

**EXPLORING MUSLIMS' PERSPECTIVES ON ORGAN DONATION IN NAIROBI
COUNTY, KENYA.**

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REQUIREMENTS FOR THE AWARD OF MASTER OF ARTS DEGREE IN
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DECLARATION

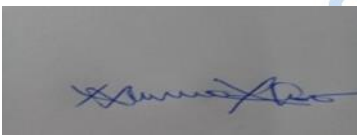
This is my original work and has not been submitted for a degree in any other university or any other award.

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DEDICATION

I dedicate this research project to my parents, siblings and friends for their invaluable support throughout my studies.



ACKNOWLEDGEMENT

This research project would not have been completed without the input, cooperation and support of a number of people, who in one way or another steered me towards my ultimate goal. I thank the MKU administration not forgetting my supervisors Dr. Mohamed Alio and Dr. Hassan Kinyua for their advice, guidance and support throughout the project.

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ABSTRACT

The study sought to investigate Muslims' perceptions on organ donation in Nairobi County. In particular, the study sought to determine the level of organ donation among Muslims in Nairobi County; to determine the religious, cultural, ethical and social perceptions of these Muslims on organ donation and their relationship with donation rates. The study was underpinned on the theory of reasoned action, the theory of planned behaviour and the normative theory of utilitarianism. A mixed methods research approach was adopted. The study targeted renowned 50 Muslim scholars, 107 Muslim opinion leaders and 1053 believing Muslim men and women attending various selected mosques based in Nairobi Central Ward. The study also targeted 15 organ transplant specialists from Kenyatta National Hospital. The study used purposive sampling to select three mosques namely Jamia Mosque, Kojja Mosque and Bohora Mosque where the study was carried out. Purposive sampling was also used to select 6 Muslim scholars and 6 Muslim opinion leaders, two from each mosque and 2 organ transplant specialists/experts. Stratified random sampling was employed to select 289 Muslim men and women attending the three mosques, taking into consideration that not all Muslims may have comprehensive knowledge of Islamic sharia, including its rulings on organ donation. The study used primary data collected using a semi-structured questionnaire and structured interview schedules. Qualitative data analysis was done using content analysis and presented using narratives. As for the quantitative data, descriptive and inferential analysis was conducted aided by the use of SPSS Version 20. Frequencies, percentages, the mean, standard deviation and chi square statistics were computed and presented using tables and charts. The level of organ donation among Muslims in Nairobi County was found to be generally low even though the practice was supported by the majority of them. Also, there was a divided opinion among Muslims in Nairobi County on whether organ donation was supported from a religious, cultural, legal/ethical and social points of view. The study further found that religious, cultural, legal/ethical and social perceptions on organ donation among Muslims in Nairobi County were significantly related with donation rates among them. Overall, the study concluded that the success of efforts taken by stakeholders in the organ donation and transplantation field to enhance organ donation among Muslims in Nairobi County would depend on the extent to which their design cultivated positive perceptions towards the practice along religious, cultural, ethical/legal and social lines. Among the recommendations of this study was that extensive sermons should be conducted by faith leaders in mosques or online platforms to educate and sensitize the Muslim believers on the necessity and benefits of organ donation. Muslim faith leaders should also set aside some Madrassa lessons to cover and address various issues on organ donation and transplantation process given the increasing cases of end stage organ diseases and organ failure. The study also called on Muslim scholars in the country to engage in extensive research and also take a leading role in issuing more and clearer fatwas on organ donation among other recommendations. The study further recommended that medical bodies and other organizations steering organ donation in the country, with the consent of organ donors and recipients, should publish in various platforms such as broadcast print, print media and social media the various success stories involving Muslims in the field.

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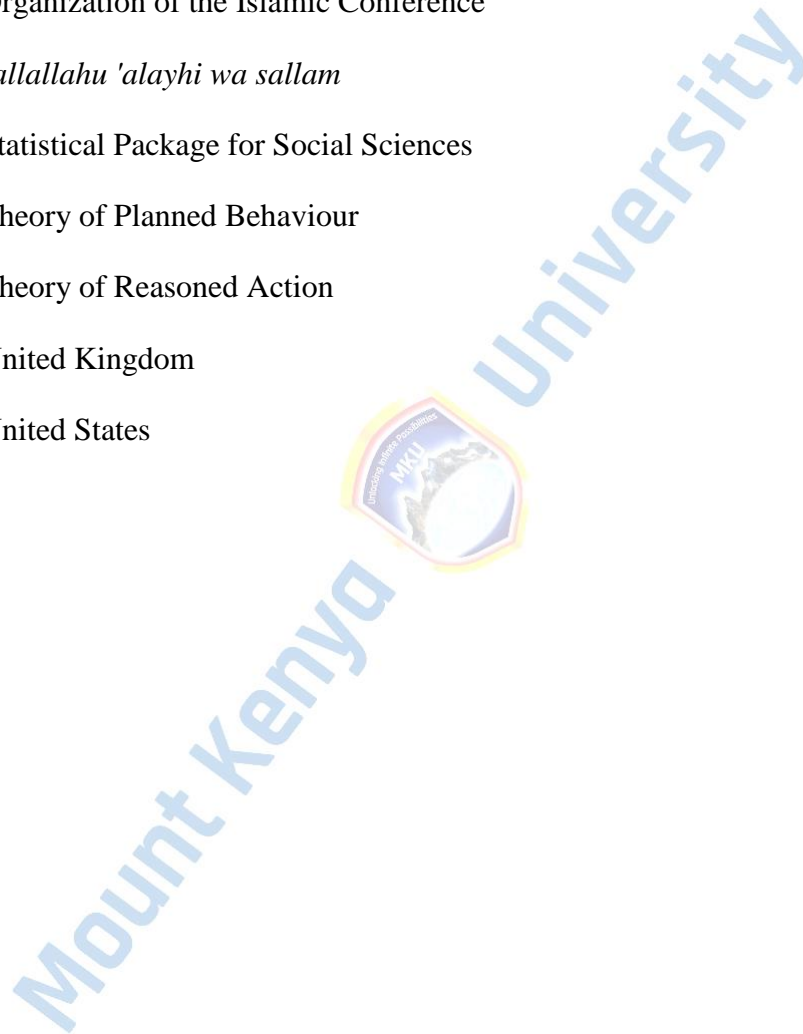
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LIST OF ABBREVIATIONS AND ACRONYMS

IFA	Islamic Fiqh Academies
KRA	Kenya Renal Association
MWL	Muslim World League
NACOSTI	National Commission for Science Technology and Innovation
OIC	Organization of the Islamic Conference
SAW	<i>sallallahu 'alayhi wa sallam</i>
SPSS	Statistical Package for Social Sciences
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
UK	United Kingdom
US	United States



CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Organ donation and organ transplantation are often the best and only treatment that can be availed to patients in particular cases. Organ donation is described as the surgical process of removing organs and tissues from the human body of living or dead persons so that transplantation as a form of treatment can be carried out (Rudge et al., 2012). Transplantation in this case is the process through which human organs, tissues or even cells are transferred from donors to recipients so that function in the body of the latter can be restored (Jothula & Sreeharshika, 2018). These medical procedures are commonly the most favoured mode of treatment in cases of end-stage organ illnesses and organ failure (Queeley, & Campbell, 2018). The success of these procedures depends on readily available and committed registered donors.

Organ donation is normally an intricate process that involves several factors both technical and organizational. Nonetheless, the final outcomes of this process are closely dependent on the ultimate decision made by the persons who are unconnected to the healthcare system (López et al., 2012). The implication of this observation is that the decision to or not to donate organs depends on each individual and efforts taken to enhance organ donation should focus on the aspects conditioning the individualized decisions in regarding to this matter (Irving et al., 2012). Generally, surveys undertaken in regards to public opinions on organ donation have revealed that whereas the attitude of most individuals on this medical procedure is positive, this rarely translates to tangible action (Newton, 2011).

The failure by the public to take action towards organ donation or poor rates of converting prospective donors to actual donors is constantly highlighted as the main factor explaining the present scarcity of transplantable organs (Ali et al., 2013). This challenge has persisted even in the face of enhanced rigorous and more focused efforts to enhance donation rates by supporting the benefits accruing from transplantation to the society in general. The flaring gap between the organs demanded and those supplied requires sustained efforts to comprehend the decision-making of individuals regarding organ donation so that adequate measures are taken (Schnitzler et al., 2005) and one way to do so is to explore the general perceptions of organ donors.

The comprehension of perceptions on organ donation is particularly important when Muslim faithful are concerned given that Muslims (followers of Islamic religion) demonstrate the most uncertainty or doubt towards organ donation compared to other major faith groups (Dadwani, 2017). It has been recognized worldwide that none of the major faiths theoretically disapprove of organ donation, though when it comes to Islam (the religious faith of Muslims including belief in Allah as the sole deity and in Muhammad as his prophet), divergent opinions either in support or objection to it exist (Blake, 2015). The subject of organ donation and transplant remains exceedingly disputed within Islam contexts and despite the fact that the majority of Muslims in present day agree with the validity of both living and cadaver organ donations, this in any way does not imply a common accord (Hurst, 2016). As result, organ donations are generally low among Muslims in Islamic states and as well among Muslims who live in other nations as minorities.

To understand the paradox that exists pertaining to organ donation among Muslims, Muliira and Muliira (2014) argue that it is crucial to consider that Muslims have diverse factions, cultural as well as ethnic groups which results to variances in individual and group viewpoints on key issues. Generally, religious, cultural, ethical, and even social values of Muslims are coined from and deeply entrenched in the Quran (Muslim holy book) and Prophet Mohamed SAW guidance (Sunnah) and hence, they act as the reference points and direction for Muslim faithful when reaching a decision on whether to donate or not donate their organs (Miller, Ziad-Miller, & Elamin, 2014). Consequently, a lack of consensus on key issues pertaining to organ donation and transplantation brews a striking variability in perceptions and attitudes towards this practice throughout the Muslim world (Robson, Razack, & Dublin, 2010).

In many nations, the cultural beliefs and religious requirements of Islam is among the factors leading to the escalation of shortages of organs for transplantation. Such beliefs and requirements result to differing perspectives which may have a contradictory influence on organ donation. Some of the scholars with expansive experience in healthcare have interpreted the Quran to mean that in Islam, the violation of the human body may it be alive or dead is prohibited and that among the fundamental beliefs is in life after death (Oliver, Woywodt, Ahmed & Saif, 2011). They also note that the Quran teaches Muslims that an individual's body organs will stand witness against them in front of Allah (the one and only God in Islam).

Based on this viewpoint, it is perceived that organ donation is impermissible in Islam since by going through such a process, the exceptional honour that is normally conferred to a man is compromised given that the sacredness of their body is violated during the process (Sharif, 2012). Other concerns pertain to the recognition of brain death as unacceptable where the brain criteria of death are viewed as not part of the customary Islamic interpretation of death and opinions that the practice challenges Allah's authority since the body belongs to Allah. This belief and perspective, independently, may lower the inclination of prospective organ donors to take part in actual donation.

In contrast, another viewpoint emphasizes the sanctity of human life and applies the norm that when there is a need, what is normally forbidden is made permissible (*al-dururat tubih al-mahazurat*) in supporting the role organ donation in saving the lives of others (Natour & Fishman, 2011). Based on this principle and the general qualities that a Muslim should bear, the majority of Islamic legal intellectuals and also religious leaders have come to the conclusion that organ transplantation as a method of treating fatal end stage organ failure is valuable (Veatch & Ross, 2015). Hence, donations made by living and even dead donors are not only permitted but also encouraged. Based on this view, organ donation ought to be recognized as a demonstration of believers' altruism and Islam supports the virtuous qualities that support this practice such as compassion, sense of duty, charity, and collaboration (Ali & Maravia, 2020).

Some Muslims also hold the view that they cannot be organ donors as the practice contradicts crucial cultural beliefs and practices that are mainly founded on their faith. According to them, the customs observed by Muslims during burials in particular ought to be considered. As a matter of tradition, Muslims ought to be buried within 24 hours, and as result, the deceased organ donation procedure is seen as too lengthy and this raises many concerns (Shah, 2015). Among the Muslim, the practice of protecting the physical integrity and intactness of dead bodies is also a crucial ritual highly regarded by several families (Job & Antony, 2018). To families of patients in the verge of dying, the logistics involved in carrying out organ donation acts as an interruption of significant cultural rituals that surround death in Islam that they ought to observe and respect (Rady, Verheijde & Ali, 2009). Hence, some Muslims have perception that this medical procedure does not assist grieving families to deal with grief and is not in line with Muslim customs that surround care given during end of life as well as bereavement.

In Islam, divergent opinions on issues are allowed provided that they are clearly validated by Islamic principles. In regards to organ donation for example, this issue is assessed based on Sharia law (body of religious law that forms part of the Islamic tradition) the main reference points being the Quran and the Sunnah (Peletz, 2018). Nonetheless, in cases where these two do not overtly tackle such modern issues, Islamic scholars are allowed to take a thoughtful stance at them and issue provisions commonly known as fatwas. It is then up to the Muslim adherents to embrace the fatwas that they perceive as befitting. For instance, Muslim scholars hold divergent views as to what entails brain death and even though some scholars still maintain that equating brain death to normal death ought to be revised totally, most scholars accept as true that brain death conforms to the definition of death held in Islam (Miller, Ziad-Miller, & Elamin, 2014).

In regards to the latter perspective mentioned above, there has been the passing of some clear fatwas of endorsement by Islamic scholars that represent all Islamic states. Nonetheless, Muslims based in several nations such as Iran have been generally resistant to the retrieval of body organs for transplantation purposes in spite of clear rulings by religious leaders (Arbour, AlGhamdi, & Peters, 2012). Cases of legal oppositions to the acknowledgment of “brain-death” as “legal death” have been observed and hence, in some nations, organs are not legitimately or regularly obtained from heart-eating brain-dead patients as they are in other places. This implies that in some nations, routine transplants among Muslims are restricted to corneas that are acquired from systemically dead corpses, and to kidneys and liver lobes obtained from donors who are alive (Kiani, Abbasi, Ahmadi, & Salehi, 2018).

Overall, it is apparent that differing perceptions are held by individual Muslims regarding the position of Islam as it pertains to the permissibility of organ donation. They employ their individualized understandings of socio-cultural beliefs, Islamic principles, and scriptures drawn from the Qur’an, as well as the recommendations by their spiritual leaders in forming the perceptions on organ donation. In addition, while most Islamic scholars and researchers across the globe approve of organ donation, a large number of Muslims are still unwilling to embrace this practice more so when it comes to deceased donation. As a consequence, most transplants in many largely Muslim countries and in nations where Muslims are a minority group are dependent to living donors. The permissibility of organ donation remains contended among Muslims. Studies carried in Iran, Saudi Arabia, Turkey, Malaysia, Europe and even the US show that organ donation among Muslims is quite a point of concern.

Nonetheless, a Kenyan perspective was conspicuously lacking and this was a key motivation for undertaking this study. Accordingly, this study sought to explore Muslims' perceptions on organ donation in Nairobi County, Kenya. In particular, the study determined the level of organ donation among Muslims in Nairobi County. It also determined the religious, cultural, ethical and social perceptions of Muslims on organ donation and their relationship with donation rates in Nairobi County.

1.2 Statement of the Problem

Kenya just like other nations across the globe, suffered high health burdens related to end-stage organ diseases and organ failure. For instance, it was estimated that about one in every 10 persons had some form of chronic kidney disease and about four million Kenyans were affected with a significant proportion of this population progressing to kidney failure (Sokwala, 2018). Yet only 10% of those who needed dialysis were able to access the services (Mwenda et al., 2019). The Kenya Renal Association (KRA) noted that an estimated 6000 patients suffered kidney failure annually whereby in 2021, a total of 5670 patients were on hemodialysis (Maritim, Twahir & Davids, 2022). This was also observed with other diseases where Ooko (2017) observed that Kenyatta National Hospital alone catered daily for over 50 patients suffering from end stage liver disease.

The Kenya Tissue and Transplant Authority (2023) also noted that aside from kidney cases, an estimated 75,000 people needed corneal transplants with over 1,000 documented patients on the waiting lists across the various eye hospitals in the nation awaiting corneal transplantation. In 2021, about 400 corneal transplant surgeries were successfully conducted in Kenya. Besides financial and capacity issues, the transplant queues at Kenyatta National Hospital and other private hospitals which stretched all the way as far as 2018, was exacerbated by a shortage of transplantable organs. This challenge provided an opportunity of the Kenyan public to contribute positively to the society by stepping out to be organ donors. Nonetheless, this was far from the reality in the nation where, for example, from the year 2010, an average of 2 live kidney donations occurred per month.

Islam respects life and prioritizes need of the living over the dead, thus allowing organ donation to be considered in certain circumstances. However, some Muslim communities had reservation as far as organ donation was concerned due to religious, cultural, ethical and even social beliefs. Across the globe, a point of concern was the persistent high rates of reluctance

towards donating organs among Muslims living in Islamic states and in other countries as minority groups when compared to other faith groups (Akbulut et al., 2020). In Kenya, it was difficult to draw an informed conclusion regarding organ donation rates among Muslims since there was no publicly published data to show the percentage of organ donors from the Muslim Community in the country. Within this community, still, there had been little research revealing whether organ donation was against their religion or not. This was partly due to lack of information on organ donation and lack of trust in official procedures.

The study also noted that generally, the concept of organ donation had received little attention among scholars in Kenya. This study therefore, helped address this conceptual gap. Given that studies such as those of Parsa et al. (2019) and Akbulut et al. (2020) focused on Muslims in other nations, their findings could not be generalized within the Muslim community in Kenya due to contextual differences. The review of available literature had also revealed mixed findings regarding the perceptions of Muslims on organ donation and hence, by carrying out this study, it was possible to investigate Muslims' perceptions on organ donation from a Kenyan perspective with a particular focus on Nairobi County.

1.3 Purpose of the Study

The purpose of this study was to explore Muslims' perceptions on organ donation in Nairobi County, Kenya.

1.4 Research Objectives

The study was guided by the following specific objectives;

- i. To determine the level of organ donation among Muslims in Nairobi County.
- ii. To determine the religious, cultural, ethical and social perceptions of Muslims on organ donation and their relationship with donation rates in Nairobi County.

1.5 Research Questions

The study sought to answer the following research questions;

- i. What was the level of organ donation among Muslims in Nairobi County?
- ii. What were the religious, cultural, ethical and social perceptions of Muslims on organ donation and their relationship with donation rates in Nairobi County?

1.6 Justification of the Study

The health challenges related to growth in kidney failures and other end-stage organ ailments are of great concern to healthcare systems across the globe, Kenya included, since they involve saving human lives. In the Islamic world, human dead bodies are recognized as holy and sanctified just like those of living persons. The human dignity that is conferred on all mankind is still applicable and is extended to the corpses. Consequently, within the Muslim world in any case, organ donations and transplants are contentious processes.

As a result, there had been in-depth discussions of the concept of organ donation and transplant by Muslim jurists (the body of scholars who are authorities on Muslim religion and law) across the globe. In Kenya, there were rising cases of organ failures, however there had been little effort made by the relevant agencies and bodies in educating and increasing awareness of the significance of organ donations in saving lives among the public. Being able to receive new organs was time and again the best and only hope for survival among affected patients. Yet still, publicly published data revealing the percentage of Muslim donors in Kenya was scanty given the issues surrounding the practice among the Muslim community.

This lowered the odds of patients being able to receive new organs which could possibly cure them and prolong their lives. Among the key factors deterring Muslims from being actual organ donors was the uncertainties and confusions that some experienced with regards to the actual position of Islamic law and other principles on organ donation. This research study was aimed at addressing these queries and apprehensions especially from on a Kenyan perspective. The study provided a glimpse of the level of organ donation among Muslims in the country, the common perceptions of these Muslims on organ donation and their relationship with donation rates and also suggested credible solutions to the matters pertaining to organ donation among Muslims in Kenya based on the views of Muslims in Nairobi County, Kenya.

1.7 Significance of the Study

The findings of this study would be of great importance to various parties. The study would be of great importance to Islamic scholars, Jurists, Imams, and opinion leaders, Muslim umbrella groups and other influential community stakeholders by highlighting how they can use their positions to cultivate positive attitudes and perceptions on organ donation and transplantation among the Muslim faithful. This study would form a basis through which

such influential persons in the Muslim community could adopt well informed independent positions that reduced the level of uncertainty regarding the various aspects of this practice.

As for the jurists, the study findings would help them comprehend new ways of handling the glaring gaps and vagueness in the fatwas on organ transplantation that were widely applied in the country so that the practicality in following them in particular hospital contexts and other national programs is enhanced. The findings could inform the fatwas issued in the future and also the emerging ethical issues around this practice particularly in the Islamic context.

Through this study, Muslim scholars and other Muslim religious leaders would be able to understand the convergent views on organ donation and transplantation and the areas that required further revision so as to influence positive perceptions on the practice. The study findings would enlighten the Muslim clerics on how to devise ways and strategies through which they could talk and encourage their congregants and other audiences to embrace organ donations and transplants. By doing so, they would be able to avail crucial information to Muslims regarding the current status of transplant treatment in Islamic law which could encourage more Muslims to become registered organ donors.

The study would also be resourceful to the medical experts and organizations steering organ donation campaigns by informing their strategies and design of their intervention programs so that issues pertaining to the religious, cultural, ethical/legal, social and even ethnic perceptions of Muslim faithful are considered and integrated in such programs so as to enhance their success rates. The study would be important in informing the medical teams on how to approach the various procedures involved in the organ donation and transplantation process especially when handling Muslim donors and recipients.

This study would benefit the Muslim faithful since it would inform them of their role in the success of end-stage organ disease and organ failure treatment programs. They would be able to understand the different Islamic principles and position on crucial issues surrounding organ donation and transplantation and based on evidence, how they could form positive attitudes towards this medical practice. Through this study, the Muslim faithful would be able to get clarity on contested issues and in so doing, adopt a well-informed position.

The study would also inform policy makers within the Ministry of Health and various associations handling organ donation and transplantation issues on how to design and formulate policies that took in to considerations the common beliefs of the different faith

groups in the country so that issues pertaining to a particular faith group were captured in independent policy documents. This would ensure that generalizations that watered down the commonly held beliefs of some faith groups were minimized so as to enhance positive reception of this practice.

The study would play a crucial role in expanding the body of knowledge and literature in regards to Muslims' perceptions on organ donation especially in the Kenyan context. This study would be a reference point for other researchers interested in related research and the findings obtained could also provoke further areas of research in relation to the study subject.

1.8 Assumption of the Study

The study made a number of basic assumptions. The study assumed that the availability of groups of people selected to take part in the study was guaranteed throughout the entire process and that they would fill the questionnaires willingly or voluntarily.

It was assumed that the respondents honestly, truthfully and objectively gave their responses and had basic knowledge pertaining to the study subject particularly in regards to Islamic principles and teaching for them to provide meaningful information. It was assumed that the subjects understood the questions asked to them so as to give articulate answers.

The study further assumed that the research was completed within the set timelines and budget and that the management of the Mosques and Kenyatta National Hospital where the study took place cooperated to ensure easier access to the research participants.

1.9 Scope of the Study

This study was limited to investigating Muslims' perceptions on organ donation in Nairobi County, Kenya. The study was confined to determining the level of organ donation among Muslims in Nairobi County, Kenya; determining the religious, cultural, ethical and social perceptions of these Muslims on organ donation and relationship with donation rates in Nairobi County as well as suggesting credible solutions to the matters pertaining to organ donation among Muslims in Nairobi County, Kenya. Given that there were several commonly held perceptions on organ donation by Muslim faithful, this study was limited to the religious, cultural, ethical/legal, and social perceptions of Muslims on organ donation in Nairobi County. A mixed methods research design was adopted. The study participants in this study were renowned Muslim scholars, Muslim opinion leaders and believing Muslim men and women attending or attached to various mosques based in Nairobi Central Ward,

Nairobi County. Organ transplant specialists/experts drawn from the Kenyatta National Hospital were also considered. The study period was January-February 2022.

1.10 Limitations and Delimitation of the Study

1.10.1 Limitations of the Study

Various challenges were faced when carrying out this study. Some of the issues studied were deeply embedded in Islamic teachings and jurisprudence and hence, some of the participants did not know the correct teachings of Islam on the organ donation thus giving incomprehensive answers. To counter this obstacle, mature Muslim faithful that were well versed on Islamic teachings, Islamic principles, Quran scriptures and were strict adherents to the Islamic faith were highly considered. It was also ensured questions were designed in a way that they could be easily understood by the respondents.

The nature of the information sought in this study touched on personal beliefs and practices and hence, was termed as confidential by some of the targeted respondents who for fear of judgment, at first shied away from participating in the study. To deal with this challenge, the information was given anonymously and an assurance given that this study was purely undertaken for academic purposes.

Furthermore, since the researcher had extensive experience on Islamic teachings and systems due to their position in the society, their experience and knowledge might have been a temptation for them to have preconceived opinion about the issues under study thus the possibility of undermining the objectivity of the study. To deal with this challenge, the findings of other scholars and the supervisor's comments were taken into account. The use of research assistants was considered to also ensure that the data collected was objective.

1.10.2 Delimitations of the Study

The study was restricted to selected mosques in Nairobi Central Ward in Nairobi County namely Jamia Mosque, Kojja Mosque and Bohora Mosque since it was not possible to cover all the mosques within the expansive county. The choice of Nairobi County and in particular the mosques in the stated ward was informed by the fact that they could be conveniently accessed and it was also able possible to get the views of Muslims from different regions within Nairobi County under one roof. This was because these mosques were attended by Muslims from all walks of life within Nairobi County. Therefore, it was possible to easily

access the respondents from the specific target groups due to the strategic positions of these mosques and the persons attending worship sessions.

1.11 Definitions of Operational Terms

Brain death donation: this is where the organ for transplantation is obtained from a brain death patient.

Brain death: It is the complete stopping of all brain function and cannot be reversed and this state, one is considered to be dead.

Cultural perception: This alludes to how an individual views or their attitude towards organ donation based on cultural beliefs, attitudes, rituals, behaviours, and even customs that are explicitly unique to a given group of individuals and which are transferred from one given generation to the next.

Deceased/cadaver donation: This is where the organ for transplantation is obtained from a deceased person.

Ethical/legal perception: In this study, it refers to whether an individual considers organ donation as right, good or just or not.

Fatwa: A fatwa is a legal opinion or ruling issued by an Islamic scholar, also known as a mufti, on matters of Islamic law (sharia). Fatwas are typically issued in response to questions from individuals or courts about religious practices, ethical dilemmas, or interpretations of Islamic texts. While a fatwa provides guidance based on the scholar's interpretation of the Qur'an, Hadith, and other religious sources, it is not legally binding unless adopted by a government or religious authority in certain jurisdictions. Fatwas can cover a wide range of topics, from everyday life issues like marriage and diet to more complex matters like financial transactions, modern technological advancements, and political issues. Different scholars may issue different fatwas on the same topic, reflecting diverse interpretations within Islamic thought

Fiqh: Fiqh refers to Islamic jurisprudence, the human understanding and interpretation of Sharia (Islamic law) derived from the Qur'an and Hadith. It involves the process of making legal rulings on issues that may not be explicitly mentioned in the Qur'an or Hadith by using reasoning and consensus among scholars.

Hadith: Hadith refers to the recorded sayings, actions, and approvals of the Prophet Muhammad (peace be upon him). Alongside the Qur'an, the Hadith plays a central role in shaping Islamic law (Sharia), theology, and daily practice. While the Qur'an is considered the direct word of God, the Hadith provides context and practical examples of how to implement its teachings.

Living donation: In this case, the organ for transplantation is obtained from a living person.

Organ donation: the surgical process of removing organs and tissues from the human body of living or dead persons so that transplantation as a form of treatment can be carried out.

Organ transplantation: process through which human organs, tissues or even cells are transferred from donors to recipients so that function in the body of the latter can be restored

Presumed consent: the approach to organ donation whereby every citizen is considered an organ donor unless they specifically request not to.

Quran: The Qur'an (also spelled Koran) is the holy book of Islam, believed by Muslims to be the literal word of God as revealed to the Prophet Muhammad (peace be upon him) over 23 years, through the angel Jibril (Gabriel). It serves as the primary source of spiritual guidance and law in Islam and is considered the final and most complete revelation from Allah.

Religious perception: This pertains to how an individual views or their attitude towards organ donation from a religious perspective which are shaped by their beliefs and practices that relate to God or any other higher power.

Sharia: Sharia refers to the divine law in Islam, derived primarily from the Qur'an (the holy book of Islam) and the Hadith (the sayings and actions of the Prophet Muhammad). Sharia serves as a comprehensive guide for how Muslims should live their lives in accordance with God's will. It encompasses a wide range of legal, moral, and ethical principles that govern everything from religious practices to social, economic, and personal matters.

Social perception: this refers to how an individual views organ donation based on social cues such as whether the society accepts the practice or not.

Sunna: Words, actions and tacit approvals of Prophet Mohamed.

Xenotransplantation: Transplanting an animal organ into a human being.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of existing literature in relation to the perceptions of Muslims on organ donation. Empirical studies undertaken across the globe and which are relevant to this study were reviewed. The general perceptions regarding organ donation among Muslims were first reviewed and afterwards their effect on organ donation was discussed. A critique of the reviewed literature was also undertaken so as to highlight the research gaps.

2.2 Concept of Organ Donation in the Islamic Context

Organ transplant, defined as the transfer of a living tissue or organ to an injured or ill person to restore health or reduce disability, first started in the 1930s. This concept gave new hope and new life to ailing patients when several kidney transplants were successfully performed in the 1950s. Following that, doctors discovered how to transplant other organs successfully, hence improving quality of life, and reducing morbidity and mortality. Today, most organ transplants are relatively safe procedures, no longer considered as experiments, but considered as treatment options for patients. In Islam, the permissibility of organ transplantation and donation is not specifically mentioned in the main sources of reference, namely the Quran and Hadith.

This is because organ transplantation and donation are modern developments in medicine. Still, Islamic scholars have discussed these developments since the 1950s. The opinions of Islamic scholars regarding organ transplantation are *ijtihad* nature, which means that the *ijtihad* (juristic interpretation) is based on Islamic legal maxims. A fatwa that is based on *ijtihad*, as described by Dr. Yusuf al-Qaradawi, is a fatwa that is still open for discussion because it is related to a new development that was not discussed by previous scholars. Basically, organ transplantation and donation are permissible in Islam. This is because organ transplantation and donation fulfill the requirement in the preservation of human life, which is one of the five objectives in *maqasid al-syar'iyah* (objectives of the Islamic law).

There is no papacy in Islam. Legal opinions (that is., fatwas) may be sought about contentious or contemporary issues from Muslim scholars, who are acknowledged experts in matters of Islamic law and ethics. The primary source of references for reaching a fatwa is

The Quran (www.quranexplorer.com/Quran/). The next most valuable source is The *Sunnah*, which describes the tradition of the Prophet Muhammad: what he said, what he did, what he saw and approved during his lifetime. If neither of these resources contains a reference to the issue in question, the scholars exercise *Ijtihad*, the practice of rendering opinions based on reasoning or original analysis following the methodology and general principles in *usulal-fiqh* (that is., Islamic jurisprudence) (Gatrad & Sheikh, 2001; Padela, 2007).

Several general principles guide Muslim scholars in issuing opinions on the moral status, values, and consequences of certain actions, (Al-Allaf, 2003; Padela, 2007). The *Quran* and the *Sunnah* do not explicitly address organ donation and transplantation because these are historic precursors to transplantation medicine (Al-Khader, Shaheen& Al-Jondeby, 2003; El-Shahat, 1999). Therefore, opinions on this practice are issued by *Ijtihad* of Muslim scholars (Gatrad& Sheikh, 2001).

2.2.1 Types of Organ Transplant

Organs can be transplanted from a living donor or deceased donor. Examples of organs transplanted from living donors are livers and kidneys. This is possible because liver is capable of regeneration, and human beings are born with two kidneys and have one 'extra' kidney to donate. There have also been reports of lung transplantation from a living donor, but this is still very rare. For these types of procedures, a patient in need of transplantation would seek a willing relative or friend as a donor. If the donor was a match, the surgical procedure would proceed without delay.

However, a small number of living transplants are from charitable people donating for a good cause. On the other hand, a patient who needs a heart transplant, a double lung transplant, a pancreatic transplant or a cornea transplant would need to get from a deceased donor or from people who are brain dead on medical/organ-perfusion life support. Even though people who are brain dead are technically dead, their body organs would still be functioning, hence suitable for organ donation.

2.2.2 Sources of Organs

There are presently three sources of organs for transplantation: (a) living donors, (b) cadavers, and (c) brain dead donors. Majority of Sunni and Shia scholars with certain caveats, to be noted below, have approved all three procedures.

2.2.2.1 Living donors

In the case of the living donor, the criteria for organ donation are two. Firstly, the life of a living donor should not be put at risk, as they are already alive and healthy and they have a greater right to their continued health and a greater chance at extended life than a person that is already ill. Therefore, the donations of vital organs such as the heart are not allowed in Islam, nor should a person who is physically too unstable to tolerate the process of organ harvesting volunteer for an organ. The second criterion is that the donor should donate of their own free will, as there is no compulsion in non-obligatory acts in Islam. The benefit of using living donors is that in non-urgent cases, more time can be spent finding organs that are compatible with respect to blood type and size (in case of pediatric recipients) and for the donor and recipient to become psychologically prepared for the long surgery, recovery and alteration to the physical appearance of their body.

2.2.2.2 Cadaveric Donors

The underlying jurisprudential concepts for allowing donation and transplantation are that the needs of the living outweigh those of the dead and that extending the life of one is like extending the life of all mankind. The justification for using cadaveric donors is that their need for organs vital and non-vital has ceased, removing the conflict of interest presented by their personal right to the use of the organ(s) while alive. Ordinarily, the dead have a right in Islam to the sanctity and wholeness of their body, but the need to save a life overrides this injunction as it has a prima facie importance in the mundane affairs of mankind. While saving a life is of paramount importance in Islam, the family of the deceased must consent and there are in no way obliged to consent to organ donation even if it involves the death of another person who is alive but gravely ill. The benefit of cadaveric transplantation is that no harm comes to the living in donating the organ and that multiple organs can be harvested at one session for maximal benefit to people.

2.2.2.3 Brain Dead Donors

The issue of brain death was first discussed in 1985 by international Islamic scholars who gathered in Jeddah, Saudi Arabia even though at that time, no decision was made. The issue was later discussed in greater detail in 1986 in Amman, Jordan. The fatwa from this conference stated that death can occur due to two reasons. The first is when the heart stops functioning in totality and the doctor verify that there is no hope for it to recover. The second

is when the functions of the brain stops in totality and the specialists in this field verify that there is no hope for recovery upon complete analysis. Therefore, Islam accepts brain death as death. This matter is also touched on by state fatwas issued by Selangor (2000) and Johor (2001). Physical death, traditionally was when the heart stopped beating and the body grew cold, although this was by empirical observation and not a divine or prophetic pronouncement. Metaphysical death is when the spirit (*ruh*) departs, which is evidenced when the body is no longer animated. As a consequence, the soul (*nafs*), the conscience and essence of personhood, separates from the body. As long as the body contains the soul, to bring harm to it is a sin and to remove life support while the heart beats has been considered tantamount to murder.

2.2.3 Medical Ethics and Islam

In Islam, religion (*din*) encompasses all intellectual activities of man with scholastic theology (*kalam*) being but one discipline and all fields of study, such as the physical sciences, medicine, and law referred to as “sciences” in the sense that they require methodical study. Because all areas of intellectual endeavors impact on the lives of the individual and society, every science inherently has an ethical dimension to it in Islam. Hence, the science and philosophy of ethics has been considered to be of paramount importance in all the Islamic schools of thoughts along with doctrines (*aqida*) and legal rulings (*ahkam*). The prophet Mohammad defined his entire mission as the promulgator of Islam in an ethical light that “I was commissioned to ennoble (man’s) ethics”. The separation between the incipiently dying and the really dead must be unequivocal and absolute in medical practice. A body of evidence suggests that organ donors who are declared dead by either brain or circulatory criteria may be not really dead but instead may be incipiently dying or destined to die (Joffe, 2007).

2.2.3.1 Informed Consent

Islamic law recognizes the intellectual autonomy of every adult, rational individual, male and female. Free will, rationality and personal accountability are hallmarks of Islam’s view of man. For example, in the Quran, we read, “The truth is from your Lord, so let him who please believe, and let him who please disbelieve’ (18:29, Sūra Al-Kahf). Informed consent can be defined as the act of giving accurate and pertinent information to a physically mature and sane patient in order for them to freely decide on a treatment or procedure. In the case of a living donor as with any other procedure, consent must be obtained in Islamic law. This

pertains for men and for women. Third parties, such as spouses, parents, or adult children, cannot decide for a patient as long as the patients are competent. There is a prophetic saying that goes, “Freedom, in truth, is to be free in all affairs”. The case of brain dead and cadaveric donors is more controversial. The Islamic Jurisprudence’s Assembly Council of Saudi Arabia affirmed in 1988 in the following fatwa the permissibility of proxy consent: “Transplantation of an organ of the dead to a living human being whose life or essential function of the body would rely on the donated organ is allowed, provided that the dead (before his death) or his heirs permit it. And the permission of the Islamic authority is needed.”

2.2.3.2 Islamic Views on Dying and Death

In Islam, life is a journey through the physical world, whereas death is a journey through the spiritual world (Hedayat, 2006). Death in Islam is an active process, a transition for the soul from the physical world to the spiritual world. The Prophet Muhammad explained, “Death is when the spirit [soul] leaves the body,” which ends the relationship between the soul and the body (Hedayat, 2006). The *Quran* offers an explicit reminder that human beings have deficient understanding and knowledge about the soul or spirit (Ruh) and what constitutes life or death. “And they ask you concerning the Ruh (the Spirit); Say: “The Ruh (the Spirit): is one of the things, the knowledge of which is only with my Lord. And of knowledge, you (mankind) have been given only a little” (17:85) (*Quran*). This perspective on dying and death is distinctive in traditional Islamic teachings (Gatrad, 1994; Sarhill et al., 2001; Sheikh, 1998). For end-of-life rituals, a person is not considered to be dead until the body has become cold and rigor mortis has occurred.

Thus, the immediate family and other relatives are allowed to stay with the patient to continue with end-of-life rituals until completion of the dying process and until the signs of death have become apparent to them. Once death is declared, a Muslim corpse is given the same respect and privacy as the person received while alive. Islamic belief holds that it may even be possible for the deceased to perceive pain.

2.2.3.3 Islam and Assisted Death in End-of-Life Organ Donation

The Islamic faith values human life. It values any means to save a human life, but it condemns the termination of a human life without just cause: “And kill not anyone whom God has forbidden, except for a just cause (according to Islamic law). “This He has commanded you that you may understand” (6:151) (*Quran*). In Islam, a patient’s right to die

voluntarily is not recognized because life is a divine trust and its term is fixed by an unalterable divine decree; therefore, it cannot be terminated by any form of active intervention (Gatrad, 1994; Sachedina, 2005).

Muslim scholars who advocate organ donation commonly cite the verse: “*if anyone killed a person – not in retaliation of murder, or (and) to spread mischief in the land – it would be as if he killed all mankind, and if anyone saved a life, it would be as if he saved the life of all mankind*” (5:32) (*Quran*) emphasizing the latter, i.e., the saving of a human life being of a paramount value with such actions to be rewarded as if they involved the saving of the whole of mankind. What should be emphasized about this verse, however, is that its warning about, and condemnation of, the active termination of life or the killing of another human being has priority over the commendation for saving one.

When death becomes inevitable, Muslim patients should be allowed to die peacefully and comfortably without unnecessary procedures or new attempts to sustain life by artificial life support systems (Sarhill et al., 2001; Sheikh, 1998). However, life support systems are required to be initiated or continued to preserve organs for transplantation (Bernat et al., 2006; Snoeijs 190 HEC Forum (2009) 21(2): 175–205 et al., 2007), contradicting Islamic principles about the care of the dying.

2.2.3.4 Is Organ Donation Similar to Torturing the Dead?

In a Hadith, the Prophet SAW said: From `Aisyah RAH, she heard the Prophet SAW said, “Verily the act of breaking the bones of the deceased is the same as breaking the person’s bones while he is alive.” Basically, the Hadith prohibits any kind of humiliation on the deceased. Islam is very strict in giving due respect to the deceased, whether they are Muslims or non-Muslims. The act of breaking the bones of the deceased is regarded as an act of torturing the deceased as mentioned in the Hadith. This is because such act is malevolent and does not bring any benefit at all. However, organ donation and transplantation are not done because of any malicious intent or without any beneficial purposes. These acts are performed as a final resort to save the lives of patients who need organs.

Preserving life is one of the elements in *maqasid al-syar’iyyah* or purposes of Islamic law. The prohibition in the Hadith becomes void when there exists a more crucial and critical need that is to save human lives. The intention behind the act of donating organs is virtuous and benevolent. Organ donation will only be done when there is no other alternative to save a

patient's life. In this matter, the following verse applies: But if one is forced by necessity, without willful disobedience, or transgressing due limits- then is he guiltless. For Allah is Oft-forgiving Most Merciful, (Al-Baqra173).

2.3 Islamic Teachings on Organ Donation

2.3.1 The Sanctity of Human Life

One of the basic teachings of Islam is the preservation and protection of human life from body to *batin* (inner) prohibiting murder and massacre and grievance against any one unlawfully. The Almighty presaged Muslims on the matter in the Qur'an.

“If a man kills a Believer intentionally, his recompense is hell, to abide therein (forever): and the wrath and the curse of Allah are upon him, and a dreadful penalty is prepared for him”. (Qur'an, 4:93)

Under the Islamic legal system therefore, the punishment of illegal killing any human being irrespective of race, religion, tribe or community is death in retaliation as Allah prescribes:

“O you believe the law of equality is prescribed to you in cases of murder the free for the free, the slave for the slave, the women for the women. But if the brother of the slain makes any remission, then grant any reasonable demand. And compensate him with handsome gratitude. This is a concession and a mercy from your Lord. After this, whoever exceeds the limits shall be in grave penalty”. (Qur'an, 2:178)

The Qur'an also repetitively reminds its believers that humans are dignified, honored and favored over other creatures by Allah; dignity of life and death therefore has to be preserved.

“Nor take life, which Allah has made sacred- except for justice cause. And if anyone is slain wrongfully, we have given his heir authority (to demand qisas or to forgive) but let him not exceed bounds in the matter of taking life, for he is helped (by the law)”. (Qur'an, 17:33)

Similarly the Qur'an makes life sacred:

“We have honored the sons Of Adam; provided them with transport on land and sea; given them from sustenance things Good and pure; and conferred on them special favors, above a great part of Our Creation”.(Qur'an, 17:70)

Manifestations of danger to human life such as violence, destruction and economic sanctions, are strictly prohibited.

“O you who believe! Eat not up your property among yourselves in vanities; But let there be among you Traffic and trade by mutual good will: nor kill (or destroy) yourselves: for verily Allah have been to you most merciful”. (Qur’an, 4:29)

In line with the Qur’anic teachings, majority of the Muslim scholars have invoked the principle of priority of saving human life and has permitted the organ transplant as a necessity to procure that noble end. Nonetheless, it is prohibited to violate, harm or mutilate the cadaver whether it is a Muslim or a non-Muslim. There are exceptions to this general rule especially in a case when there is a necessity (*darurah*). One question could be under scored that if the donor is alive he or she may undergo normal surgical operation but can the body of a dead donor undergo surgical procedures? The assessment of the views of the Muslim Jurists may shed some light on the issue.

Muslim jurists hold diverse opinions on the aforementioned question. The Maliki and Hanbal schools maintain that it is impermissible to dissect a dead pregnant lady in order to retrieve the infant. The Shafi’i school of thought on the other hand allows dissection to be carried out. Dissection to remove valuable items from the dead is also allowed according to the mainstream of Muslim jurists, except the Hanbali School. A Council of scholars from the major Muslim Schools of law in Britain had painstakingly deliberated on the issue of organ transplant and concluded that the medical profession is the proper authority to define the signs of death. Current medical knowledge considers brain death to be a proper definition of death. The Council accepts brain-stem death as constituting the end of life for the purpose of organ transplant. The Council supports organ transplant as a means of alleviating pain or saving life on the basis of the rules of shari’ah. Muslims may carry donor cards. The next of kin of a dead person, in the absence of a donor card or an expressed wish of the dead person to donate his organs, may give permission to obtain organs from the body to save other people’s lives.

In his work, *Fiqh al-Islami wa Adillatuh*, Wahbaaz-Zuhaili insists that: “Based on the ruling, which allows dissection on dead bodies in specific cases, any dissection or operation done on the dead body due to a significant necessity is allowable. For example, dissection for the knowledge of medicine and dissection in order to find the cause of death to convict criminals

by which there are no other avenues to come to the truth (al-Haq). These are based on the shari‘ah principle of establishing justice, *Adil*, in any ruling given by the court, in order to avoid injustice, *Dhalim*, from happening to the innocent or to ensure that the guilty do not escape from the punishment as a result of his crimes. Even though such dissections are allowed, it should be done within necessary limits without overdoing it.

The Permanent Committee for Legal Rulings in the Saudi Kingdom concluded the following on dissection: 1. Dissection to discern criminal act caused the death of the diseased is sanctioned. 2. Dissection to identify contagious disease and finding methods of sojourning its spread is also endorsed. 3. Dissection for educational and training purposes is authorized. Islam requires that the donor be mature and mentally sane, able to decide his or her destiny through free will and in full control and comprehension. The intention to trade an organ or exchange it with other organs is considered unlawful contract between donor and recipient, as humans should not put their body on the market. The life of the donor should not be in danger as a result of the organ removal.

It is not permissible also to donate essential organs such as the brain, nervous system and other crucial parts even to the donors’ loved ones. On this aspect Muslim scholars agree on the illegitimate nature of donating life to another person. Muslim Jurists also divided organ donors into two main groups, dead and a live, putting each category under certain conditions. On the living donor, the aforementioned conditions such as being mature, sane, responsible and able to make personal decisions apply.

On the organ from dead persons, jurists have permitted taking certain organs from diseased body with the following conditions in place: 1. The deceased should have permitted before his or her death. 2. It should not be for the purpose of commerce and pecuniary. In an article entitled *transplantation of cells of Nervous System, specially the Brian*”, Sheikh Mohamad al-Mukhtar, a contemporary Muslim scholar, divided the Donors into four categories: Respected or honorable adults, Minors, the foetus, and adults whose life is not protected by Islam. Faith has also been made a factor in the discussion of Muslim Jurists on organ transplant. It appears there is consensus that transplant is permissible from one Muslim to another and from a non-Muslim to a Muslim.

Transplanting Muslim organs into those under Muslim protection is however, a matter subjected to some disagreement while the transplant of Muslim organs into non-Muslims is

not permitted according to the mainstream of Muslim jurists but this opinion seems to be contrary to the verse of the Quran which states that saving a life of a person is like saving the whole humanity; the verse has not mentioned a muslim or non-muslim so human life is equal. On the Xenotransplantation, the *halal*ity of the organ is relevant. The Qur'an prohibited Muslims to make use of or benefit from non-*halal* organs. In another related verse, the Qur'an permits the use of the *haramized* organs on the basis of compelling necessity, (*darurah*).

2.4 Muslim Scholars' Opinions on Organ Donation

The issue of organ transplantation has been discussed since the 1960s. As a result, a fatwa regarding organ transplantation was issued in 1970 by the National Fatwa Council. The fatwa is used as reference for matters pertaining to organ transplantation and donation and is adopted by states, which do not have a specific fatwa regarding the issue.

2.4.1 National Fatwa

The National Fatwa Council of Malaysia in 1970 deliberated on organ transplantation, specifically on eye and heart transplants. The Council decided that eye and heart transplants from cadaveric donors to living recipients are permissible in Islam under the following considerations: (i) It is carried out in critical and crucial situations where the life of the recipient depends on the organ transplantation and the transplantations have a high degree of success; (ii) In heart transplantation, the death of the donor must first be ascertained; (iii) Necessary actions must be taken so that no human killing and organ trading are involved; (iv) Permission must be obtained from the donors prior to transplantation (in cases of normal death) or from the family members (in cases of death resulting from accidents). These are based on the following legal maxims: (i) Harm must be eliminated; (ii) Hardship begets facility and (iii) Choosing the lesser of two harms.

The permissibility of donating and transplanting organs is also bound to the following conditions which are meant to protect all interests in accordance to Islamic law. These are: a) Living donors are not inflicted with harm such as death or disabilities (loss of hearing, sight, and mobility); b) Transplantation is performed with the permission from the donors; c) the permission is obtained from donors who are legally able to do so. As such, permission cannot be given by children, mentally-incompetent people, or individuals who are confused, under pressure or coerced to donate; d) not conducted in ways that could violate human dignity

such as organ trading. It should be done for altruistic reasons; e) doctors involved in the transplantation have sufficient knowledge to assess the donors' and recipients' conditions based on the principles of *maslahah* (benefits) and *mafsadah* (harms) as per Islamic law.

2.4.2 Sarawak

Sarawak's fatwa was decided in 1996 focusing on donation and transplantation of kidneys. The fatwa states that donation of kidneys to patients with kidney failure is permissible under certain conditions: i) the donor is sincere to donate his or her kidney; ii) Medical experts have verified that the donation will not pose any danger to the donor; and iii) No trading is involved. Conditions for cadaveric donor include: (i) Before death, the donor has stated that he or she has consented to donate his or her kidneys to other people upon death or permission is given by his or her legal guardian, and the donation is not done under coercion; (ii) Medical experts have verified that the kidneys from the donor can be used for donation; (iii) It must be made certain that the kidney transplantation is done solely for medical purposes and (iv) No trading is involved.

2.4.3 Selangor

Selangor's fatwa was issued in the year 2000 and is among the most comprehensive fatwas in the Islamic world because it touches on a wide ranging transplantation issues, including brain death, which is the prerequisite for cadaveric organ donation. Selangor's fatwa states that: (i) It is permissible to transplant organs from cadaveric donors because it is beneficial to the masses and (ii) It is permissible for Muslims to donate organs to non-Muslims. For living donor, the fatwa is based on these conditions: (i) Careful and professional medical examination on the effects of organ transplantation towards the donor and recipient must be conducted (to identify the advantages and disadvantages, as well as possibilities of success and failure); (ii) It is performed voluntarily and is not under any coercion; (iii) There is an urgent need to save the life of the recipient especially one having family relationship; (iv) The transplantation has a high degree of success; (v) The transplanted organ is not for the purpose of trade because this could only lead to the act of abuse that would harm the recipient, benefiting the middle man and provide financial opportunities to irresponsible doctors. Written consent is obtained from the donor, and the donor is free to withdraw the consent at any time and (vii) although the organ has been donated, a significant part of the

organ still remains with the donor to allow him or her to continue living (for example, one of the kidneys, and part of the liver).

2.4.4 Conditions for Fatwa on Cadaveric Donor

The fatwa emphasizes that: (i) Careful and professional medical examination on the effects of organ transplantation towards the donor and recipient must be conducted (to identify the advantages and disadvantages, as well as possibilities of success and failure); (ii) It is performed under the donor's consent through a will or through his/her guardian, or declaration from the Government; (iii) The transplantation has a high degree of success; (iv) The transplantation is performed with full discipline, knowledge, faith and piety, and respect should be accorded to the deceased following Islamic law, and humiliation should not take place; (v) There is an urgent need to save the life of the recipient especially one having family relationship; (vi) The transplanted organ is not for the purpose of trade because this could only lead to the act of abuse that would harm the recipient, benefiting the middle man, and provide financial opportunities to irresponsible doctors. With regard to brain death, Selangor's fatwa stresses that the determination of brain death must be in accordance with the following conditions: (i) Medical examination on brain death should be conducted professionally; (ii) It is encouraged that consent from immediate family members is obtained (husband, wife, children, mother or father); (iii) Certification of brain death should be made by at least three professional doctors (priority given to Muslim doctors) and (iv) Should there be a medical treatment that can reverse or cure brain death, this fatwa is void.

2.4.5 Fatwa of the Islamic Religious Council of Singapore

In 1986, the Islamic Religious Council of Singapore issued a fatwa that permits organ transplantation in critical and crucial situations for the purpose of saving lives. The principle used on this matter is the Islamic legal maxim of "emergency (*darurah*) permits matters that are prohibited. Aside from this general fatwa on organ transplantation, there are also other fatwas on the transplantation of specific organs issued by the Islamic Religious Council of Singapore, such as a fatwa issued in 1995 on the permissibility of cornea transplantation to relieve the sufferings of those with vision impairment. Other fatwas were issued in 2003 and 2004 that permit the donation of heart and liver for the same reason as the transplant of kidneys that is to save the life of patients.

2.4.6 Fatwa of the Senior Ulama Council of Saudi Arabia

As early as 1967, the Senior Ulama Council of Saudi Arabia has permitted cornea transplant. In 1982, the Senior Ulama Council of Saudi Arabia permitted the transplant of whole or parts of organs from cadaveric donors to living persons provided that there is no other alternative. This council also unanimously permits living organ transplant.

2.4.7 Fatwa of Kuwait

In 1979, the Kuwaiti Council of Fatwa ruled that the act of transplanting organs from the deceased is permissible, with or without the deceased's consent. This fatwa is issued because there is a dire need (emergency) to save life. For living donors, the decree for transplantation is also permissible. However, it is prohibited if the organs that are to be transplanted are organs that can result in death if transplanted, like the heart and lungs.

2.4.8 Fatwa of Majma' al-Fiqh al-Islami

In its fourth conference in Jeddah, Saudi Arabia on 11th February 1988, Majma' al-Fiqh al-Islami issued a fatwa that permits organs from a deceased person to be transplanted to a living person if the life of the organ recipient depends on the organ to be received provided that consent is obtained from the donor before death, or from the deceased's guardians after death, or from the head of the Muslim community if the deceased cannot be identified or does not have any next of kin. This fatwa also emphasizes on the prohibition of trading and smuggling of organs. In its working session held on 17th October 1987, Majma' al-Fiqh al-Islami recognized the concept of brain death as death. The decree stated that a patient who is attached to a resuscitation apparatus, if has been confirmed by three specialists that there is total cessation of all cerebral functions, the apparatus can be switched off although the patient's cardiac and respiratory systems still function with the aid of the device.

2.5 Sharia Solutions on Matters Pertaining Organ Donation

Organ transplantation is only performed as a final option to save a patient's life who is suffering from end-stage organ failure. The methodology used in determining the permissibility of organ transplantation should be based on the urgent need to save the life of the patient. In other words, organ transplantation is carried out only in critical and crucial situations. The life of the patient depends greatly on organ transplantation. The legal maxims used are as follows:

2.5.1 Deeds are Judged by their Goals and Purpose

Under this legal maxim, all deeds are judged by their goals and purpose. The goal and purpose of organ transplantation is to save the patient's life. Organ transplantation is not performed with the intention of humiliating or agonizing the deceased. Instead, it is carried out with the intention of saving a life.

2.5.2 Harm Must be Eliminated

Eliminating harm is one of the objectives of Islamic law. In the context of organ transplantation, this procedure fulfills the objective of preserving human life. Allah SWT promises great rewards for the effort of preserving human life. This is mentioned in the Quran as follows: "...and if anyone saved a life it would be as if he saved the life of the whole people..." Given two situations with different degree of harmfulness, priority is given to avoid the more harmful by choosing the less harmful. In the context of organ transplantation, the more harmful situation is to allow the patient in need of organ transplantation to pass away. Therefore, in this situation, the lesser harm is given higher priority, which is donating organs from a deceased donor to be transplanted to the patient in need of that organ. Organ transplantation provides the option to eliminate harm. A patient has the option to receive organs from a deceased donor in order to replace his/her damaged organs. In this context, preventing harm takes priority over preserving the body of the deceased.

2.5.3 Hardship Begets Facility

Organ transplantation is a facility made available to mankind as a means to overcome hardship faced by patients with end-stage organ failure. This is supported by the following Quranic verse: "...Allah intends every facility for you He does not want to put you to difficulties..." Islamic law permits one who is in an urgent situation to do the unlawful (haram) in order to eliminate the harm he faces, under the condition that there are no other lawful options available. In this context, the last available option to save the life of a patient with end-stage organ failure is by organ transplantation.

This permissibility is supported by the following verse in the Quran: "...But if one is forced by necessity without willful disobedience, nor transgressing due limits, then is he guiltless. For Allah is Oft-Forgiving Most Merciful." When one is in a difficulty that is unbearable if the situation persists, allowance should be given to him/her to eliminate the difficulty. In the

context of organ transplantation, a patient with end-stage organ failure is facing death. Thus, organ transplantation is an option allowed in Islamic law as an effort to save the patient's life.

2.6 The Interface of End-of-life Organ Donation with Islamic Beliefs

Islam has granted reward for saving a human's life. Therefore, any treatment or prevention that is considered vital for the maintenance of the normal health of mankind is not only accepted but also recommended in Islam. The Islamic Council (Senior Ulama Commission) of Saudi Arabia; as well as many other fatwas as has been demonstrated in this review proves that it is permitted in Islam to remove organs from dead people to save the lives of others as long as the organ removal is conducted without inflicting harm on the donor and for the benefit of the recipient (El-Shahat, 1999).

Brain-death criteria were officially accepted in the legal definition of death: A person is pronounced legally dead and consequently, all dispositions of the Islamic law in case of death apply if one of the two following conditions has been established: (1) there is total cessation of cardiac and respiratory functions, and doctors have ruled that such cessation is irreversible; (2) there is total cessation of all cerebral functions and experienced specialized doctors have ruled that such cessation is irreversible and the brain has started to disintegrate. In this case, it is permissible to take the person off the resuscitation apparatus, even if the function of some organs such as heart, are still artificially maintained.

As demonstrated by various scholars and Islamic Fiqh Academy, organs from the deceased can be transplanted to a patient, where the life of the recipient depends on the transplant or if the continuation of the basic bodily functions of the recipient depends on the transplant. This is however, dependent on the deceased's consent, or that of his next-of-kin after his death, or by the decision of the leaders of the Muslim community, should the deceased be unidentified or does not have any next-of-kin. The Highest Council of Scholars, Riyadh also content that: "It is permissible to transfer whole or part of organs from a deceased to another person, if the need for such a transplant is critical. Live organ donation is also allowed if the recipient is in urgent need of the organ."

2.6 Empirical Literature

This section outlines various empirical studies that were conducted in relation to the specific objectives of this study across the world. Their main findings were outlined and the research gaps identified in them summarized.

2.6.1 Organ Donation among Muslims

The rate of organ donation across the globe remains a major concern for medical experts in this field. A metanalysis of observational studies conducted by Aykas, Uslu and Doğan (2015) in relation to intellectuality and attitudes of clergy about organ donation in Turkey revealed that there was agreement among greatest number of Muslim scholars that organ donation was permissible as long as the organs removed from donors would certainly assist the recipients, that the donors did not suffer any harm during the procedure and that the donation was made on a voluntary basis and without the expectation of monetary compensation. Nevertheless, and notwithstanding constant efforts by Islam scholars to endorse this medical practice, a great number of individual Muslims show hesitance in accepting this practice even when informed that their loved one could pass on without an organ transplant and more when it comes to cadaver and brain death donations (Oliver, Ahmed, & Woywodt, 2012). In their study on religion and organ donation, the authors noted that, the largest number of transplants in largely Muslim states were thus, facilitated by use of organs obtained from live donors. While relevant to the current investigation, the studies undertaken by Aykas, Uslu and Doğan (2015) and Oliver, Ahmed and Woywodt (2012) were carried out in Islamic or Muslim states and hence, generalizing their findings in the Kenyan context was limited. Moreover, the studies demonstrated mixed findings regarding the acceptability and uptake of organ donation. Hence, a study that provided evidence of organ donation rates among Muslims in Nairobi County Kenya was necessary.

The reluctance to donate demonstrated by Muslims has been highlighted in several surveys carried out among Muslims in Islamic states and those living in other nations as minority groups and also in ethnographic research. An international survey assessing the attitudes of Muslims toward organ donation undertaken by Cockwell et al. (2010) revealed that there were poor organ donation rates among Muslims around the globe. The survey revealed that only 10.6 percent of the individuals surveyed had registered to be organ donors, 9.9 percent would choose to receive a donation just from a fellow Muslim while 24.5 percent preferred donating to another Muslim. The study called for an articulated and targeted engagements with the Muslim communities in promoting organ donation and transplantation programs across the globe. Despite highlighting organ donation rates among Muslims, this existing study provided a global perspective and hence, its findings could not be automatically generalized in the case of Muslims in Nairobi County. The study also adopted quantitative

approach to research whereas this current study employed both qualitative and quantitative methods as a way of enriching the study.

Altınörs and Haberal (2016) explored the existing position of brain death and transplantation across Islamic states. An exhaustive literature survey was carried out in regards to transplantation activities in these nations. Expert opinions about the issue were also obtained. The study noted that heterogeneity in the brain death and other transplantation undertakings in these countries. The study findings showed that organ transplantation in many Islamic nations was still in the early phases and therefore, there was need for drastically improving available legislative framework and health infrastructure as well as related education in these nations. Apart from employing qualitative approach to research, this past study was also conducted in Islamic states. Hence, the generalization of its findings in the case of Muslims in Nairobi County was constrained.

In their study, Akbulut et al. (2020) explored the behaviors espoused by Islamic religious leaders in regards to organ donation in Turkey. Out of the 2350 surveyed officials, 99.7 percent had under no circumstance donated their organs, 75.4 percent did not consider donating their organs in the future while 19.9 percent undecided as to whether to be organ donors or not. The study also found that while 41.5 percent of the officials recognized cadaver donors as the best sources of transplantable organs, 36.3 percent considered living donors as the best option. Roughly 80.1 percent of these leaders stated that they would donate their organs if a first-degree family member required a donation; 52.9 percent were willing to consent to donation by kin in the event they suffered brain death while 81.9 percent would be willing to receive a new organ in case they suffered from end-organ failure. This existing study targeted Muslims in Turkey which is an Islamic state and hence, the generalizability of its findings in the context of Nairobi County was limited. Moreover, the study employed a quantitative approach to research whereas the current study adopted a mixed methods approach where both qualitative and quantitative methods were used in order to comprehensively explore Muslims' perceptions on organ donation in Nairobi County, Kenya.

Sharif et al. (2011) conducted a survey of Western Muslim attitudes towards organ donation. The study findings revealed that even though 68.5 percent of these Muslims were in agreement with this medical practice, only 12.7 percent had registered as donors. The study found that 1.9 percent of these Muslims would refuse to receive an organ, if necessary, 72.4 percent were happy to be recipients while 25.7 percent were unsure. Furthermore, 71.9

percent of the sampled Muslims individually supposed that Muslims displayed disinterest on matters to do with organ donation. The study concluded that while over two thirds of Western Muslims were in agreement with the concept of organ donation, only a tenth got registered as donors even when a majority of them were happy to recipients when necessary. Though relevant to the current investigation, this existing study focused on Muslims in Western countries and therefore, its findings could not be automatically adopted in the context of Muslims in Nairobi County, Kenya. The study also employed a single research design which limited the comprehensiveness of the study while in the current study, a mixed methods approach was used and it facilitated in depth exploration of Muslims' perceptions on organ donation in Nairobi County.

Focusing on Pakistan, Moazam and Jafarey (2014) observed that a majority of Muslim population showed reluctance towards embracing cadaver organ donation mainly to due to the manner in which religious requirements were interpreted. A study carried out by Alkhawari, Stimson, and Warrens (2005) among UK Muslim Indo-Asians revealed that 63.1 percent of the sampled Muslims plainly indicated that they were not willing to allow the donation of their individual organs and those of their loved ones. While assessing the attitudes and also the perceptions of Muslim adults in Saudi Arabia towards organ donation, Al-Harhi and Alzahrany (2015) found that 30.3% of the sampled Muslims were willing to donate an organ whereas 59.3% refused organ donation. The findings of this study supported that of Al-Attar et al. (2001) which observed that many Saudi Muslim families were unwilling to donate organs when they were approached. While the above studies focused on organ donation among Muslims, they were conducted in Pakistan, the UK and Saudi Arabia and hence, their findings could not be automatically adopted in the current study which considered Muslims in Nairobi County.

According to Pandela et al. (2019), while organ transplants are a major community healthcare need among American Muslims, many had a tendency of harboring undesirable attitudes towards this medical procedure. The authors noted that whereas in excess of 95 percent of the general population in the US was supportive of organ donation, the recounted endorsement among American Muslims was way too low. For example, a study of Arab Americans living in Southeast Michigan undertaken by these scholars in 2011 revealed that only 35 percent of the sampled Muslims recognized cadaver donors as justifiable donors all the times, 20 percent believed that retrieving organs from dead persons was not justified at all. Based on

the evidence gotten from this study, Muslims in the US were roughly 1.5 times less likely to endorse this medical concept compared to their Christian equals. In a successive survey involving Arab, South Asian and African American Muslims that were recruited from mosques stationed in Michigan, Padela and Zaganjor (2014) noted that only 39 percent of these Muslims considered cadaver donation to be justifiable. This overall inclination to not accept organ donation was also reported in other diaspora Muslim populations for instance, in UK and Australia (Karim, Jandu, & Sharif, 2013; Sharif et al., 2011). The above studies were carried in different contexts from that of the current study limiting the generalizability of its findings among Muslims in Nairobi, Kenya.

2.6.2 Religious, Cultural, Ethical and Social Perceptions of Muslims on Organ Donation and Relationship with Donation Rates

2.6.2.1 Religious Perceptions

According Ali (2015), religion can be labeled as the associate-based beliefs and practices that related to God or any other higher power usually linked to a church or any other organized group. Dahamsheh (2024) assert that the beliefs held both religious and spiritual, play a key role in determining the manner in which individuals view issues such as health, diseases, any suffering and agony, as well as life and demise. Religion according to Shah and Randhawa, (2024), shapes the attitudes of individuals pertaining organ donation besides engendering strong feelings regarding this medical practice. Religion provides individuals' sense of individuality and also automatically controls the behaviour of these persons and the perceptions they hold regarding life events and their significance (Uskun & Ozturk, 2013). Any behaviour perceived to be conflicting with the religion of a given group or community is not stomached and is looked at in a negative way.

Hence, there has been widespread recognition of religious views as a crucial factor impacting individuals' disposition or readiness to donate their organs. Religious belief can motivate individuals to be organ donors and can also prevent them from donating their organs (Hyde & White, 2010). According to Agarwal et al. (2018), individuals who are considered to be highly religious may show much reluctance towards supporting donation based on the belief that their religions are not supportive of donation. Abdeldayem, El-Kased, and El-Shaarawy (2016) argue that in fact, many of the undesirable attitudes expressed towards donating and

transplanting organs may be explained by the uncertainties surrounding the religious position instead of how religious teachings were interpreted (Bruzzone, 2008).

In their study on the link between religion and organ donation and transplantation focusing on Islam, Oliver, Woywodt, Ahmed, and Saif (2011) observed that from a religious perspective, many Muslims showed reluctance in taking part in these medical procedures. This according to the study was explained by the view that in the Islam teachings, it was prohibited an individual's body to be violated whether alive or dead. Citing the case of Malaysia, the study noted that though the Malaysia National Fatwa Council had delivered a declaration in 1974 affirming that it was noble for Muslims to embrace donation, many Muslims still believed that they could not be organ donors since it was contrary to the Islamic religious teachings.

Parsa et al. (2019) explored the attitudes of university students regarding organ donation in Iran. A qualitative approach to the study was applied. The study established those Islamic religious beliefs played a significant role in decision making pertaining to this procedure among the students. The belief that there was another life after demise, that the guilt would be forgiven as well as the soul peace were some of religious aspects which encouraged organ donation. Some for instance, believed that God might pardon their faults because they had donated their organs besides bringing peace to their souls. However, religious perceptions preventing organ donation among the students included the belief that organ donation contradicted the beliefs on bodily resurrection, that the iniquities of the organ donor might be shifted to the recipient of the organ, that there was no worth in saving the lives of some individuals, and that their fate was already written before. Some perceived this medical procedure as an interfering with the affairs of God, others felt that their bodies would be dumb on the day of their resurrection and that by donating; they might somehow have oppressed their bodies.

Ralph et al. (2016) examined the attitudes and beliefs held by Arab speaking Muslim community in Australia in regards to donating their organs. A qualitative approach to research was employed. The study found that some of the sampled Muslims were uncertain whether Islam defined this medical procedure as noble or bad noting that the messages received were normally mixed. These individuals argued that there existed "grey areas" in various religious texts and that their spiritual leaders in their mosques had not discussed this topic. Hence, they wanted the issue of cadaver organ donation clarified by the religious leaders so that they could be certain that it was allowed before they could register as donors.

Some did not know whether to embrace the religious ideals of being generous and assisting individuals for instance saving lives or to endorse the view that they were prohibited from donation because of several religious reasons for example, the requirement that one's body should not be cut once death has been declared. Some held the belief that Islam was supportive of donation and that the person who donated would receive a reward by going "straight to heaven" for assisting others. Nonetheless, others were adamant that Islam prohibited them from becoming organ donors since interfered with various stipulated requirements.

The study by Alkhawari et al. (2005) investigated the attitudes of Muslims of Indian-Asian origin residing in UK pertaining to organ transplantation. The study unearthed that the attitudes of the sampled Muslims regarding organ donation were subjective to their beliefs that their bodies were sacred, that during judgement day after their demise, their body organs would independently act as witnesses as well as the unease linked to a donor's lack of control of the individual receiving their organs. Some of these Muslims disapproved of this medical procedure on the basis of the perception that Islamic faith empowered an individual to not see ailment as fatal but rather view it as God's will and thus, donating organs was unnecessary since heavenly cure could be obtained. These perceptions were founded on statements drawn from the Quran as well as the teachings of their local imams. Some of the sampled Muslims confessed that they had in deed cancelled their organ donor cards as result of the spiritual guidance that their oval imams gave. The findings of this study highlighted the significance of backing of organ donation by Muslim clerics and further confirmed that how individuals interpreted Islamic teachings at the personal level resulted to conflicting perceptions and decisions among prospective Muslim organ donors.

Alhussain et al. (2018) explored the attitudes and perceptions towards organ donation in Riyadh Saudi Arabia. A cross-sectional quantitative design was used. The study found that 86.2% of the respondents indicated that organ donation was acceptable in their religion. The study also observed a general enthusiasm towards donating with 68.2% agreeing to donate in case of brain death. According to the study, these findings reflected the positive role carried out by Islamic scholars in understanding and educating the public on the religious perspective. The study highlighted that some beliefs such as that a brain-dead individual is not 'completely' dead, but rather is in a deep coma, or that as long as the person has a beating heart, then they remain alive could hinder the process of harvesting and utilizing the organs

that could save many lives. These beliefs were sometimes magnified when the person took the wrong side of the Islamic religion, or when influential Islamic scholars failed to study and emphasize the basic concept behind brain death and fail to provide a clear, well-educated opinion on the matter.

Saleem et al. (2009) examined the knowledge, attitudes and practices pertaining to organ donation of Muslim adults in Pakistan. A survey was undertaken. The study established that religious beliefs were a key factor that deterred many of the sampled Muslims from donating their organs. According to the study, the perceptions held regarding whether the procedure was allowed in their religion was considerably related with the intention to become donors. Those who held the belief that organ donation was not permitted in Islamic religion indicated that they had no intention or motivation to become donors in the future. The most predominant reason explaining why many refused to donate was a “presumed forbiddance in religion” which this study attributed to lack of awareness among this population concerning the available religious edicts or proclamations supporting organ donation or the uncertainties surrounding its permissibility. The study underscored that several Islamic organizations and institutions world over had issued fatwas and edicts that favoured this practice; labeling it as “an act of merit”. Hence, with proper awareness programmes, religion was one means through which Muslims could be motivated to embrace organ donation.

Moazam and Jafarey (2014) explored kidney transplantation and trade in Pakistan. This study was based on a qualitative approach. The study established that there was reluctance among part of the Muslim population to accept cadaver organ donation habitually based on interpretation of religious scriptures. The study found that whereas the study participants were acquainted with, and typically supported donation of kidneys from living donors, a great number held the belief that God was the owner of the human body and they instead were the trustees and hence, the removal of organs from a dead body corresponded to its dismemberment, an act that was stringently forbidden in Sharia. Some interpreted the Qur’an as prohibiting organ donation and transplantation, and hence, any act taken to enable the process through retrieval of organs from the human body was “playing God.” The commonly held religious opposition to this medical procedure according to the study was the need to ensure that the intactness of the body was maintained when entering the next life.

Ahmed (2010) explored the opposition to oncofertility within Muslim communities. The study found that a considerable proportion of the Muslim population was still unwilling to

donate their organs. One of the main reasons common among both the donors and recipient pertained to the widely held notions of their bodies being pristine vessels from God. Consequently, some donors indicated that although they desired to offer help, they feared that they would corrupt themselves in course of the donation process. Similarly, some recipients voiced their concerns that they were uncertain about the testimony of their organs on the Judgement Day. These perceptions towards organ transplantation directly impacted on oncofertility programs. Many felt that the acquisition of ovarian tissues from the body of the donor irrespective of its juridical acceptability, impinged on the common apprehension regarding the violation of the *hurmah* (purity or inviolability) of the body. By removing the tissue, the patients believed they were guilty of distorting or mutilating the pristine body accorded to them as a trust by God. Nevertheless, the study clarified that this was not the general perspective of the entire Muslim population, but appeared to be a viewpoint embraced by a considerable number of Muslims.

2.6.2.2 Cultural Perceptions

Culture as described by Simmers (2004) is the beliefs, attitudes, rituals, behaviours, and even customs that are explicitly unique to a given group of individuals and which is transferred from one given generation to the next. Culture plays a key role in organ donation process since it can influence the behaviour of individuals in regards to this medical procedure. Culture also equips the relevant parties involved in the organ donation process with means of viewing and interpreting crucial life events and then prescribing the expected behaviour in particular situations. According to Chavis (2011), people own cultural experiences that influence how they behave. The social and cultural aspects of a given group of persons or a given community as argued by the author also affect the decisions taken by these individuals and communities in general in regards to organ donation. This viewpoint is maintained by Tarus and Gavrilovici (2015) who also pointed out that culture was a strong obstacle to organ donation.

One of the main factors escalating the shortage of organ donation among Muslims is the cultural beliefs held. Ralph et al. (2016) explored the attitudes and beliefs regarding cadaver organ donation in the Arab speaking Muslim community in Australia. This was a qualitative study. The study found that a significant cultural challenge affecting organ donation was the taboo surrounding any conversation in regards to the death subjects in settings where family members and friends were involved and mainly before someone had passed on. The study

found that the discussion of topics touching on death for instance, organ donation, was perceived as “jinxing” death. Consequently, the issues related to this medical procedure were seldom mentioned among these families and their community and more so among the older generation. Some of the sampled Muslims noted that they got too scared and were not able to talk about hypothetical scenarios requiring them to make decisions as to whether or not to donate their organs or consent to the donation of their kin’s organs in order to save lives.

Blake (2015) explored the various beliefs and attitudes towards organ donation by undertaking a desktop study. The study found that cultural beliefs particularly in regards to bodily integrity and delayed burials were important issues cited for not considering deceased donation among Muslims. The study established those Islamic burial rituals that maintained that a dead be handled in a respectful manner and buried as soon as possible after death had been declared, besides the belief that God was the owner of the body, were the among the leading reason given by those unwilling to donate their organs. Yet delays in burial of the dead due to the lengthy process associated with organ transplantation were recognized as valid and permissible in Islamic law since the process involved saving human lives. Views pertaining to bodily integrity were viewed as very crucial to the point where some Muslims indicated that they wished to pass on while at their homes so that medical personnel would not have a chance of meddling with their bodies. Hence, it was necessary to have campaigns aimed at dismantling these misconceptions regarding the donation process.

Sheikhalipour et al. (2018) explored the effects of cultural beliefs on Shia Muslim transplant candidates in the course of the pre-transplant waiting period in Iran. The study was qualitative in nature. The study findings indicated that these transplant candidates had strong cultural beliefs that influenced their experiences throughout this period. Some of the candidates felt that a stranger would enter their bodies through organ transplantation and from their viewpoint, being intimate or non-intimate with that unknown person and several other things would make them unclean. Others held the view that when organs were removed from bodies, they would amount to nothing except “an unclean thing or a piece of dead” and that these organs will rot shortly afterwards. As such, they could not allow such things in their bodies since they were “disgusting”. These negative perceptions were mainly tied to the Islamic doctrine that blood and organs taken out of the body were viewed as unclean, and the individuals who touched these things ought to cleanse themselves using water. This cultural belief led to several issues and heightened the stress levels of patients on the waiting list.

Al-Abdulghani et al. (2024) explored the barriers and facilitators of deceased organ donation among Muslims living globally. An integrative systematic literature review was conducted. The study observed that cultural views towards organ donation among Muslim communities strongly influence organ donation decisions. These commonly held beliefs generally pertained to broader issues around health care, death and dying. One cultural view was that doctors and other health care professionals were not held by Muslim societies as entirely trustworthy. Another issue was that Muslims would often take their family's stance on the topic very seriously. This actually had a religious root, as obedience to parental wishes and maintaining ties of kinship is of great importance in Islam. This meant a Muslim might choose not to sign a donor card, even if they were convinced of the Islamic permissibility of organ donation, if one of their family members opposed this view. The study further unearthed that some of the Muslims believed that the discussion of death or signing a donor card would actually result to one's own death. Others Muslims had a belief that the donor's spirit would be transmitted to the recipients and thus, ancestral authorization was necessary before one could donate in order to ensure that the rest of the family members did not lose ancestral protection in the future.

Budiani (2007) examined organ transplantation in Egypt by analyzing doctors' discourse. The study found that the sacredness of both the living and the dead were dominant cultural constructs when discussing the subject of organ transplantation among Muslims in Egypt. The study also pointed that certain rituals related to the mourning process were considered to be very crucial and this medical procedure was seen as interfering with this process. The older Muslims believed that by accepting to be donors, younger generations were contributing to the erosion of fundamental traditional cultural beliefs with time. In regards to body integrity, a considerable proportion of the Muslim population in the nation as argued by the study, were frightened by the organ retrieval process and were concerned that their loved ones would suffer from trauma by thinking of their bodies being "cut up". According to the study, some Muslims would not consider donating their organs since they believed that organ donation barred an open coffin during their burial, particularly if corneas (eyes) were donated. Culturally sensitive transplantation interventions were therefore recommended.

Cooper (2012) examined the cultural anatomy of decision making focusing on the problem of organ donation and ethnicity. The study found that cultural issues within the context of organ donation were potential barriers to donation consent. The study found that most Muslims who

disapproved of this medical procedure were worried that crucial burial customs for example, the preparation of the body for interment would be curtailed by donation. Others held to the belief that interfering with a dead body was prohibited in Islam and also the belief that organs were not an individual's personal belongings that could be given away once death occurred. The study noted that in Islamic context, the perception that discussing death was a taboo was somehow in conflict with the Islamic standpoint that death ought to be thought and spoken about freely in order to motivate individuals to feel closer to their God and to pray and do good deeds, believing that they had assurance of a place in *Jannah* (heaven) in the afterlife. Therefore, for a significant proportion of Muslims, it was not the death subject itself that was hard to mention, but rather the emphasis on after death arrangements. Hence, when burial was the norm, time and again, there was much attachment to the physical form and this led to many expressing the desire or need to be 'whole'. Others believed that the body continued to feel pain until it was buried.

2.6.2.3 Ethical Perceptions

Ethics generally pertain to what is considered right, good or just in regards to human conduct. While assessing the ethical issues in kidney transplantation based on reflections from Nigeria, Fadare and Salako (2010) observed that organ donation and transplantation in general were threatened by numerous ethical problems world over and there was unending debate around this subject particularly due to the scarcity of transplantable organs even in nations that boast of well-established transplantation programmes. According to this study, the ethical concerns in organ donation and transplantation arose from the fact that the risks associated with this procedure were very high yet still, this procedure was highly advantageous and involved issues relating to personhood, attitude towards the deceased, bodily integrity, as well as the social and symbolic value of human body parts. The study argued that informed consent and respect for individuals were key ethical principles in the process of organ donation and transplantation. The study by Shazi and Abbas (2019) on the ethical dilemmas related to living donor liver transplantation in Asia established that the notable ethical concerns in this process pertained to the informed consent, commodification of organs, fairness and equity in accessing the procedure, quality assurance as well as the safety of the procedure. Whereas the above studies provided a general glimpse of the ethical issues surrounding organ donation, they were not specific to the perceptions held by Muslims. Moreover, the studies were carried

out in different contexts from that of the current study that focused on ethical perceptions of Muslims on organ donation and relationship with donation rates in Nairobi County.

In their study on the ethics of organ transplants based on an Islamic standpoint, Quadri (2004) emphasizes that the ethical queries in this medical procedure pertain to the sources of the donated organs for example, anencephalic donors, deceased donors which are subject of controversy in some nations, living donors who receive payments, donations made under duress or by a minor, prisoners who have been executed and also organs obtained from animals (xenotransplantation). Questions as to whether the organs were equitably distributed were also a key ethical concern.

Hamdy (2010) explored the debate surrounding organ transplantation in Egypt by conducting a social anthropological analysis. The study noted that although several organ donation and transplantation operations were undertaken in various hospitals in the nation, the ethical nature of this medical practice was highly debated. From the study, there was debate whether taking body parts from deceased persons was acceptable and whether cutting into healthy living donors was a safe and beneficial practice and also whether through this medical procedure, the lives of individuals were saved in reality. The susceptibility of the bodies of the poor to black markets in organs and to organ theft was also debated. The study found that this debate was centered on Islamic tenets and when issues of inequality were satisfactorily addressed and organ transplantation perceived to be a benefit that could be accessed by the bulk of patients, Muslim scholars who advanced the argument that this procedure was acceptable in Islam, would have much more credibility within Egyptian society.

Tumin et al. (2016) assessed Malaysian Muslims' perspectives on the permissibility of organ donation. A survey was carried out. The study established that more than half of the sampled Muslims regarded the procedure as permissible in Islam and also a shared obligation. Nevertheless, the same proportion of these Muslims was uncertain about issues to do with the rewarding of donors and whether it was permissible in Islam to procure organs from brain dead patients. Pertaining to the issue of giving financial rewards to donors, the study pointed that the sampled Muslims were unsure whether Islam forbid rewards for donations. This uncertainty according to the study, needed to be efficiently addressed since it could lead to propaganda and perhaps abuse through uncontrolled organ trading thus threatening the availability of organ donations. Equally, the ambiguity on what qualified as brain death necessitated increased campaigns to enlighten the public about the circumstances that

permitted the reaping of organs from brain dead patients. This would ensure that Muslim individuals and their families agree to donate or grant permission to procure organs from their loved ones.

Davis and Randhawa (2004) assessed the awareness and attitudes of Muslim black people in the UK. The sampled Muslims were of African and Caribbean origin. The study found that the mistrust of the healthcare system by these Muslims impacted their attitude towards donating their organs. Some confessed that they did not trust the organ donation system and process in this nation which was a result of past undesirable experiences with the healthcare system. Some of the sampled Muslims doubted the validity of brain death and expressed their suspicions about the doctors that made such decisions. Some felt that it was unlikely the organ donors would get the needed care in hospitals since the doctors would be more interested in harvesting their organs or removing them prematurely. Others held the belief that the bodies of donors would not be handled with dignity and respect and also the concern that the organs donated will be given to 'undeserving' recipients or could be utilized for research purposes instead of redeeming lives. These perceptions were more heightened in nations where Muslims were a minority group and possibly a sense of being marginalized within the healthcare system reinforced the objection to donation.

Rasheed (2011) examined organ donation among Muslim where the focus was on the efforts of medical researchers in encouraging donation among Muslim communities. The study argued that the analysis of different fatwas that had been issued by Muslim jurists in regards to this subject revealed two general rulings on the issue of transplant treatment. Under the first ruling, cadaveric donation is permitted under given conditions. The Islamic Fiqh Academies of the Organization of the Islamic Conference (IFA-OIC) and the Muslim World League (IFA-MWL) as highlighted by the study both issued determinations that permitted cadaveric donation. These determinations were important since they received the backing of the authority of numerous influential jurists drawn from several countries and schools of thought that were members of the academies. Nonetheless, another group of jurists such as Muhammad Shafi ruled that organ donation should be forbidden. For Muslims following the guidance of clerics holding to this second ruling, cadaveric donation is impermissible and consequently, these Muslims hold the perception that it is not ethical to sign donor cards.

2.6.2.4 Social Perceptions

Social attitudes have also been recognized to have significant effect on organ donation due to their close linkage with Islamic traditions, teachings and culture. In their study on attitudes to solid organ donation, Oliver, Ahmed, and Woywodt (2012) underscored that some of the negative beliefs towards organ donation were rooted in social issues for instance, the influences of local imams, spousal donation and polygamous marriages as well as the power that extended families have when making crucial decisions. Another social barrier to organ donation relates to the requirements for gender segregation in Islam, for example, women not being permitted to mix or interact with men during prayers, and in some Islamic societies even socially. According to the study, such social inclination led to some Muslims believing that a man could not donate their organs to a woman and vice versa. Furthermore, Muslim leaders and scholars also influenced the decision-making processes of Muslims on several individual and social matters through consultative sessions. Nonetheless, sometimes, despite these leaders giving positive advice towards organ donation since it was compatible with Islam, some Muslim individuals still demonstrated unwillingness to accept this medical procedure especially when dead donors were involved because of various perceptions commonly held in the society. This existing study differed from the current study because it considered the Muslim community in general across the globe while in the current study; Muslims living in Nairobi County Kenya were targeted. Therefore, it was not possible to generalize its findings in the current study context. It was also noted that this past study relied on systematic literature review while the current study adopted a mixed methods approach which provided for in depth investigation of the issues under study since both qualitative and quantitative approaches were integrated in this study.

Hayward and Madill (2003) assessed the connotations of organ donation among Muslims of Pakistani origin residing in North England. Concerning the social meaning of this medical practice, the study found that based on 'altruism issues', a great number of these Muslims viewed the chance to save lives as an exceptionally worthy goal and donating organs was perceived to have social benefits exemplified by the survival of the individuals whose lives were saved. It was also recognized that the altruistic or selfless act of one individual could motivate others to donate. Hence, by donating an organ, many noted that they could positively contribute to the society. However, costs were also considered. When live donors

were involved, family issues were stressed and the men held discussions with relatives concerning the likely dangers where caution had been taken so that no problems were created in the family. Nevertheless, donation was viewed as less permissible outside the family even when the individual who had passed on had expressed the wish to donate. According to the study, some of the Muslims felt that it was implausible that parents would donate the organs of their children as they would not risk further anguish, though this viewpoint was not unanimous. Some felt that by donating organs, someone might be prevented from looking good for mourners or cause distress through seeing somebody who had for instance, a loved one's eyes. This existing study was also carried out in a different context from that of the current study thus limiting the generalization of its findings to fit the case of the Muslim community in Nairobi County, Kenya.

While assessing the attitudes and beliefs regarding cadaveric organ donation among Arab speaking Muslims in Australia, Ralph et al. (2016) found that the fear of judgment by family member and the community in general was a major factor deterring this community from organ donation. According to the study, these Muslims were understood to live in close and enmeshed communities implying that when making decisions relating to organ donation, the sampled Muslims felt that they were obliged to stick to the recognized social norms within the community. By not taking in to consideration these social norms, these individuals were afraid that they would be harshly judged by the community. Some of the sampled Muslims feared that their community could disapprove of organ donation and hence, they held the belief that they would be subjected to condemnation or disapproval in the event they registered to be donors or consented for the removal of a loved one's organs. This lowered organ donation rates among this Muslim community. Despite its relevance to the current research, this existing study targeted Muslims based in Australia and hence, its findings could not be automatically adopted in the case of the Muslim community in Nairobi County, Kenya. Also, the study only considered cadaveric organ donation while in the current study, both living and cadaveric organ donations were taken in to account.

2.7 Theoretical Framework

The normative theory of utilitarianism was considered in this study as the best defensible approach to enhancing organ donation among Muslims in Kenya. Utilitarianism is a philosophy whose main aim was to enhance the utmost good for the greatest number of people (Pence, 2007, 61). In the case of utilitarianism, the moral value of actions, policies,

practices or rules were therefore determined on the basis of their effects on the amount of utility in the world (Honderich, 1995). In this study, these four viewpoints were considered. Utilitarianism is the best method given that it led to the maximization of organ donations which were the greater good in order to ensure that there was an increase in the number of lives saved in conjunction with the quality of life, and also cut costs related to money and time.

An argument advanced by utilitarian was that organ donation saved lives since when people donated their organs, more and more lives were spared. Gregory Pence in his book entitled "Classic Works in Medical Ethics" stated that 3000 Americans lost their lives while waiting to receive a transplantable organ. Hence, if there was enhanced prevalence of organ donations, the lives of some of the Americans would be saved or prolonged (Pence, 2007: 75). Organs for transplantation could be acquired from persons who had recently passed on. This implied that there would be no physical detriment or risks to the donors. Thus, medical personnel utilizing organs donated by persons who had recently passed on to save the lives of many, would produce good outcomes for the persons receiving the organs. The likelihood of successful organ donation in this case was higher compared to the negative outcome (Pence, 2007).

The choice to be part and parcel of the organ donation process could be viewed as a common maxim since any individual who was rational would desire to save lives or in any case prolong it. By ensuring that the lives of the recipients were prolonged, the greatest common good for everyone was maximized. For maximized greatest good to be achieved, a utilitarian was not only taken into consideration organ donors that were alive but also those that had recently passed on. Retrieving organs from persons who had passed on was not only a life saving measure, but also saved times and money for the medical personnel carrying out the transplantation. Increased organ donation would imply that the recipients of the organs did not require treatments such as dialysis which were costly and this would result to greater savings for the hospital and also the insurers. More lives would be saved as well as benefit from those that no longer needed an organ.

This study also relied on two closely linked theories that is, the theory of planned behaviour (TPB) and the theory of reasoned action (TRA) to study to study Muslims' intention, attitudes and general perceptions towards the medical practice of organ donation and transplant. Generally, these two theories were a suitable theoretical framework for

comprehending and envisaging social, health-connected behaviours and intentions (Ukenna & Ayodele, 2019). The two theories proposed that an individual's intentions, that is, their willingness to take an action, as the most proximal determining factor of their behavior. In other words, intention was the degree to which an individual was prepared to take part in a particular behaviour or the likelihood that someone would perform a given behaviour. Intentions according to these theories were influenced by an individual's attitude, subjective norm and perceived behavioral control. Perceived behavioral control on the other hand was the supposed easiness or strain and confidence to perform a behavior; also believed to predict behavior directly.

As it pertains to attitudes towards behaviour as noted by Albarq and Alsughayir (2013), attitude alluded to an individual's overall feeling of favourable or unfavourable towards a behaviour. From time to time, an individual would embrace either positive or negative reactions or emotions towards another individual, a notion or idea, on the basis of their self-evaluation. The person would evaluate a behaviour whether it gave a positive, valuable, beneficial, desirable and advantageous outcome to them if they performed a given behaviour (Hayden, 2017). On that count, this was associated with one's behavioural beliefs. Thus, in the context of organ donation and transplant, when an individual had a positive salient belief about their behaviour towards organ donation and transplant, they would then have a positive attitude vis-à-vis that behaviour. In contrast, when they had a negative salient belief regarding the outcome of performing organ donation and transplant, which was then considered to be a negative attitude, in return, they would not perform the behaviour.

Regarding subjective norm towards behaviour, Fishbein et al. (1980) notes that subjective norms are "a person's own estimate of the social pressure to perform or not to perform the intended behaviour" (p. 6). It denoted to whether important referents, who were highly regarded by the individual, support or do not support the performance of a behaviour which was called normative beliefs, subjective to the individual's drive to act in accordance with those referents (Fishbein et al., 1980). In a nutshell, a subjective norm was the perceived social pressure to take part or not to take part in a particular behaviour (Hayden, 2017).

Putting this into the context of organ donation and transplant, an individual's behaviour and decisions depended on how and what their family and friends thought about the outcome of performing organ donation and transplant (normative belief), and the degree to which this influenced the behaviour or action of the person responsible (motivation to comply). It was

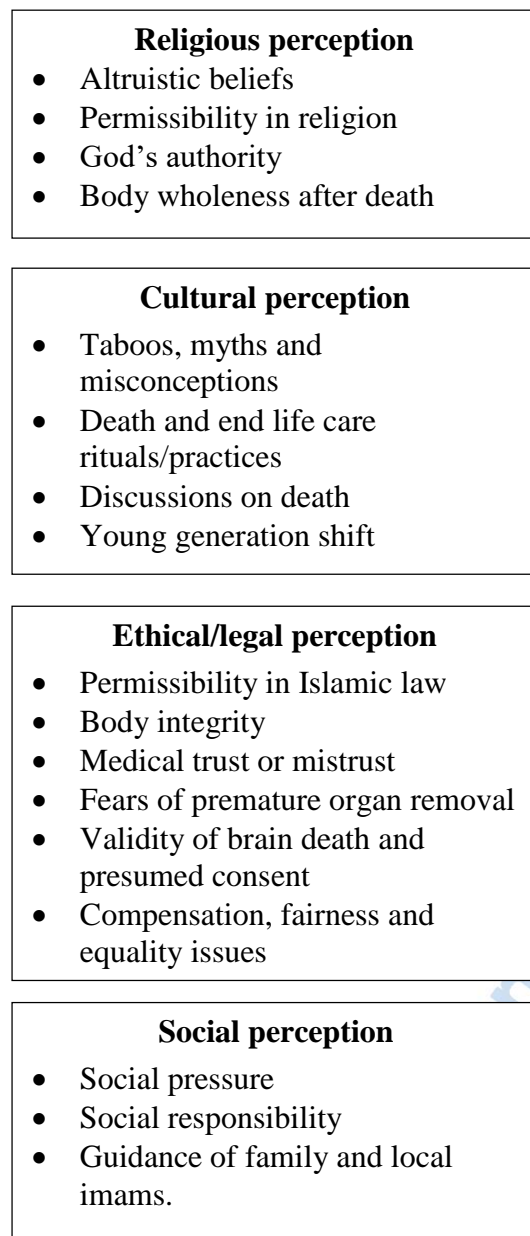
not about the “individual’s opinion”, but most importantly are the “people around them and their opinions” that mattered in determining the behavioural outcome. These people were those they held high esteem like parents, friends or peers, religious figures, health care providers, among others. Due to a person wishes to “please” and comply with these people’s expectations, subjective norms then played a role in influencing one’s intention to engage in a particular behaviour.

In general, the argument advanced by these two theories was that registering to be an organ donor and other discussions related to the subject of organ donation were informed by intentions which were majorly impacted by subjective norms and attitudes toward organ donation. For organ donation, individuals having positive attitudes towards donations perceived that persons in their social networks were supportive of their decision to be donors and were certain that donating organs was pretty easier to do and the expectation was that they would have greater intentions to be donors.

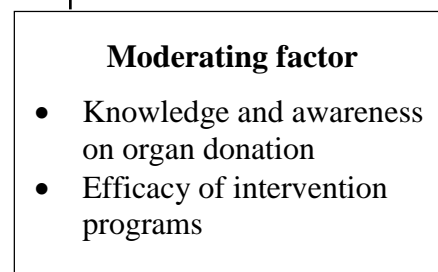
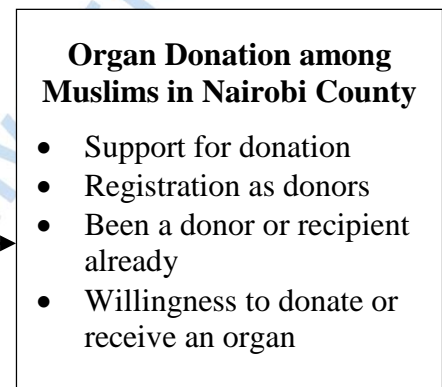
2.8 Conceptual Framework

The study’s conceptual framework which conceptualized the relationship between the study variables was as provided in Figure 1.1. As shown, organ donation among Muslims in Nairobi County, Kenya was the dependent variable while the different perceptions on organ donation formed the independent variables namely religious perception, cultural perception, ethical/legal perception and social perception. The moderating factors in this case were the Muslims’ knowledge and awareness on organ donation and the efficacy of intervention programs taken to enhance organ donation rates. The indicators for each variable were provided.

Independent Variables



Dependent Variable



Source: Researcher (2022)

Figure 1.1: Conceptual Framework

2.9 Recap of Literature Review and Summary of Research Gaps

A review of available literature showed that several studies had been carried out across the globe to determine the level of organ donation among Muslims and the perceptions they held on this medical procedure. These studies had established that organ donation was much lower within the Muslim community when compared to other faith groups. The studies had also shown that there were contradictory opinions regarding the acceptability of organ donation among Muslims and therefore, it was difficult to provide a general stance of these group towards the procedure. As a result, Muslims across the globe had different perceptions towards organ donation and these revolved around religious, cultural, ethical/legal and as well as societal beliefs and values embedded mainly on Islam.

The study had identified several research gaps in the available literature. The study found that no study within the Kenyan context, had attempted to explore the rate of organ donation among Muslims in the country and any other related issues among these individuals. The study also noted that generally, the concept of organ donation had received little attention among scholars in Kenya. This study therefore, went a long way in addressing this conceptual gap. Given that studies such as those of Oliver et al. (2011), Parsa et al. (2019), Akbulut et al. (2020), Ralph et al. (2016) and Hamdy (2010) focused on Muslims in other nations, the findings from these studies could only be adopted within the Muslim community in Kenya with caution since there were some differences in contextual factors leading to different results. Hence, a contextual gap was reflected in existing literature and this study was valuable since it provided a Kenyan perspective regarding the study subject.

The review had also established that some studies such as Blake (2015) had relied on the desktop study approach or document analysis in drawing their conclusions. Others such as Parsa et al. (2019), Ralph et al. (2016) and Alhussain et al. (2018) also applied a single research design in drawing their conclusions which lowered the validity of their findings. However, in this study, the perceptions of Muslims on organ donation were assessed by employing a mixed methods research design. This helped depict the current position more accurately and it also enhanced the validity of findings as it combined different research designs. The review of available literature had also found mixed findings regarding the perceptions of Muslims on organ donation and hence, by carrying out this study, an informed position regarding the issues under study particularly within the Kenyan context was provided.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides a detailed discussion of the research methodology adopted when conducting the study. The chapter outlined the research design used, the study location, targeted population, sampling procedures and sample size, research instruments, pilot study, the data analysis procedures as well as ethical considerations.

3.2 Research Design

This study applied a mixed methods approach. According to Creswell and Clark (2017), when a researcher adopted a mixed methods approach, they employed both qualitative and quantitative methods at the same time in the research process where both methods were equally prioritized, but kept separately when analyzing data. However, the results from both approaches were merged in the overall interpretation stage. Researchers used mixed methods research design in order to comprehend the research problem better as the data obtained was different but complementary (Abowitz & Toole, 2010).

This study sought to investigate Muslims' perceptions on organ donation in Nairobi County. Hence, by using this research design, the validity of the research findings was enhanced. The quantitative approach entailed a survey involving believing Muslim men and women in Nairobi County. These believers described their perceptions on organ donation and how they were related with their willingness to donate their organs. The data collected from these believers was tabulated into a useable format and used to describe the level of organ donation among Muslims in the county and how different perceptions held by these Muslims had impacted organ donation among them.

On the other hand, the use of a qualitative approach assisted in ensuring that the study problem was not assessed through a single lens but rather diverse lenses which would facilitate the understanding of the multiple facets of the study phenomenon. In this case, the phenomenological approach to research was applied where an in-depth understanding of the experiences of key informants of the study phenomenon was considered. Objectivity in this case was enhanced by applying what is known as the epoche process where one abstained from presupposition or judgement about the phenomena under investigation (Kim, 2011).

This created a bias-free environment where the reality under study was described from an objective perspective.

Generally, the epoche' process was where a researcher brackets their own experience and knowledge about the challenges or benefits associated with the phenomena in order to understand the participant's experiences entirely by staying away from prejudgment results (Yüksel & Yıldırım, 2015). Hence, the researcher did not rely on their own views of a phenomena but relied on the statements supplied by study participants.

3.3 Location of the Study

This study was carried out in Nairobi Central Ward, Kamkunji Sub County in Nairobi County. Nairobi County is one of the 47 counties in the Republic of Kenya that is located within the boundaries of Nairobi Province as it was indicated in the previous constitution that was replaced in 2010. It occupied an area of 696.1km². The county bordered Kiambu County to the North and West, Kajiado to the south and Machakos to the east. The county was divided in to 17 sub-counties which are further subdivided into 85 electoral wards.

Nairobi County hosted a cosmopolitan society with people from different ethnic backgrounds, races, and religions. According to the 2019 census, 4.397 million people resided in Nairobi County out of which about 10% were Muslims. The study was undertaken in Kamukunji Sub County which was among the sub counties that had a high number of Muslim faithful. Nairobi Central Ward which was based in this subcounty in particular had been singled out in this study since it had a large number of mosques that could be conveniently accessed and that were attended by Muslims from all walks of life within Nairobi County.

In addition, Kenyatta National Hospital which was one of the few hospitals offering transplantation services in the country were also visited. The hospital had been considered because it was a public facility accessible by all citizens regardless of their social status and its strategic role in organ transplantation. The hospital was located in the area to the immediate west of Upper Hill in Nairobi, the capital and largest city of Kenya (Google, 2020). Its location was about 3.5 kilometres west of the city's central business district.

3.4 Target Population

This study targeted renowned Muslim scholars, Muslim opinion leaders and believing Muslim men and women attending or attached to the selected mosques based in Nairobi

Central Ward. A daily average attendance rate was considered when drawing the target population for the believing Muslim men and women. The study also targeted organ transplant specialists/experts drawn from the Kenyatta National Hospital. By considering the views of these different categories of people, comprehensive information regarding the issues under study was obtained and true picture of the state of affairs on the ground as it pertained the perceptions of Muslims on organ donation in Nairobi County painted. Table 3.1 shows the distribution of the target population.

Table 3.1: Target Population

Category	Number
Muslim scholars	50
Muslim opinion leaders	107
Organ transplant specialists/experts	15
Believing Muslim men and women	1053

Source: Jamia Mosque; Kojja Mosque; Bohora Mosque Management Committees (2020); Kenyatta National Hospital (2020).

3.5 Sample Size and Sampling Procedures

Sampling is necessitated by difficulty in subjecting the entire population of interest to investigation due to prohibitive monetary costs and time (Gall, Gall, & Borg, 2007). Various techniques were applied in selecting the different categories of respondents in this study. There were 8 mosques in Nairobi Central Ward. Given the attendance rates in these mosques, it was not possible to carry out the study in all of them due to time constraints. Hence, three mosques namely Jamia Mosque, Kojja Mosque and Bohora Mosque were purposively selected. These three were selected due to their strategic positioning which made them conveniently accessible by Muslims from all walks of life within Nairobi County.

Purposive sampling was also used to select 6 Muslim scholars and 6 Muslim opinion leaders, two from each mosque and 2 organ transplant specialists from KNH. These three categories of respondents were the key informants for this study. Purposive sampling in this case was justified because these three categories of respondents were believed to have extensive experience on the issues under study based on their positions. Hence, they were better placed to provide crucial in-depth information regarding the subject matter so that the objectives of the study could be effectively met. Furthermore, the number selected was believed to be

adequate based on the resources and time available and also the fact that adding more and more respondents in these categories was likely to no longer bring additional insights to the research questions. These three categories of respondents were also easily identifiable and their choice was based on the judgment of the researcher.

As for the believing Muslim men and women, the simplified formula for sample size calculation developed by Yamane (1967) was used. Based on the formula, at 95% confidence level and $p=0.05$, the size of the sample was;

$$n = \frac{N}{1 + N(e^2)}$$

n =the sample size, N = the size of the population, e =the error of 5% points

Using the formula, the following sample size was yielded;

$$n = \frac{1053}{1 + 1053(0.05^2)}$$

$n=289$

These men and women were selected using stratified random sampling method so as to ensure that Muslim faithful attending the 3 mosques were well represented. This helped improve the representativeness of the sample by reducing sampling error. In this case, this target group was stratified into 3 strata (each of the mosques in the ward). A random sample from each stratum was then taken in a number proportional to the stratum's size compared with the population. This helped reduce the sampling bias in the choice of respondents was reduced. It was important to consider Muslims attending the different mosques since differences in the position held and guidance given by religions leaders, opinion leaders and other recognized persons attending these different mosques were likely to influence the commonly held views among the Muslim faithful, including views on organ donation.

Table 3.2: Sample Size for Believing Muslim Men and Women

Believing Muslim men and women	Target Population	Proportion	Sample Size
Jamia Mosque	745	70.8	205
Kojja Mosque	198	18.8	54
Bohora Mosque	110	10.4	30
Total	1053	100.0	289

Source: Jamia Mosque; Kojja Mosque; Bohora Mosque Management Committees (2020)

Table 3.3 summarizes the sample size and sampling technique for each category of respondents.

Table 3.3: Overall Sample Size and Sampling Techniques

Category	Target Population	Sample Size	Sampling Technique
Muslim scholars	50	6	Purposive
Muslim opinion leaders	107	6	Purposive
Organ transplant specialists/experts	15	2	Purposive
Believing Muslim men and women	1053	289	Stratified random

3.6 Research Instruments

This study used primary data which was collected using a questionnaire and key informant interview schedules.

3.6.1 Questionnaire

A semi-structured questionnaire was used to collect data from the believing Muslim men and women. The questionnaire contained several sections where section I contained questions relating to the demographic characteristics of the respondents, while sections II, III, and IV contained questions relating to organ donation among Muslims, perceptions of Muslims on organ donation and solutions for the matters pertaining to organ donation among Muslim community in Kenya respectively. These sections were informed by the study objectives and the questions asked were aligned with the study's conceptual framework. The questionnaire was provided in Appendix II. The choice of a questionnaire in this case was informed by the fact it was less costly in terms of time and resources needed especially when administering it to a large number of people.

3.6.2 Interview Schedule

The Muslim scholars, the Muslim opinion leaders and the organ transplant specialists/experts were interviewed as guided by the interview schedule provided in Appendix V. The use of interview guides ensured that comprehensive or detailed information related to the study subject was gathered. The structured questions contained in the interview schedule pertained to the bio-data of the respondents, organ donation among Muslims, perceptions of Muslims

on organ donation and solutions for the matters pertaining to organ donation among Muslim community in Kenya respectively. The detailed information from the interviews was used to complement the views provided by the believing Muslim men and women.

3.7 Pilot Study

A pilot study was undertaken in order to assess whether the research instruments to be used in the study were reliable and that their validity was guaranteed. In this study, a pilot study was undertaken in Saifee Masjid Mosque located at Burhani Park, Lagos Road, Nairobi which was one of the mosques in Nairobi Central Ward that was not be considered in the main study. The pilot study was based on 5% of the sample population. The persons involved in the pilot study were not incorporated into the final study in order to reduce survey fatigue. The findings obtained were used as a basis for redesigning and revising the questions where necessary before the instruments were used in the main data collection exercise.

3.8 Validity and Reliability of Research Instruments

3.8.1 Validity

Validity of a research instrument is the extent to which the instrument measures what it was purported to measure (Lakshmi & Mohideen, 2013). In order to ensure the validity of the questionnaire, the expert views of two Muslim clerics and also the university supervisors for this research project were sought. They were requested to scrutinize and gauge the appropriateness and relevance of the content in the questionnaires. Relying on their views and comments, the required adjustments were made in readiness for the main data collection exercise. Only clear, relevant and meaningful questions were retained in the questionnaire after taking in to consideration their comments. This way, face and content validity were enhanced. The questionnaire was also designed in such a way that it contained several sections as guided by the research objectives so that questions pertaining to a particular objective were placed in a given section and that the same closely tied to the conceptual framework of the study.

Qualitative validity in this study was enhanced by ensuring that during the interview process, careful documentation of all the procedures involved was undertaken. The interviewees were also allowed to check whether the information they gave was recorded as it was without any form of misrepresentation. Any negative or discrepant information given by these interviewees was also considered. Moreover, triangulation was undertaken by using both

qualitative and quantitative approaches right from the research design all through to the data analysis to enhance accuracy of findings obtained.

3.8.2 Reliability

Reliability provides an estimate of the consistency of measurements or basically the extent to which a research tool measures in a similar manner each and every time it is utilized under similar circumstances and with the same subjects (Blumberg, Cooper, & Schindler, 2014). The study adopted the test-retest technique in testing the questionnaire's reliability. This involved administering the same questionnaire twice to the same group of subjects. The retest was done after the lapse of one week. The scores from both testing periods were correlated to determine the reliability. Overall reliability coefficient greater than or equal to 0.7 was regarded as adequate and a measure of reliability. For this study, the overall reliability coefficient for the questionnaire was 0.753 and hence, it was considered fit for use in the main study. Qualitative reliability was ensured through the documentation of all procedures, and setting up a detailed official procedure that was used when conducting the interviews. The findings were also compared with the findings of different studies which were independently derived.

3.9 Data Collection Procedures

Before commencing the study, clearance was sought from Mount Kenya University management. A research permit was also obtained from the National Commission for Science Technology and Innovation (NACOSTI). Approval and authorization to undertake the study from the management of the selected mosques and Kenyatta National Hospital was also sought. Visits to the institutions were made for familiarization and appointment booking as pertains to the interviews. This enhanced the legitimacy of the study.

The questionnaire was self-administered the help of two research assistants who administered the questionnaires during the various mosque services. The drop and pick later method was employed in order to give the respondents ample time to appropriately respond to the questions and in so doing, the objectivity of the research findings was enhanced. The exercise took a span of two months where constant follow ups through phone calls and emails were undertaken to enhance the response rate. The mode of conducting the interviews was face to face. Consent from the informants was sought before conducting the interviews. The

interviews were administered on an individual basis. The interviews were recorded using a sound recorder and transcription undertaken to summarize the views of the key informants.

3.10 Data Analysis Procedures

Both qualitative and quantitative approaches to data analysis were used. Qualitative data analysis was conducted using content analysis. The first step involved preparing the information collected during the interviews for analysis by transcribing it into written text. In step two, familiarization with the transcribed data through reading and re-reading the transcripts was undertaken where the initial ideas were noted down. In this case, the transcripts were cautiously scrutinized to identify the concepts related to the research questions. In step three, the initial codes were generated by coding the remarkable features of the data or the concepts noted down in step two. This process was carried out in repetitive cycles until no new concept or idea was identified. The coding was done by using descriptive key words where the key words were chosen from the original words or phrases used in the transcripts. All the data relevant to each code was systematically collected across the whole data set.

In step four, the identification of all the possible themes was conducted using a word-based technique. Word repetitions were analyzed informally by simply reading the responses from the interviews and noting words or synonyms that the interviewees had used a lot. These themes were generally descriptive, that is, they described patterns in the data relevant to the research question presented to the interviewees. In step five, the themes identified in step four were reviewed, modified, developed, and then defined. At this point, gathering all the data that was relevant to each theme was emphasized. In step six, a write up in the form of a dissertation was undertaken. In reporting or presenting the findings under each main theme, narratives were considered. In this case, emphasis was on providing adequate description to enable the readers to comprehend the basis for a particular interpretation as well as sufficient interpretations to allow the readers to understand the descriptions given. Conclusions drawn from the coded data was highlighted by making sense of the themes identified and their properties. The relationships between themes identified and emerging patterns were uncovered against the full range of data.

In analyzing the quantitative data, both descriptive analysis and inferential analysis were carried out. The steps followed included editing, coding, and data entry. The quantitative data

analysis was facilitated by SPSS Version 20. Descriptive statistics computed consisted of frequencies, percentages, mean and standard deviation. For inferential analysis, chi-square tests conducted in order to determine the relationship that existed between religious perception, cultural perception, ethical/legal perception and social perception and organ donation among Muslims in Nairobi County, Kenya. The significance of the relationship between the independent and dependent variables was assessed using the probability values (p values where the critical p value in this study was set at 0.05) associated with the chi-square statistics computed. A calculated probability value of less than 0.05 was an indication that there was significant relationship between a given independent variable and the dependent variable. The quantitative findings were presented using tables and charts while qualitative findings were presented in a narrative form.

3.11 Ethical Considerations

Honestly and integrity were maintained throughout the process of carrying out the study by using data whose credibility could be proven. The laid down research standards were followed and also findings collaborated with that of other studies which ensured that the research works conducted in relation to the study were duly acknowledged. Research assistants were used in the data collection exercise to enhance objectivity in the exercise.

The principle of informed consent was also adhered to. It was ensured that the respondents were involved in this study on a voluntary basis without any form of external pressure and were informed why the study was being carried out, the benefits of the study and risks that might be involved when they agreed to be participants. They were also accorded the liberty to pull out of the research process if they deemed it necessary without any repercussions.

The information given by the participants was held in confidence and anonymity maintained. In submitting the final report, care was taken not to reference a particular respondent. The participants were allowed the liberty to give and withhold as much information as they wished to the person they chose to.

The approval and authorization from the managements of the university, the selected mosques and Kenyatta National Hospital towards enhancing the legitimacy of this study were sought. A permit to carry out the study was also sought from NACOSTI. The data was confined strictly to purposes of academics only.

CHAPTER FOUR

PRESENTATION OF DATA, FINDINGS AND ANALYSIS

4.1 Introduction

This chapter entails a presentation of research data and findings and their interpretation. The organization of the chapter is informed by the specific study objectives where content, descriptive and inferential analyses were conducted.

4.2 Response Rate

In research, the quality of any study is determined by among others the response rate. The study targeted Muslim scholars, Muslim opinion leaders, organ transplant specialists/experts and believing Muslim men and women. Out of the 289 questionnaires administered to the believing Muslim men and women attending three selected mosques based in Nairobi Central Ward, 226 were adequately filled and returned. This translated to a 78.2% successful response rate. Pertaining to the planned interviews with Muslim scholars, Muslim opinion leaders and organ transplant specialists/experts, the successful response rates of 50.0%, 66.7% and 100.0% were attained respectively. The above response rates were considered adequate for data analysis and reporting consistent with the views held by Kothari (2013) who recommended a response rate of 50.0% and above.

4.3 Demographic Profile of Believing Muslim Men and Women

This section contains results on the demographic profile of the believing Muslim men and women. Their gender, age, education, marital status, ethnic group and current occupation were explored. Taking in to consideration the details of these Muslim believers was necessary since such characteristics were likely to impact how they articulated the issues explored in this study.

4.3.1 Gender of Muslim Believers

The distribution of the sampled believing Muslim men and women by their gender is depicted in Figure 4.1.

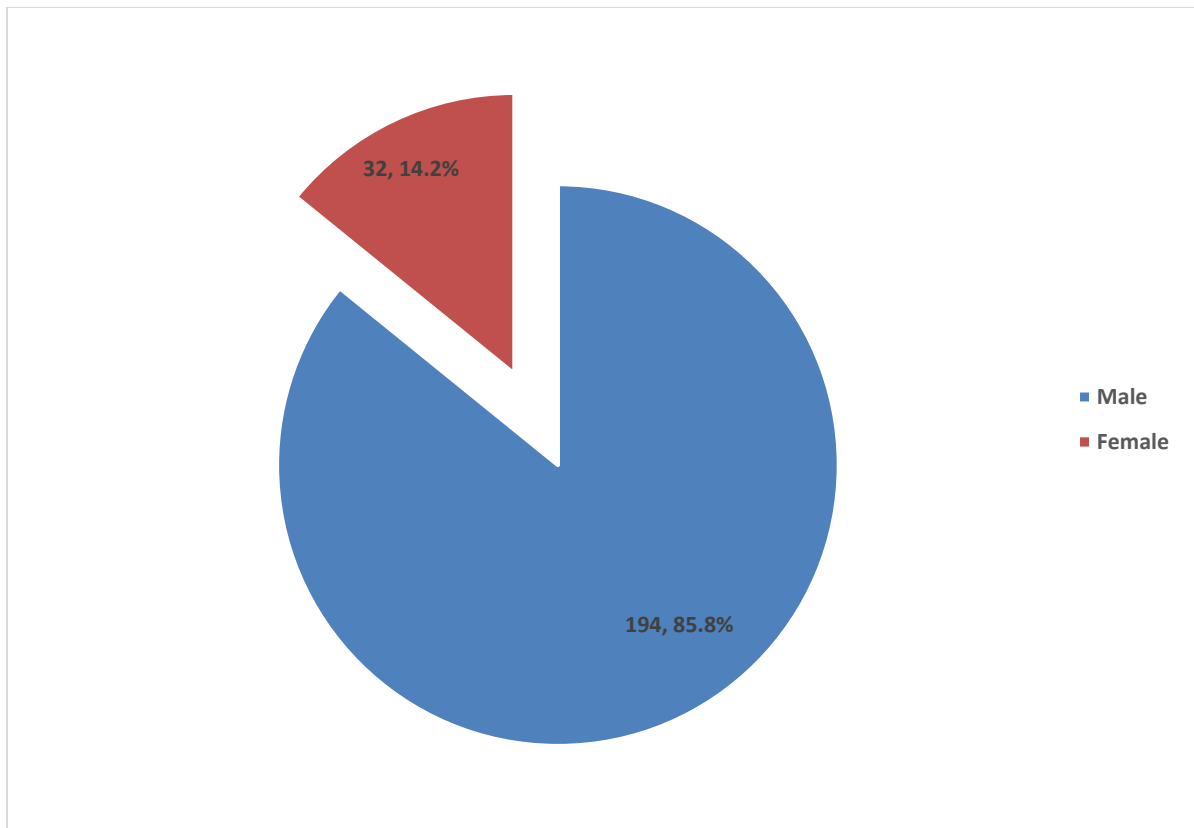


Figure 4.1: Gender of Muslim Believers

As shown in Figure 4.1, 85.8% of the Muslim believers were male while the rest, 14.2%, were female. This finding was linked to the fact that there were gender differences in worship attendance among Muslims where religious norms prioritized male participation in Muslim worship services (Grossman, 2016). According to Mitchell (2016), in most Islamic societies, Muslim men were expected to attend communal Friday midday prayers in the mosque. Women, however, could fulfill these prayer obligations individually either inside or outside the mosque. Considering the views of respondents from both genders was also vital as several studies among them Poreddi et al. (2017) and Akinyemi et al. (2020) had established gender differences with regards to attitudes/perception towards organ donation and also the willingness to donate.

4.3.2 Age of Muslim Believers

The age bracket of the believing Muslim men and women is shown in Figure 4.2.

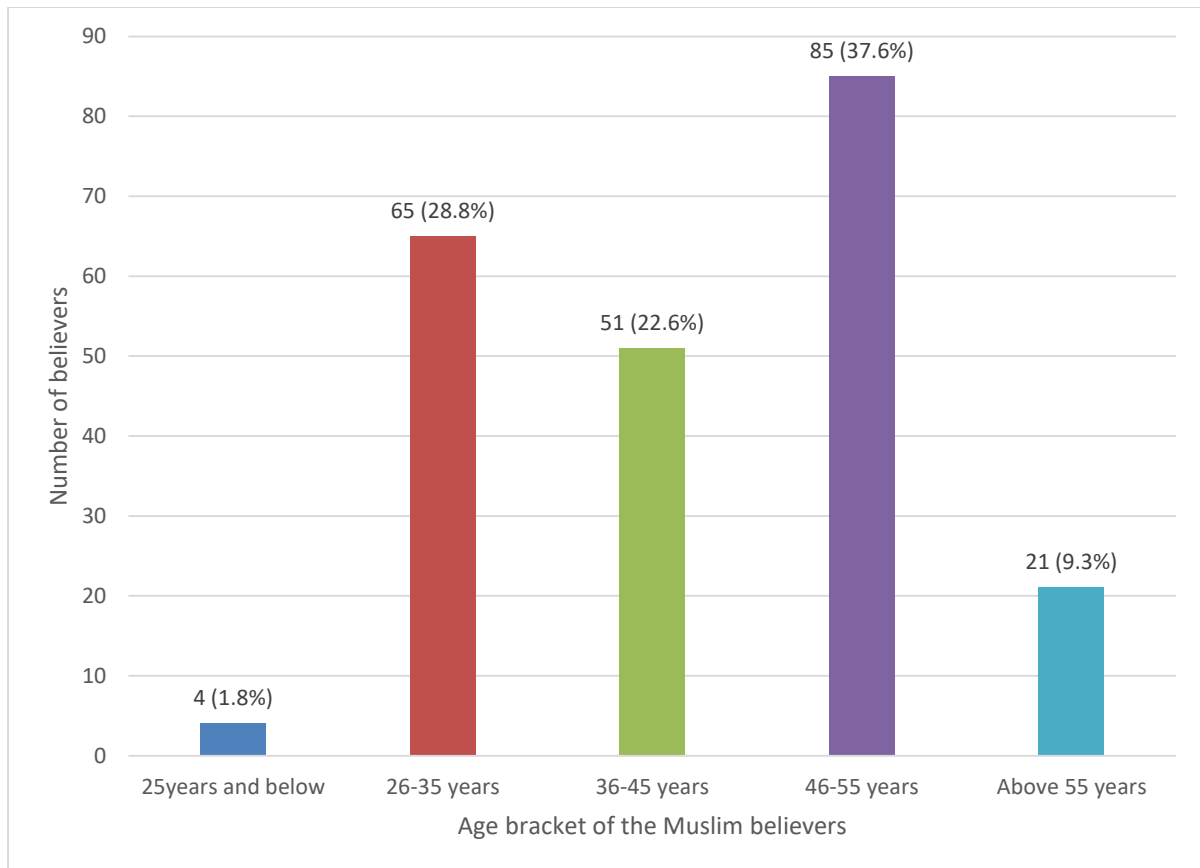


Figure 4.2: Age of Muslim Believers

The above findings showed that 4 (1.8%) of the Muslim believers were aged 25 years and below, 65 (28.8%) were aged 26-35 years, 51 (22.6%) of these believers were in the age bracket of 36-45 years while 85 (37.6%) and 21 (9.3%) of them were aged 46-55 years and above 55 years respectively. From these findings, it can be inferred that most of the Muslim believers were relatively older or mature persons and since increased age was associated with greater experience, it can be concluded that these believers had substantive experience and knowledge on the issues under study. Moreover, taking in to account the age of these Muslim believers was crucial since there was evidence from various studies such as Krupic et al. (2019) and Kurlito et al. (2022) that age had a considerable influence on positive or negative attitudes towards organ donation and transplantation.

4.3.3 Muslim Believers' Highest Level of Education

Figure 4.3 reveals the highest level of education attained by the Muslim believers.

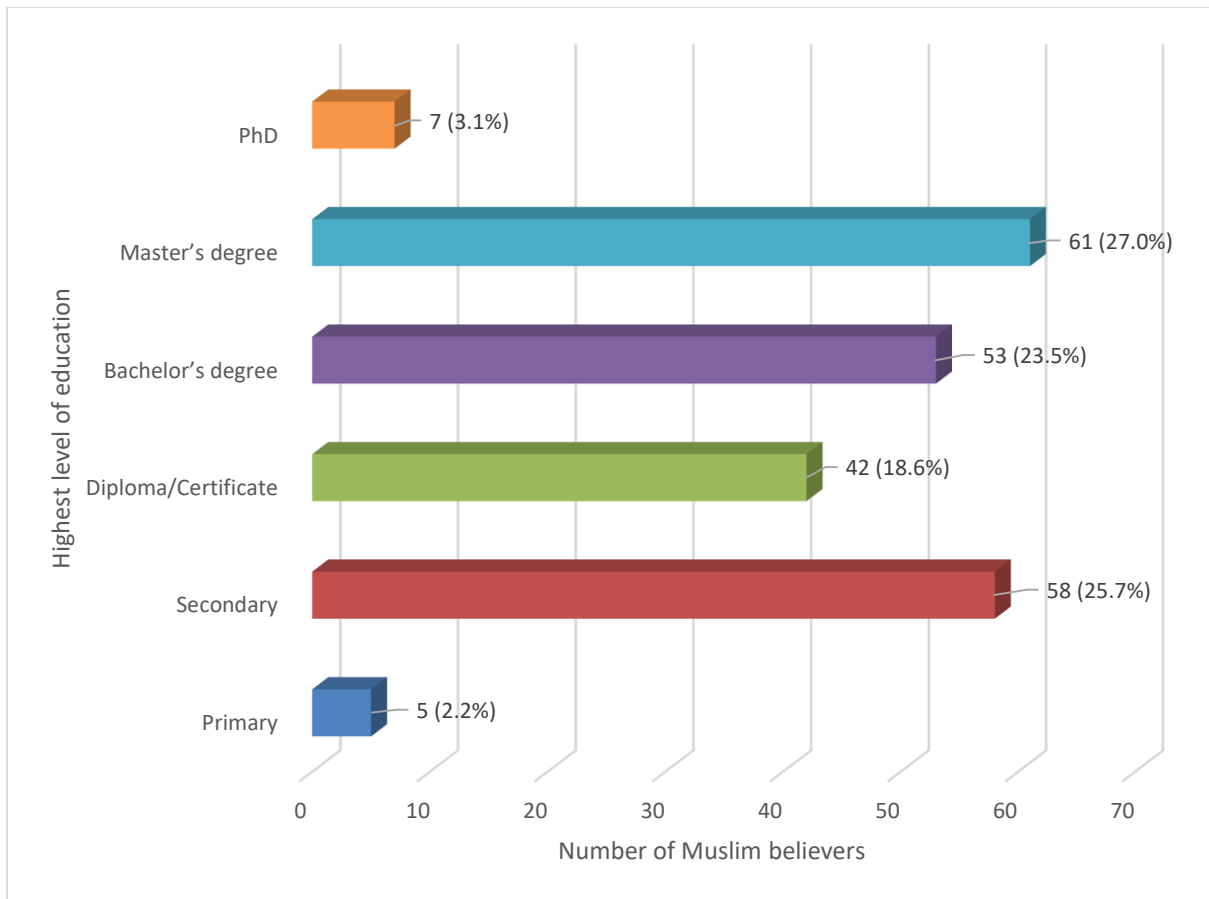


Figure 4.3: Highest Level of Education Attained by the Muslim Believers

The findings demonstrated that 5 (2.2%) of the Muslim believers had primary education, 58 (25.7%) had secondary education, 42 (18.6%) of these believers had education up to the diploma/certificate level while 53 (23.5%) had obtained a bachelor's degree. Those with a master's degree were 61 (27.0%) while 7 (3.1%) of the Muslim believers were educated up to the PhD level. These findings demonstrated that the Muslim believers had the basic education needed to help them understand the issues under study besides being able to adequately articulate their responses. Moreover, examining the educational achievements of the Muslim believers was important since several studies including that of Yilmaz (2011) and Ramadurg and Gupta (2014) had shown that education could alter and determine the attitude/perception, behaviour and knowledge about organ donation.

4.3.4 Marital Status of the Muslim Believers

The distribution of the Muslim believers by their marital status is given in Figure 4.4.

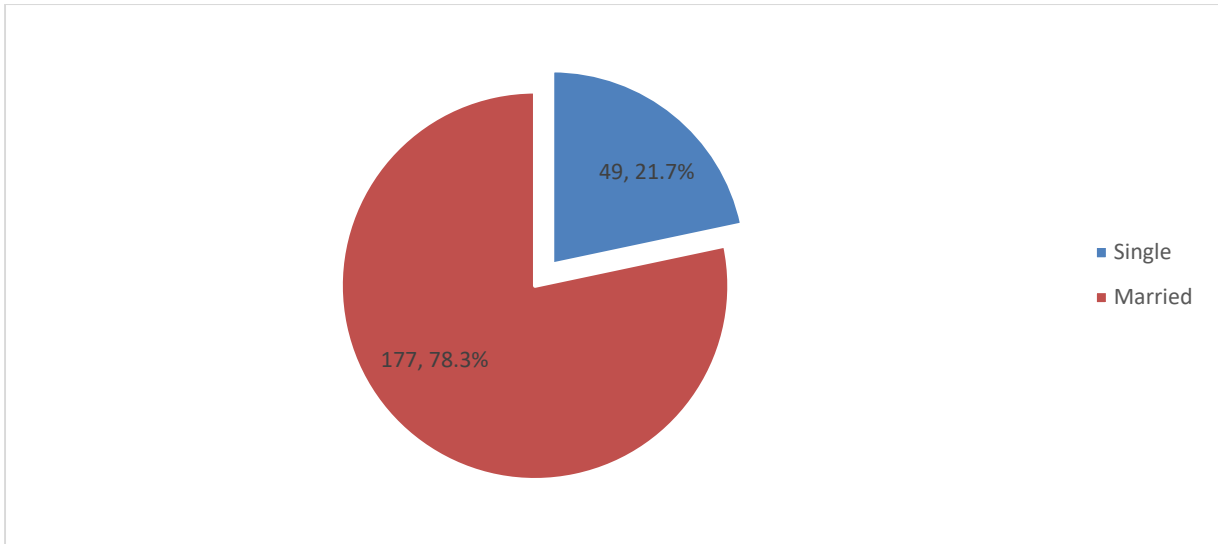


Figure 4.4: Marital Status of the Muslim Believers

It was found that 78.3% of the Muslim believers were married while the rest, 21.7%, were single. The marital status of these believers was explored since several studies such as Regalia et al. (2014), Luo et al. (2021) and Weng et al. (2021) had also established that marital status was a significant factor in determining the willingness to donate organs.

4.3.5 Ethnicity of the Muslim Believers

The ethnicity of the believing Muslim men and women is revealed in Figure 4.5.

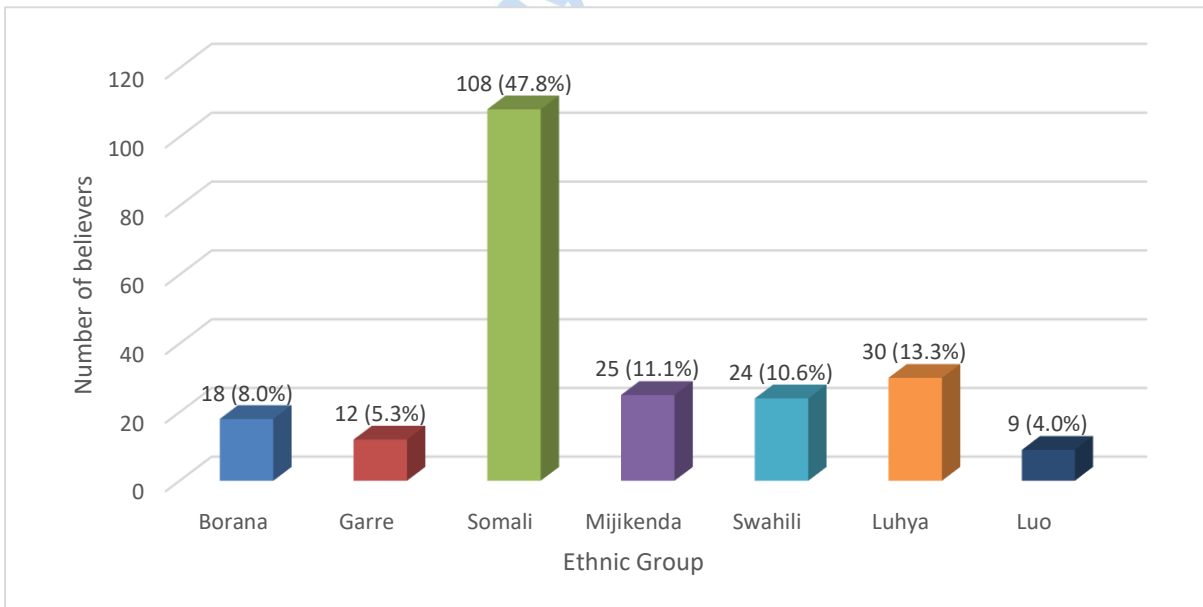


Figure 4.5: Ethnicity of the Muslim Believers

The findings showed that 18 (8.0%) of the Muslim believers were Boranas, 12 (5.3%) were from the Garre community, 108 (47.8%) were Somalis while 25 (11.1%) of the Muslim believers were Mijikendas. The study also established that 24 (10.6%) of these believers were from the Swahili ethnic group, 30 (13.3%) were Luhyas while 9 (4.0%) of the believers were Luos. From these findings, it can be deduced that the views of different ethnic groups within the Muslim community in Nairobi County were considered in this study. This was necessary given the existing evidence in literature such as Ginossar et al. (2017) and Morgan et al. (2010) that showed that the general public perceptions regarding willingness to assent to and donate organs was underpinned on factors such as ethnicity. This was demonstrated for instance, in the observation that organ donation acceptance rates were slightly higher among Muslims of Western origin compared to those from Islamic states.

4.3.6 Current Occupation of the Muslim Believers

The current occupation of the believing Muslim men and women was also determined and the findings are presented in Figure 4.6.

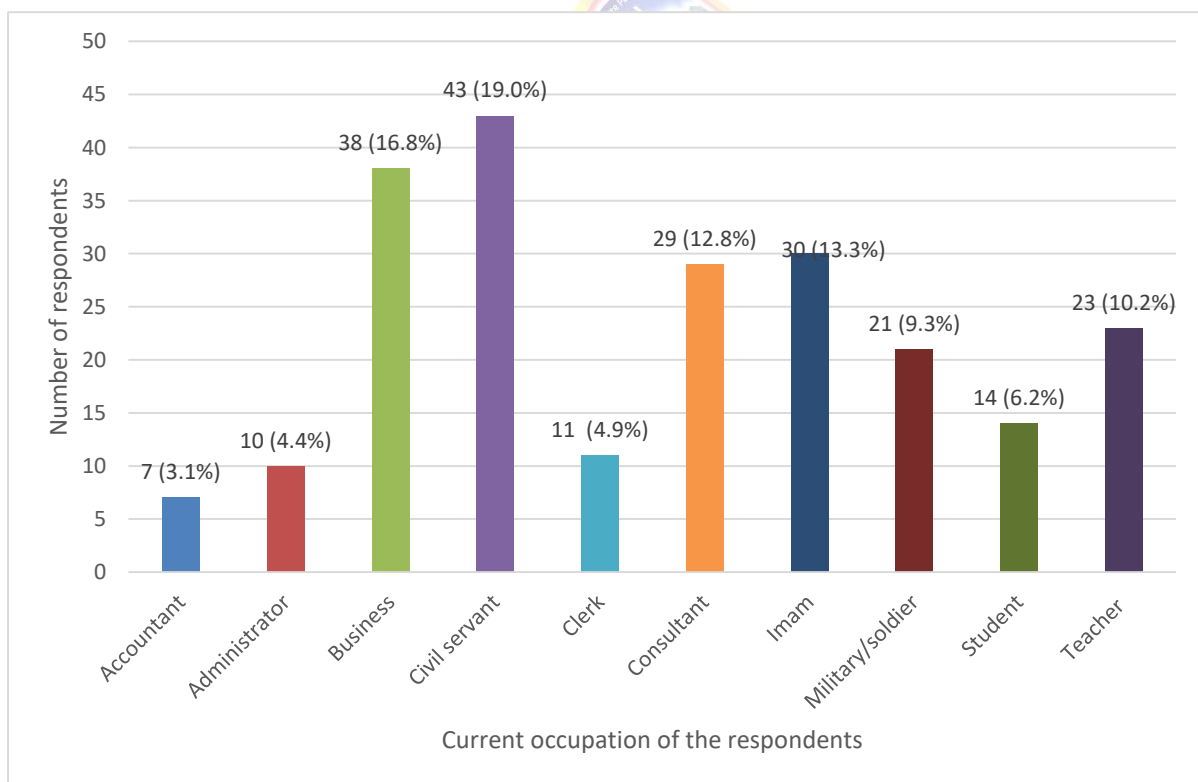


Figure 4.6: Muslim Believers' Current Occupation

It was noted that 7 (3.1%) of the Muslim believers were accountants, 10 (4.4%) were administrators, 38 (16.8%) were in business while 43 (19.0%) of these believers were civil

servants. The findings also showed that 11 (4.9%) of the Muslim believers were clerks, 29 (12.8%) were consultants, 30 (13.3%) of them were imams while 21 (9.3%) and 14 (6.2%) of the Muslim believers were military men/soldiers and students respectively. 23 (10.2%) of the Muslim believers were teachers. These findings implied that the Muslim believers were engaged in different occupations to earn a living.

4.4 Organ Donation among Muslims in Nairobi County

This section captures the views of the believing Muslim men and women as well as the key informants regarding the level of organ donation among Muslims in Nairobi County, Kenya. The support for organ donation among these Muslim believers was determined.

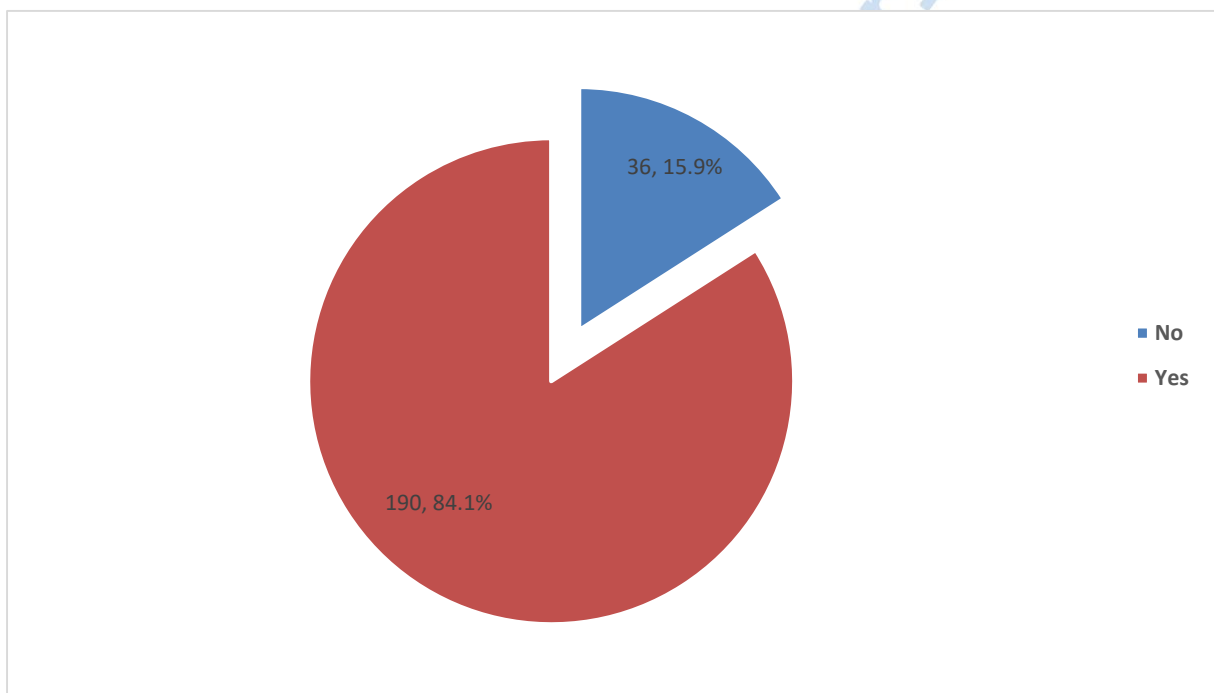


Figure 4.7: Number of Muslim Believers Supporting Organ Donation

The findings presented in Figure 4.7 showed that a majority of these believers, 190 (84.1%), supported organ donation while the rest, 36 (15.9%), did not support it. From the interviews conducted, it also emerged that all the Muslim opinion leaders as well as the Muslim scholars individually supported organ donation especially in cases of extreme medical conditions. The Muslim believers who supported organ donation were asked to indicate who they thought were the best candidates for organ donation. The findings are given in Figure 4.8.

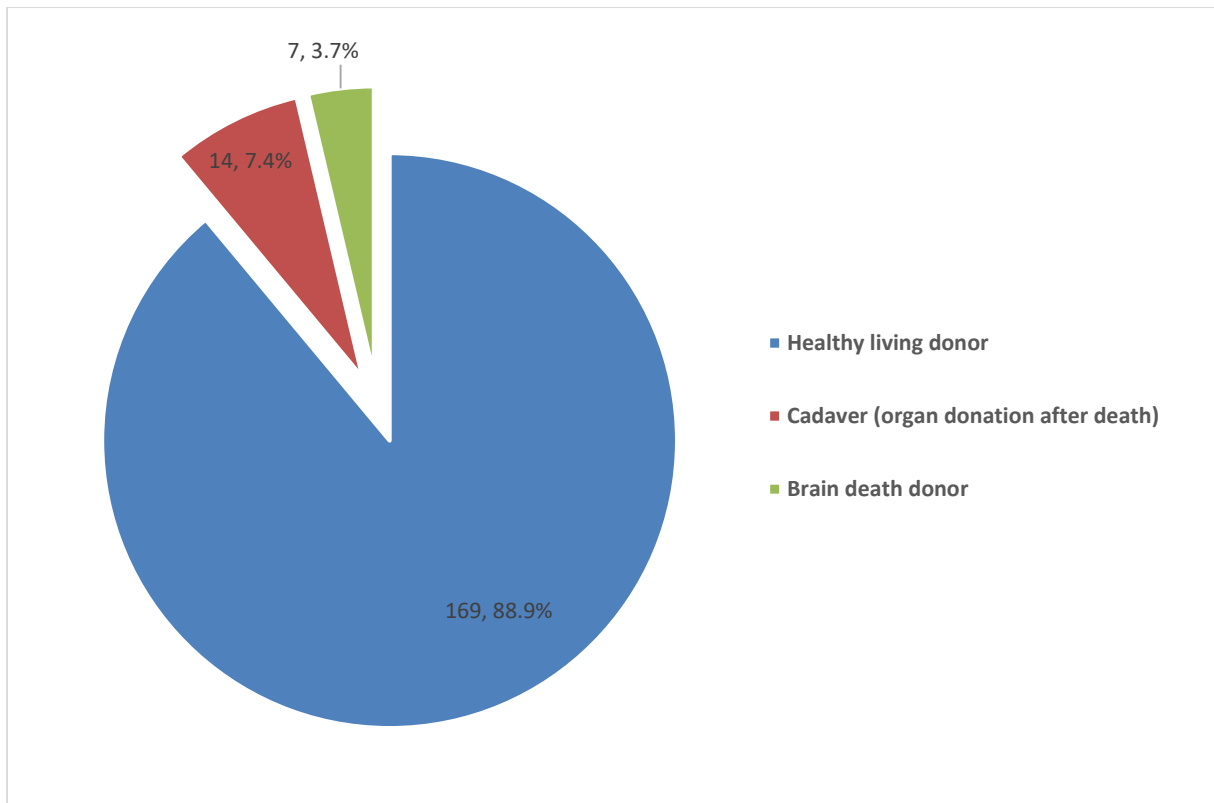


Figure 4.8: Muslim Believers' Views on the Best Candidates for Organ Donation

The findings presented in Figure 4.8 revealed that a majority of the believers, 169 (88.9%), believed that healthy living donors were the best candidates for organ donation. The rest, 14 (7.4%) and 7 (3.7%) of the believers, thought that cadavers (organ donation after death) and brain death donors were the best candidates for this medical procedure. The preferred type of organ donation for two of the interviewed Muslim opinion leaders were healthy living donors if their lives were not endangered, one preferred both healthy living donors and cadavers where consent was given while the other was open for all the available organ donors. The study also established that all the three Muslim scholars indicated that they preferred healthy living donors though one of them also supported organ donation after death as well as suitable animal donors.

The findings presented in Figure 4.9 show the organs which could be donated as suggested by the believing Muslim men and women who supported organ donation.

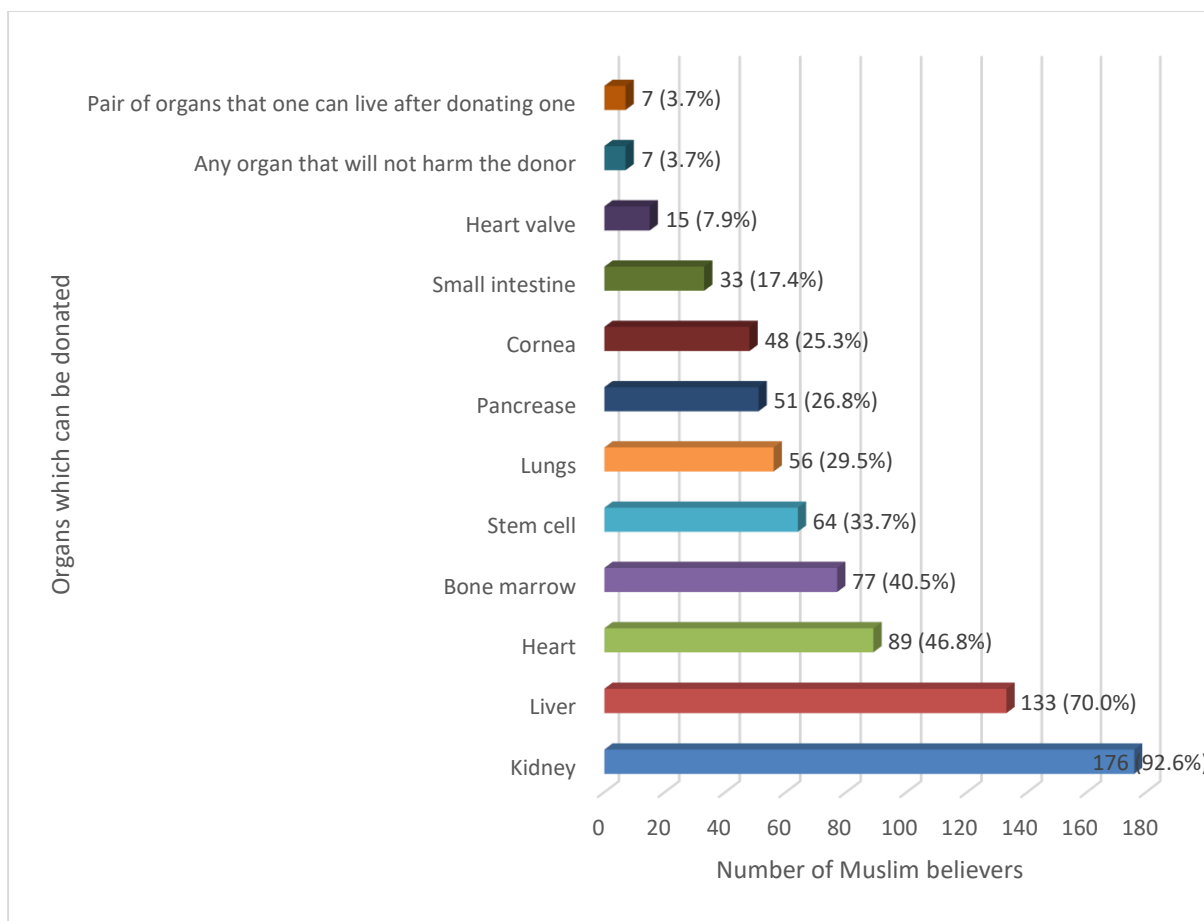


Figure 4.9: Organs which can be Donated as Suggested by the Muslim Believers

The findings revealed that 176 (92.6%) of the Muslim believers suggested kidneys, 133 (70.0%) suggested liver, 89 (46.8%) suggested the heart while 77 (40.5%) and 64 (33.7%) of these believers suggested bone marrows and stem cells respectively. About 56 (29.5%) of the Muslim believers indicated that lungs could be donated, 51 (26.8%) proposed pancreases, 48 (25.3%) suggested cornea while 33 (17.4%) and 15 (7.9%) of the believers recommended the small intestines and heart valves respectively. An equal number of the Muslim believers, 7 (3.7%), indicated that any organ that would not harm the donor and pair of organs that one could still live after donating one can be donated.

Further analysis based on the interviews conducted revealed that there were some organs whose donation remained contested within the Kenyan Muslim community. According to two of the opinion leaders, heart donation was highly contested because the donor must have died for the receiver to get the heart and the fact that killing one person and saving the other was unacceptable. In line with this argument, another opinion leader noted that the criteria of death raised serious concerns on the legality of brain death donors. The other opinion leader

also pointed that the donation of reproduction organs was also contested in the Muslim community due to the belief that it would interfere with genes. Similar views were expressed by the Muslim scholars where according to one of them, heart donation was contested since the donor would definitely die.

The Muslim scholars' views on donation of reproductive organs resonated with the concerns raised by the opinion leaders. It was further argued by one of these scholars that the scientific medical criterion of death and in particular brain death was highly contested since it was believed to be flawed. They also added that pre-mortem was seen as invasive and the procedure of preserving transplantation organs was also contested within the Muslim community. The other scholar pointed out the issues surrounding informed consent particularly the incomplete disclosure of information to consenting donor family, mistrust of physician and also the social motive with regards to organ donation and transplantation were contentious aspects of organ donation within the Muslim community.

The results in Figure 4.10 show the number of Muslim believers who or someone close to them, had either donated or received any organ.

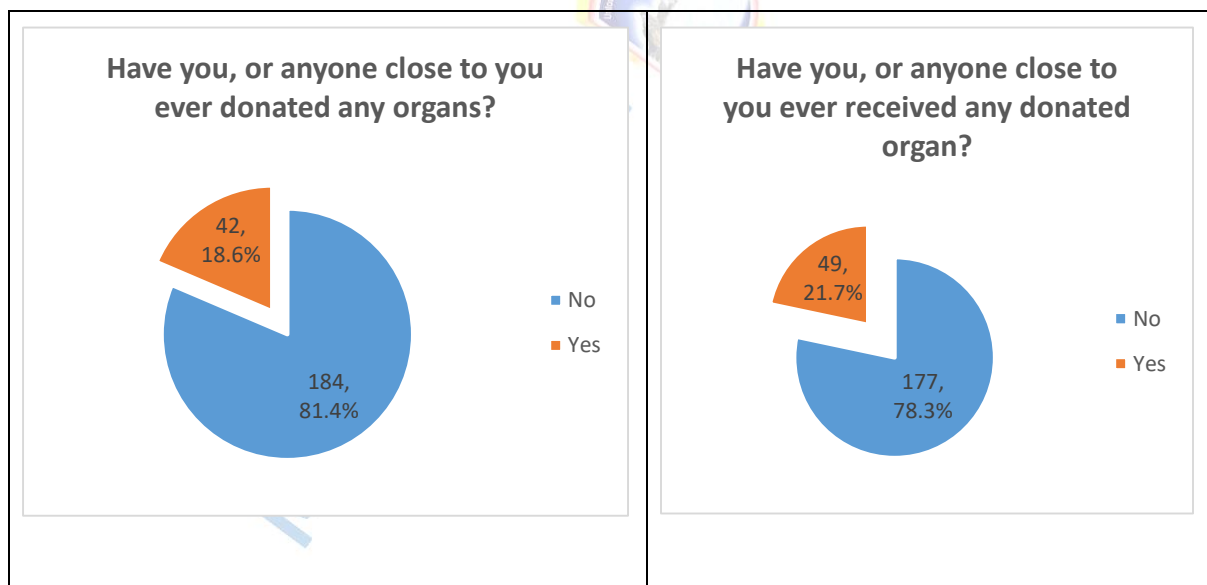


Figure 4.10: Muslim Believers or Someone Close Donated/Received a Donated Organ

From Figure 4.10, it was evident that only 42 (18.6%) of the Muslim believers indicated that them or someone close to them had donated organs. Equally, only 49 (21.7%) of the Muslim believers disclosed that them or someone close to them had received a donated organ. The interviews with key informants revealed that only one of them had donated an organ in their lifetime. The Muslim believers who had not donated or received any donated organ were

asked whether they were willing to do so, if need be, now or even after death. Their responses are captured in Figure 4.11.

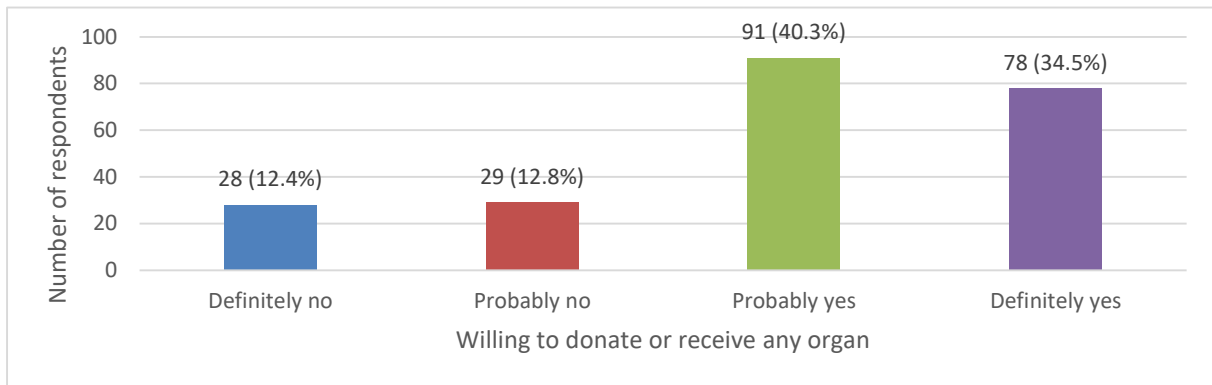


Figure 4.11: Muslim Believers' Willingness to Donate or Receive Any Organ

The findings presented in Figure 4.11 showed that 28 (12.4%) of these believers indicated definitely not, 29 (12.8%) indicated probably not while 91 (40.3%) and 78 (34.5%) of the Muslim believers stated probably and definitely yes respectively. From the interviews with the Muslim opinion leaders, three of them were willing to donate or receive an organ if need be while one was undecided on this matter. For the Muslim scholars, only one of them was willing to donate or receive an organ, if need be, another stated that they were not willing to do so while the other was undecided. The study established that all the Muslim believers (100.0%) had not registered as organ donors. This was also the case with all the interviewed Muslim opinion leaders and scholars. The Muslim believers were further asked if they intended to register as organ donors.

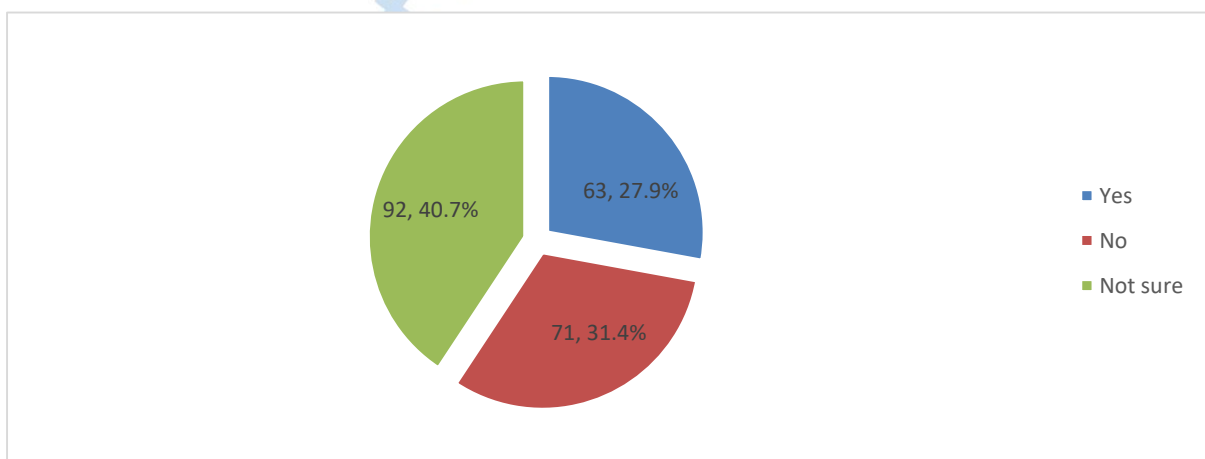


Figure 4.12: Muslim Believers' Intention to Register as an Organ Donors

The findings given in Figure 4.12 showed that 63 (27.9%) of the Muslim believers had the intention to register as organ donors, 71 (31.4%) indicated that they did not have such an intention while 92 (40.7%) of them were not sure if they wanted to register as organ donors. The study also investigated whether the Muslim believers would consent to donate the organs of their family members whose wishes were unknown if it were up to them.

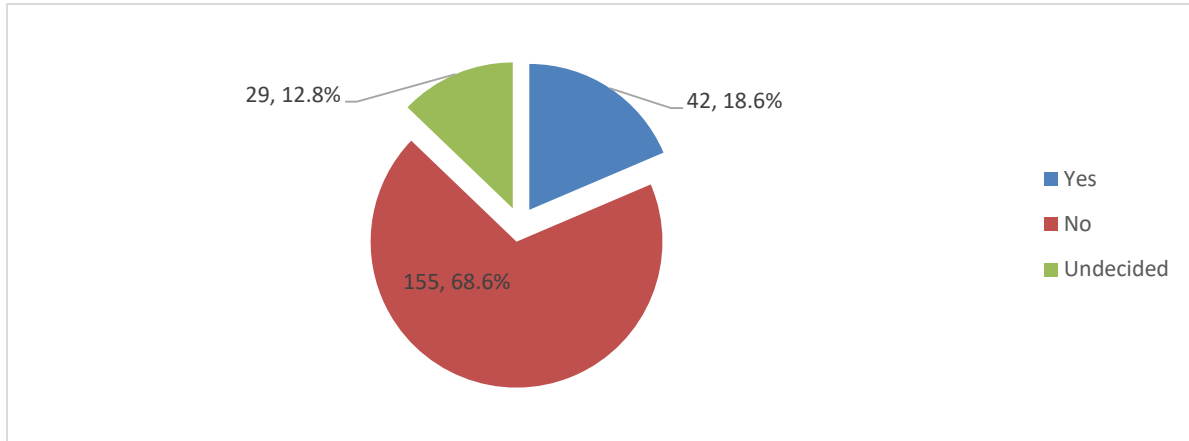


Figure 4.13: Willingness to Consent to Donate the Organs of Family Members whose Wishes Were Unknown

The findings presented in Figure 4.13 showed that 155 (68.6%) of the Muslim believers indicated that they would not consent, 42 (18.6%) stated that they would in deed consent while the rest, 29 (12.8%) in number, were actually undecided concerning this matter. It was further examined whether the Muslim believers would encourage their family members, relatives, colleagues and friends to donate organs. The responses are given in Figure 4.14.

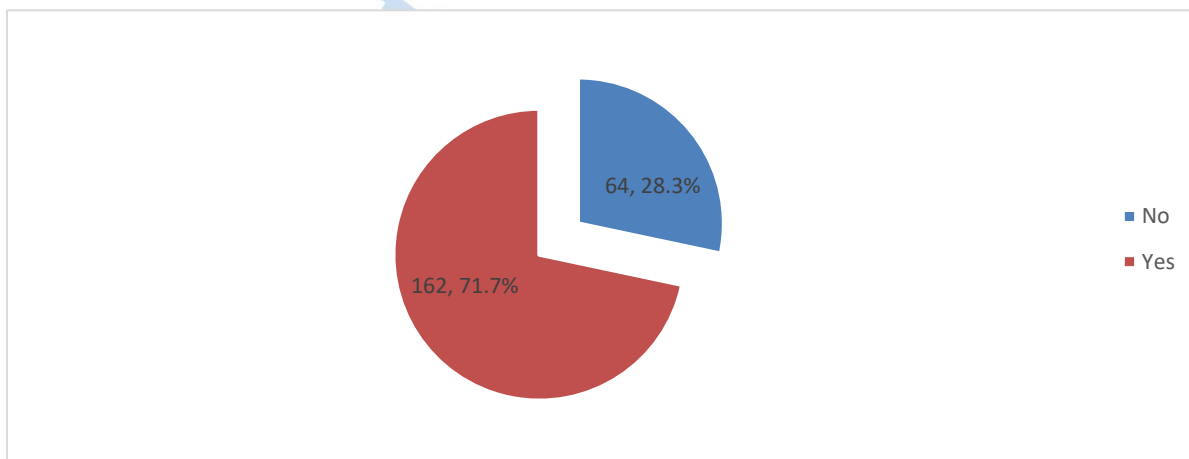


Figure 4.14: Willingness to Encourage Loved Ones and Colleagues to Donate their Organs

The findings presented in Figure 4.14 demonstrated that 162 (71.7%) of these believers would indeed encourage the stated persons to donate their organs while the rest, 64 (28.3%), were not willing to.

The general perspective of the organ transplant specialists/experts regarding organ donation among the Muslim community in Nairobi County and the nation at large was further explored. One of the experts indicated that in their day-to-day activities, they rarely handled such patients while the other noted that only a few cases were handled once in a while. The experts unanimously argued that the level of organ donation and transplantation acceptability among Muslims was distinctly lower than that of the general population. One of the experts explained that though there had been slight improvement in the donation rates with time, these rates were lower than expected as compared to other groups.

Regarding how Muslim donors and recipients perceived organ donation, one of the experts explained that there was a general belief among Muslims that their bodies were a gift from God and that extracting organs amounted to mutilation of their bodies. This act was viewed as religiously and culturally unacceptable. The other expert also emphasized that Muslims acknowledged that organs were precious parts of one's body and that receiving an organ went beyond the physical organ itself and had spiritual importance. This expert also added that only few donors experienced a sense of satisfaction in their selflessness and immeasurable reward awaiting them. According to them, even though the fear of the repercussion to their own health was palpable, acceptance of chronic illness as God's will delay the need for organ donation for transplantation. This view was also reiterated by the other expert.

4.5 Descriptive Analysis on Perceptions of Muslims on Organ Donation and Implications on Donation Rates in Nairobi County

The religious, cultural, ethical and social perceptions of Muslims in Nairobi County were explored. The implication of these perceptions on the level of organ donation among these Muslims was also determined. The findings presented in the following subsections are the responses given by the sampled believing Muslim men and women.

4.5.1 Religious Perceptions on Organ Donation among Muslims

The Muslim believers' views on whether their religion supported organ donation were sought.

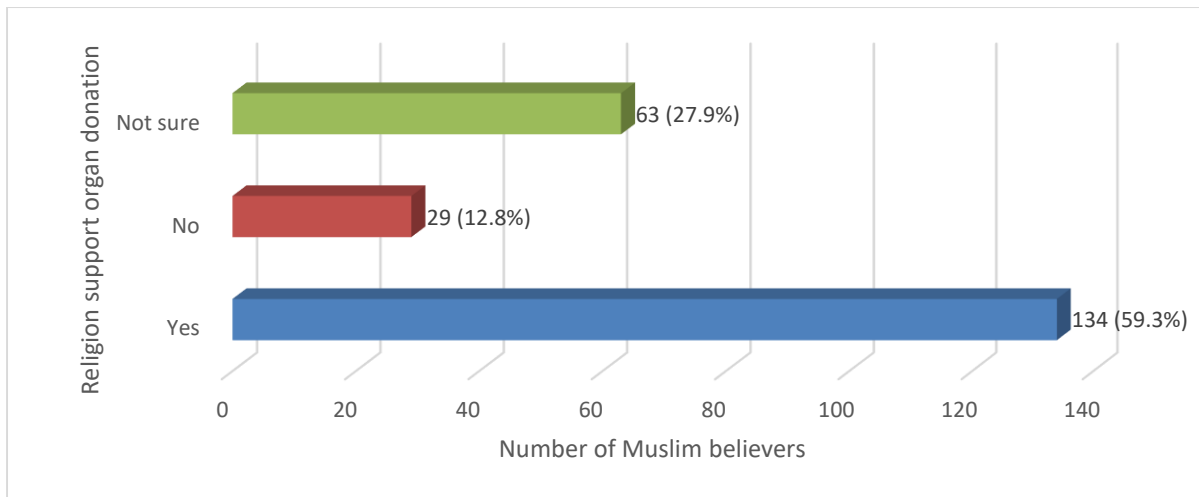


Figure 4.15: Muslim Believers' Views on Whether their Religion Supported Organ Donation

The findings outlined in Figure 4.15 showed that 134 (59.3%) of these believers indicated that their religion supported organ donation, 29 (12.8%) stated that their religion did not support the procedure while rest, 63 (27.9%), were not sure if their religion supported the practice. The study also investigated whether based on their commonly held religious views, the Muslim believers would be willing to donate their organs. The findings are presented in Figure 4.16.

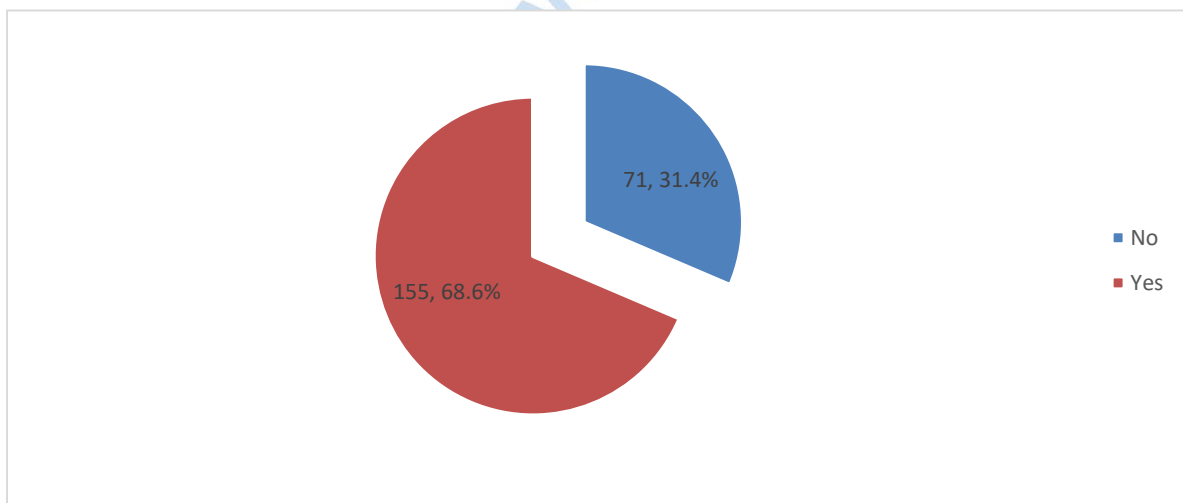


Figure 4.16: Willingness to Donate Organs Based on the Commonly Held Religious Views

Based on the above findings, 155 (68.6%) of Muslim believers confirmed that they would be willing to donate their organs while 71 (31.4%) were not willing to. Table 4.1 shows the reaction of those Muslim believers willing to donate their organs towards various statements

regarding how religious beliefs motivated them to become organ donors. These believers indicated the extent they agreed or disagreed with the statements based on a five-point Likert scale. This was determined using the mean score values and standard deviation for each statement and all the statements on the construct when combined. The mean score values obtained for the different statements (items) in all the constructs in this study were interpreted using a scale interval. A mean value of (1.000-1.499) indicated 1=strongly disagree, (1.500-2.499) indicated disagree, (2.500-3.499) indicated neither agree nor disagree, (3.500-4.499) indicated agree while (4.500-5.000) indicated strongly agree.

Table 4.1: How Religious Beliefs Motivated Muslim Believers to Become Organ Donors

Statement	N	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Mean	SD
I believe whoever helps another will be granted help from Allah in the in future.	155	0.00%	0.00%	4.50%	36.10%	59.40%	4.548	0.583
I believe that in Islam, you have to be generous and help people out no matter what.	155	0.00%	4.50%	4.50%	36.10%	54.80%	4.413	0.780
I am willing to exploit this medical treatment for Allah has not made a disease without appointing a remedy for it.	155	0.00%	4.50%	13.50%	36.80%	45.20%	4.226	0.849
I consider Islamic religious teachings to be in support of organ donation	155	0.00%	0.00%	18.10%	45.80%	36.10%	4.181	0.716
I believe that donating my organs to someone else is a way of honoring my life and Allah.	155	0.00%	13.50%	13.50%	31.60%	41.30%	4.006	1.048
I consider organ donation as a way of serving Allah.	155	9.00%	0.00%	18.10%	41.30%	31.60%	3.865	1.140
I believe it is important to me that I could give someone else a chance of life after my death.	155	4.50%	18.10%	18.10%	32.30%	27.10%	3.594	1.194
I believe donating my organs when I die is a noble thing to do.	155	13.50%	18.10%	13.50%	31.60%	23.20%	3.329	1.368
Composite mean and standard deviation							4.020	0.581
Valid N=155								

The findings outlined in Table 4.1 revealed that on average, the Muslim believers strongly agreed that they believed that whoever helped another would be granted help from Allah in the future as confirmed by mean value of 4.548. These believers on the other hand agreed that they believed that in Islam, they had to be generous and help people out no matter what and that they were willing to exploit this medical treatment for Allah had not made a disease without appointing a remedy for it. This was attested by mean score values equal to 4.413 and 4.226 respectively. The believers also agreed that they considered Islamic religious teachings to be in support of organ donation (mean=4.181) and that they believed that donating their organs to someone else was a way of honoring their life and Allah given a mean of 4.006.

The believers further agreed that they considered organ donation as a way of serving Allah and that they believed it was important to them that they could give someone else a chance of life after their death as supported by mean values of 3.865 and 3.594 respectively. These believers however, neither agreed nor disagreed that they believed donating their organs when they died was a noble thing to do given a mean value of 3.329. The overall or composite mean of 4.020 for this construct showed that on average, these Muslim believers agreed with most of the statements presented to them on how religious beliefs motivated them to become organ donors. The standard deviations across board were less than the mean implying that the responses of these believers though varied, they were closely clustered around the mean.

The other religious beliefs and views that would motivate the Muslim believers to donate their organs are highlighted in Figure 4.17. According to 106 (68.4%) of these believers, a Muslim was considered a brother or sister to another Muslim and hence, should help where need be no matter the circumstance. In this case, this could entail donating an organ if this was permissible in Islam. About 88 (56.8%) of the believers noted that donating their organs to someone needy was a way of saving life, an act which was encouraged in Islam as long as one was well-informed and willing to donate.

It was also reported by 75 (48.4%) of the Muslim believers that the religious view that helping save one's life was liking saving the entire mankind was key motivation to them considering to be organ donors. Others, 64 (41.3%), observed that organ donation was a form of charitable acts which were highly encouraged in Islamic religion while 43 (27.7%) of these believers argued that humanity being based on helping someone in need, was a religious belief that would motivate them to donate their organs.

The findings also showed that 36 (23.2%) of the believers assumed the religious view that by one helping someone else, Allah would help and reward them in any way would be a motivation for them to be organ donors. Others, 30 (19.4%), held the view that organ donation was a form of *sadaqah* (voluntary charity), generosity and show of love to brothers and sisters in need while 11 (7.1%) of them noted that religious leaders support for organ donation as long as it did not harm their lives would motivate them to donate their organs.

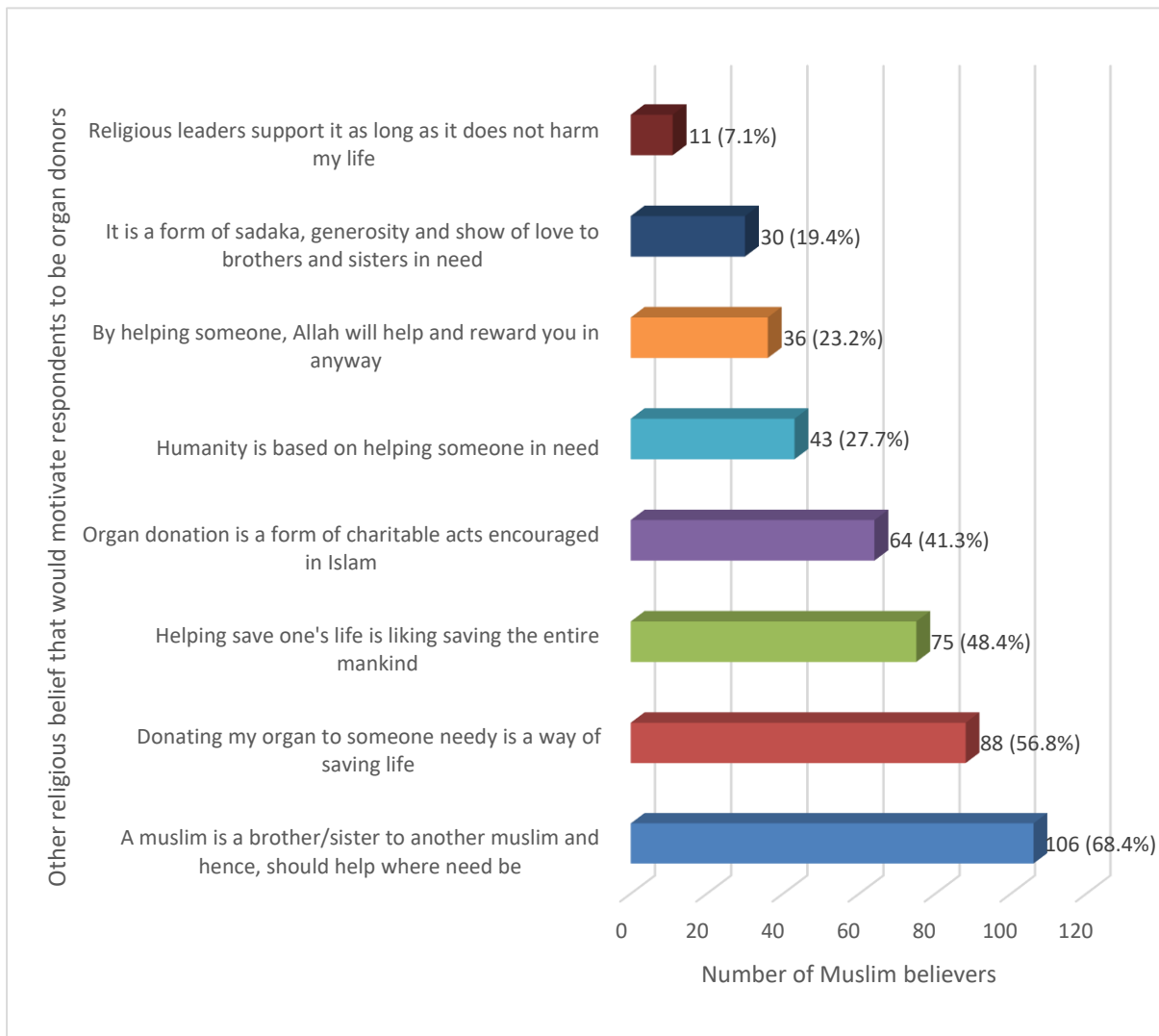


Figure 4.17: Other Religious Beliefs that Would Motivate Muslim Believers to Donate Organs

The reaction of the Muslim believers not willing to donate their organs towards various statements regarding how religious beliefs hindered them to become organ donors is captured in Table 4.2. These believers stated their level of agreement or disagreement with the statements presented to them.

Table 4.2: How Religious Beliefs Hindered Muslim Believers to Become Organ Donors

Statement	N	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Mean	SD
I consider organ donation to be against Islamic religious teachings and values.	71	1.40%	12.70%	36.60%	32.40%	16.90%	3.507	0.969
I believe organ donation conflicts with my belief that illness is God's will which should be respected.	71	0.00%	29.60%	29.60%	21.10%	19.70%	3.310	1.103
I fear that by donating my organs, I would be defying God's natural laws and interfering in His affairs.	71	0.00%	39.40%	9.90%	40.80%	9.90%	3.211	1.081
I want my body to remain intact after death because I believe my body organs will play an independent role as witness on judgment day.	71	9.90%	39.40%	9.90%	31.00%	9.90%	2.915	1.228
I believe that donation is not necessary because divine cure is possible.	71	9.90%	49.30%	21.10%	19.70%	0.00%	2.507	0.924
I believe that organ donation contradicts the beliefs on bodily resurrection	71	19.70%	39.40%	19.70%	21.10%	0.00%	2.423	1.037
I believe that removing any organs from my body desecrates my body.	71	19.70%	49.30%	21.10%	9.90%	0.00%	2.211	0.877
If I donated my organs, I would worry that my spirit would not be at rest.	71	31.00%	59.20%	0.00%	9.90%	0.00%	1.887	0.838
I believe that it is not worthy to save the life of some people.	71	40.80%	59.20%	0.00%	0.00%	0.00%	1.592	0.495
I believe that the sins of the donor might be transferred to the recipient.	71	50.70%	49.30%	0.00%	0.00%	0.00%	1.493	0.504
Composite mean and standard deviation							2.506	0.540
Valid N=71								

As shown in Table 4.2, the Muslim believers not willing to donate their organs on average agreed that they considered organ donation to be against Islamic religious teachings and values as demonstrated by a mean value of 3.507. These believers on average neither agreed

nor disagreed that they believed organ donation conflicted with their belief that illness was God's will which should be respected given mean value of 3.310. The believers on average also neither agreed or disagreed that they feared that by donating their organs, they would be defying God's natural laws and interfering in His affairs as attested by mean=3.211. The said believers on average neither agreed nor disagreed that they wanted their bodies to remain intact after death because they believed their body organs would play an independent role as witness on judgment day as shown by mean equal to 2.915. It was further found that these believers on average neither agreed nor disagreed that they believed that donation was not necessary because divine cure was possible as confirmed by mean of 2.507.

On average, the stated Muslim believers disagreed that they believed that organ donation contradicted the beliefs on bodily resurrection and that they believed that removing any organs from their bodies desecrated their bodies. This was supported by mean values equal to 2.423 and 2.211 respectively. The believers also on average disagreed that if they donated their organs, they would worry that their spirits would not be at rest and that they believed that it was not worthy to save the life of some people as depicted by mean values of 1.887 and 1.592 respectively. The believers further strongly disagreed that they believed that the sins of the donor might be transferred to the recipient as revealed by mean value of 1.493. The composite mean value of 2.506 for this construct suggested that on average, the Muslim believers not willing to donate their organs were disagreeing with most of the statements presented on the religious views hindering organ donation.

The views of Muslim opinion leaders as well as the Muslim scholars regarding the religious perceptions of Muslims on organ donation in Nairobi County were also sought and summarized. One of Muslim opinion leaders indicated that the medical procedure was acceptable in Islam, two of them argued that organ donation was still highly disputed by many Muslim believers and *ulama* (a body of Muslim scholars or religious leaders who are recognized as having specialist knowledge of Islamic sacred law and theology) while the other opinion leader noted that some organ donations were considered permissible in Islamic religion. On whether the perceptions were in support or opposition to organ donation, two of these Muslim opinion leaders indicated that these perceptions supported the medical procedure as long as the donor consented and their lives were not in endangered.

It was mentioned by one of these Muslim opinion leaders that the support for organ donation was informed by consensus of opinion of scholars and *qiyas* (the principle of analogy applied

in the interpretation of points of Islamic law not clearly covered in the Koran or Sunnah) laws delivered through analogy where Muslim scholars permitted some organ donations. These secondary sources according to them were used in the event that the primary sources accepted universally by all Muslims specifically the Quran and Sunnah, did not provide clarity on a matter. The other opinion leader was not sure if the religious perceptions of Muslims on organ donation were in support or opposition to the practice.

The Muslim scholars also provided a scholarly perspective on the religious perceptions of Muslims on organ donation in Nairobi County. It was revealed by one of these scholars that organ donation was considered religiously permissible based the fact that in Islamic religion, it was the duty of each and every Muslim to save the life of another person. Hence, in the event of critical illness, organ donation was allowed. The other scholars noted that as long as the moral and religious conditions were met, the organ donation process/exercise was considered permissible or acceptable in Islam. The three scholars added that the religious perceptions of Muslims on organ donation in this context supported this medical procedure as long as the donor's life was not in danger and informed consent was sought from them.

Regarding how the religious perceptions of Muslims on organ donation in Nairobi County related to Islamic teachings explored in scholarly works across the globe, the scholars unanimously argued that these went hand in hand due to the globalization of scholarly opinion. They explained that though the Quran and Sunnah were the primary sources universally accepted by all Muslims in the interpretation of Islamic moral code about human acts, in fields where these two primary sources were silent about it, the secondary sources involving fatwas issues by scholars were used. Thus, *ijmaa* (consensus of the scholars of Islam) was applied with regards to how scholars had talked about organ donation as long as their opinion did not clash with the Quran and the Sunnah and also the individual's religion, life, mind, property or progeny/family/offspring were not harmed.

4.5.2 Cultural Perceptions on Organ Donation among Muslims

The views of the believing Muslim men and women on whether their culture supported organ donation were sought. The findings displayed in Figure 4.18 showed that 85 (37.6%) of the believers indicated that their culture supported organ donation, 78 (34.5%) noted that their culture did not support the practice while the rest, 63 (27.9%), were not sure whether organ donation was supported by their culture.

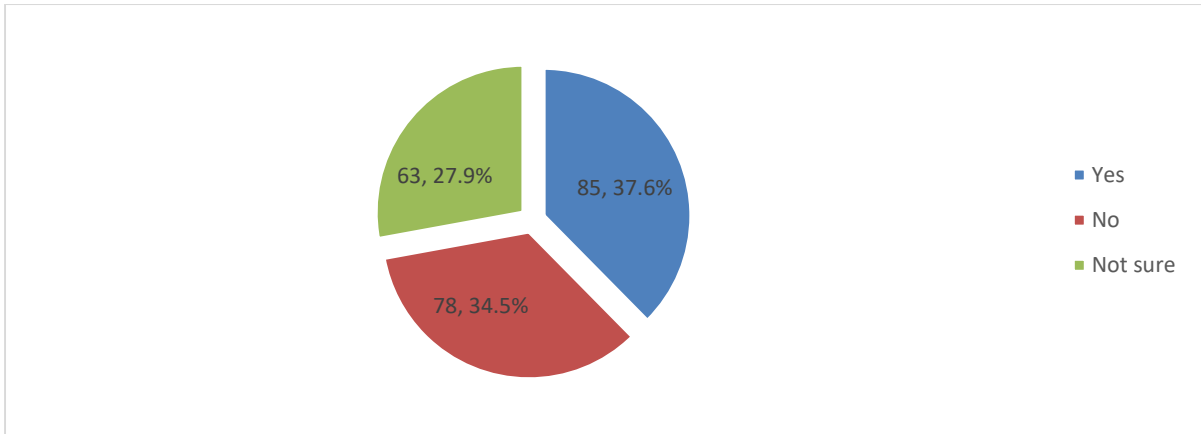


Figure 4.18: Muslim Believers' Views on Whether their Culture Supported Organ Donation

The study also assessed whether based on the commonly held cultural views, the Muslim believers would be willing to donate their organs. As shown in Figure 4.19, a total of 149 (65.9%) Muslim believers noted that based these views, they were willing to donate their organs. The rest, 77 (34.1%), were not willing to donate their organs.

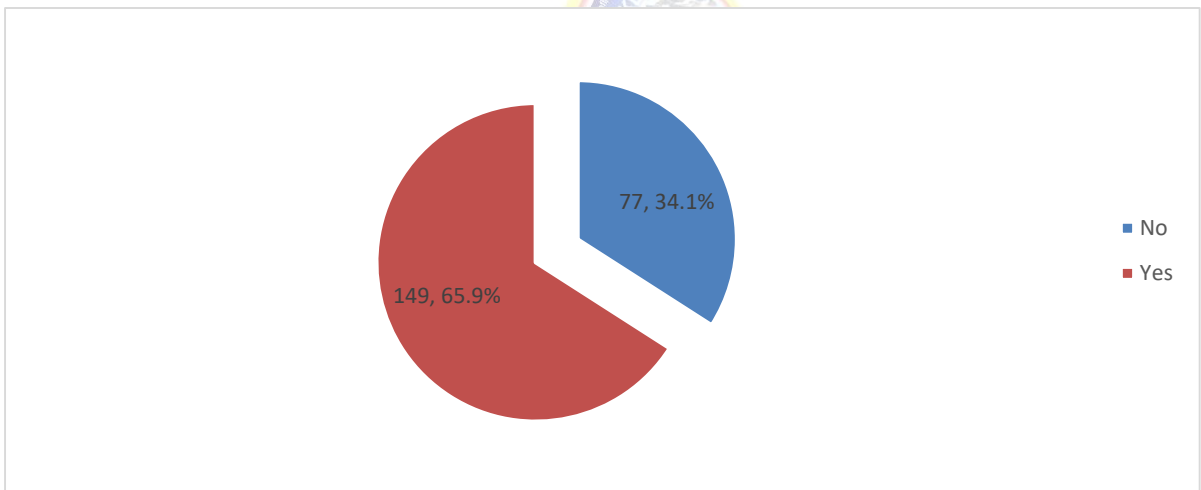


Figure 4.19: Willingness to Donate Organs Based on the Commonly Held Religious Views

The Muslim believers also stated the extent they agreed or disagreed with statements on some of the commonly held cultural perceptions on organ donation among Muslims across the globe. The findings are presented in Table 4.3.

Table 4.3: Reaction to Common Cultural Perceptions on Organ Donation among Muslims

Statement	N	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree	Mean	SD
I believe it is important to return one's body to the earth intact and as soon as possible after death.	226	18.60%	21.70%	9.30%	37.20%	13.30%	3.049	1.367
I feel uneasy of the thought of my body being cut up.	226	21.70%	18.60%	12.40%	44.20%	3.10%	2.885	1.270
I desire for a traditional funeral in which the corpse has not been touched.	226	34.10%	27.90%	6.20%	21.70%	10.20%	2.460	1.408
I fear that by agreeing to donate my organs, my body will be badly mutilated and deformed.	226	41.20%	18.60%	6.20%	31.00%	3.10%	2.363	1.367
I believe it is wrong to interfere in the cycle of life and death by donating a body part to someone else.	226	27.90%	34.10%	16.40%	18.60%	3.10%	2.350	1.161
I do not want to think about things involving death.	226	31.90%	31.00%	15.50%	18.60%	3.10%	2.301	1.188
I consider it unlucky not to bury my entire body altogether in one place.	226	31.00%	43.40%	3.10%	15.50%	7.10%	2.243	1.243
I feel that agreeing when alive to donate my organs as a gift after death is like tempting my own death.	226	41.20%	34.10%	9.30%	15.50%	0.00%	1.991	1.062
I believe it would be disrespectful to my descendants to change my body by donating organs.	226	47.30%	31.00%	6.20%	12.40%	3.10%	1.929	1.145
I believe that signing to be an organ donor would result in personal bad luck for me.	226	46.90%	37.60%	6.20%	9.30%	0.00%	1.779	0.926
I believe my spirit will become angry and bring harm to the person who receives my donation.	226	50.40%	34.10%	9.30%	3.10%	3.10%	1.743	0.969
I believe donating my organs will disturb my dying process.	226	53.50%	37.20%	3.10%	6.20%	0.00%	1.619	0.820
Composite mean and standard deviation							2.226	0.732
Valid N	226							

The findings presented in Table 4.3 showed that on average, the Muslim believers neither agreed nor disagreed that they believed it was important to return one's body to the earth intact and as soon as possible after death given a mean of 3.049. These believers also on average neither agreed nor disagreed that they felt uneasy of the thought of their bodies being cut up as shown by a mean of 2.885. On the other hand, the Muslim believers on average disagreed that they desired for a traditional funeral in which the corpse had not been touched (mean=2.460) and that they feared that by agreeing to donate their organs, their bodies would be badly mutilated and deformed as given mean of 2.363.

The Muslim believers also on average disagreed that they believed that it was wrong to interfere in the cycle of life and death by donating a body part to someone else given a mean value of 2.350. They also on average disagreed that they did not want to think about things involving death (mean=2.301), that they considered it unlucky not to bury their entire body altogether in one place (mean=2.243) and that they felt that agreeing when alive to donate their organs as a gift after death, was like tempting their own death as affirmed by a mean of 1.991. The study also established that on average, the Muslim believers disagreed that they believed it would be disrespectful to their descendants to change their bodies by donating organs as shown by a mean of 1.929.

The Muslim believers also on average disagreed that they believed that signing to be an organ donor would result in personal bad luck for them (mean=1.779) and that they believed their spirit would become angry and bring harm to the persons who received their donation (mean=1.743). The Muslim believers further disagreed that they believed donating their organs would disturb their dying process as revealed by (mean=1.619). The composite mean value for the construct (2.226) implied that on average, the Muslim believers disagreed with most of the statements presented to them on some commonly held cultural perceptions on organ donation among Muslims.

Considering the views of the key informants, the Muslim opinion leaders unanimously noted that in deed, cultural beliefs and customs of Muslims influenced organ donation rates by affecting the attitude towards the procedure. The main cultural perceptions of Muslims that explained the current donations rates among them as highlighted by these opinion leaders included the belief that it was wrong to interfere with a person's cycle of life and death by donating their body parts to someone else. The belief that by donating organs, the spirit of a donor would become restless ("a fly") and bring harm to the organ recipient was also

mentioned. It was also noted that some Muslims believed that organ donation may cause nightmares to them and that human body was holy and hence, treating it as an object/equipment by replacing its parts or organs was prohibited.

From the responses of the Muslim scholars, two of them believed that cultural beliefs and customs were a significant factor influencing the organ donation outlook among Muslims in Nairobi County and the nation at large. The basis of these cultural beliefs and customs according to these scholars was that, it was not acceptable to bury half the body structure (that is, all body organs should be intact) or to harm a dead body which was viewed as a taboo. The main cultural perceptions of Muslims in Nairobi County that explained the current donations rates among them as highlighted by the Muslim scholars were that, one should be buried when complete or having all body organs as created as intact bodies were needed in the next world. They added that human body remained sacred even after death and therefore, it was a taboo to harm it. Generally, these the cultural beliefs slowed down the whole process of organ donations among Muslims in Kenya.

4.5.3 Ethical/Legal Perceptions on Organ Donation among Muslims

The Muslim believers were asked whether they thought organ donation was legally and ethically permissible as per Islamic principles and law.

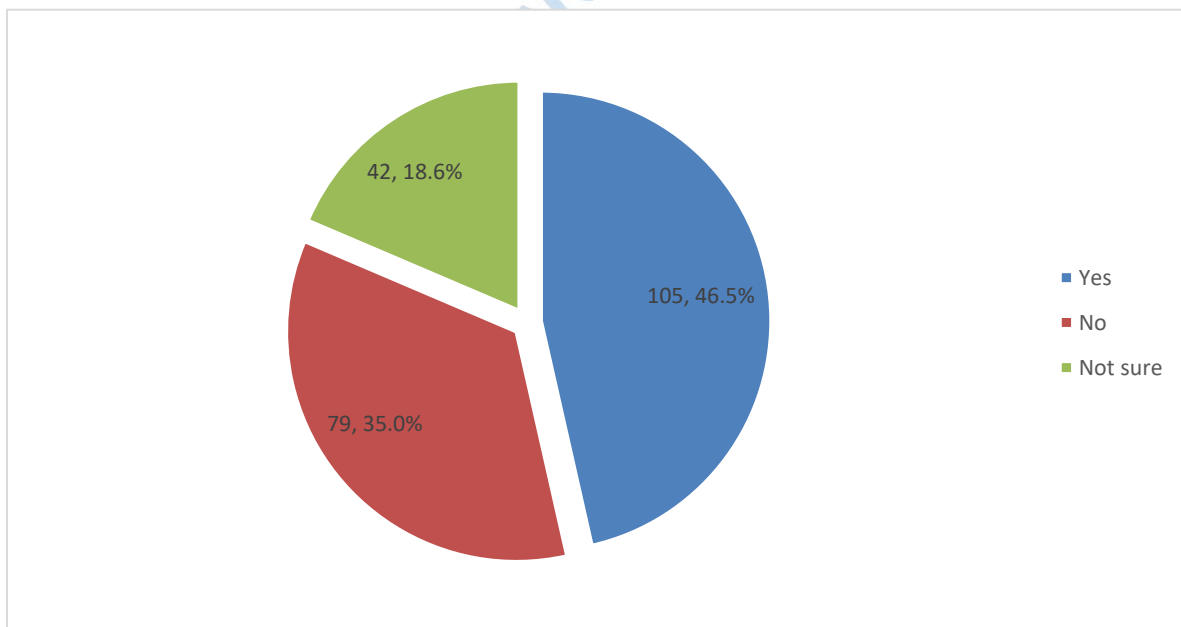


Figure 4.20: Legal and Ethical Permissibility of Organ Donation in Islamic Law

The findings as provided in Figure 4.20 showed that 105 (46.5%) of the Muslim believers thought that organ donation was permissible, 79 (35.0%) stated that the procedure was not permissible while 42 (18.6%) of them were not sure of the legal and ethical permissibility of organ donation in Islamic principle and law. The study also assessed whether the Muslim believers were aware of any fatwas that had been issued regarding the legality of organ donation in Islam.

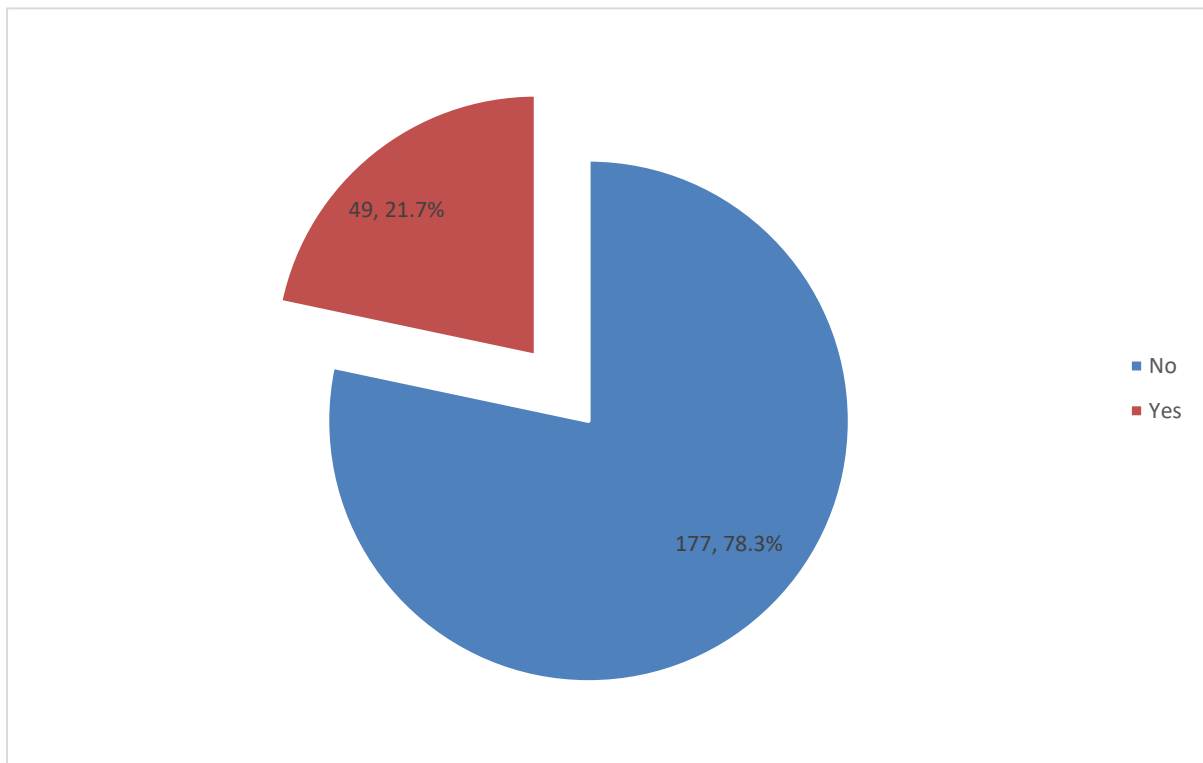


Figure 4.21: Awareness of Fatwas on the Legality of Organ Donation

The results presented in Figure 4.21 revealed that 177 (78.3%) of these believers were not aware of any such fatwas while the rest, 49 (21.7%) indicated that they were aware of some of these fatwas. These findings suggested that the majority of the Muslim believers in Nairobi County (78.3%) were not aware of notable fatwas issued to clarify the issues surrounding the legality of organ donation in Islam. It was also possible that this observation explained the significant number of believers who were not sure or were undecided on the various matters explored in the study. The considerable number of Muslim believers not willing to donate their organs could also be linked to the above since fatwas were secondary sources which influenced decision making on diverse issues within the Muslim community. Some of the fatwas mentioned by the sampled Muslim believers are presented in Figure 4.22.

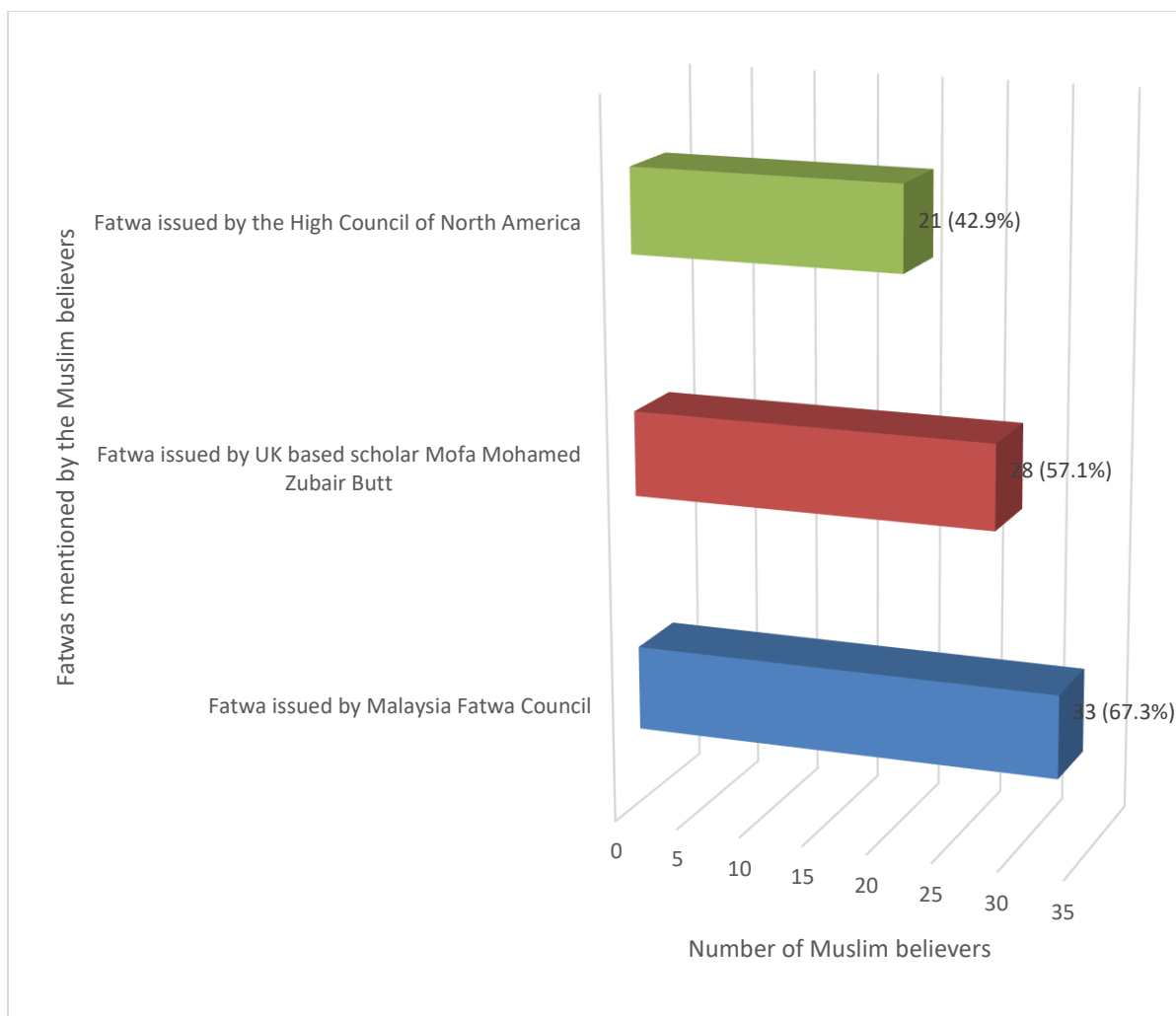


Figure 4.22: Some of the Fatwas Issued on the Legality of Organ Donation in Islam

It was established, as shown in Figure 4.22 that 33 (67.3%) of the Muslim believers were aware of a fatwa issued by the Malaysia Fatwa Council, 28 (57.1%) were aware of a fatwa issued in 2019 by a UK based scholar Mofa Mohamed Zubair Butt on the permissibility of receiving an organ transplant and other forms of donations while 21 (42.9%) of these believers were aware of a fatwa issued by the High Council of North America and which pointed out that organ donation and transplantation were permissible in Islam. These findings implied that only few fatwas on issues surrounding organ donation and transplantation among Muslims were known to the believing Muslim men and women in Nairobi County.

The study examined whether the Muslim believers supported the approach of presumed consent whereby one's organs might be removed for transplantation after death unless they had signed a document showing that they did not wish to donate their organs after they died. The findings are given in Figure 4.23.

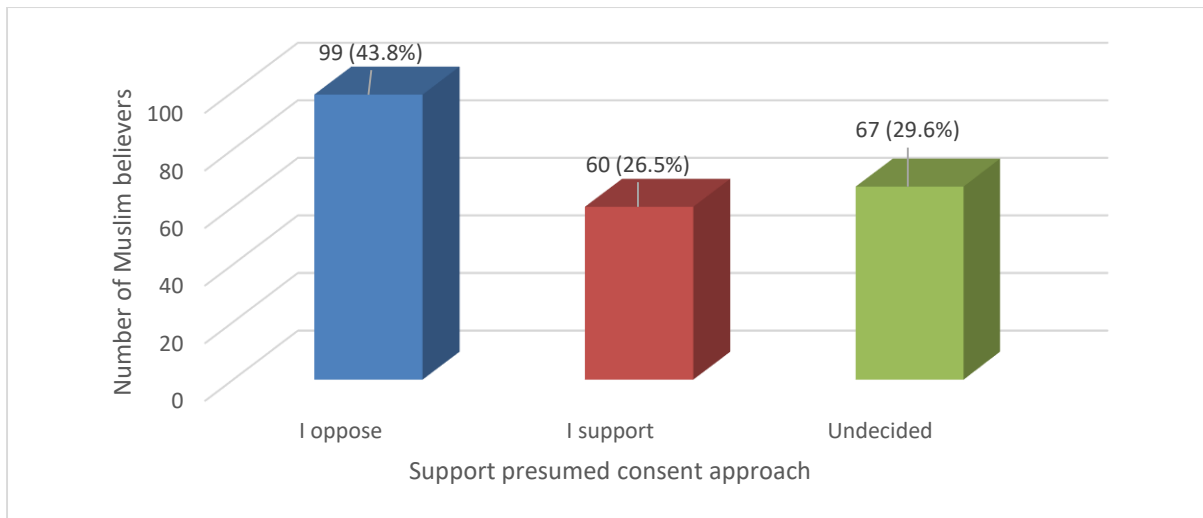


Figure 4.23: Support for Presumed Consent Approach in Organ Donation/Transplantation

The findings presented in Figure 4.23 showed that 99 (43.8%) of the Muslim believers were opposed to the above-mentioned approach, 60 (26.5%) were in support of the approach while the rest, 67 (29.6%), were undecided. The above findings demonstrated that there was heterogeneity in the support for presumed consent approach in organ donation/transplantation among Muslim believers in Nairobi County though the larger number of these believers was opposed to it. The study also examined whether the Muslim believers supported the giving of financial rewards or any other compensation to donors or their families. The findings are outlined in Figure 4.24.

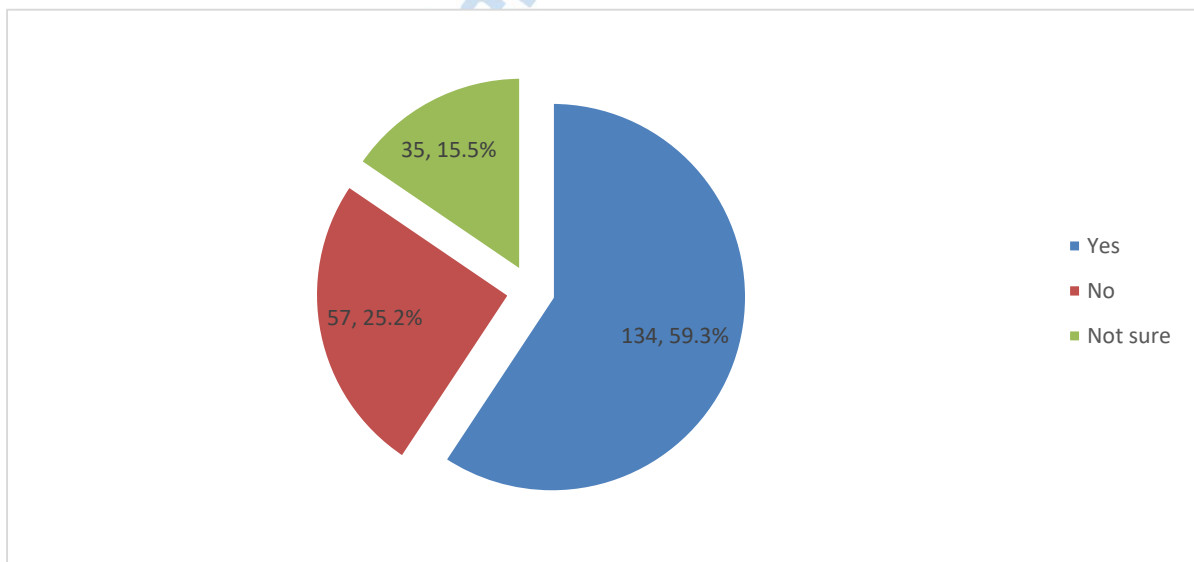


Figure 4.24: Support for Financial Rewards/Compensation to Donors or their Families

The findings in Figure 4.24 showed that 134 (59.3%) of the Muslim believers supported the practice, 57 (25.2%) did not support it while 35 (15.5%) of the believers were not sure if they supported this practice. These findings suggested that though there was heterogeneity in the support for financial rewards/compensation to donors or their families among Muslim believers in Nairobi County, the greater proportion of them supported this action. The Muslim believers' thoughts on whether there was clarity in what qualified to be brain death were also sought. Their responses are presented in Figure 4.25.

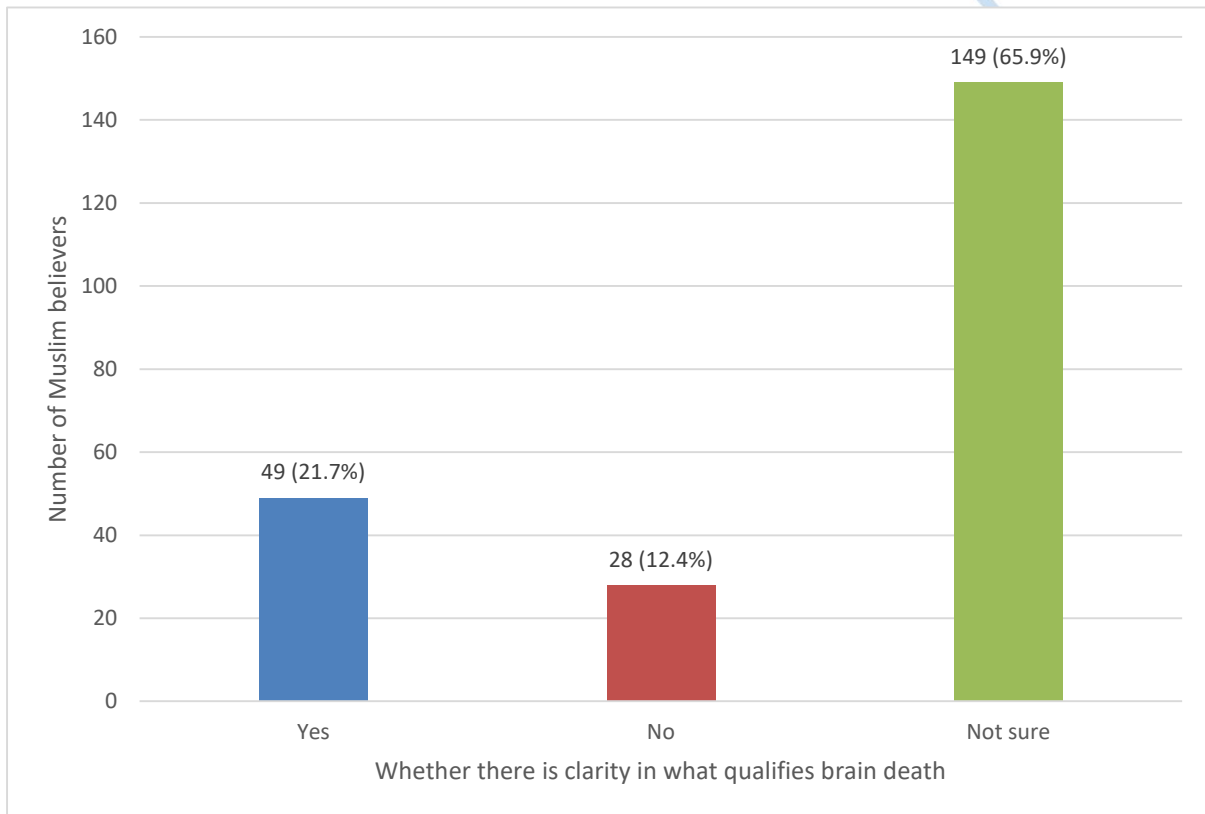


Figure 4.25: Muslim Believers' Views on Clarity in what Qualified Brain Death

The study established that 49 (21.7%) of the believers thought there was clarity on the matter, 28 (12.4%) noted that there was no clarity while 149 (65.9%) of the Muslim believers were not sure whether such clarity existed. These findings suggested that the greater percentage of the Muslim believers in Nairobi County did not precisely know what qualified brain death and this can observation can partly be used to justify the very small number of believers who found brain death donors as the best candidates for organ donation as shown in Figure 4.8.

The Muslim believers who argued that there was clarity on what qualified brain death were also asked whether they considered brain death a legal death.

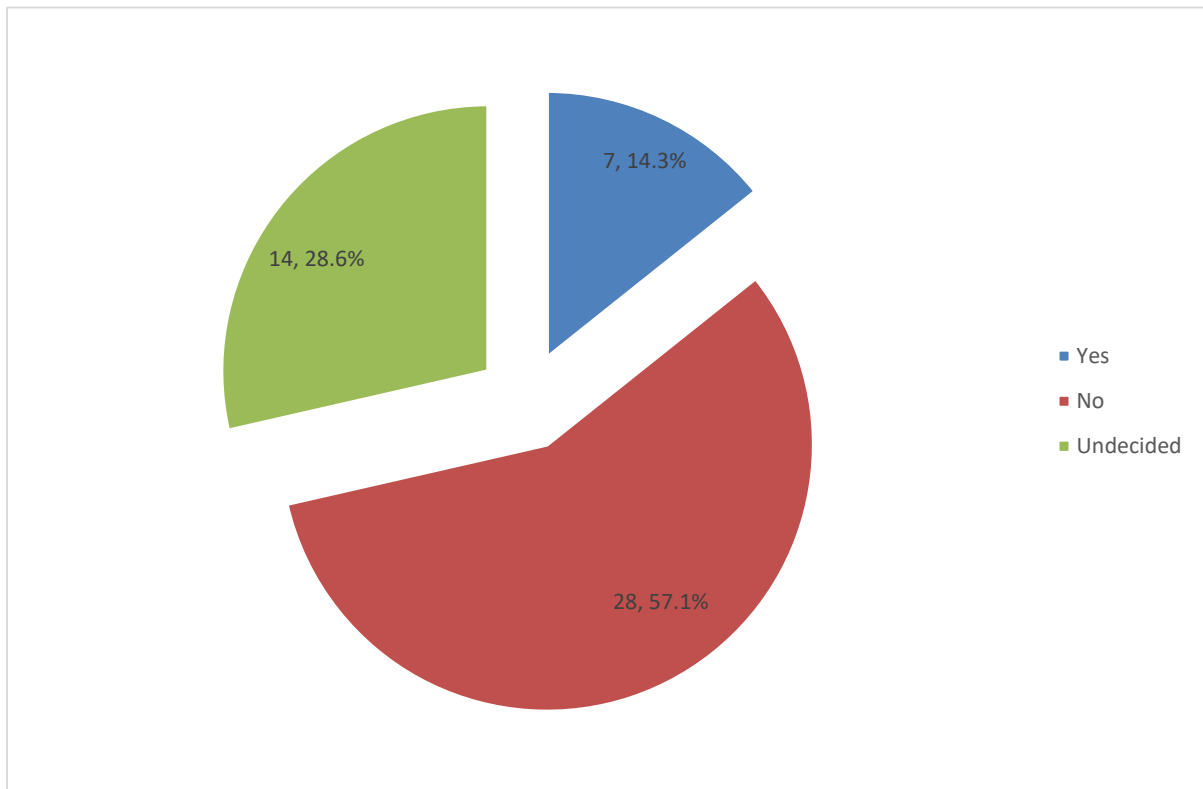


Figure 4.26: Muslim Believers' Responses on Whether Brain Death was a Legal Death

The findings presented in Figure 4.26 showed that 7 (14.3%) of these believers considered brain death a legal death, 28 (57.1%) did not consider it a legal death while 14 (28.6%) of the believers were undecided whether this kind of death was legal or not. These findings implied that many of the Muslim believers in Nairobi County did not consider brain death a legal death and this explained why only a smaller number of them found brain death donors to be the best candidates for organ donation as shown in Figure 4.8.

The Muslim believers who perceived organ donation to be ethical or legal indicated the extent they agreed or disagreed with a number of commonly held beliefs in support of this position. The findings are presented in Table 4.4.

Table 4.4: Reaction to Perceptions of Organ Donation as Ethical/Legal

Statement	N	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree	Mean	SD
I believe donation saves life of others and necessity allows prohibited matters.	105	0.00%	0.00%	13.30%	60.00%	26.70%	4.133	0.621
I am confident that medical teams would try as hard to save the life of a person who has agreed to donate organs.	105	0.00%	13.30%	6.70%	40.00%	40.00%	4.067	1.003
I am convinced that my organ/body parts will be used beneficially and fairly.	105	12.40%	5.70%	21.90%	40.00%	20.00%	3.495	1.234
I have no worries that if I donate my organs for transplant, they might be used without my consent for other purposes.	105	13.30%	13.30%	6.70%	46.70%	20.00%	3.467	1.316
I consider deceased and brain death organ donation always to be justified.	105	13.30%	20.00%	20.00%	20.00%	26.70%	3.267	1.396
I believe that our country's transplant system uses a fair approach to distributing organs.	105	6.70%	20.00%	33.30%	26.70%	13.30%	3.200	1.113
I do not believe that organ donation always feeds into unacceptable ethical violations such as organ trading.	105	6.70%	40.00%	26.70%	6.70%	20.00%	2.933	1.242
I do not have fears of premature pronouncement of death so as to extract organs from potential donors.	105	26.70%	20.00%	13.30%	20.00%	20.00%	2.867	1.507
I perceive organ transplants to be more efficient in comparison to other alternative treatments.	105	20.00%	33.30%	13.30%	13.30%	20.00%	2.800	1.430
Composite mean and standard deviation							3.146	1.019
Valid N	105							

The findings presented in Table 4.3 showed that the Muslim believers on average agreed that they believed organ donation saved the lives of others and necessity allowed prohibited matters (mean=4.133). The Muslim believers also on average agreed that they were confident that medical teams would try as hard to save the life of a person who had agreed to donate organs given (mean=4.067). On the contrary, the believers on average neither agreed or disagreed that they were convinced that their organ/body parts would be used beneficially and fairly (mean=3.495) and that they had no worries that if they donated their organs for transplant, they might be used without their consent for other purposes as supported by a mean of 3.467.

The Muslim believers on average also neither agreed nor disagreed that they considered deceased and brain death organ donation always to be justified and that they believed that their country's transplant system used a fair approach to distributing organs as affirmed by means of 3.267 and 3.200 respectively. The study also established that the Muslim believers on average neither agreed nor disagreed that they did not believe that organ donation always fed into unacceptable ethical violations such as organ trading as revealed by a mean of 2.933. On average, the Muslim believers also neither agreed nor disagreed that they did not have fears of premature pronouncement of death so as to extract organs from potential donors (mean=2.867).

The findings further showed that the Muslim believers neither agreed nor disagreed that they perceived organ transplants to be more efficient in comparison to other alternative treatments as confirmed by a mean value of 2.800. The composite mean value of 3.146 and standard deviation of 1.019 meant that on average, the Muslim believers neither agreed nor disagreed with most of the statements presented on common perceptions of organ donation as ethical or legal. Generally, these findings suggested that on average, the believe that organ donation saved the life of others and necessity allowed prohibited matters was the most key factor that made Muslim believers in Nairobi County to consider organ donation as ethical or legal.

The confidence that medical teams would try as hard to save the life of a person who had agreed to donate organs was also another belief in support of organ donation as ethical. The other identified factors that influenced the Muslim believers to perceive organ donation as ethical or legal were that the medical procedure was an opportunity to be charitable or help the people in need and that as long as the donated organs were used to save someone's life, the procedure was legal. The Muslim believers who perceived organ donation to be unethical

or illegal also indicated the extent they agreed or disagreed with various commonly held beliefs in support of this position. The findings are outlined in Table 4.5.

Table 4.5: Reaction to Common Perceptions of Organ Donation as Unethical/Illegal

Statement	N	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Mean	SD
I do not consider organ transplants to be more efficient in comparison to other alternative treatments.	93	0.00%	16.50%	8.20%	67.10%	8.20%	3.671	0.851
I do believe that organ donation always feeds into unacceptable ethical violations, for example, selling organs, organ stealing in the country.	93	2.40%	3.50%	25.90%	62.40%	5.90%	3.659	0.749
I am not convinced that my organ/body parts will be used beneficially and fairly.	93	0.00%	10.60%	25.90%	55.30%	8.20%	3.612	0.788
I have worries that if I donate my organs for transplant, they might be used without my consent for other purposes like medical research	93	8.20%	16.50%	16.50%	42.40%	16.50%	3.424	1.189
I have fears that premature pronouncement of death to extract organs.	93	0.00%	32.90%	16.50%	34.10%	16.50%	3.341	1.108
I do not believe that our country's transplant system uses a fair approach to distributing organs.	93	8.20%	17.60%	41.20%	16.50%	16.50%	3.153	1.150
I am not confident that medical teams would try as hard to save the life of a person who has agreed to donate organs.	93	8.20%	32.90%	25.90%	24.70%	8.20%	2.918	1.115
I do not consider deceased and brain death organ donation always to be justified	93	0.00%	38.70%	38.70%	15.10%	7.50%	2.914	0.917
I do not believe organ donation saves life of others.	93	8.20%	57.60%	17.60%	16.50%	0.00%	2.424	0.864
Composite mean and standard deviation							3.137	0.545
Valid N	93							

As shown in Table 4.4, on average, the believers agreed that they did not consider organ transplants to be more efficient in comparison to other alternative treatments as supported by mean=3.671. The believers also on average agreed that they did believe that organ donation always fed into unacceptable ethical violations, for example, selling organs and organ theft in the country given a mean of 3.659. The believers on average further agreed that they were not convinced that their organs/body parts would be used beneficially and fairly as revealed by a mean=3.612. On the other hand, the Muslim believers on average neither agreed nor disagreed that they had worries that if they donated their organs for transplant, they might be used without their consent for other purposes like medical research as shown by a mean value of 3.424.

The Muslim believers also on average neither agreed nor disagreed that they had fears of premature pronouncement of death to extract organs as supported by a mean of 3.341. They also on average neither agreed nor disagreed they did not believe that the country's transplant system uses a fair approach to distributing organs and that they were not confident that medical teams would try as hard to save the life of a person who had agreed to donate organs as revealed by mean values of 3.153 and 2.918 respectively. The study further established that the Muslim believers on average neither agreed nor disagreed that they did not consider deceased and brain death organ donation always to be justified as shown by a mean of 2.914. The believers however on average disagreed that they did not believe organ donation saved life of others given a mean of 2.424.

The overall mean of 3.137 and standard deviation of 0.545 suggested that on average, the Muslim believers neither agreed nor disagreed with or they were indifferent about most of the statements presented on perception of organ donation as unethical or illegal. From the above findings, it can be argued that the view that organ transplants were not more efficient in comparison to other alternative treatments, the belief that organ donation always feeds into unacceptable ethical violations such as organ trade and theft in the country and the lack of conviction that one's organ/body parts would be used beneficially and fairly were the certain beliefs that caused believing Muslim men and women in Nairobi to perceive organ donation as illegal/unethical. The other factors that influenced these Muslim believers to perceive organ donation as unethical/illegal were mainly medical mistrust based on previous interactions with the health care system as well as the possibility for organ trade which endangered the lives of the less fortunate.

The views of the Muslim opinion leaders on the various critical ethical issues surrounding organ donation and which explained the rates of donation within the Muslim community in the Nairobi County and the nation at large were also sought. The question of whether the donated organs would be used beneficially and fairly was highlighted by these leaders. They also pointed out the issue of premature pronouncement of death and trade of body parts/organs thus endangering the lives of the less fortunate, for instance through abductions. Pertaining to the position held by the opinion leaders with regards to the legality or permissibility of organ donation, three of them noted that they supported organ donations as long as all the ethical procedures were adhered to and were sharia compliant besides being aligned with the consensus opinion of Muslim scholars. They argued that this position was based on the fact that they believed in saving lives. The other opinion leader was still undecided on the issue.

Based on their experience, three of the Muslim opinion leaders noted that the view that organ donation was an act of charity which could save the life of mankind as long as it was executed within a clear legal framework, was among the underlying ethical/legal perceptions of Muslims in Nairobi County and the nation at large on organ donation. These opinion leaders also argued that there was a negative ethical perception that if legalized, organ donation might endanger the lives of the less unfortunate in the community through the trade of body organs/parts. The other opinion leader on their part noted that organ donation was not considered legal in Islamic law by some Muslims due to the influence of some fatwas issued and other scholarly opinion.

The main Islamic biomedical ethics pertaining to organ donation which explained the rates of donation within the Muslim community from a scholarly perspective were further explored. Beneficence, justice, utility, and informed consent were the main biomedical ethics highlighted by the Muslim scholars. According to one of the scholars, the principle of utility, for instance, suggested that when the demand for transplantable organs exceeded supply, the organs needed to be allocated to patients who had the best chance of benefiting from a transplant. It was also noted by another scholar that even though all Kenyans were governed by the Constitution, the law was silent about organ donation. Nevertheless, several organ transplants were going on in the country. The other scholar underscored that there was lack of awareness on the legality of the entire organ donation process.

Further enquiry on the position the Muslim scholars individually embraced regarding the legality or permissibility of organ donation revealed that these scholars supported the medical practice as long as the process complied with the opinion of the majority of Muslim scholars and the safety of the donor guaranteed. One of these scholars added that they would support organ donation as long as it was within all moral and religious conditions and a life would be saved. The general view of the Muslim scholars regarding the legality and ethics of organ donation based on the fatwas that had been issued was further sought. According to one of them, organ donation was permissible in principle provided all the requirements had been met to indicate that the soul had left the body through the consent of the donor or the next of kin.

It was also noted by another scholar that the practice was acceptable if the situation was one of medical necessity and that there was a reasonable chance of success. They also added that the procedure was legal/ethical if informed consent whether expressed or implied of the deceased was sought. Moreover, the procedure was acceptable if conducted with some dignity as any other surgery and organ trade was not promoted. However, they held that the donation of reproductive organs such as testicles and ovaries was not accepted. The other Muslim scholar noted that as long as the whole process was based on scholarly advices, it was acceptable.

4.5.4 Social Perceptions on Organ Donation among Muslims

The Muslim believers' views on how their families and communities generally viewed organ donation were sought. The findings are presented in Figure 4.27.

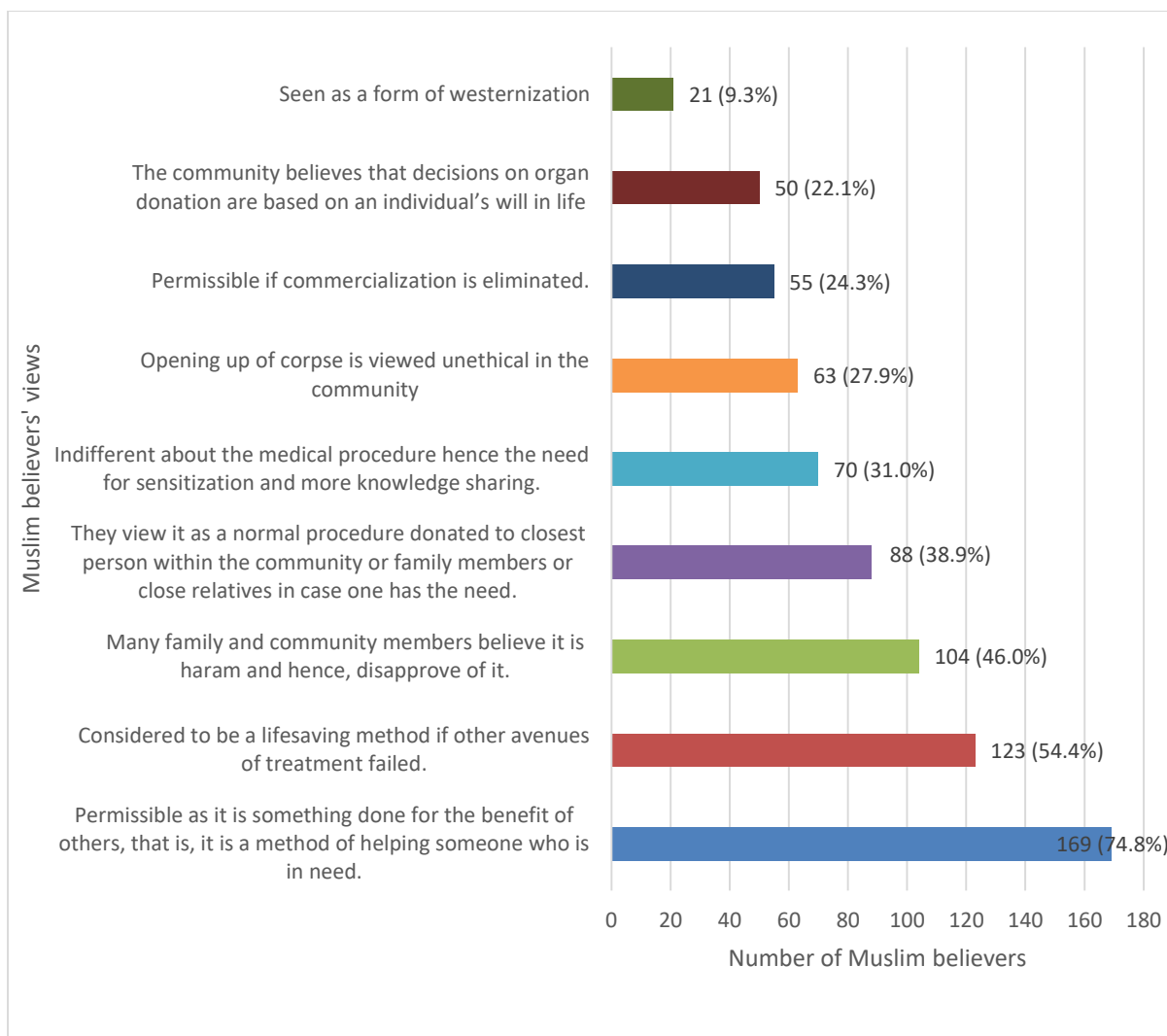


Figure 4.27: Muslim Believers' Families and Communities Views on Organ Donation

It was established that 169 (74.8%) of the Muslim believers indicated that family and community members viewed organ donation as permissible as it was something done for the benefit of others, that is, it was a method of helping someone in need. This was achieved through the restoration of good health after successful organ transplantation. About 123 (54.4%) of the believers asserted that their families and community members considered organ donation to be a lifesaving method if other avenues of treatment failed. Others, 104 (46.0%) observed that many family and community members believed that organ donation was haram and hence, disapproved of it. They viewed it as something that could not be imagined and that one should not engage in it at all.

It was noted by 88 (38.9%) of the Muslim believers that organ donation was viewed as a normal procedure if the organs were being donated to closest persons within the community,

family members or close relatives in case one had the need. 70 (31.0%) of the believers also argued that some family and community members were indifferent about the medical procedure hence the need for sensitization and more knowledge sharing on the procedure. It was also pointed out by 63 (27.9%) of these believers that the opening up of a corpse was viewed as unethical in the community. About 55 (24.3%) of the Muslim believers stated that organ donation was permissible in their community only if commercialization of body organs/parts was eliminated. Other believers, 50 (22.1%), also held the view that their communities believed that decisions on organ donation were based on an individual's will in life while 21 (9.3%) of them noted that organ donation was seen as a form of westernization. The study also examined whether the Muslim believers' families and the society in general motivated them to consider donating their organs if need be.

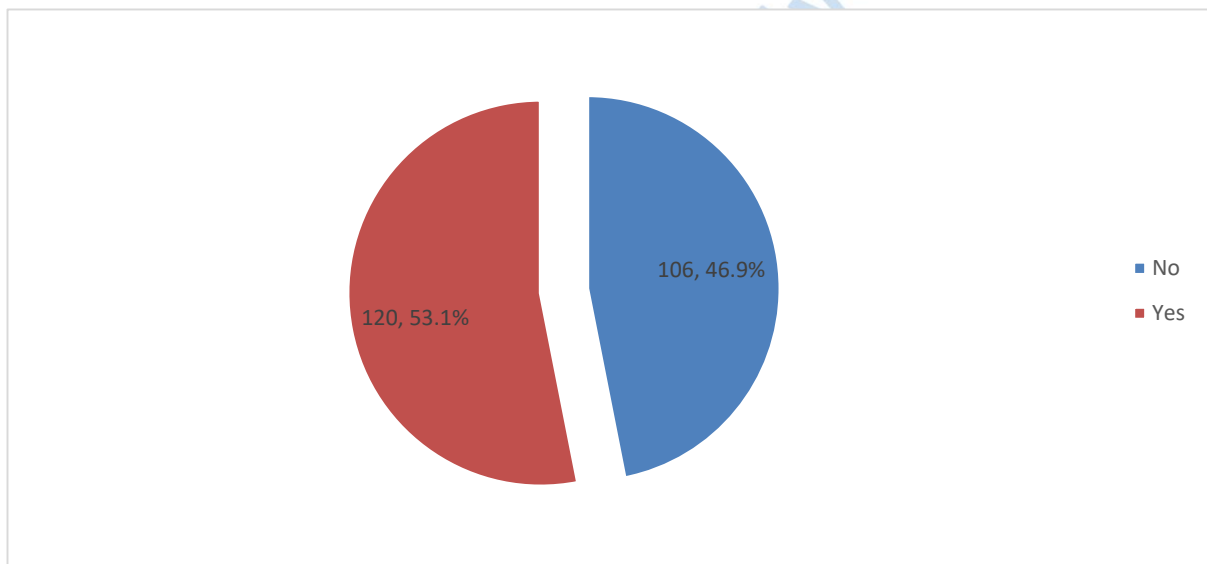


Figure 4.28: Families and the Society Motivated Muslim Believers to be Organ Donors

As shown in Figure 4.30, the response of 120 (53.1%) of these believers was yes while 106 (46.9%) of them, said no. These findings suggested that only about half of the Muslim believers in Nairobi County can be encouraged by their families and the society to be organ donors.

The results presented in Table 4.6 demonstrate how the Muslim believers who were motivated by their families and society to donate their organs, reacted to a number of statements regarding some of the common social perceptions in support of organ donation among Muslims across the globe.

Table 4.6: Reaction to Common Social Beliefs in Support of Organ Donation among Muslims

Statement	N	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Mean	SD
If anyone saved a life, it would be as if they saved the life of the whole people/humankind.	120	0.00%	5.80%	0.00%	27.50%	66.70%	4.550	0.776
I believe that by donating my organs, I would be improving and saving the lives of others.	120	0.00%	0.00%	6.70%	46.70%	46.70%	4.400	0.614
If I were to donate an organ, I can positively contribute to society.	120	0.00%	0.00%	11.70%	40.00%	48.30%	4.367	0.685
Having a Muslim organization included in the organ donation process makes me more willing to donate.	120	0.00%	5.80%	5.80%	35.80%	52.50%	4.350	0.837
I feel a social responsibility to donate my organs.	120	0.00%	12.50%	0.00%	58.30%	29.20%	4.042	0.893
I want to make sure that there are enough organs for those who need them in the community.	120	0.00%	11.70%	18.30%	40.80%	29.20%	3.875	0.966
I will be willing to donate my organs if my local imam advices me to do so.	120	5.80%	5.80%	18.30%	40.80%	29.20%	3.817	1.100
I believe my family will approve my desire to donate my organs.	120	12.50%	0.00%	11.70%	52.50%	23.30%	3.742	1.192
In my community, people who are organ donors are viewed as extremely unselfish people	120	12.50%	17.50%	5.80%	40.80%	23.30%	3.450	1.353
Composite mean and standard deviation							4.066	0.605
Valid N	120							

The study established that the Muslim believers on average, strongly agreed that if anyone saved a life, it would be as if they saved the life of the whole people (mean=4.550). On the other hand, the Muslim believers on average agreed that they believed that by donating their organs, they would be improving and saving the lives of others given (mean=4.400). Equally, the believers on average agreed that if they were to donate an organ, they could positively contribute to society and that having a Muslim organization included in the organ donation process, made them more willing to donate as supported by mean values of (4.367) and (4.350) respectively.

The Muslim believers also on average agreed that they felt a social responsibility to donate their organs (mean=4.042) and that they wanted to make sure that there were enough organs for those who needed them in the community as shown by (mean=3.875). The Muslim believers on average further agreed that they would be willing to donate their organs if their local Imams advised them to do so (mean=3.817) and that they believed that their families would approve their desire to donate their organs as affirmed by (mean=3.742). Nonetheless, these believers on average neither agreed or disagreed that in their communities, people who were organ donors were viewed as extremely unselfish people as supported by (mean=3.450).

The composite mean of 4.066 and standard deviation of 0.605 as presented in Table 4.6 suggested that on average, the Muslim believers agreed to most of the statements presented on some of the common social perceptions in support of organ donation among Muslims. One of the other social beliefs in support of organ donation in the Muslim community as suggested by the Muslim believers was that any legitimate act of charity, generosity, love and cohesion was highly recommended in their communities. Others noted that most of the learned religious persons in their communities supported the medical procedure and that people in the society had a duty to tend and help the sick in the community in any way possible. Some Muslim believers further argued that life style changes and the necessity of organ donation had prompted people in their communities to accept the organ donation.

Table 4.7 outlines the reaction of the Muslim believers not motivated to donate organs by family and society to statements regarding some of the common social perceptions in opposition to organ donation among Muslims worldwide.

Table 4.7: Reaction to Common Social Beliefs in Opposition to Organ Donation among Muslims

Statement	N	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Mean	SD
I do not feel a social responsibility to donate my organs.	106	0.00%	13.20%	22.60%	61.30%	2.80%	3.538	0.758
I worry my family might be upset and suffer conflict if I donated my organs.	106	0.90%	29.20%	4.70%	47.20%	17.90%	3.519	1.123
I believe organ donation is not something that everyone should do	106	0.00%	26.40%	26.40%	40.60%	6.60%	3.274	0.931
I have doubts about the usefulness of transplants in the society.	106	0.00%	26.40%	34.00%	39.60%	0.00%	3.132	0.806
If I were to donate an organ, there might be negative consequences for my own family.	106	6.60%	59.40%	13.20%	20.80%	0.00%	2.481	0.897
I fear that by donating my organs, I might be judged harshly by my family and community.	106	19.80%	53.80%	13.20%	13.20%	0.00%	2.198	0.909
Composite mean and standard deviation							3.024	0.529
Valid N	106							

As shown in Table 4.7, the surveyed Muslim believing men and women on average agreed that they did not feel a social responsibility to donate their organs and also that they were worried that their families might be upset and suffer conflict if they donated their organs as supported by mean values of (3.538) and (3.519) respectively. The Muslim believers on average neither agreed nor disagreed that they believed organ donation was not something that everyone should do (mean=3.274) and that they had doubts about the usefulness of transplants in the society given a mean of 3.132.

The study also established that on average, the Muslim believers did not agree that if they were to donate an organ, there might be negative consequences for their own families as revealed by a mean value of 2.481. It was further noted that on average, the Muslim believers

disagreed that they feared that by donating their organs, they might be judged harshly by their families and communities respectively as shown by the mean value of 2.198. The overall mean value of 3.024 meant that on average, the Muslim believers neither agreed nor disagreed with most of the statements presented on some of the common social perceptions in opposition to organ donation among Muslims across the world.

Lack of a sense of social responsibility to donate organs and the worry that own family might be upset and suffer conflict if one donated their organs were the major social perceptions which caused Muslim believers in Nairobi County to oppose organ donation. The other views of the Muslim believers were that there was lack of knowledge on organ donation and its importance in their communities hence, no motivation to donate. The society also viewed this medical procedure as a taboo.

The Muslim opinion leaders also gave their assessment of organ donation from a social perspective particularly in the context of the Muslim community. Two of these opinion leaders indicated that negative perception towards organ donation was in part explained by the fear of donors that they might be judged harshly by their families. One of them explained that there was a fear that families of the donors might develop attitude towards the process and fight back with earnest which could lead to court cases/battles. Another opinion leader reckoned that community's lack of education on organ donation resulted to many Muslims not assuming the social responsibility to donate. The other leader also noted that the position held by fatwas and renowned Muslim scholars strongly influenced Muslim community stand on organ donation.

Based on a scholarly perspective, the common social perceptions of Muslims in Nairobi County pertaining to organ donation according to one of the Muslim scholars was that the procedure was seen as *haram* or a prohibited act in the society because the human body was considered sacred. Another Muslim scholar also added that social attitude and beliefs had direct and strong impact on people's acceptance of organ donation since brain death diagnosis, for instance, was provided based on knowledge of underlying social constraints.

4.5.5 Credible Solutions to the Matters Pertaining to Organ Donation among Muslims

The measures which could be taken by various stakeholders in the Muslim community to address contested issues pertaining to organ donation as suggested by the Muslim believers are outlined in Figure 4.29.

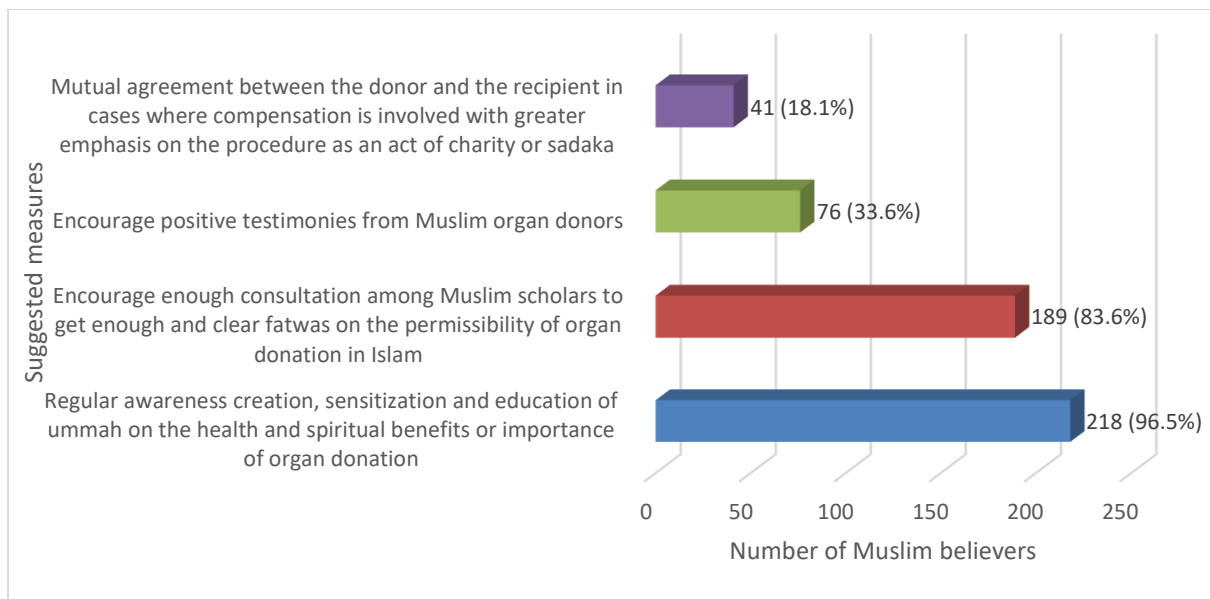


Figure 4.29: Suggested Measures to Address Contested Issues Pertaining to Organ Donation among Muslims

The findings showed that 218 (96.5%) of the Muslim believers indicated that there was a need for regular awareness creation, sensitization and education of *ummah* on the health and spiritual benefits/importance of organ donation. They suggested that imams during their preaching times as well as community leaders could talk to the community in general on the importance of organ donation in a bid to save the lives of fellow Muslims.

About 189 (83.6%) of the Muslim believers suggested that greater consultation among Muslim scholars should be encouraged so that adequate and clear fatwas on the permissibility of organ donation in Islam from a religious, ethical, cultural, social and scholarly perspective are provided. The above was informed by the fact that scholars were able to conduct extensive research and also relied on deeper Islamic guidance. It was also noted by 76 (33.6%) of the Muslim believers that positive testimonies from Muslim organ donors should be encouraged while 41 (18.1%) of the believers advocated for mutual agreement between the donor and the recipient in cases where compensation was involved, placing greater emphasis on the procedure as an act of charity. This would make the procedure more affordable for the needy.

The Muslim opinion leaders also emphasized on the need for regular sensitization and educating Muslims on the importance of organ donation as a charitable act as one of the ways of addressing the contested issues pertaining to this procedure. The opinion leaders also noted

that it was important that the fatwas issued to support the permissibility and legality of organ donation are publicized through lectures in mosques, for instance, so as to create positive attitude towards the procedure. The opinion leaders further encouraged Muslim scholars in the country to issue more fatwas in a bid to create more public awareness on this medical procedure in the country.

While supporting the views of the Muslim opinion leaders, the Muslim scholars reiterated the need for the issuance of more fatwas to educate people on organ donation by Kenya Muslim scholars. Awareness creation and educating Muslims on the legality of the whole organ donation process were also suggested by these scholars. Utilizing media campaigns to overcome religious barriers, the reinterpretation of religious scriptures as well as re-educating faith leaders on this medical procedure were also recommended by the Muslim scholars.

The Muslim believers' views on what could be done to cultivate positive perceptions towards organ donation among Muslims in Nairobi County and Kenya at large were further sought

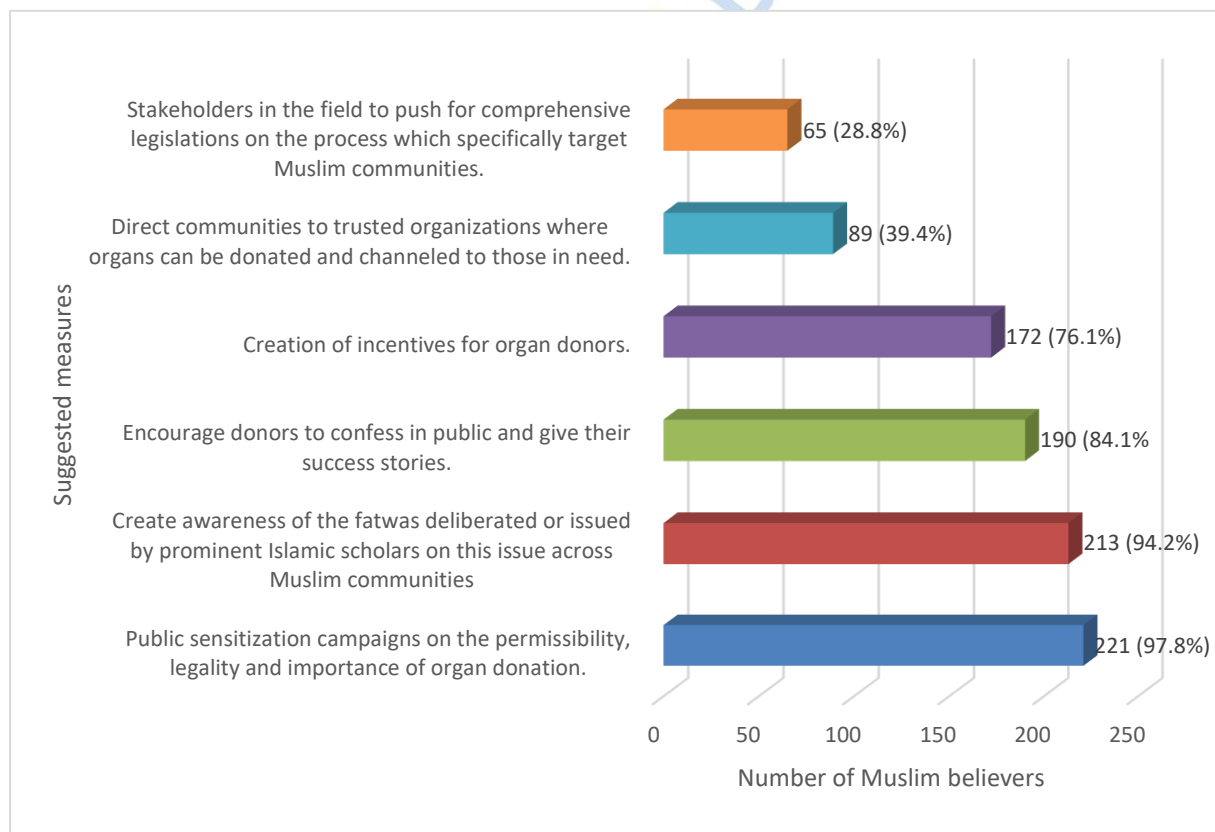


Figure 4.30: Suggested Measures to Cultivate Positive Perceptions towards Organ Donation among Muslims

The findings presented in Figure 4.29 showed that 221 (97.8%) of the Muslim believers called for public sensitization campaigns on the permissibility, legality and importance of organ donation. They noted that this could be achieved through the media, seminars and free workshops, preaching in mosques as well as teachings held in madrassas. Local imams, Muslim scholars and opinion leaders as well as community leaders had a key role to play in this.

According to 213 (94.2%) of the believers, it was also necessary to create awareness of the fatwas deliberated or issued by prominent Islamic scholars on organ donation across Muslim communities. Some of the suggested means of achieving this included the preaching of local imams or even incorporating the subject in school and college curriculums. About 190 (84.1%) of these believers asserted that organ donors and especially those drawn from the Muslim community, should be encouraged to confess in public and also to share their success stories.

The creation of incentives for organ donors as well as the directing of Muslims to trusted organizations where organs can be donated and channeled to those in need were highlighted by 172 (76.1%) and 89 (39.4%) of the Muslim believers respectively. It was further recommended by 65 (28.8%) of these believers that stakeholders in the organ donation and transplantation field should push for comprehensive legislations on the process and which specifically target Muslim communities.

The Muslim opinion leaders unanimously argued that the Muslim faithful should be sensitized and educated on the importance and legality of organ donation through lectures in mosques, seminars, media campaigns and the like. They also noted that seminars should be held by relevant organizations championing organ donation to ensure that *malims* or *imams* (particular persons who lead Muslim worshippers in prayer or are the heads of the Muslim community) are re-educated on the procedure besides guiding them on the interpretation of Islamic scriptures so that they can influence their faithful to heed to the act. The opinion leaders also suggested that *ulama* scholars should give clear opinion or fatwas on the matter that can boost ummah acceptance of organ donation.

The Muslim scholars on their part argued that since the demand for organs had increased, there was a need to create awareness and also the enactment of proper legislations regarding the whole process. It was also recommended by these scholars that the Muslim *ummah*

should be educated on the importance of saving lives, aspects which were within the Islamic teachings through media campaigns, for instance. They also added that faith leaders should be re-educated so that they can adequately teach the Muslim faithful about organ donation in mosques and madrassas towards creating awareness. Furthermore, one of Muslim scholar pointed out that clear guidance from scholars in the county more so on the legality and permissibility of this process was vital. The organ donation experts recommended that it was crucial that Muslim clergy and other leaders held in high esteem in the community are availed with the right information so as to educate the Muslim community on the importance of organ donation. The experts also highlighted that the testimonies of organ donors and beneficiaries would also go a long way.

4.6 Inferential Analysis

To test the relationship between the various perceptions held by Muslims in Nairobi County and the level of organ donation among them, chi-square tests were conducted. Cross tabulation analysis between whether religion supported organ donation and different measures of the level of organ donation among Muslim believers in Nairobi County was conducted. The findings are presented in Table 4.8. The study found a significant relationship between Islamic religion's support for organ donation and the believers' support for the practice as demonstrated by ($\chi^2=67.385$) yielded and p value equal to 0.000 and which was less than the critical value set at 0.05. The findings suggested that the number of believing Muslim men and women who supported organ donation, had already donated their organs, those willing to donate their organs if need be and those with the intention to register as organ donors was relatively higher where religion supported the practice compared to where religion was believed to oppose the practice. Similar findings were reflected in the analysis of the relationship between Islamic religion's support for organ donation and the actual number of Muslim believers who had already donated their organs where ($\chi^2=20.000$, $p= 0.000$) was obtained. The study also found that the relationship between religion's support for organ donation and the Muslim believers' willingness to donate or receive an organ and also their intention to register as organ donors was significant as attested by ($\chi^2=102.156$, $p= 0.000$) and ($\chi^2=25.729$, $p= 0.000$) respectively.

Table 4.8: Relationship between Religious Perceptions and Level of Organ Donation among Muslim Believers in Nairobi County

Level of organ donation among Muslim believers	Category	Does your religion support organ donation?			χ^2	p-value
		Yes	No	Not sure		
		n; (%)	n; (%)	n; (%)		
Do you support organ donation?	No	0 (0.00)	15 (41.7)	21 (58.30)	67.385	0.000
	Yes	134 (70.5)	14 (7.40)	42 (22.10)		
Have you, or anyone close to you ever donated any organs?	No	99 (53.8)	22 (12.0)	63 (34.20)	20.000	0.000
	Yes	35 (83.5)	7 (16.7)	0 (0.00)		
If you have not donated or received any donated organ, are you willing to do so if need be now or even after death?	Definitely no	7 (25.0)	14 (50.0)	7 (25.00)	102.156	0.000
	Probably no	7 (24.1)	15 (51.7)	7 (24.10)		
	Probably yes	63 (69.2)	0 (0.00)	28 (30.80)		
	Definitely yes	57 (73.1)	0 (0.00)	21 (26.9)		
Do you intend to register as an organ donor?	Yes	49 (77.8)	0 (0.00)	14 (22.2%)	25.729a	0.000
	No	28 (39.4)	15 (21.1)	28 (39.4)		
	Not sure	57 (62.0)	14 (15.2)	21 (22.8)		

The results presented in Table 4.9 show the nature of relationship between cultural perceptions and level of organ donation among the believing Muslim men and women in Nairobi County. The study found that the relationship between culture's support for organ donation and the Muslim believers' support for organ donation was significant given ($\chi^2=43.499$, $p= 0.000$). The study also found that culture's support for organ donation was significantly related with the Muslim believers' actual donation of their organs ($\chi^2=18.666$, $p= 0.000$), their willingness to donate their organs where need be ($\chi^2=46.757$, $p= 0.000$), and also their intention to register as organ donors ($\chi^2=34.979$, $p= 0.000$).

Table 4.9: Relationship between Cultural Perceptions and Level of Organ Donation among Muslim Believers in Nairobi County

Level of organ donation among Muslim believers	Category	Does your culture support organ donation?				
		Yes	No	Not sure	χ^2	p-value
		n; (%)	n; (%)	n; (%)		
Do you support organ donation?	No	0 (0.00)	29 (80.6)	7 (19.4)	43.499	0.000
	Yes	85 (44.7)	49 (25.8)	56 (29.5)		
Have you, or anyone close to you ever donated any organs?	No	57 (31.0)	71 (38.6)	56 (30.4)	18.666	0.000
	Yes	28 (66.7)	7 (16.7)	7 (16.7)		
If you have not donated or received any donated organ, are you willing to do so, if need be, now or even after death?	Definitely no	0 (0.00)	14 (50.0)	14 (50.0)	46.757	0.000
	Probably no	7 (24.1)	15 (51.7)	7 (24.1)		
	Probably yes	28 (30.8)	35 (38.5)	28 (30.8)		
	Definitely yes	50 (64.1)	14 (17.9)	14 (17.9)		
Do you intend to register as an organ donor?	Yes	42 (66.7)	14 (22.2)	7 (11.1)	34.979	0.000
	No	14 (19.7)	29 (40.8)	28 (39.4)		
	Not sure	29 (31.5)	35 (38.0)	28 (30.4)		

From the findings outlined in Table 4.10, it was also evident that there was a significant relationship between the ethical/legal perceptions held by Muslims in Nairobi County and their level of organ donation. The study established that the perception of organ donation as legally or ethically permissible as per Islamic principles and law was significantly related with Muslim believers' support for organ donation ($\chi^2=45.384$, $p= 0.000$), the actual donation of their organs ($\chi^2=11.114$, $p= 0.004$), their willingness to donate their organs where need be ($\chi^2=63.594$, $p= 0.000$), and also their intention to register as organ donors ($\chi^2=49.727$, $p= 0.000$).

Table 4.10: Relationship between Ethical/Legal Perceptions and Level of Organ Donation among Muslim Believers in Nairobi County

Level of organ donation among Muslim believers	Category	Do you think organ donation is legally and ethically permissible as per Islamic principles and law?				
		Yes	No	Not sure	χ^2	p-value
		n; (%)	n; (%)	n; (%)		
Do you support organ donation?	No	0 (0.00)	29 (80.6)	7 (19.4)	45.384	0.000
	Yes	105 (55.3)	50 (26.3)	35 (18.4)		
Have you, or anyone close to you ever donated any organs?	No	84 (45.7)	72 (39.1)	28 (15.2)	11.114	0.004
	Yes	21 (50.0)	7 (16.7)	14 (33.3)		
If you have not donated or received any donated organ, are you willing to do so if need be now or even after death?	Definitely no	0 (0.00)	14 (50.0)	14 (50.0)	63.594	0.000
	Probably no	7 (24.1)	8 (27.6)	14 (48.3)		
	Probably yes	49 (53.8)	35 (38.5)	7 (7.70)		
	Definitely yes	49 (62.8)	22 (28.2)	7 (9.00)		
Do you intend to register as an organ donor?	Yes	49 (77.8)	14 (22.2)	0 (0.00)	49.727	0.000
	No	14 (19.7)	36 (50.7)	21 (29.6)		
	Not sure	42 (45.7)	29 (31.5)	21 (22.8)		

The findings in Table 4.11 confirmed a significant relationship between social perceptions and the level of organ donation among Muslims in Nairobi County. The findings revealed that the relationship between the belief that family and the society/community supported organ donation and Muslim believers' supporting the practice was significant given ($\chi^2=48.477$, $p= 0.000$) computed. Significant relationships were also reported between the belief that family and the society/community supported organ donation and the Muslim believers' actual donation of their organs ($\chi^2=18.937$, $p= 0.000$), their willingness to donate their organs where need be ($\chi^2=67.741$, $p= 0.000$), and also their intention to register as organ donors ($\chi^2=10.036$, $p= 0.000$).

Table 4.11: Relationship between Ethical/Legal Perceptions and Level of Organ Donation among Muslim Believers in Nairobi County

Level of organ donation among Muslim believers	Category	Do you believe your family and the society/community supports organ donation			
		Yes	No	χ^2	p-value
		n; (%)	n; (%)		
Do you support organ donation?	No	36 (100.0)	0 (0.00)	48.477	0.000
	Yes	70 (36.8)	120 (63.2)		
Have you, or anyone close to you ever donated any organs?	No	99 (53.8)	85 (46.2)	18.937	0.000
	Yes	7 (16.7)	35 (83.3)		
If you have not donated or received any donated organ, are you willing to do so, if need be, now or even after death?	Definitely no	28 (100.0)	0 (0.00)	67.741	0.000
	Probably no	22 (75.9)	7 (24.1)		
	Probably yes	42 (46.2)	49 (53.8)		
	Definitely yes	14 (17.9)	64 (82.1)		
Do you intend to register as an organ donor?	Yes	21(33.3)	42 (66.7)	10.036	0.007
	No	43 (60.6)	28 (39.4)		
	Not sure	42 (45.7)	50 (54.3)		

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 Introduction

This chapter contains the key findings of the study and their discussion in relation to the existing studies that were reviewed. The study findings were compared with those of past empirical studies to check whether there was consistency or not. The purpose of the study was to explore Muslims' perceptions on organ donation in Nairobi County, Kenya. The study particularly sought to determine the level of organ donation among Muslims in Nairobi County and also to determine the religious, cultural, ethical and social perceptions of Muslims on organ donation and their relationship with donation rates in Nairobi County. The study applied a mixed methods approach. It targeted Muslim believing men and women, Muslim opinion leaders and Muslim scholars attending or attached to selected mosques based in Nairobi Central Ward as well as organ transplant specialists/experts based at the Kenyatta National Hospital. The key findings obtained under each objective are outlined and collaborated with those of existing studies.

5.2 Organ Donation among Muslims in Nairobi County

The objective of the study was to determine the level of organ donation among Muslims in Nairobi County. Based on the study findings, it was inferred that organ donation was supported by a majority of the surveyed Muslim believers in Nairobi County and all the interviewed Muslim opinion leaders and Muslim scholars. Nonetheless, support for organ donation did not automatically translate to willingness to donate organs among these believers. This observation was demonstrated by the lower number of Muslim believers who indicated that they were definitely willing to donate or receive any organ. This finding resonated well with the argument by Hurst (2016) that, despite the fact that the majority of Muslims in present day agreed with the soundness of organ donation and transplantation, this in any way did not imply enhanced uptake.

The study findings demonstrated that, of the available organ donation choices, healthy living donation was the most preferred or supported type of organ donation among the surveyed Muslim believing men and women in Nairobi County and also the sampled Muslim opinion leaders and scholars who supported organ donation. These findings supported those of Kiani et al. (2018) that showed that, routine transplants among Muslims were restricted to organs

obtained from donors who were alive. The findings were also in line with the observations by Oliver, Ahmed and Woywodt (2012) that a great number of individual Muslims showed hesitance in accepting organ donation and more so cadaver and brain death donations.

The findings of the study confirmed the commonly held view that though it was common for several organs to be transplanted to human recipients, kidney and liver transplants constituted the vast bulk of organs donated. The Muslim opinion leaders and scholars also clarified that heart donation as well as the donation of reproduction organs were contested within the Kenyan Muslim community. These findings basically agreed with that of studies by Krupic (2019) and Asrani et al. (2019) among others.

The study established that the rates of organ donation and transplantation among Muslims in Nairobi County were evidently low and compared to rates reported in studies conducted in other countries, they were much lower. These findings resonated well with that of Cockwell et al. (2010) and which revealed that there were poor organ donation rates among Muslims around the globe. The findings were also consistent with the observation by Hurst (2016) that organ donations were generally low not only among Muslims in Islamic states but also those who lived in other nations as minorities.

The study findings led to the inference that there was heterogeneity in the willingness to donate or receive organs among Muslims in Nairobi County. The findings also suggested that slightly more than half of these Muslims did not hold a categorical or solid position as to whether or not; they were willing to donate/receive organs. This was a sign of indecisiveness towards the uptake of the medical procedure which could be attributed to different factors. The above findings mirrored those of other studies carried out in different nations such as Akbulut et al. (2020), Sharif et al. (2011), and Al-Harthi and Alzahrany (2015).

From the study findings, it can be presumed that registration for organ donation among Muslim faithful in Nairobi County was nearly nonexistent and that there was also, heterogeneity in the intention to register as organ donors among them. Moreover, it was implied that though majority of these Muslims were in support or had a positive attitude towards organ donation, only a smaller number of them were ready to commit to be organ donors. These findings supported the argument by Tazul (2021) that changing the attitudes of Muslim communities regarding organ donation had been difficult as many were still wary of the procedure. As a result, only a smaller number of them were willing to be organ donors.

The findings also echoed those of studies done by other researchers among them Akbulut et al. (2020) and Sharif et al. (2011).

The study findings suggested that, though there was heterogeneity in the willingness of Muslim believers in Nairobi County to consent to donate the organs of their family members whose wishes were unknown, most of them were against this act. These findings were consistent with the observations made by Rady, Verheijde and Ali (2009) that there were strong objections to presumed consent for organ donation among Muslims in many nations due to various beliefs and emotions involved, for instance. The findings also echoed those of a study by Chaim and Duguet (2018) who found that worldwide, Muslims highly debated the method of presumed consent and they tended to support explicit consent.

The study also found that most of the Muslim believers in Nairobi County were ready to influence their loved ones and colleagues to donate their organs though a sizable number of them were unwilling to donate organs themselves as revealed in the prior findings above. Wille (2017) argued that to enhance organ donation, it was very crucial to raise awareness on the procedure within families and wider communities besides encouraging discussion about registering as organ donors. It was also reported in a study carried out by Farid and Mou (2021) on organ donation among Muslims in Bangladesh that, family pressure and position held by a spouse, for instance, could determine one's motivation to become an organ donor.

It further emerged from the study that organ transplant specialists from Kenyatta National Hospital also rarely handled patients from the Muslim community. They attested that the acceptability and the rates of organ donation among Muslims were much lower compared with those of the general population in the country. Overall, it was argued that organ donation rates among Muslims in Nairobi County were low.

5.3 Religious, Cultural, Ethical and Social Perceptions of Muslims on Organ Donation and their Relationship with Donation Rates in Nairobi County

The study also sought to determine the religious, cultural, ethical and social perceptions of Muslims on organ donation and their relationship with donation rates in Nairobi County.

5.3.1 Religious Perceptions of Muslims on Organ Donation and their Relationship with Donation Rates in Nairobi County

The study findings demonstrated that Muslim believers in Nairobi County did not hold a consensus view regarding whether Islam supported organ donation though many of them

believed that Islam in deed supported this procedure. These findings were consistent with that of several studies which showed that Muslims held mixed positions on the permissibility of organ donation in Islamic principles and law. Ralph et al. (2016) for instance underscored that Muslims were uncertain whether Islam defined this medical procedure as noble or bad noting that the messages received were normally mixed. Islam et al. (2011) also noted that despite the fact that several fatwas affirmed that it was noble for Muslims to embrace organ donation, many Muslims still believed that they could not be organ donors since it was contrary to the Islamic religious teachings.

The study findings also suggested that the commonly held religious views among Muslim believers in Nairobi County were mainly in support of organ donation and thus, created positive attitude towards the practice among the majority of these believers. This in turn, influenced their willingness to donate their organs. These findings are in tune with the argument by Dahamsheh (2024) that religious beliefs shaped the attitudes of individuals pertaining organ donation besides engendering strong feelings regarding this medical practice. The findings also affirmed the observation by Hyde and White (2010) that religious beliefs can motivate individuals to be organ donors and can also prevent them from donating their organs. The study findings further supported the argument by Abdeldayem, El-Kased and El-Shaarawy (2016) that many of the undesirable attitudes expressed towards donating organs may be explained by the uncertainties surrounding the religious position instead of how religious teachings were interpreted.

From the findings of this study, it can be inferred that there were many religious beliefs that motivated believing Muslim men and women in Nairobi County to become organ donors. Some of these beliefs included; the belief that whoever helped another would be granted help from Allah in the future and the belief that in Islam, one had to be generous and help people out no matter what. These findings were consistent with those of Ali and Maravia (2020) who found that organ donation was recognized as a demonstration of believers' altruism and that Islam supported the virtuous qualities that supported this practice such as compassion, sense of duty, charity, and collaboration. The study findings also agreed with Saleem et al. (2009) observation that the Muslims who favoured organ donation based on Islamic religion labeled it as "an act of merit". The findings were agreed with that of Ralph et al. (2016) that Muslims motivated by their religious beliefs to donate their organs, embraced the Islamic religious ideals of being generous and assisting individuals, for instance, through saving lives.

The study also discovered that considering organ donation to be against Islamic religious teachings and values was the solid religious belief that influenced the Muslim believers not willing to donate their organs, to take such a position on average. The above findings were aligned with the observation made by Uskun and Ozturk (2013) that Muslims considered to be highly religious showed much reluctance towards supporting organ donation based on the belief that their religion was not supportive of the practice. The study findings also resonated with those of Moazam and Jafarey (2014) that there was reluctance among part of the Muslim population to accept some organ donations habitually based on interpretation of religious scriptures.

Based on the opinion of the Muslim scholars, organ donation was religiously permissible as long as all the relevant moral and religious conditions were met. It was also acceptable based on the fact that in Islamic religion, it was the duty of each and every Muslim to save the life of another person. The Muslim opinion leaders on their part alluded that some organ donations were acceptable in Islam while others were highly disputed by many Muslim believers and *ulamas*. It was also noted that the support for organ donation among Muslim believers was also highly informed by the consensus of opinion of scholars and *qiyas* laws delivered through analogy where Muslim scholars permitted some organ donations.

The above findings were consistent with the observations by Veatch and Ross (2015) that based on the principle of sanctity of human life and the norm that when there was a need, what was normally forbidden was made permissible, many Islamic legal intellectuals and religious leaders considered organ donation valuable. The findings also supported the views of Ali and Maravia (2020) that the acceptability of organ donation among Muslims was anchored on Islamic teachings and values of altruism, sense of duty, charity, and collaboration. The study findings were also in line with various fatwas that highlight the permissibility of organ donation in Islam as long as various conditions are met. The findings further supported the argument by Ralph et al. (2016) that there existed “grey areas” in various religious texts that were not addressed by spiritual leaders that caused uncertainty among some Muslims regarding whether organ donation was noble or bad procedure.

Regarding the relationship between religious perceptions and level of organ donation among Muslim believers in Nairobi County, the findings suggested that the number of believing Muslim men and women who supported organ donation, had already donated their organs, those willing to donate their organs if need be and those with the intention to register as organ

donors was relatively higher where religion supported the practice compared to where religion was believed to oppose the practice. This finding agreed with the sentiments of Robson, Razack and Dublin (2010) that across the world, the perceptions and attitude of Muslims towards organ donation and transplantation depended on whether Quran, the *Sunnah* and other Islamic reference points permitted the procedure or not.

5.3.2 Cultural Perceptions of Muslims on Organ Donation and their Relationship with Donation Rates in Nairobi County

The study established that there was no consensus on whether culture supported organ donation among Muslim believers in Nairobi County as demonstrated by the heterogeneity in their opinion. The findings were consistent with the view held by Farid and Mou (2021) that there were diversities in cultural concepts regarding the acceptability of organ donation among Muslims. The findings of this study demonstrated that the commonly held cultural views among Muslim believers in Nairobi County were mainly in support of organ donation since many of these believers were willing to donate their organs based on them. One of the major cultural views in support of organ donation as pointed out by the Muslim believers was that helping someone who was sick or taking care of them was a must. Moreover, the Islamic teachings of humanity, saving lives and helping people when in need and which were intertwined with the Muslims' culture also cultivated willingness to donate organs among these Muslim believers. The above findings were consistent with the assertion by Krafess (2005) that the duty to help others was not only a religious but also a cultural obligation by which all Muslim were bound. These findings were also consistent with the argument by Arbour, AlGhamdi and Peters (2012) and Demirkiran et al. (2019) that helping and saving lives of others were desirable traditions in Islamic culture which encouraged organ donation in a section of Muslim population.

It was generally observed that the believing Muslim men and women in Nairobi County did not support many of the commonly held cultural perceptions on organ donation among Muslims across the globe. The cultural beliefs that hindered these believers from becoming organ donors included the perception that organ donation was a Western culture, that the intact body was needed in the next world and that it was a taboo to harm a dead body because the restless spirit of the donor would haunt the recipient forever. The belief that extracting organs amounted to mutilation of their bodies was also a cultural view that hindered organ donation among these Muslims as reiterated by the organ transplant specialists. These

findings supported the views of Blake (2015) that cultural beliefs with regards to bodily integrity and that God was the owner of the body were important issues cited for not considering deceased donation among Muslims. The findings also amplified the view expressed by Hawryluck and Knickle (2018) in their study on cultural considerations on organ donation that some Muslims believed that intact bodies were needed in the next world. The findings further supported the view of Rady, Verheijde and Ali (2009) that the use of a human tissue and organ was considered a taboo among some Muslims.

Another cultural belief that deterred Muslims in Nairobi County from donating their organs as noted by Muslim opinion leaders was the belief that it was wrong to interfere with a person's cycle of life and death by donating their body parts to someone else. According to these leaders, the belief that human body was holy and treating it as an object/equipment by replacing its parts or organs was prohibited was also another cultural deterrence. The cultural belief that human body remained sacred even after death and thus, it was a taboo to harm it also undermined organ donation as noted by the Muslim scholars. Overall, it was observed that there was divergence in the views held by the believing Muslim men and women and those of the key informants regarding the significance of various common cultural beliefs that influenced organ donation among Muslims. While the key informants insisted that these beliefs were significant, the Muslim believers did not agree with them. The study findings demonstrated that the number of Muslim believers who had actually donated organs or willing to donate where need be or even having the intention to register as organ donors was higher where there was a belief that culture supported organ donation compared to where culture was believed to not support the practice.

5.3.3 Ethical Perceptions of Muslims on Organ Donation and their Relationship with Donation Rates in Nairobi County

The study found that there was no consensus on the legal and ethical permissibility of organ donation in Islamic principles and law among Muslims in Nairobi County. This finding mirrored the observation by Quadri (2004) that from an Islamic viewpoint, the ethics of organ donation and transplants based on an Islamic standpoint, the ethical nature of this medical practice was highly debated. Majority of the believing Muslim men and women were not aware of any fatwas that had been issued to clarify the issues surrounding the legality of organ donation in Islam. This finding to some extent explained why a considerable number of these Muslim believers were not sure of the legal and ethical permissibility of organ donation

in Islamic principle and law. Peletz (2018) notes that while the Quran and the *Sunnah* remained the major reference points in determining the legality and ethical permissibility of organ donation in Islam, fatwas issued by Islamic scholars provided direction in cases where these two did not overtly tackle such modern issues.

The study also observed that the Muslim believers were divided on their support for presumed consent in organ donation where a larger percentage of them opposed the approach. Moreover, there was a divide in the support for financial rewards or any other compensation to donors or their families among the Muslim believers though many of them supported such incentives. These findings were consistent with the finding by Shazi and Abbas (2019) that the process of organ donation and transplantation was surrounded by notable ethical concerns including issues of informed consent, commodification of organs, fairness and equity in accessing the procedure, quality assurance as well as the safety of the procedure. Many of the believing men and women in Nairobi County were not sure whether there was clarity in what qualified to be brain death and the greater percentage of them considered brain death illegal. This finding resonated with the observation by Davis and Randhawa (2004) and also Tumin et al. (2016) that the ambiguity on what qualified as brain death caused some Muslims to doubt the validity of brain death, expressing their suspicions about the doctors that made the decision to extract organs from brain dead patients.

It was also established that the Muslim believers' view of organ donation as ethical or legal was firmly founded on the belief that the procedure saved life of others and that necessity allowed prohibited matters. This viewpoint was reiterated by Natour and Fishman (2011) who noted that the norm that the argument when there was a need, what was normally forbidden was made permissible had been used to widely support the role of organ donation in saving the lives of others. The believers' confidence that medical teams would try as hard to save the lives of persons who had agreed to donate organs was also a factor that influenced their perception of organ donation as ethical or legal. This finding was in line with Davis and Randhawa (2004) discovery that the belief that it was unlikely that the organ donors would get the needed care in hospitals caused some Muslims to have negative perceptions of organ donation arguing the doctors would be more interested in harvesting their organs or removing them prematurely especially where brain dead patients were involved.

The perception of organ donation as illegal/unethical among these believers was influenced by the view that organ transplants were not more efficient in comparison to other alternative

treatments, the belief that organ donation always fed into unacceptable ethical violations such as organ trade and also the fear that the donated organ/body parts would not be used beneficially and fairly. This finding was agreed with the finding by Tumin et al. (2016) that the fear that the organ donation would perhaps been abused through uncontrolled organ trading deterred some Muslims from embracing the practice.

The Muslim scholars reiterated that organ donation was legal or permissible in Islam as long as the process complied with the consensus of opinion of Muslim scholars and the safety of the donor was guaranteed. The legality/permissibility of organ donation in Islam was also based on the ability to demonstrate that the soul had left the body through the consent of the donor or their next of kin. Informed consent whether expressed or implied of the deceased, upholding the dignity of the donor, and prohibition of organ trade were other requirements that had to be met for the procedure to be perceived legal/ethical according to the Muslim scholars. It was also necessary to demonstrate that the situation the recipient was in, was one of medical necessity and a reasonable chance of success existed.

The views held by the Muslim scholars were also supported by the sentiments of the Muslim opinion leaders who argued that organ donation was ethical/legal as per Islam principles and law as long as all the ethical procedures were adhered to and were sharia compliant besides being aligned with the consensus opinion of Muslim scholars. These opinion leaders held that the question of whether the donated organs would be used beneficially and fairly and the premature pronouncement of death and trade of body parts/organs were pertinent legal/ethical issues surrounding the permissibility of organ donation. It was also noted that organ donation needed to be undertaken within a clear legal framework so as to be perceived permissible in Islamic law. Overall, the number of Muslim believers who supported organ donation and had actually donated organs or willing to donate where need be or even having the intention to register as organ donors was higher where organ donation was perceived to be legally and ethically permissible as per Islamic principles and law compared to where the practice was perceived to be illegal or unethical.

5.3.4 Social Perceptions and Organ Donation Rates among Muslims in Nairobi County

The study found that there was a divide on whether organ donation was socially acceptable or not to Muslims in Nairobi County. The study established only about half of the Muslim believers in this county were motivated by their families and communities to donate or

consider donating their organs if need be. These findings were consistent with the views of Oliver, Ahmed, and Woywodt (2012) that some of the beliefs of Muslims towards organ donation were rooted in social issues such as the influences of local imams, spousal donation and polygamous marriages as well as the power that extended families have when making crucial decisions.

Some of the leading social beliefs in support of organ donation among Muslims in Nairobi County included the belief that if someone saved a life, it would be as if they saved the life of the whole people/humankind, that by donating my organs, one would be improving and saving the lives of others and that if one was to donate an organ, it could positively contribute to society. Others were the belief that one's family would approve one's desire to donate their organs and the willingness to donate one's organs if the local imam advised them to do so. These findings were consistent with Hayward and Madill (2003) finding that the social perceptions of Muslims regarding the permissibility of organ donation were founded on 'altruism issues' where the practice was viewed as an opportunity for saving lives and selflessly contributing positively to the society.

The social beliefs in opposition to organ donation included the perception by family and community that the procedure was haram and that opening a corpse was unethical. These views were held by both the Muslim believers and the opinion leaders. Not feeling a social responsibility to donate one's organs as well as the worry that family might be upset and suffer conflict if one donated their organs were also other social beliefs that constrained organ donation among Muslims. The fear that organ donors might be judged harshly by their families and the probability of court battles in fighting back the process were mentioned by the Muslim opinion leaders as social beliefs which also undermined organ donation. The above findings supported the observation made by Ralph et al. (2016) that the fear of judgment by family members and the community was a major factor deterring Muslims from engaging in organ donation. The number of Muslim believers who supported organ donation and who had actually donated their organs, that willingness to donate their organs where need be or had the intention to donate organs was higher where it was believed that family and the society/community in general supported organ donation when compared to the case where it was believed that they did not support the practice.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter outlines the conclusions drawn from the key study findings as well as the ensuing recommendations for policy and practice provided. The suggested areas for further study are also provided.

5.2 Conclusion

Based on the study findings, it was concluded that while organ donation was supported by the greater number of Muslims in Nairobi County, the actual rate of organ donation among these Muslims was low.

The study concluded that the support for organ donation among Muslims in Nairobi County was not matched by the willingness to donate if need be or even the intention to register as an organ donor.

The study also concluded that living organ donation was the most preferred type of organ donation among Muslims in Nairobi County and that the low rate of organ donation among these Muslims mirrored the rates reported in studies conducted in other nations.

It was concluded that Muslims in Nairobi County did not hold a consensus view on whether organ donation was supported from a religious, cultural, ethical/legal and social perspective and this compared to what had been witnessed in other nations.

The study also concluded that there was a significant relationship between religious, cultural, ethical/legal and social perceptions held by Muslims in Nairobi County and the level of organ donation among them. Hence, the positive or negative attitude exemplified by Muslims in this county towards organ donation depended on the common religious, cultural, ethical/legal and social perceptions they held regarding the acceptability of the practice.

The study also concluded that the aspects of organ donation that remained highly contested among Muslims as highlighted in the existing available studies were still debated to date despite the existence of different fatwas on the same. It was therefore concluded that progressive fatwas on organ donation and transplantation were still necessary.

The study concluded that public sensitization and awareness creation on organ donation, the issuance of clear fatwas on the practice as well as the support for positive testimonies from Muslim organ donors and recipients were the leading credible solutions to the matters surrounding organ donation among Muslims in Nairobi County.

Overall, the study concluded that the success of efforts taken by stakeholders in the organ donation and transplantation field to enhance organ donation among Muslims in Nairobi County was determined by the extent to which their design cultivated positive perceptions towards the practice along religious, cultural, ethical/legal and social lines.

5.3 Recommendations

This section outlines the various recommendations made to different stakeholders in line with the study findings. The study recommends that Muslim religious or faith leaders should carry out extensive sermons in mosques or online platforms to educate and sensitize the Muslim believers on the necessity and benefits of organ donation and transplantation. In such sermons, these faith leaders should also address the underlying religious hurdles to the process. The faith leaders should also set aside some Madrassa lessons to cover and address various issues on organ donation and transplantation process given the increasing cases of end-stage organ diseases and organ failure in the country.

The study recommends that Muslim faith leaders during their sermons or organized meetings, seminars and conferences, should bring on board renowned Muslim scholars and opinion leaders who can clarify and enlighten the believing Muslim men and women on matters regarding the legality, acceptability or permissibility of organ donation. Meetings and forums organized by the Muslim faith leaders are recommended due to the fact that they can be able to mobilize a significant number of Muslim believers in one sitting.

The study recommends that Muslim scholars in the country by engaging in extensive research, should also take a leading role in issuing more and clearer fatwas on organ donation and transplantation as most of the fatwas relied on at the moment, were issued by scholars in other nations. This will help convince Muslims in the country to embrace the practice since there will be locally available evidence supporting it.

It is recommended that medical bodies and other organizations steering organ donation and transplantation should collaborate with partners to sponsor public sensitization and awareness creation campaigns and programmes through the use of channels where many Muslim

believers can be reached. Such channels include radio, television and social media platforms. In such programmes, the Muslim faith leaders, scholars and opinion leaders can be brought on board in order to enhance the legitimacy of the campaigns/programmes in the eyes of the Muslim faithful.

In line with the above recommendation, it is suggested that the above bodies and organizations should also implement capacity building programmes targeting Muslim faith leaders, scholars and opinion leaders. These programmes are necessary since they will ensure that these persons of influence within the Muslim community have all the right information on what goes on in the organ donation and transplantation process. This will make it easier for them to convince their followers on the suitability of this medical practice.

The study recommends that medical bodies and other organizations steering organ donation in the country, with the consent of organ donors and recipients, should publish in various platforms such as broadcast print, print media and social media the various success stories involving Muslims in the field. The organ donors and recipients can also be encouraged to share their stories in their own social media pages since it might not be possible for the above-mentioned bodies and organizations to publish all the cases.

The study recommends that the Ministry of Health and hospitals handling organ donation and transplantation should collaborate with trusted Muslim based organizations and the highly regarded Muslim faith leaders, scholars and opinion leaders in the country to create a trusted body or agency where Muslims can register as organ donors. This agency should also handle the distribution of the pledged organs so that fairness and equity is promoted. This will help increase the trust for the organ donation process among the Muslim faithful.

The study recommends that the various medical bodies and other organizations steering organ donation in the country should liaise with policy makers at MOH to push for enactment of clear, informed and comprehensive legislations, policies and guiding framework on the organ donation process where the Muslim community is involved. These policies, legislations and other supporting framework should be arrived at following extensive consultations with stakeholders drawn this community so that all issues pertaining to the practice, for instance, informed consent and incentives for donors are adequately addressed in these frameworks.

The study recommends that hospitals conducting organ donation and transplantation processes such as KNH should set up functional units which specifically handle patients

drawn from the larger Muslim community. All the issues raised by the patients and donors from these communities should be handled by Muslim specialists so that free interactions are cultivated to instill confidence throughout these processes.

5.4 Suggestions for Further Research

It is suggested that a similar study which takes in to account other religious groups in Kenya should be replicated for comparative purposes. The other perceptions influencing organ donation among Muslims in Kenya that are not considered in this study can also be explored. A comparative study on organ donation trends and the other underlying issues among Muslims in Kenya and other nations can be undertaken. Such a study will help highlight the major similarities and differences across nations and also the lessons to be learned.

A comprehensive study on the Quranic and theological foundations on organ donation among Muslims and their relevance in the Kenyan context should be undertaken. In line with this suggestion, it is recommended that a study that broadly explores the different fatwas issued on the permissibility and legality of organ donation and transplantation not only in Kenya but also other countries is necessary so that their progression over time is assessed. A study that takes in to account other aspects of organ donation and transplantation within the context of the Muslim community can also be carried out.

A study that examines the policy, legal and institutional framework for organ donation in Kenya and their convergence with Islamic law and principles should be undertaken. A study to evaluate the ability of religious leaders and other influential persons to raise awareness on organ donation among Muslims in Kenya is also necessary. Moreover, given that the study was conducted in a cosmopolitan area, it would be prudent to carry out another study in largely Muslim counties in Kenya so as to determine whether there are any significant differences in the findings. A study that highlights in details all the contested issues pertaining to organ donation among Muslims in Kenya should further be conducted.

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APPENDICES

Appendix I: Letter of Introduction

OMAR ABDULLAHI MOHAMED

P. O. Box 348 -70100,

Garissa, Kenya.

Dear Sir/Madam,

RE: RESEARCH PROJECT

I am a student at the Mt. Kenya University, undertaking a Master's Degree in Religious Studies, Islamic Option and currently conducting research pertaining to “**EXPLORING MUSLIMS' PERSPECTIVES ON ORGAN DONATION IN NAIROBI COUNTY, KENYA**” which is part of the requirement of the mentioned course. I wish therefore to bring

to your attention that this is a legal academic process for which I request your assistance and corporation throughout this study. The information provided will be used solely for academic purpose and therefore the information will be treated in absolute confidence.

I value your participation and thank you for the commitment of time, energy, and effort. If you have any further questions before signing the release form or if there is a problem with the date and time of our meeting, I can be reached at 0720692638. Thank you.

Yours faithfully,

Omar A. Mohamed

umarfaruq900@gmail.com



Appendix II: Questionnaire for Believing Muslim Men and Women

SECTION I: DEMOGRAPHIC PROFILE

1. Gender
 - a. Male Female
2. Age bracket
 - a. 25 years and below 26-35 years
 - b. 36-45 years 46-55 years
 - c. Above 55 years
3. Education
 - a. Primary Secondary
 - b. Diploma/Certificate Bachelor's degree
 - c. Master's degree PhD
 - d. Others (specify) _____
4. Marital Status

- a. Single [] b. Married [] c. Separated []
d. Windowed [] e. Divorced []

5. What is your ethnic group?

6. Indicate your current occupation

SECTION II: ORGAN DONATION AMONG MUSLIMS IN KENYA

7. Do you support organ donation?

- a. Yes [] b. No []

8. If yes in 7, who do you think are the best candidates for organ donation?

- a. Healthy living donor []
b. Cadaver (organ donation after death) []
c. Brain death donor []
d. Suitable animal donor []

9. If yes in 7, which organs in your view can be donated?

10. Have you, or anyone close to you ever donated any organs?

- a. Yes [] b. No []

11. Have you, or anyone close to you ever received any donated organ?

- a. Yes [] b. No []

12. If you have not donated or received any donated organ, are you willing to do so if need be now or even after death?

- a. Definitely no []
b. Probably no []
c. Probably yes []
d. Definitely yes []

13. Have you registered as organ donor?

- a. Yes [] b. No []

14. If no in 13, do you intend to register as an organ donor?

- a. Yes [] b. No [] c. Not sure []

15. If you did not know your family member's wishes, would you consent to donate their organs upon their death, if it were up to you?

- a. Yes [] b. No [] c. Undecided []

16. Would you encourage your family members, relatives, colleagues, and friends to donate their organs?

- a. Yes []
b. No []

SECTION III: PERCEPTIONS OF MUSLIMS ON ORGAN DONATION

RELIGIOUS PERCEPTIONS

17. Does your religion support organ donation?

- a. Yes []
b. No []
c. Not sure []

18. Based on the commonly held religious views, would you be willing to donate your organs?

- a. Yes []
b. No []

19. If your answer in 18 above is **yes**, respond to the following statements regarding how religious beliefs **motivate** you to become an organ donor. Tick only one option.

	Statement	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
1.	I believe that donating my organs to someone else is a way of honoring my life and Allah.					
2.	I consider Islamic religious teachings to be in support of organ donation					
3.	I believe whoever helps another will be granted help from Allah in the in future.					
4.	I consider organ donation as a way of serving Allah.					
5.	I believe that in Islam, you have to be generous and help people out no matter what.					

6.	I am willing to exploit this medical treatment for Allah has not made a disease without appointing a remedy for it.					
7.	I believe it is important to me that I could give someone else a chance of life after my death.					
8.	I believe donating my organs when I die is a noble thing to do.					

20. If your answer is yes in 18, what are the other religious beliefs and views that would motivate you to donate your organs?

21. If your answer in 18 is **no**, give your response to the following statements regarding how religious beliefs **hinder** you from donating your organs. Tick only one option.

	Statement	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
1.	I fear that by donating my organs, I would be defying God's natural laws and interfering in His affairs.					
2.	I believe organ donation conflicts with my belief that illness is God's will which should be respected.					
3.	I consider organ donation to be against Islamic religious teachings and values.					
4.	I believe that organ donation contradicts the beliefs on bodily resurrection					
5.	I believe that that the sins of the donor might be transferred to the recipient.					

6.	I believe that it is not worthy to save the life of some people.					
7.	I believe that donation is not necessary because divine cure is possible.					
8.	I believe that removing any organs from my body desecrates my body.					
9.	If I donated my organs, I would worry that my spirit would not be at rest.					
10.	I want my body to remain intact after death because I believe my body organs will play an independent role as witness on judgment day.					

22. If your answer is no in 18, what are the other religious beliefs and views that would hinder or deter you from donating your organs?

CULTURAL PERCEPTIONS

23. Does your culture support organ donation?

a. Yes [] b. No [] c. Not sure []

24. Based on the commonly held cultural views, would you be willing to donate your organs? a. Yes [] b. No []

25. Kindly indicate the extent to which you agree or disagree with the following statements regarding commonly held cultural perceptions on organ donation among Muslims.

	Statement	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1.	I believe that signing to be an organ donor would result in personal bad luck for me.					
2.	I consider it unlucky not to bury my entire body					

	altogether in one place.					
3	I believe it is important to return one's body to the earth intact and as soon as possible after death.					
4.	I believe it is wrong to interfere in the cycle of life and death by donating a body part to someone else.					
5.	I believe donating my organs will disturb my dying process.					
6.	I believe it would be disrespectful to my descendants to change my body by donating organs.					
7.	I believe my spirit will become angry and bring harm to the person who receives my donation.					
8.	I desire for a traditional funeral in which the corpse has not been touched.					
9.	I do not to think about things involving death.					
10.	I feel uneasy of the thought of my body being cut up.					
11.	I fear that by agreeing to donate my organs, my body will be badly mutilated and deformed.					
12.	I feel that agreeing when alive to donate my organs as a gift after death is like tempting my own death.					

26. In your opinion, what other cultural perceptions are influencing current organ donation position among Muslims (either to donate or not donate)?

ETHICAL/LEGAL PERCEPTIONS

27. Do you think organ donation is legally and ethically permissible as per Islamic principles and law?

- a. Yes [] b. No [] c. Not sure

28. Are you aware of any fatwas that have been issued in support or opposition to the legality of organ donation in Islam?

- a. Yes b. No

If yes in 26, mention some of these fatwas

29. Do you support the approach of presumed consent whereby one's organs might be removed for transplantation after death unless they had signed a document showing that they did not wish to donate their organs after they died?

- a. I oppose b. I support c. Undecided

30. Do you support the giving of financial rewards or any other compensation to donors or their families?

- a. Yes b. No c. Not sure

31. In your opinion, do you think there is clarity in what qualifies brain death?

- a. Yes b. No Not sure

32. If yes, in 29, do you consider brain death a legal death?

- a. Yes b. No c. Undecided

33. If you perceive organ donation to be **ethical or legal**, to what extent do you agree or disagree with the following statements in support of this view. Tick only one option.

	Statement	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
1.	I am convinced that my organ/body parts will be used beneficially and fairly.					
2.	I do not have fears of premature pronouncement of death so as to extract organs from potential donors.					
3.	I perceive organ transplants to be more efficient in comparison to other alternative treatments.					
4.	I believe donation saves life of others and necessity allows prohibited matters.					

5.	I am confident that medical teams would try as hard to save the life of a person who has agreed to donate organs.					
6.	I have no worries that if I donate my organs for transplant, they might be used without my consent for other purposes.					
7.	I consider deceased and brain death organ donation always to be justified					
8.	I believe that our country's transplant system uses a fair approach to distributing organs.					
9.	I do not believe that organ donation always feeds into unacceptable ethical violations such as organ trading.					

34. If you perceive organ donation as **ethical or legal**, what other factors influences your point of view?

35. If you perceive organ donation to be **unethical or illegal**, to what extent do you agree or disagree with the following statements in support of this view. Tick only one option.

	Statement	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
1.	I am not convinced that my organ/body parts will be used beneficially and fairly.					
2.	I have fears that premature pronouncement of death to extract organs.					
3.	I do not consider organ transplants to be more efficient in comparison to other alternative treatments.					
4.	I do not believe organ donation saves life of others.					

5.	I am not confident that medical teams would try as hard to save the life of a person who has agreed to donate organs.					
6.	I have worries that if I donate my organs for transplant, they might be used without my consent for other purposes like medical research					
7.	I do not consider deceased and brain death organ donation always to be justified					
8.	I do not believe that our country's transplant system uses a fair approach to distributing organs.					
9.	I do believe that organ donation always feeds into unacceptable ethical violations, for example, selling organs, organ stealing in the country.					

36. If you perceive organ donation as **unethical or illegal**, what other factors influence your point of view?

SOCIAL PERCEPTIONS

37. How does your family and the community in general view organ donation?

38. Has your family and the society in general motivated you to donate or consider donating your organs if need be?

a. Yes [] b. No []

39. **If yes in 38**, to what extent do you agree with the following statements regarding some of the common social perceptions in support of organ donation among Muslims?

Statement	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
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1.	I feel a social responsibility to donate my organs.					
2.	If anyone saved a life, it would be as if they saved the life of the whole people.					
3	If I were to donate an organ, I can positively contribute to society.					
4.	Having a Muslim organization included in the organ donation process makes me more willing to donate.					
5.	I want to make sure that there are enough organs for those who need them in the community.					
6.	I believe that by donating my organs, I would be improving and saving the lives of others.					
7.	I believe my family will approve my desire to donate my organs.					
8.	I will be willing to donate my organs if my local imam advises me to do so.					
9.	In my community, people who are organ donors are viewed as extremely unselfish people					

40. If your answer is yes in 38, what other social views are in support of organ donation in your community?

41. If your answer in 38 is no, to what extent do you agree or disagree with the following statements regarding some of the common social perceptions in opposition to organ donation among Muslims. Tick only one option.

Statement	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
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1.	I fear that by donating my organs, I might be judged harshly by my family and community.					
2.	I have doubts about the usefulness of transplants in the society.					
4.	If I were to donate an organ, there might be negative consequences for my own family.					
5.	I worry my family might be upset and suffer conflict if I donated my organs.					
6.	I do not feel a social responsibility to donate my organs.					
7.	I believe organ donation is not something that everyone should do					

42. If your answer is no in 38, what other social views are in opposition of organ donation in your community?

Section III: Credible Solutions to the Matters Pertaining to Organ Donation among Muslims

43. In your opinion, what measures can be taken by various stakeholders in the Muslim community to address contested issues pertaining to organ donation?

44. What do you think can be done to cultivate positive perceptions towards organ donation among Muslims in Nairobi County and Kenya at large?



Appendix III: Interview Schedule for the Muslim Opinion Leaders

These are the questions asked during the interview sessions with the Muslim opinion leaders

1. What is your position regarding the acceptability of organ donation in Islam?
2. If you support organ donation, which is your preferred type of organ donation and why?
3. Are you a registered donor?
4. Have you donated or received a donated organ and if not, would you be willing to donate or receive an organ if need be?
5. What is your general assessment of the rate of organ donation among Muslims in this county and the nation at a large?
6. Based on your experience, which are the commonly donated organs by Muslims in Kenya?

7. Based on your experience as a Muslim opinion leader, what aspects of organ donation do you find contested within Kenyan Muslim community? How do they compare with the issues raised in other nations? What is your position in regards to these aspects?
8. What are your views regarding the religious perceptions of Muslims on organ donation in this county? Are the perceptions in support or opposition to organ donation? How do they relate to Islamic teachings and what is your position?
9. Do you believe cultural beliefs and customs are a significant factor influencing the rate of organ donation among Muslims in this county and the nation at large? If yes, what is the basis of these cultural beliefs and customs? What are the main cultural perceptions of Muslims in this county that explain the current donations rates among them and what is your position in regards to the same issue?
10. What are the main ethical issues surrounding organ donation and which explain the rates of donation within the Muslim community in this county and the nation at large? As an opinion leader, which position regarding the legality or permissibility of organ donation do you embrace and why? Based on your experience, what are the underlying ethical/legal perceptions of Muslims in this county and the nation at large on organ donation? What is your general view/position based on the fatwas that have been issued?
11. Give your assessment of organ donation from a social perspective particularly in the context of the Muslim community? What are the common social perceptions of Muslims in this county pertaining to organ donation? What is your position in relation to the same issue? How has the rate of organ donation in this county and the country at large been affected by such perceptions?
12. Based on your experience, what measures can you and other relevant stakeholders within the Muslim community take to address the contested issues pertaining to organ donation in this county and the nation at large?
13. What do you think can be done to cultivate positive perceptions towards organ donation among Muslims in Nairobi County and Kenya at large?



Appendix IV: Interview Schedule for the Muslim Scholars

These are the questions asked during the interview sessions with the Muslim scholars.

1. As an individual, do you support organ donation?
2. If you support organ donation, which is your preferred type of organ donation and why?
3. Are you a registered donor?
4. Have you donated or received a donated organ and if not, would you be willing to donate or receive an organ if need be?
5. What is your general assessment of the rate of organ donation among Muslims in this county and the nation at a large?

6. Based on your experience, which are the commonly donated organs among Muslims in Kenya?
7. Based on your experience as a Muslim scholar, what aspects of organ donation do you find contested within Kenyan Muslim community? How do they compare with the issues raised in other nations?
8. From a scholarly perspective, what are your views regarding the religious perceptions of Muslims on organ donation in this county? Are the perceptions in support or opposition to organ donation? How do they relate to Islamic teachings explored in scholarly works across the globe?
9. From a scholarly perspective, do you believe cultural beliefs and customs are a significant factor influencing the organ donation outlook among Muslims in this county and the nation at large? If yes, what is the basis of these cultural beliefs and customs? What are the main cultural perceptions of Muslims in this county that explain the current donations rates among them?
10. From a scholarly perspective, what are the main Islamic biomedical ethics pertaining to organ donation which explains the rates of donation within the Muslim community? As an individual, which position regarding the legality or permissibility of organ donation do embrace and why? Based on your experience, what are the ethical/legal perceptions of Muslims in this county and the nation at large on organ donation? What is your general view of the legality and ethics of organ donation based on the fatwas that have been issued?
11. From a scholarly perspective, give your assessment of organ donation from a social perspective particularly in the context of the Muslim community? What are the common social perceptions of Muslims in this county pertaining to organ donation? How has the rate of organ donation in this county and the country at large been affected by such perceptions?
12. Based on your experience, what measures can be taken by various stakeholders in the Muslim community to address the contested issues pertaining to organ donation?
13. What do you think can be done to cultivate positive perceptions towards organ donation among Muslims in Nairobi County and Kenya at large?



Appendix V: Interview Schedule for the Organ Transplant Specialists/Experts

These are the questions asked during the interview sessions with the organ transplant specialists/experts from Kenyatta Hospital.

1. Based on your experience, how often do you handle patients from the Muslim community?
2. Kindly give your assessment of the level acceptability of organ donation and transplantation among Muslims in the country?
3. What are the organ donation rates among Muslims in the county and the nation in general?

4. Based on your experience, how do the Muslim donors and recipients perceive organ donation? Explain this in terms of religious, cultural, ethical/legal and social perceptions.
5. How would describe their general perception towards organ donation, that is, is positive or negative or both?
6. What measures would you recommend towards enhancement of organ donation rates within the Muslim community in this county and the country at large?



Appendix VI: Interviews-Verbatim Content

MUSLIM OPINION LEADERS		
Questions	Respondent	Responses
What is your role in organ donation process where Muslims are involved	KI 1	Educating the ummah on the importance and legality of the medical procedure/process
	KI 2	Sensitization on fatwas given by scholars of dean on organ donation
	KI 3	Clarify on the legality of organ donation
	KI 4	Clarify on the legality of organ donation

What is your position regarding the acceptability of organ donation in Islam?	KI 1	It is allowed in Islam
	KI 2	At extreme medical conditions, it is acceptable
	KI 3	If it is a personal choice and is not a threat to the life of the donor, it is acceptable for me
	KI 4	Organ donation is permissible according to Muslim scholars
If you support organ donation, which is your preferred type of organ donation and why?	KI 1	All of kinds of organ donation
	KI 2	Healthy living donation
	KI 3	Healthy living donation and organ donation after death
	KI 4	Healthy living donation, with consent of the donor, if donor's life is not endangered
Are you a registered donor?	KI 1	No
	KI 2	No
	KI 3	No
	KI 4	No
Have you donated or received a donated organ and if not, would you be willing to donate or receive an organ if need be?	KI 1	Yes
	KI 2	No and involved, for sure I would
	KI 3	Not yet. Yes am willing
	KI 4	No. Not decided yet
What is your general assessment of the rate of organ donation among Muslims in this county and the nation at a large?	KI 1	Poor
	KI 2	Very low
	KI 3	Minimal
	KI 4	Low
Based on your experience, which are the commonly donated organs by Muslims in Kenya?	KI 1	Kidney
	KI 2	Kidney
	KI 3	Kidney
	KI 4	Kidney
Based on your experience as a Muslim opinion	KI 1	Criteria of death determination
	KI 2	Not aware

leader, what aspects of organ donation do you find contested within Kenyan Muslim community?	KI 3	Heart
	KI 4	Heart donation is among contested organs because the donor must have to die for recipient to get it. Killing one and saving the other is not allowed. Another contested organ is reproduction organs as they would interfere with the recipient's genes
How do they compare with the issues raised in other nations?	KI 1	Similar
	KI 2	.
	KI 3	They are same issues
	KI 4	The issue raised above is common across all nations
What is your position in regards to these aspects?	KI 1	There is no doubt or uncertainty in death.
	KI 2	.
	KI 3	positive
	KI 4	My position regarding the contested organs I have mentioned above is the same as explained in earlier statement
What are your views regarding the religious perceptions of Muslims on organ donation in this county?	KI 1	It is legally accepted
	KI 2	Still very unacceptable
	KI 3	This is accepted though some sheikhs and ulama dispute it
	KI 4	My view news is that the primary sources accepted universally by all Muslims are the Quran and Sunnah. However in the event they are silent, the secondary sources are used, thus umaa consensus of opinion of scholars and qiyas laws delivered through analogy, are used in this regard. Scholars have permitted some organ donations
Are the perceptions in support or opposition to organ donation?	KI 1	Support
	KI 2	Not in support due to lack of knowledge
	KI 3	Not sure
	KI 4	Religious perception mentioned in 13a, above is in support of organ donation which is allowed as long as the donor agrees and his life is not

		threatened
How do they relate to Islamic teachings and what is your position?	KI1	As long as one is sure moral and religious conditions have been met, it is legally accepted.
	KI2	With the scholarly opinion and its sensitization, acceptable will follow
	KI3	Not sure
	KI4	As I have mentioned in 13a consensus of Muslim scholars were used in event the Quran and Sunnah is silent about it.
Do you believe cultural beliefs and customs are a significant factor influencing the rate of organ donation among Muslims in this county and the nation at large? If yes, what is the basis of these cultural beliefs and customs?	KI 1	Yes, opposing attitude as a social and cultural reflex but ground it on religious belief
	KI 2	Yes it is due to the cultural policies
	KI 3	Yes it depends on cultural backgrounds
	KI 4	No there are some cultural beliefs donors allow, it is not allowed to interfere with the circle of life and health by donating part of a body, some belief that it may cause nightmares to them
What are the main cultural perceptions of Muslims in this county that explain the current donations rates among them and what is your position in regards to the same issue?	KI 1	It is wrong to interfere in the cycle of life and death by donating body parts to someone else. My spirit will become a “fly” and bring harm to the person who receive donated organ.
	KI 2	Scholarly opinions not given thus not much awareness given
	KI 3	It is not common, no experience, people fear
	KI 4	They believe that human body is holy and it is prohibited to treat it as an equipment to replace its organs
What are the main ethical issues surrounding organ donation and which explain the rates of donation within the Muslim community in this county and the nation at large?	KI 1	Body parts used beneficially and fairly, premature pronouncement of death, trade of body part which will endanger the life of less fortunate
	KI 2	Not aware
	KI 3	Not sure
	KI 4	Premature pronouncement of death, body parts used to make money, trading of body parts will lead to abduction and life threatening among the


		population
As an opinion leader, which position regarding the legality or permissibility of organ donation do you embrace and why?	KI 1	All as long will adhere ethical procedures and also follow the sharia law
	KI 2	Yet to have deep thoughts
	KI 3	I choose the acceptable part, I believe in saving lives
	KI 4	As an opinion leader, I support organ donation as long as ethical procedures and scholars' opinion are followed
Based on your experience, what are the underlying ethical/legal perceptions of Muslims in this county and the nation at large on organ donation? What is your general view/position based on the fatwas that have been issued?	KI 1	If legalized, it might endanger the life of less unfortunate through trade involving body parts, it is legal to save the life of mankind, it is an act of charity, practice but make sure it is within the legal framework
	KI 2	That organ donation isn't legal, this influenced on fatwa given and other scholarly opinions
	KI 3	Positive and people need to be enlightened on organ donation
	KI 4	It is an act of charity as long as it is within the legal framework, if legalized it may might endanger the lives of the less unfortunate members of community, it saves life if proper procedure is followed
Give your assessment of organ donation from a social perspective particularly in the context of the Muslim community? What are the common social perceptions of Muslims in this county pertaining to organ donation? What is your position in relation to the same issue? How has the rate of organ donation in this county and the country at large been affected by such perceptions?	KI 1	Negativity towards organ donation as one might be judged harshly by family and community, lack of education one feel as not social responsibility to donate my position. Let's embrace the practice because it is accepted in Islam, socially and culturally because is an act of charity by saving life of mankind
	KI 2	The perception of fatwa/scholarly opinion affects the stands
	KI 3	Positive
	KI 4	Families of the donor might develop attitude towards the process and fight back with harness which will lead to court cases, lack of awareness may lead to negative perceptions
Based on your experience,	KI 1	Regular sensitization on importance of the

what measures can you and other relevant stakeholders within the Muslim community take to address the contested issues pertaining to organ donation in this county and the nation at large?		practice as charitable
	KI 2	Publicizing the fatwas, public awareness creation on the benefits of the procedure
	KI 3	Educate the masses, give lectures in mosques
	KI 4	Muslim scholars in the country should more fatwas, create awareness, sensitize on importance of organ donation as an act of charity and educate people on legality of the organ donation
What do you think can be done to cultivate positive perceptions towards organ donation among Muslims in Nairobi County and Kenya at large?	KI 1	Education of malims, imam by re-education them, interpretation of religious scriptures, seminars, media campaigns
	KI 2	ulama scholars to give opinion on the issue sanitizing the umma on the opinion given to increase acceptance among ummah
	KI 3	Give lectures in mosques, sensitize people
	KI 4	Since the demand for organ has increased due to lifestyle of today there is need to create awareness/educate people on legality of the process, interpretation of religious scriptures if any, new fatwas, seminars, media campaigns
MUSLIM SCHOLARS		
What is your role in organ donation process where Muslims are involved	KI 5	Clarify to them that whether organ donation is permissible or impermissible
	KI 6	Educating the Muslim ummah about the importance of organ donation as per the sharia law
	KI 7	None
As an individual, do you support organ donation?	KI 5	Yes
	KI 6	No
	KI 7	Extremely cautious situation
If you support organ donation, which is your preferred type of organ donation and why?	KI 5	Healthy living donation
	KI 6	Organ donation after death and suitable animal donor and also healthy living donor. I support because as per the Quran verse which says saving one life is as saving the whole mankind
	KI 7	Healthy living donation

Are you a registered donor?	KI 5	No
	KI 6	No
	KI 7	No
Have you donated or received a donated organ and if not, would you be willing to donate or receive an organ if need be?	KI 5	Not yet. Not decided yet
	KI 6	Yes
	KI 7	No
What is your general assessment of the rate of organ donation among Muslims in this county and the nation at a large?	KI 5	Lack of awareness pertaining to legality of the whole process
	KI 6	The rate of organ donation among Muslims in this county and nation at large is minimal because of the Muslims believe that organ donation is haram/prohibited. They believe human body remains sacred even after death and should not be harmed. That is lack of education that needs to be addressed
	KI 7	Not much aware
Based on your experience, which are the commonly donated organs among Muslims in Kenya?	KI 5	Kidney
	KI 6	Kidney donation, cell transport
	KI 7	Kidney
Based on your experience as a Muslim scholar, what aspects of organ donation do you find contested within Kenyan Muslim community? How do they compare with the issues raised in other nations?	KI 5	Among the contested organ donation is heart where the donor definitely dies. Reproductive organs are also contested since it interfere with the genes of a person
	KI 6	Scientifically flawed medical criteria of death determination especially brain death, invasive per mortem procedure of preserving transplantation organ, incomplete disclose of information to consent, donor family, mistrust of physicians, social motive regarding organ transplantation, almost the same compare with the issues raised in other nations
	KI 7	Not informed
From a scholarly perspective, what are your views regarding the religious perceptions of Muslims on organ donation	KI 5	Since it is the duty of each and every Muslim to save the life of another person, my opinion is that it permissible to donate an organ as long as the conditions the religion requires are fully fulfilled.

in this county?	KI 6	My view is that as long as we are sure all moral and religious conditions have been met, the process or the exercise is legally acceptable not haram, therefore we need to sensitize our people to withdraw their negative perceptions and be positive to safe their fellow mankind. This is achieved through education
	KI 7	It should be conducted under circumstance of critical conditions
Are the perceptions in support or opposition to organ donation?	KI 5	Yes the perception mentioned in 14a is religiously supported. It is legally accepted as long as the donor life is not in danger and with consent of the donor
	KI 6	Support organ donation
	KI 7	In support in extremely critical cases
How do they relate to Islamic teachings explored in scholarly works across the globe?	KI 5	The primary sources accepted universally by all Muslims are Quran and Sunnah. However in fields that they are silent, the secondary sources are to be used thus ijmaa consensus of opinion of scholars and deduction is used in this regard. Scholars have talked about organ donation and permitted as long it is not life threatening to the donor
	KI 6	Social context may be considered in the interpretation of the Islamic moral code about human acts that are not mentioned in the Quran or Sunnah scholar are allowed to come up with fatwa in that it must not clash with the Quran and the Sunnah. It must not harm the person religion, life, mind, property or progeny
	KI 7	It goes hand in hand due to the globalization of scholarly opinion
From a scholarly perspective, do you believe cultural beliefs and customs are a significant factor influencing the organ donation outlook among Muslims in this county and the nation at large?	KI 5	Cultural beliefs contribute to organ donation
	KI 6	Sometimes yes
	KI 7	No
If yes, what is the basis of these cultural beliefs and	KI 5	The basis of some cultural beliefs is that it is not allowed to burry half the body structure, it not

customs?		allowed to harm dead body
	KI 6	Their basis of opposing attitude as social reflex but ground on religious believe, taboo to harm dead body, one should not be buried unless with full body organs
	KI 7	.
What are the main cultural perceptions of Muslims in this county that explain the current donations rates among them?	KI 5	It is considered that one should be returned back to the soil as he/she was complete of his/her creator, the cultural beliefs slowed the whole process of organ donations in Kenya
	KI 6	One not buried unless with full body organ, intact bodies are needed in the next world, taboo to harm dead body
	KI 7	Culture plays lifted significant due to the scholarly opinion
From a scholarly perspective, what are the main Islamic biomedical ethics pertaining to organ donation which explains the rates of donation within the Muslim community?	KI 5	Since all Kenyans are governed by the constitution of Kenya, the law silent about organ donation nevertheless kidney transplant is going on in Kenya, there was no proper guidance from Kenyan scholars regarding the same
	KI 6	Beneficence, justice, utility
	KI 7	Not informed
As an individual, which position regarding the legality or permissibility of organ donation do embrace and why?	KI 5	As long as organ donation comply with opinion of majority of Muslim scholars. I support as an individual as long as the donor's safety is maintained
	KI 6	All as long as is within all moral and religious conditions.
	KI 7	Healthy living donation in extreme cases of need to save lives
Based on your experience, what are the ethical/legal perceptions of Muslims in this county and the nation at large on organ donation? What is your general view of the legality and ethics of organ donation based on the fatwas that have been	KI 5	Based on various opinion fatwas of renowned Muslim scholars in the country states that organ donation is permissible in principle provided all requirements have been met to indicate that the soul has left the body through consent of the donor, consent of next of kin, permitted animal organ
	KI 6	The situation is one of medical necessity, there is a reasonable chance of success, the organ or

issued?		tissue is donated with the willing consent whether express or implied of the deceased, the process or procedure is conducted with some dignity as any other surgery, the organs are trade free, the reproductive organs- testicles and ovaries, are not allowed to be donated
	KI 7	Much of these issues are based on scholarly advice. it is well accepted this is the basis of acceptability to this society in general
From a scholarly perspective, give your assessment of organ donation from a social perspective particularly in the context of the Muslim community? What are the common social perceptions of Muslims in this county pertaining to organ donation? How has the rate of organ donation in this county and the country at large been affected by such perceptions?	KI 5	In my view, many Muslims believe that organ donation is haram/prohibited it is because the human body is considered scared
	KI 6	Social attitude and beliefs have directed and strong impact on people acceptance of organ donation, brain death diagnosis is provided based on knowledge of underlying social constraints
	KI 7	 Negative responses but basically acceptable in dire healthy conditions
Based on your experience, what measures can be taken by various stakeholders in the Muslim community to address the contested issues pertaining to organ donation?	KI 5	Muslim scholars in Kenya should come up with more fatwas to educate people on the same, create awareness, educate people on legality of the whole process
	KI 6	Reinterpreting religious scriptures, re-educating faith leaders, utilizing media campaigns to overcome religious barriers in Muslim community
	KI 7	Public participation and sensitization
What do you think can be done to cultivate positive perceptions towards organ donation among Muslims in Nairobi County and Kenya at large?	KI 5	Since the demand for organs have increased due to lifestyle of today. The need to create awareness and formulate proper legislation concerning the whole process. The legality of the process should be sought from Muslim scholars
	KI 6	Educate the Muslim ummah pertaining to the importance of saving lives which are within the Islamic teachings, media campaigns is necessary, re-educating the faith leaders to teach Muslim ummah in mosques and madrassa to

		bring wide awareness
	KI 7	Clear guidance from scholars of the county
ORGAN TRANSPLANT SPECIALISTS/EXPERTS		
What is your role in the organ donation and transplantation process?	KI 8	Patient preparation for surgery, assistant surgeon
	KI 9	Donor screening and compatibility testing
Based on your experience, how often do you handle patients from the Muslim community?	KI 8	Rare
	KI 9	Few cases once in a while
Kindly give your assessment of the level acceptability of organ donation and transplantation among Muslims in the country?	KI 8	Low
	KI 9	Lower than in the general population
What are the organ donation rates among Muslims in the county and the nation in general?	KI 8	Low rates of donation
	KI 9	Improving with time but lower than expected as compared to other groups
Based on your experience, how do the Muslim donors and recipients perceive organ donation? Explain this in terms of religious, cultural, ethical/legal and social perceptions.	KI 8	There is a general understanding of the body being a gift from God and extracting an organ is equal to mutilating body, like failure of organs is looked at as Gods will
	KI 9	Acknowledgement that an organ is dear part one's body-physical and spiritual that receiving an organ goes beyond the physical organ itself and has spiritual importance. Few donors experience a sense of satisfaction in their selfness and immeasurable reward awaiting them. even through the fear of the repercussion to their own health is palpable, acceptance of chronic illness as Gods will delay need for organ donation for transplantation
How would describe their general perception towards organ donation, that is, is positive or negative or both?	KI 8	Largely negative
	KI 9	Negative but improving as time goes by
What measures would you recommend towards	KI 8	Availability the night information to the clergy forwards transmission to the Muslim

enhancement of organ donation rates within the Muslim community in this county and the country at large?	KI 9	community Continued education especially by religious leaders who are held in high esteem, testimonies by organ beneficiaries may go a long way.
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Appendix VII: Letter of Authorization from the University



DIRECTORATE OF GRADUATE STUDIES

MARS/2014/64994

30th August, 2021

*The Director, Research Coordination Division
National Commission for Science, Technology & Innovation
Utali House, 8th & 9th Floor
P.O Box 30623- 00100
NAIROBI*

Dear Sir/ Madam,

RE: OMAR ABDULLAHI MOHAMED -- REGISTRATION NO. MARS/2014/64994

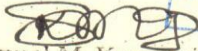
The purpose of this letter is to introduce the above named student who is pursuing Master of Arts in Religious Studies in the Department of Languages and Humanities in the School of Social Sciences.

The title of his research is *"The Implication of Muslims' Perceptions on Organ Donation in Nairobi County, Kenya."*

He has been cleared by the University's Ethics Review Committee (Certificate attached) and now has to proceed to the field to collect data for his research between September and November, 2021.

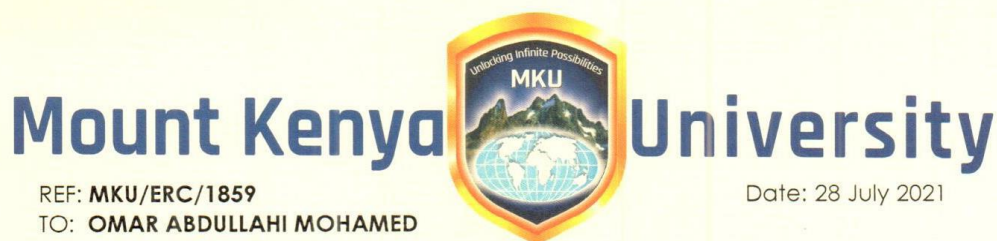
Any assistance accorded to him will be highly appreciated.

Thank you.


Dr. Samuel M. Karenga, Ph.D
Director, Graduate Studies
Enc.

Mount Kenya University
P. O. Box 342 - 01000, THIKA
Office of the Director
Graduate Studies

Appendix VIII: Ethical Clearance Certificate



REF: MKU/ERC/1859
TO: OMAR ABDULLAHI MOHAMED

Date: 28 July 2021

REG: MARS/2014/64994

Dear Sir/Madam,

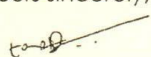
RE: THE IMPLICATION OF MUSLIMS' PERCEPTIONS ON ORGAN DONATION IN NAIROBI COUNTY, KENYA

This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **932**. The approval period is **28/07/2021 - 27/07/2022**.

This approval is subject to compliance with the following requirements;

- i. Only approved documents including informed consents, study instruments, MTA will be used
- ii. All changes including amendments, deviations and violations are submitted for review and approval by **Mount Kenya University**
- iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to **Mount Kenya University** within 72 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to **Mount Kenya University** within 72 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal
- vii. Submission of an executive summary report within 90 days upon completion of the study to **Mount Kenya University**

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://oris.nacosti.go.ke> and also obtain other clearances needed.

Yours sincerely,

The Chairman
Mount Kenya University
Ethics Review Committee
P. O. Box 342 - 0100, Thika

Dr. Peter G. Kirira
Chairman, Mount Kenya University IERC

