to assess the dependent variable of attitudes about organ donation: 1) Scale on the Willingness to be a Living Organ Donor, 2) Scale on the General Support for Organ Donation, 3) Willingness to Sign Donor Registry, 4) Willingness to Share Wishes about Organ Donation with Family. Three regressions were calculated for each dependent variable using one of the following measures of acculturation: 1) Interest in Western Media & Travel, 2) Adopt Western Culture, and 3) Attachment to Saudi Culture.

Willingness to be a Living Organ Donor

A significant OLS regression equation was found in Table 65. ($F= 3.577$, $P=.003$), with R^2 of .023. Interest in Western Media & Travel and the control variables explained 2.3% of the variation in the scale score Willingness to be a living organ donor. All else equal, Interest in Western Media & Travel was a significant ($p<.001$) predictor of willingness to be a living organ donor. The more respondents were Interested in Western Media & Travel, the more positive they were about being a living organ donor. Using the dimension of acculturation of Interest in Western Media & Travel, more acculturated respondents had more positive attitudes about becoming a live organ donor. Education was marginally significant at $P <.086$; higher education decreased the willingness to become a live donor.

Table 65: OLS Regression: Western Media & Travel and Willingness to be a living organ donor

Table 65			
Model summary	R Square	F	Sig
	.023	3.577	.003
Coefficients	B	Beta	Sig
(Constant)	2.135		
Age	.003	.003	.614
Male	.058	.034	.367
Education	-.089	-.091	.086
Income	.010	.022	.578
Interest in Western Media & Travel	.104	.118	.001

OLS regression was calculated to predict living organ donation based on the control variables and Adopt Western Culture. The regression was not significant (F= 2.092, P= .064), with R^2 of .013. All else equal, Adopt Western Culture was marginally significant (P= .059) as a predictor of participants' willingness to be a living organ donor.

Table 66: OLS Regression: Adopt Western Culture and Willingness to be a living organ donor

Table 66			
Model summary	R Square	F	Sig
	.013	2.092	.064
Coefficients	B	Beta	Sig
(Constant)	2.330		
Age	.004	.028	.598
Male	.077	.046	.233
Education	-.085	-.086	.104
Income	.011	.024	.557
Adopt Western Culture	.055	.068	.059

Multiple linear regression was calculated to predict living organ donation based on the control variables and the attachment to Saudi culture. A non-significant regression equation was found (F= 1.780, P= .114), with R^2 of .011 Attachment to Saudi culture was not statistically significant (Sig .161) and did not predict participants' Willingness to be a living organ donor. Education was marginally significant (P=.09) and negatively related to willingness to serve as a living donor.

Table 67: OLS Regression: Attachment to Saudi Culture and Willingness to be a living organ donor

Table 67			
Model summary	R Square	F	Sig
	.011	1.780	.114
Coefficients	B	Beta	Sig
(Constant)	2.330		
Age	.003	.025	.631
Male	.055	.033	.398
Education	-.088	-.090	.090
Income	.011	.023	.576
Attachment to Saudi Culture	-.046	-.051	.161

General Support for Organ Donation

Multiple linear regression was calculated to predict general support of organ donation based on the control variables and Interest in Western Media & Travel. A significant regression equation was found (F= 16.136, P=.000), with R^2 of .095.

The results show this model explained 9.5% of the variation on the dependent variable general support for organ donation. All else equal, Interest in Western Media & Travel was statistically significant (P =.000) and predicted positive support for organ donation. Older persons (P =.032) and females (P=.009) were significantly more likely to support organ donation compared to younger respondents and males.

Table 68: OLS Regression: Interest in Western Media & Travel and general support of organ donation

Table 68			
Model summary	R Square	F	Sig
	.095	16.136	.000
Coefficients	B	Beta	Sig
(Constant)	2.432		
Age	.013	.108	.032
Male	-.150	-.096	.009
Education	.009	.010	.848
Income	.006	.014	.715
Interest in Western Media & Travel	.215	.267	.000

Multiple linear regression was calculated to predict the general support for organ donation based on the control variables and Adopt Western Culture. A significant

regression equation was found (F= 8.409, P=.000), with R^2 of .052.

The model explained 5.2% of the variation on the dependent variable support for organ donation. All else equal, Adopt Western Culture was positively and statistically significant (P .000). Age had a positive and significant relationship (P.030) with supporting organ donation. The significance level for males was marginally significant with P=.062. Females were more likely to support organ donation than males.

Table 69: OLS Regression: Adopt Western Culture and general support of organ donation

Table 69			
Model summary	R Square	F	Sig
	.052	8.409	.000
Coefficients	B	Beta	Sig
(Constant)	2.807		
Age	.013	.112	.030
Male	-.109	-.070	.062
Education	.018	.020	.704
Income	.007	.017	.663
Adopt Western Culture	.125	.168	.000

Multiple linear regression was calculated to predict the general support for organ donation based on the control variables and attachment to Saudi culture. A significant regression equation was found (F= 5.724, P=.000), with R^2 of .036. The model explained 3.6% of the variance in general support of organ donation. All else equal, attachment to Saudi Culture was a significant predictor of general attitudes of organ donation (P=.002). All else equal, attachment to Saudi Culture decreased general support for organ donation. Also, gender had a negative statistical significance on the support of organ donation (P .016). Males were significantly less likely to support organ donation than females. The significance level for age was marginally significant (P .053) Older respondents were more likely to support organ donation compared to younger participants.

Table 70: OLS Regression: Attachment to Saudi Culture and general support of organ donation

Table 70			
Model summary	R Square	F	Sig
	.036	5.724	.000
Coefficients	B	Beta	Sig
(Constant)	3.393		
Age	.012	.101	.053
Male	-.144	-.092	.016
Education	.018	.020	.701
Income	.006	.013	.746
Attachment to Saudi Culture	-.094	-.113	.002

Willingness to Sign Donor Registry

Logistic regression was calculated to predict participants' willingness to sign as a donor in the national donor registry (1= willing to sign, 0= unwilling) based on control variables and Interest in Western Media & Travel. A well-fit model was found (P=.000), with Chi² of 42.926. The Nagelkerke R² is .077. Interest in Western Media & Travel is significant at (P=.000), so those who watch Western Media were more willing to sign the donor registry. The other significant finding was for gender; females were more willing than males to sign the donor registry (P=.000).

Table 71: Logistic Regression: Interest in Western Media & Travel and Willing to Sign Donor Registry

Table 71		
Model summary	Chi-Square	Sig.
	42.926	.000
	Nagelkerke	.077
Variables in the Equation	B	Sig
Age	.030	.116
Male	-.708	.000
Education	.025	.866
Income	.061	.272
Interest in Western Media & Travel	.379	.000
Constant	-2.560	.000

Using Adopt Western Culture and the control variables, the logistic regression equation to predict willingness to sign the donor registry had a Chi² of 30.531 (P=000) with a Nagelkerke R² of .055. The adoption of Western Culture did not predict willingness. Males were significantly less likely to sign up on the registry (P=.001)

compared to females.

Table 72: Logistic Regression: Adopt Western Culture and Willing to Sign Donor Registry

Table 72		
Model summary	Chi-Square	Sig.
	30.531	.000
	Nagelkerke	.055
Variables in the Equation	B	Sig
Age	.029	.124
Male	-.629	.001
Education	.043	.773
Income	.062	.257
Adopt Western Culture	.136	.116
Constant	-1.642	.000

Logistic regression was calculated to predict participants' willingness to sign as a donor in the national donor registry-based control variables, and attachment to Saudi culture. A well-fit model was found (P=.000), with Chi² of 27.919. The Nagelkerke R ²is .051. Gender is significant at .001 and negative. Women are more likely to sign up as a donor. Attachment to Saudi Culture is not a significant predictor. From the result, being a male decreases the odds of the willingness to sign as a donor in the national donor registry by -.623. No other predictor was significant.

Table 73: Logistic Regression: Attachment to Saudi Culture and Willing to Sign Donor Registry

Table 73		
Model summary	Chi-Square	Sig.
	27.919	.000
	Nagelkerke	.051
Variables in the Equation	B	Sig
Age	.028	.146
Male	-.623	.001
Education	.039	.791
Income	.062	.260
Attachment to Saudi Culture	.030	.758
Constant	-1.328	.002

Willingness to Share Wishes about Organ Donation with Family

Logistic regression was calculated to predict participants' desire to share wishes with family about organ donation based on control variables and Interest in Western

Media & Travel. The dependent variable was coded as 1=willing to share wishes, 0=unwilling to share wishes. A well-fit model was found (P=.000), with Chi² of 47.312. Nagelkerke R² is .085. Interest in Western Media & Travel is significant at P=.001. Respondents who watch Western Media and wish to travel to the West are more likely to agree to share their views of organ donation with their family. The additional predictor was female (P=.001), and education is marginally significant (P=.068). Being female and having higher education attainment are more likely to want to share wishes with their family.

Table 74: Logistic Regression: Interest in Western Media & Travel and Willingness to Share Wishes about Organ Donation with Family

Table 74		
Model summary	Chi-Square	Sig.
	47.312	.000
	Nagelkerke	.085
Variables in the Equation	B	Sig
Age	.014	.481
Male	-.603	.001
Education	.276	.068
Income	.069	.216
Interest in Western Media & Travel	.342	.001
Constant	-2.570	.000

Logistic regression was calculated to predict participants' desire to share wishes with family about organ donation based on control variables and adopt Western culture. A well-fit model was found (P=.000), with Chi² of 36.493, and Nagelkerke R² is .066. However, the adoption of Western Culture is not significant. Females (P=.004) and more educated respondents (marginally significant at (P=.056) predict the likelihood of sharing wishes about organ donation with family members.

Table 75: Logistic Regression: Adopt Western Culture and Willingness to Share Wishes about Organ Donation with Family

Table 75		
Model summary	Chi-Square	Sig.
	36.493	.000
	Nagelkerke	.066
Variables in the Equation	B	Sig
Age	.013	.497
Male	-.536	.004
Education	.286	.056
Income	.070	.208
Adopt Western Culture	.091	.300
Constant	-1.654	.000

Logistic regression was calculated to predict participants' desire to share wishes with family about organ donation-based Control variable, and attachment to Saudi culture. A well-fit model was found (P=.000), with Chi^2 of 35.490 and Nagelkerke R^2 of .065. Attachment to Saudi Culture was not significant. Females were significantly more likely to share wishes with family (P=.003), while education is positively and marginally significant at (P=.054).

Table 76: Logistic Regression: Attached to Saudi Culture and Willingness to Share Wishes about Organ Donation with Family

Table 76		
Model summary	Chi-Square	Sig.
	35.490	.000
	Nagelkerke	.065
Variables in the Equation	B	Sig
Age	.012	.533
Male	-.550	.003
Education	.287	.054
Income	.068	.217
Attached to Saudi Culture	-.052	.609
Constant	-1.266	.004

Table 77 summarizes the OLS regressions and the Logistic regressions described previously.

Table 77 Summary of Regression Analyses

Dependent Variable	Acculturation Variables		
Attitudes toward organ donation			
	Interest in Western Media & Travel	Adopt Western Culture	Attached to Saudi Culture
Living Organ Donor	Y	N	N
Sign Donor Registry	Y	N	N
Share Wishes	Y	N	N
General Support	Y	Y	Y

Results of Hypothesis Testing

Hypothesis 1. Controlling for age, gender, level of education, and monthly income, participants with greater Interest in Western Media & Travel will be more likely to have positive attitudes toward organ donation. We accepted this hypothesis as the results of the linear, and logistic regressions confirmed that interest in Western Media & Travel was a significant positive predictor of the participant's attitudes toward organ donation among all of the dependent variables: 1) the Willingness to be a Living Organ Donor, 2) the General Support for Organ Donation, 3) Willingness to Sign Donor Registry, 4) Willingness to Share Wishes about Organ Donation with Family.

Hypothesis 2. Controlling for age, gender, level of education, and monthly income, respondents who more likely to adopt Western Culture will be more likely to have positive attitudes toward organ donation. We found only weak support for this hypothesis as only one of the regressions confirmed that the Adoption of Western Culture was a significant positive predictor of the participants' General Support for Organ Donation. However, Adopt Western Culture was marginally statistically significant (Sig .059) as a predictor of the Willingness to be a Living Organ Donor. Adopt Western Culture was not a significant predictor of the other two dependent variables; 1) the

Willingness to Sign Donor Registry, 2) the Willingness to Share Wishes about Organ Donation with Family.

Hypothesis 3. Controlling for age, gender, level of education, and monthly income, respondents with the least Attachment to the Saudi Culture will be more likely to have positive attitudes toward organ donation. We partially accepted this hypothesis as the results of the linear regression confirmed that attachment to Saudi culture was a significant negative predictor of the participants' General Support for Organ Donation. However, attachment to the Saudi culture was not a significant predictor of the other dependent variables:1) Willingness to be a Living Organ Donor, 2) Willingness to Sign Donor Registry, 3) Willingness to Share Wishes about Organ Donation with Family.

The three acculturation scales measure different kinds of acculturation. Acculturation is a multidimensional concept as illustrated by other authors. Several studies used various measures of the ways to acculturate. These studies found that several types of acculturation have an impact on organ donation (Salim et al. 2010, Siegel et al. 2005, Lopez et al. 2011, Phama et al. 2004, Fahrenwald et al. 2005, Padela et al. 2010, and Gauher et al. 2013). They found that more acculturated participants were significantly more likely to donate or support organ donation.

Previous research used various measures of acculturation. For example, Salim et al. (2010) examined family influence, religious influence, family immigration history, years in the United States, and language preference. Siegel et al. (2005) measured acculturation by asking the participant's preference for speaking Spanish or another language at daily basis. Also, Lopez et al. (2011) used the participant's length of residence

in Spain, their relations with Spaniards, and their relations with the family of origin as indicators of acculturation.

Phama and Spigner (2004) measured acculturation by asking about: years lived in the U.S, the language spoken at home, and the language they used every day. Fahrenwald and Stabnow (2005) measured acculturation by asking about: the traditional beliefs related to organ and tissue donation, the participant's thoughts about these cultural beliefs, the location of the Reservation where the participants live. Padela et al. (2010) measured acculturation by asking the participants about their English proficiency, their length of residence in the U.S., and citizenship status. I used Interest in Western Media & Travel, Adopt Western Culture, and Attached to Saudi Culture. The Interest in Western Media & Travel scale turned out to be the best predictor of attitudes about organ donation. This supports previous research that acculturation has many dimensions.

Attitudes about organ donation are not unidimensional and depend upon the measures used to define those attitudes. In this study, there are four measures of the dependent variable: First, the willingness to be a live donor scale, which measures attitudes about donating to particular recipients. The scale was implemented using a calculated means of several statements on a four-point likelihood scale ranging from very likely to not at all likely. The participants were asked directly assuming they were medically able, how likely they would agree to donate an organ to a family member, close friend, to a patient of the same religion, to a patient of a different religion, to a patient of the same tribe, and to a patient from their local area while they are living. The result suggested that willingness for living organ donation depended on the donor's relationship

to the recipient. For example, over 83% and 66.8% of the participants were very likely or somewhat likely to donate and 73.6% stated they were not very likely or not at all likely willing to donate to someone they did not know either of the same or different religions, respectively. People with high scores on this scale were more willing to donate to many types of people, which may suggest a strong belief in the underlying idea of donating regardless of donor characteristics. For example, when the participants were asked to identify a reason why they want to be a donor, 46.5% of them stated they would donate to save the life of another person. In addition, some participants stated that donation is a form of charity and good deeds.

The second measure of the dependent variable was the general attitudes scale. This was created using factor analysis and included several statements. Respondents were asked if they agreed or disagreed with these statements: In general, are you with the donation of organs for transplants? Organ donation allows something positive to come out of a person's death. Organ donation is consistent with my moral values and beliefs, I would agree to an organ transplant if my life were in danger. The result suggested that the general support for organ donation varies among the participants, almost half of the participants 42.4% strongly agreed or agreed with the statement, in general, are you with the donation of organs for transplants? Whereas 31.2%. of the participants strongly agreed or agreed with the notion that organ donation is consistent with their moral values and beliefs. All the acculturation measures were significant predictors of this measure of attitudes about organ donation.

The third dependent variable was measured by asking a direct question: would

you be willing to sign up to be a donor with the national donor registry? The results suggested that 29.1% of the participants were willing to sign up if they had a chance. This means signing up on the registry is an intention to act among the participants. However, few participants in the sample have already signed up (4.2%), and the ambivalent response may due to a lack of prior knowledge or the lack of several ways to register as a donor in Saudi Arabia. There is only one registration method recognized by the government of Saudi Arabia through the Saudi Center for Organ Transplantation (SCOT). For example, when the participants were asked to identify a reason why they do not want to become a donor, 52.3% of them stated they have not thought about organ donation before, which may reflect a lack of knowledge.

The last dependent variable was Willingness to Share Wishes about Organ Donation with Family, which was measured by asking a direct question: Are you willing to discuss your wishes about organ donation with your family? The willingness to discuss donation wishes with family is another measure that looks at an intention to act, where 28.6% of the participants stated they were willing to discuss wishes about organ donation with their families.

Six of the 12 models showed the level of acculturation significantly predict attitudes toward organ donation. Another regression was marginally significant. General support for organ donation was predicted by all three acculturation measures. These findings were consistent with what several studies have found.

The level of acculturation has an impact on the support of organ donation. For example, Siegel et al. (2005) found that participants who prefer not to use Spanish were

more likely to register or support organ donation than those who preferred to use Spanish only. The results from the current study are consistent with what Siegel et al. (2005) found, as the Saudis who prefer to speak English at home in our sample were more likely to have positive attitudes toward organ donation. Out of the 257 who were willing to sign as donor, 128 (49.8%) strongly agreed or agreed to statement: I like to speak English at home. Also, out of 167 who strongly agreed with the statement: in general, are you with the donation of organs for transplants? 90 (53.9%) said they liked to speak English at home. As well, out of the 252 who were willing to share wishes about organ donation with their family, 124 (49.2%) strongly agreed or agreed to statement: I like to speak English at home.

The attachment to Saudi culture scale was negatively associated with the General Support of Organ Donation, which may indicate that Saudis are affected by strong conservative and religion influence when it comes to donating organs. Organ donation, as stated by the highest religion assembly in Saudi Arabia, is controversial among Muslim religious scholars. Some believe organ donation is acceptable, while others contend that donation of organs, even in a brain-dead situation, is unacceptable. (The General Presidency of Scholarly Research and Ifta, Retrieved, 2018).

Due to several reasons, the acculturation measures were more related to the dependent variable general support for organ donation than the other three dependent variables. First, even though all measures were reliable, the General Support for Organ Donation included several straightforward statements about the participants' thoughts about the issues. Second, the willingness to register as a donor may be affected by a lack

of prior knowledge, and only one registration method is recognized by the government of Saudi Arabia. One has to register through the only center recognized and approved by the government (SCOT). Third, the willingness for a live donation was measured by the assumption that the participants were medically able and would agree to donate an organ to many types of people. The result suggested that willingness for living organ donation depended on the donor's relationship to the recipient. For example, most of the participants were very likely or somewhat likely to donate an organ to a member of their family or close friend, respectively. Whereas, fewer participants stated they were not very likely or not at all likely willing to donate to someone they did not know either of the same tribe/ religion or different tribes/religions, respectively. Lastly, acculturation is multidimensional, although many believe that Saudi Arabia is unified under only one dominant culture, this is not entirely true. Nevo (1998) suggests that the collective identity in Saudi Society is shaped by three elements: Islamic, Arabian (tribal), and national culture. Thus, maybe Interest in Western Media and Travel, the desire to assimilate the Western culture, and wanting to be liberated from strong religion, tribal, and cultural influence on the issue of donation are reasons to be more positive toward organ donation.

Chapter 7 summarizes the results, examines the strengths and weaknesses of the study, and discusses directions for future research and policy implications.

CHAPTER 7: CONCLUSION

Specific Aims

Aim: The study examined the relationship between acculturation and Saudi attitudes toward organ donation. The control variables consisted of age, gender, level of education, and monthly income. The independent variables consisted of acculturation scales, 1) Interest in Western Media & Travel, 2) Adopt the Western Culture, and 3) Attachment to Saudi Culture. The dependent variables consisted of attitudes toward organ donation: 1) Willingness to be a Living Organ Donor, 2) the General Support for Organ Donation, 3) the Willingness to Sign Donor Registry, and 4) the Willingness to Share Wishes about Organ Donation with Family.

Hypotheses Tested

Hypothesis 1. Controlling for age, gender, level of education, and monthly income, participants with greater interest in Western Media & Travel will be more likely to have positive attitudes toward organ donation.

Hypothesis 2. Controlling for age, gender, level of education, and monthly income, respondents who more likely to adopt Western Culture will be more likely to have positive attitudes toward organ donation.

Hypothesis 3. Controlling for age, gender, level of education, and monthly income, respondents with the least Attachment to the Saudi culture will be more likely to have positive attitudes toward organ donation.

Methods

A quantitative method using a self-administered questionnaire was distributed to Saudi Arabians to examine their attitudes toward organ donation. The questionnaire was

designed and built-in Arabic using Qualtrics online survey. The survey link was sent to the entire population of the College of Social Sciences (CSS) (faculty members, staff, and students) at the Imam Muhammad ibn Saud Islamic University. The CSS population at the time of the survey was around twelve thousand students, faculty members, and staff. The students were almost eleven thousand. The response rate was around 8%.

Factor analysis was performed on the acculturation items with 1.0 as the Eigenvalue to measure the loading of the factors. Then, three factors were extracted on Rotated Component Matrix. These three factors explained 58% of the variance. The three acculturation measures were: First, Interest in Western Media and Travel. Respondents were asked if they agreed or disagreed with these statements: I like to watch western news programs, I like to watch western movies, weekly drama, and weekly comedy shows, I like to listen to Western music, and If I had the opportunity, I would like to travel throughout Europe and America.

The second measure of acculturation was Adopting Western Culture. Respondents were asked if they agreed or disagreed with these statements: I want to adopt (or take up) the western way of life, I dress mostly like other westerns, and I speak English at home.

The last measure of acculturation was the Attachment to Saudi Culture. Respondents were asked if they agreed or disagreed with these statements: Following tribal, familial, and social expectations are important, one should not deviate from tribal, familial, and social norms, and I like to retain (or keep) the heritage culture.

As well, Factor analysis was performed on the items of the dependent variable

(attitudes toward organ donation) with 1.0 as the Eigenvalue to measure the loading of the factors. Then, two factors were extracted on Rotated Component Matrix. These two factors explained 63% of the variance. The factors were coded as: Willingness to be a Living Organ Donor, and the General Support for Organ Donation. The study used two more items as dependent variables; the Willingness to Sign Donor Registry, and the Willingness to Share Wishes about Organ Donation with Family.

The first measure of the dependent variable was Willingness to be a Living Organ Donor scale, which measured attitudes about donating to particular recipients. The scale was implemented using a calculated means of several statements on a four-point likelihood scale ranging from very likely to not at all likely. The participants were asked directly (assuming they were medically able), how likely they would agree to donate an organ to a family member, close friend, to a patient of the same religion, to a patient of a different religion, to a patient of the same tribe, and to a patient from their local area while they are living.

The second measure of the dependent variable was the General Support for Organ Donation scale. This was created using factor analysis and included several statements. Respondents were asked if they agreed or disagreed with these statements: In general, are you with the donation of organs for transplants? Organ donation allows something positive to come out of a person's death. Organ donation is consistent with moral values and beliefs, and I would agree to an organ transplant if my life were in danger.

The third dependent variable was measured by asking a direct question: would you be willing to sign up to be a donor with the national donor registry? The last

dependent variable was the Willingness to Share Wishes about Organ Donation with Family, which was measured by asking a direct question: Are you willing to discuss your wishes about organ donation with your family?

The average age of respondents was 23.37 years, and the median age was 22 years, with a standard deviation of 5.82. A total of 74% were males and 26% females. A total of 34.8% of the participants had a bachelor's degree or higher. Most of the participants reported they earn less than SR 3,999 a month, which equals to less than U.S. $1,066.

Results

Acculturation

The results of the study showed that most of the participants, 74.9% liked watching TV shows, movies, or any type of media from the U.S and Europe. Also, most of the participants, 47.7%, liked listening to Western music. A total of 79.2% would like to travel to Europe and America. Most participants in the study (43.5%) were speaking English at home. In contrast, most of the participants, 50.8%, did not like to watch Western news programs. More than half of the participants, 62.6%, did not want to adopt Western culture. As well, most of the participants, 64.3% stated following tribal, familial, and social expectations are important, and 44.1%, stated one should not deviate from tribal, familial, and social norms. More than three-quarters of participants, 76.9%, would like to retain their heritage culture.

Attitudes about Organ Donation

The results revealed that 4.2% had signed the registry, and 29.1% of the participants were willing to sign up to be a donor on the national donor registry. Several

questions showed about half of the respondents gave ambivalent responses concerning: in general, I am with donation, whether their religion allows donations, something positive comes from donation after death, and donation is consistent with their morals and beliefs.

A total of 28.6% of participants were willing to discuss wishes of organ donation with their family, whereas 14.4% had already discussed their wishes of organ donation with their own family. Also, 42.3% strongly agreed or agreed with the statement: in general, are you with the donation of organs for transplants. A total of 7.9% stated that organ donation is against their religion. As well, 83.4% of the participants were willing to donate an organ to a family member.

Hypothesis 1. Controlling for age, gender, level of education, and monthly income, participants with greater Interest in Western Media & Travel will be more likely to have positive attitudes toward organ donation. We accepted this hypothesis as the results of the linear and logistic regressions confirmed that interest in Western Media & Travel was a significant positive predictor of the participants attitudes toward organ donation among all of the dependent variables: 1) the Willingness to be a Living Organ Donor, 2) the General Support for Organ Donation, 3) Willingness to Sign Donor Registry, 4) Willingness to Share Wishes about Organ Donation with Family

Hypothesis 2. Controlling for age, gender, level of education, and monthly income, respondents who more likely to adopt Western Culture will be more likely to have positive attitudes toward organ donation. We found only weak support for this hypothesis as only one of the regressions confirmed that Adopt Western Culture was a

significant positive predictor of the participants' General Support for Organ Donation. However, Adopt Western Culture was marginally statistically significant (Sig .059) as a predictor of the Willingness to be a Living Organ Donor. Adopt Western Culture was not a significant predictor of the other two dependent variables; 1) the Willingness to Sign Donor Registry, 2) the Willingness to Share Wishes about Organ Donation with Family.

Hypothesis 3. Controlling for age, gender, level of education, and monthly income, respondents with the least Attachment to the Saudi Culture will be more likely to have positive attitudes toward organ donation. We partially accepted this hypothesis as the results of the linear regression confirmed that Saudi culture was a significant negative predictor of the participants' General Support for Organ Donation. However, the Saudi culture was not a significant predictor of the other dependent variables:1) Willingness to be a Living Organ Donor, 2) Willingness to Sign Donor Registry, 3) Willingness to Share Wishes about Organ Donation with Family.

From the results of the study, we can conclude that acculturation has a positive effect on predicting some attitudes toward organ donation among the study sample. In half of the regressions, more acculturated respondents were more positive about organ donation. As well, in 8 of the 12 regression models, females were more likely to have positive attitudes toward organ donation than males. Also, in 2 of the 12 regression models, an increase in age increases that chance of positive attitudes toward organ donation. Education was positively and marginally significant in 3 of 12 regressions and negatively and marginally significant in three other equations.

The positive impact of acculturation is supported by previous research. Several

studies found that acculturation has an impact on organ donation (Salim et al. 2010, Siegel et al. 2005, Lopez et al. 2011, Phama et al. 2004, Fahrenwald et al. 2005, Padela et al. 2010, and Gauher et al. 2013). They found that more acculturated participants were significantly more likely to donate or support organ donation.

Strengths of research

There were several strengths of the study. First, the study sample was large, N=893. Second, the study added to the body of literature knowledge about Saudi nationals' attitudes toward organ donation. Third, the study used multidimensional measures of attitudes concerning organ donation. Fourth, the study used several measures of acculturation. Fifth, the study survey was developed based on previous studies' surveys and measures. Lastly, as far as the researcher's knowledge, this study is the first to examine the relationship between acculturation and organ donation among a Saudi sample.

Weaknesses of research

There were several weaknesses of this study. First, The study was not generalizable due to the nature of the sample. The study was conducted in one university, and most of its participants were students. The majority were not married, had at least a high school degree, and earned little money. Second, in terms of regional affiliation, the participants were mostly living in the central province and grew up and were raised in cities, which limited us from measuring the effect of regional affiliation on organ donation as part of acculturation scales measures. As well, we could not use the migration status as a measure of acculturation, since most of the participants were born and raised in Saudi

Arabia. The study sample may not represent other Arab nations in the region, nor can it be representative of the entire Saudi population.

Directions for future research

For future studies on the topic, I would suggest using a larger and more diverse sample. There is a need to investigate more about the impact of marital status, occupation, migration status, regional affiliation, social cohesion, tribal, family size, and religion on organ donation among Saudi Arabians. Saudi Arabia is a large country with a diverse population in terms of regional origin, social cohesion, tribal, migration status, and family size. It would be important to examine the impact of the new political transition of Saudi Arabia and its role in regard to organ donation, especially Vision 2030, which implemented several initiatives targeting many aspects of health, including the promotion of organ donation.

Policy Implications

This study found that some groups of people were willing to donate and support organ donation, which means there is a potential among the study sample to participate in organ donation. However, there is only one recognized organ donation center established by the government for organ donation recruitment and transplant. Establishing additional centers might decrease the deficit of donors and increase the supply of organs to be donated in Saudi Arabia. With a continuous increase in demand for organs and the continuous shortage of organs to be recovered in Saudi Arabia, I suggest that establishing and funding more centers by the government for organ recruitment and transplant could be helpful in decreasing the gap between the demands

and supplies of organs in Saudi Arabia. National information campaigns could increase knowledge and awareness of organ donation. The results of this study can help design public education programs that address the negative attitudes about donation that were identified in this study. In addition, I suggest adding more methods of registering on the national donor registry by making it easier to sign up. For example, identifying as a donor on one's driver license, or to being able to sign up electronically. The government has a large body of ministries, which can be used to promote the support of organ donation, for example, the Ministry of Education and Health can promote the idea, among the general public who may be donors and patients who need transplants.

In sum, acculturation matters in terms of positive attitudes toward organ donation among Saudi Arabian. However, certain types of acculturation make more of a difference than others in terms of encouraging organ donation. For example, increased exposure to Western media was the acculturation measure that had the most impact on all the attitudes toward organ donation. Also, the attitudes toward organ donation among the sample were multidimensional. The participants of the study were more likely to support organ donation if the person in need was the participant himself, a family member, or close friend. This may indicate the importance of social cohesion in Saudi culture in encouraging support for organ donation.

APPENDIX

1. How old are you?

2. What is your gender?

A. Male

B. Female

3. What is your current marital status?

A. Married

B. Single

C. Divorced

D. Widowed

E. Other

4. What is your highest degree, or level of education completed?

A. High School Graduate

B. Associate's Degree

C. Bachelor's Degree

D. Master's Degree

E. Doctoral Degree (JD, MD, DDS, PHO)

5. What is the highest degree, or level of education, that your father completed?

A. Less than high school

B. High School Graduate

C. Associate's Degree

D. Bachelor's Degree

E. Master's Degree

F. Doctoral Degree (JD, MD, DDS, PHO)

6. What is the highest degree, or level of education, that your mother completed?

A. Less than high school

B. High School Graduate

C. Associate's Degree

D. Bachelor's Degree

E. Master's Degree

F. Doctoral Degree (JD, MD, DDS, PHO)

7. What is your household monthly income?

A. No Income

B. Less than SR 3,999

C. SR 4,000-SR 8,999

D. SR 9,000- SR 12,999

E. SR 13,000- SR 16,999

F. SR 17,000- SR 20,999

G. Over SR 21,000

8. Are you currently;

A. A Student

B. A Staff member/employee

C. A Faculty member

9. In which part of Saudi Arabia, you were raised?

A. South

B. North

C. East

D. West

E. Central

F. I was not raised in Saudi Arabia

10. If you were raised in Saudi Arabia, did you grow up in a?

A. Desert.

B. Rural.

D. City.

11. Did you migrate from another country to Saudi Arabia?

A. Yes

B. No

12. Did your parent migrate from another country to Saudi Arabia?

A. Yes

B. No

13. Did your grandparent migrate from another country to Saudi Arabia?

A. Yes

B. No

14. How many adults, aged 18 or older live in your household?

15. Who lives with you in the same house? (Select all that apply)

A. Parents

B. Married brothers
C. Married sisters
D. Unmarried siblings
E. Grandparents
F. Uncles
G. Aunts
H. Nieces
I. Nephews
J. Your wife
K. Your children
L. Other relatives

16. Do you keep in close contact with your tribal members?
A. Yes
B. No

17. How do you identify your ideological beliefs?
A. Conservative
B. Somewhat conservative
C. Not conservative

18. Do you think allowing women to drive is a positive thing?
A. Yes
B. No

19. Do you speak any other languages beside Arabic?
A. Yes
B. NO

20. Specify the other languages you speak beside Arabic?
A. Yes
B. No

21. During the past five years, how many times have you traveled outside Saudi Arabia?
A. Never
B. 1-3 times
C. 4-6 times
D. 7-9 times
E. More than 10 times

22. Have you ever traveled to? (select all that apply)
A. United States.
B. Europe.

D. None of the above

22. Have you studied in? (select all that apply)

A. United States.

B. Europe.

D. None of the above

23. Have you worked in? (select all that apply)

A. United States.

B. Europe.

D. None of the above

24. In the past year, how often did you interact with people from the United States, or Europe?

A. Never

B. 1-3 times

C. 4-6 times

D. 7-9 times

E. More than 10 times

26. In the past month, how often did you watch TV shows, movies, or any type of media from the United States, or Europe?

A. Never

B. 1-3 times

C. 4-6 times

D. 7-9 times

E. More than 10 times

27. Do you have a close relationship with people who have adapted to Western Cultures?

A. Yes

B. No

These questions ask about your attitudes about organ donation

Item Strongly agree, Agree, neither agree nor disagree, disagree, strongly disagree

28. In general, are you with the donation of organs for transplants?

29. Organ and tissue donation are against my religion.

30. Organ donation allows something positive to come out of a person's death.

31. In general, I think that organ donation is a good thing.

32. Organ donation is consistent with my moral values and beliefs.

33. I would agree to an organ transplant, if my life were in danger.

These questions ask about your behaviors related to organ donation

34. Have you granted permission to donate an organ?

A. Yes

B. No

35. Have you ever been an organ or tissue donor?

A. Yes

B. No

36 How likely are you to have your organs donated after your death?

A. Very likely

B. Somewhat likely

C. Not very likely

D. Not at all likely

37. Most people who receive transplants gain additional years of healthy life.

38. It is possible for a brain-dead person to recover from his or her injuries.

39. Have you discussed with a member of your family your wish about donating organs after your death?

40. Are you willing to discuss your wishes about organ donation with your family?

A. Yes

B. No

These questions ask about your willingness to donate an organ

41. Assuming you are medically able, how likely would you be to agree to donate an organ to a family member while you are living?

A. Very likely

B. Somewhat likely

C. Not very likely

D. Not at all likely

42 Assuming you are medically able, how likely would you be to agree to donate an organ, while you are living, to a patient of the same religion?

A. Very likely

B. Somewhat likely

C. Not very likely

D. Not at all likely

43. Assuming you are medically able, how likely would you be to agree to donate an organ, while you are living, to a patient of a different religion?

A. Very likely

B. Somewhat likely

C. Not very likely

D. Not at all likely

44. Assuming you are medically able, how likely would you be to agree to donate an organ, while you are living, to a patient of the same tribe?

A. Very likely

B. Somewhat likely

C. Not very likely

D. Not at all likely

45. Assuming you are medically able, how likely would you be to agree to donate an organ, while you are living, to a patient from your local area?

A. Very likely

B. Somewhat likely

C. Not very likely

D. Not at all likely

46. Would you be willing to sign up to be a donor with the national donor registry?

A. Yes

B. No

47 If you had to identify the single biggest reason why you want to be a donor, what would that be? (select all that apply)

A. To save a life, or be of a help to others in need

B. I won't need them any longer, so why not donate

C. It's what I want to do, the right thing to do, a good thing to do

D. Other, please explain

48. Why would you not be willing to sign up to be a donor with the national donor registry? (select all that apply)

A. No reason in particular

B. Haven't thought about it

C. Need more information and a better understanding of it

D. I am not in good health

E. Feel I am too old to donate

F. I don't know

G. It is against my religious beliefs

H. I don't trust doctors/may harvest unlawfully/not try as hard to keep me alive

I. Other, please explain

These questions ask about your cultural preferences.

49. I like to watch Western news programs.
50. I like to watch Western movies.
51. I like to watch Western weekly drama shows.
52. I like to watch Western weekly comedy shows.
53. I like to listen to Western music.
54. I speak English at home.
55. If I had the opportunity, I would like to travel throughout Europe and America.
56. I want to adopt (or take up) the Western way of life.
57. I dress mostly like other Westerns.
58. One should not deviate from tribal, familial, and social norms.
59. Following tribal, familial, and social expectations are important.
60. Most of my closest friends are the same religion.
61. Most of my closest friends are from the same tribe.
62. I like to retain (or keep) the heritage culture.
63. As far as behaviors and values, I am not a conservative and I am pro-Western Cultures.

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ABSTRACT

ATTITUDE TOWARD ORGAN DONATION AMONG SAUDI ARABIANS

by

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May 2020

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Major: Sociology (Medical Sociology)

Degree: Doctor of Philosophy

The specific aim examined the relationship between Saudi Arabians' attitudes toward organ donation and acculturation. The study tested the hypothesis that controlling for sociodemographic characteristics, Saudis who were more acculturated to Western culture would be more positive about organ donation.

A self-administrated Qualtrics questionnaire was distributed to the entire population of the College of the Social Sciences (approximately 12,000 faculty members, staff, and students) at Imam Muhammad ibn Saud Islamic University in Riyadh, Saudi Arabia. The instrument asked 63 questions about sociodemographic characteristics, acculturation, and attitudes about organ donation. The response rate was almost 8%, n=893. Students comprised 90.6% of respondents. Their mean age was 23.37 years, 74% were males, and the majority were raised in the Central Region of Saudi Arabia and resided in cities.

Factor analysis created three scales of acculturation: Interest in Western Media & Travel, Adopt Western Cultures, and Attachment to Saudi Culture. Using factor analysis, two scales emerged to measure attitudes about organ donation: Willingness to be a Living Organ Donor, and General Support for Organ Donation. Two questions were also used: Willingness to Sign Donor Registry and Willingness to Share Wishes about Organ Donation with Family. Linear and logistic regressions tested the hypothesis that controlling for age, gender, participants' education, and

income, acculturation would predict organ donation attitudes.

All else equal, higher Interest in Western Media & Travel significantly predicted positive attitudes about increased willingness to become a live organ donor, higher general support for organ donation, greater willingness to grant permission to donate, and higher willingness to share wishes with their family about donation. Greater desire to Adopt Western Culture was significantly related to increased general support for organ donation. Increased Attachment to Saudi Culture significantly reduced general support for organ donation. Females were significantly more likely to have positive attitudes about organ donation. Both acculturation and organ donation attitudes are multidimensional, and their relationship depends on the type of acculturation and attitudes. Higher levels of acculturation to Western culture increased support for organ donation.

AUTOBIOGRAPHICAL STATEMENT

On Friday, April 10, 1981, I was born in Riyadh, Saudi Arabia, and raised there as well. In 2004, I got married while studying in the last year of the Bachelor's program. I graduated in May 2005 with a Bachelor's degree in Sociology from the Imam Mohammad ibn Saud Islamic University, Riyadh, Saudi Arabia. Two months later, on July 5th, I had my first child, who is a boy named Hattan. One month later, I was awarded a scholarship from the government of Saudi Arabia to continue my graduate studies, which brought me to the United States to begin my study of the English Language in January 2006. On August 15, 2006, I had my second child, who is a girl named Remas.

In the fall of 2007, I was accepted at Eastern Michigan University in the Sociology Master's program, where I graduated on August 20, 2010, with a Master's degree of Arts in Sociology. In the fall of 2010, I was accepted at Wayne State University in the Sociology Ph.D., where I specialized in Medical Sociology to be the first in Saudi Arabia with a Medical Sociology specialty.

In late 2011, I was invited to join the Department of Sociology at Imam Mohammad ibn Saud Islamic University, Riyadh, Saudi Arabia, as a permanent lecturer in Sociology, where I still working until today.

For the past 19 years, I have been dedicated to my studies and raising my family. Now I have 5 children, three girls, and two boys. I avoid the "easy way out" for anything I do. I eagerly meet and exceed the challenges of being a hard worker. I am a rational, logic-oriented individual, as well as being a person sensitive to the needs of others.

Finally, I hope to live to be a sociologist, to improve the field, and to be successful in my studies and career. In this life, I hope to have added a valuable, reasonable, and reachable knowledge in sociology as a whole, and in medical sociology in particular.