
Medical Transplant and Organ Harvesting in Nigeria: A Case of Ethical and Legal Considerations.

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Abstract

Medical and organ transplantation is one of the most successful advances in modern medicine; for patients with end stage disease, transplantation often provides their only chance of survival. The medical and organ transplant industry has experienced tremendous growth globally in recent times, with a corresponding increase in the need for a clear and comprehensive legal framework to regulate the sector. This paper is aimed at reviewing the legal framework for medical and organ transplant in Nigeria (if any), with a view to identifying gaps and to better regulate the practice and ensure the protection of patients' rights. The doctrinal methodology of legal research was employed, while primary and secondary sources of data were used. It was found that there is no agency or body that regulates the harvesting or transplanting of human organs in Nigeria. The legal framework for medical and organ transplant in Nigeria remains underdeveloped and outdated, and this has led to several challenges that include organ trafficking and other unethical practices like medical negligence. Thus, there is an urgent need for a comprehensive legal framework for medical transplant in Nigeria to address the challenges and ensure that the sector operates in a manner that is consistent with international ethical and professional standards.

Keywords: Medical transplant, Organ harvesting, Organ trafficking, Illegal trafficking

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1.1 Introduction

The global rise in end-stage diseases has become a global health concern. This rise is due to the skyrocketing increase in key risk factors including hypertension and diabetes. Nigeria has her own fair share of terminal diseases. According to medical experts, more than 20 million Nigerians are living with kidney disease and no fewer than 20,000 of the number are coming down with end-stage kidney disease yearly requiring dialysis or/and transplant to stay alive. The urgent need for medical and organ transplant globally has led to a rise in illegal trafficking of organs. Illegal medical and organ transplantation is estimated to account for 5-10% of all global organ transplants, generating between USD\$840 million to USD\$ 1.7 billion annually and is another form of human exploitation. Operating on a global scale, it uses a series of professional “middlemen”, specialist medical personnel, specialist blood and tissue testing laboratories, and public and private medical and surgical facilities. Few compliance professionals are aware of the size and scale of the crime. Medical and organ transplant in Nigeria is faced with a lot of challenges such as unclear provisions as to the issue of informed consent, limited advanced equipment in the health sector, scarcity of donated organs to meet the demands of the waiting list of patients, organ trafficking and commercialization, absence of national registry for organ transplant, cultural and religious influences, etc.

Thus, the provision of adequate medical and health facilities is a means of preserving the fundamental right to life of Nigerian citizens. And where there is any unlawful infringement of the right of such persons in any way, it may be regarded as against *Section 34* of Constitution of the Federal Republic of Nigeria 1999, which provides for right to dignity of the human person. This is also in line with the Universal Declaration of Human Rights which, among others, includes right to life and right to dignity of human person. To ensure the protection of these fundamental rights to life and dignity of human persons, the World Health Organization, under the WHO Guiding Principles on Human Cell, Tissue and Organ Transplantation, amongst others, provides that for any

removal of cells, tissues or organs, the consent required by law must be obtained, without any reason to believe that the donor objects to such.

Medical Transplant in Nigeria is faced with a lot of challenges such as unclear provisions as to the issue of informed consent, limited advanced equipment in the health sector, scarcity of donated organs to meet the demands of the waiting list of patients, organ trafficking and commercialization, absence of national registry for organ transplant, cultural and religious influences, etc.

The Corneal Grafting Act of 1952 is the first law that provided for medical transplant in Nigeria. Specifically, for corneal transplant the removal must be with the consent of the deceased during his lifetime, in writing or orally before witnesses; and by the authority of the person lawfully in possession of the deceased body, or by the authority of the person having control of the hospital in case of a person lying in the hospital.

The National Health Act is the primary law that generally governs medical transplant in Nigeria. The Act prohibits the removal of tissue, blood or blood product from the body of another living person for any purpose except with the informed consent of the person from whom the tissue, blood or blood product is removed and granted in the prescribed form. The Act also prohibits the removal of tissue, blood or blood products from a person younger than 18 years. The National Health Act further prohibits the merchandise, sale or commercialization of tissues, blood or blood products. The Act also provides that a contravention of these provisions is an offence, punishable by imprisonment for a period of not less than two years or a fine of one million Naira or both, in the case of a tissue; and in the case of blood or blood products, liable to a fine of hundred thousand naira or imprisonment for a period of not more than 1 year or both.

The Trafficking in Persons (Prohibition) Enforcement and Administration Act of 2015, also seeks to prevent human trafficking and to prosecute persons involved in human trafficking. The Act provides that any person who imports, exports, removes, buys, sells, disposes, traffics or deals in

any person as a slave, or accepts, receives and detains a person, against that person's will, commits an offence and is liable upon conviction to imprisonment for life. Nigeria has signed various international conventions and treaties as regards the regulation of organ transplant and donation and the protection of the fundamental human rights of organ donors, both living and cadaveric donors. They include United Nations Convention against Transnational Organized Crime and the Protocols thereto, especially the Protocol to Suppress and Punish Trafficking in Persons, especially women and children, which includes Trafficking in Persons for the Removal of Organs. In addition, the World Health Organization has issued Guiding Principles on Human Cell, Tissue and Organ Transplantation, which seek to ensure that informed consent is given for organ donation. In Africa, Article 66 of the African Charter on Human and Peoples' Rights provides for special protocols to suppress trafficking of humans especially women and children.

Despite the existence of these laws and institutions, medical transplantation in Nigeria is still faced with several challenges including a shortage of donors, limited access to medical resources, and inadequate public awareness. It is against this background that the study seeks to examine the challenges and prospects of the Nigerian legal framework of Medical Transplant, with a view to finding a way forward.

1.2. Statement of the Problem

The legal framework for medical transplant in Nigeria is a crucial aspect of the healthcare system, in the sense that medical transplantation is a critical intervention for treating various medical conditions and saving lives, yet it remains poorly regulated. Despite the importance of transplantation in saving lives and improving the health of patients, there is a lack of clarity in the laws and regulations that govern medical transplantation in Nigeria. This has resulted in various challenges, including unethical practices, inadequate patient protection, and limited access to transplant services for patients who need them.

Additionally, the current legal framework does not provide adequate protection for patients undergoing transplantation. There are limited

provisions for informed consent, patient privacy, and the rights of transplant recipients. This creates a gap in the protection of patients' rights, which can result in exploitation and abuse.

1.3 Conceptual Framework

1.3.1 Medical Transplant

Transplantation is the removal of living, effective cells, tissues, or organs from the body to be transferred either back into the same body or into a different body. On the other hand, medical transplant is a surgical procedure that involves the removal of an organ or tissue from one individual, known as the donor, and its transplantation into another individual, known as the recipient, for the purpose of replacing a damaged or diseased organ or tissue. The word “organ” is derived from the Latin word "organum" meaning an instrument or tool. It is a collection of tissues that structurally form a functional unit specialized to perform a particular function. According to the National Health Act, an organ is any part of the human body modified by its structure to perform any particular vital function. An organ also includes the eye and its accessories, but with the exclusion of the skin and appendages, flesh, bone, bone marrow, body fluid, blood or a gamete. Tissues include a group or layer of cells that work together to perform a specific function. According to the National Health Act, human tissue includes flesh, bone, organ, skin, body fluid, but excludes blood or gametes. Organ donation is the process of surgically removing an organ or tissue from one person (the organ donor) and placing it into another person (the recipient), who is in need of it because his or her organ has failed or has been damaged by disease or injury. According to Hertl transplantation is the removal of living, effective cells, tissues, or organs from the body to be transferred either back into the same body or into a different body (Hertl: 2016). Medical transplant was defined by Ademola (Ademola:2002), as a surgical procedure that involves the removal of an organ or tissue from one individual, known as the donor, and its transplantation into another individual, known as the recipient, for the purpose of replacing a damaged or diseased organ or tissue. It was also defined as a surgical procedure that requires the removal of an organ, body parts or tissue

from a person (a donor) to another (the donee) in order to replace a frail or missing organ. Organ transplantation is recognized as the criterion for end-stage organ failure. For patients with end-stage renal disease (ESRD), transplantation represents not only the best clinical but also the most cost-effective care when compared with alternative available treatments. According to the World Health Organization, organ transplantation is the transfer of living cells, tissues, or organs from a donor to a recipient with the aim of restoring function or correcting disease (W.H.O:2010).

Medical Transplant is as described by an author as a unique way of affirming and sharing one's humanity. It has over the years evolved to be the best treatment available for some end-stage diseases. However, its evolution has been rather slow due to complications that arise as a result of the organ recipient's body rejecting the transplanted organ. However, a great head way has been made with the development of immune suppressant medications, which had made most organ transplants a success. Due to the nature of medical transplant, many ethical issues have arisen. These issues include the appropriate definition and determination of death, the quality of consent given for the transplantation of an organ, payment for transplant organs and organ commercialization and trafficking.

In addition, medical transplant has been referred to as a section of tissue or a complete organ that is removed from its original natural site and transferred to a new position in the same person or in a separate individual. Thus, transplant can be Autologous or Allogeneic, "auto" means self, thus, the stem cells in autologous transplants come from the same person who will get the transplant, so the patient is their own donor. On the other hand, "allo" means other, thus, the stem cells in allogeneic transplants are from a person other than the patient, either a matched related or unrelated donor.

Transplantation is not only limited to organs; tissues like bones, tendons, cornea, skin, heart valves, hairs and veins can also be transplanted because they also offer life-prolonging and lifesaving surgical treatment. Medical Transplant is, as described by an author, a unique way of affirming

and sharing one's humanity. It has over the years evolved to be the best treatment available for some end-stage diseases. However, its evolution has been rather slow due to complications that arise as a result of the organ recipient's body rejecting the transplanted organ. However, a great headway has been made with the development of immunosuppressant medications, which had made most organ transplants a success. Due to the nature of medical transplant, many ethical issues have arisen. These issues include the appropriate definition and determination of death, the quality of consent given for the transplantation of an organ, payment for transplant organs and organ commercialization and trafficking.

1.3.2 Organ Donation: Organ donation is the process of surgically removing an organ or tissue from one person (the organ donor) and placing it into another person (the recipient), who is in need of it, because his or her organ has failed or has been damaged by disease or injury. The first organ to be transplanted is the Kidney in 1954 by Dr Joseph Murray in Boston (Stauch: 2012). Organ donation can either be from a deceased/cadaveric donor or a living donor. Organ donors usually may either be living, or brain dead. For the donor to be brain dead, he must have received either a traumatic or pathological injury to the part of the brain in control of his heartbeat and breathing.

A person is confirmed as being dead when their brain stem function is permanently lost. However, with the advent of technological equipment such as ventilators, which keep the heart functioning, and oxygen circulating through the blood stream, breathing and heart beats can now be temporarily extended even when the brain is dead and all activities ceased. Series of tests are conducted before a person is declared brain dead, and the doctor looks out for lack of movement and specific responses or reactions to tests being carried out on certain reflexes, lack of reaction to light by the eyes and lack of an attempt to breathe. These tests are usually rechecked 6 to 24 hours later and once it is confirmed twice that the brain is not functioning, and then a diagnosis of brain death can be made. Once a person is declared brain dead, he can be considered for organ donation.

Some organs can still be donated by a living person, such as kidney, lung and liver. However, most organs are from people who expressed a sincere desire during their lifetime to donate upon their death. This they often do formally by registering their wish to donate on the Organ Donor Register or by discussing the subject with their relatives and loved ones.

A donor is a person who provides blood, an organ, or semen for transplantation or transfusion. An organ donor is described as a person who voluntarily gives their organs or tissues, either during their lifetime or after their death, for transplantation into another person who needs it. Organ donation is voluntary, and donors can indicate their willingness to donate through various means, such as signing up for a donor registry or expressing their wishes to family members. Organs can also be recovered for transplantation from a brain dead person as well (Dalal: 2015)

Thus, there are two categories of organ donors, the living donors and Cadeveric or deceased donors.

1. Living Organ Donors

Living organ donors are individuals who voluntarily choose to donate one of their organs while still alive to help another in need of transplant. For this type of donation, 'only an organ, or part of an organ which its remaining organ can regenerate or take on the workload of the rest of the organ' is donated as the donor still remains living after the donation. This type of donation may be in form of a single kidney donation, partial donation of liver or small bowel. This is the most common type of organ donation, as organ transplants from living donors reduce the chances of organ rejection and thus boost more success rates (Lamb: 1990). According to the Organ Procurement and Transplantation Network in 2020, living donors accounted for 30% of all kidney transplants in the United States. Living donors are prohibited from receiving any financial or other reward for such donation; however donors may be reimbursed for reasonable costs incurred to provide such donation. (National Health Act 2014: Section 53).

2. Cadaveric/Deceased Organ Donors.

Individuals whose organs and/or tissues are donated at the time of their

death are called deceased, cadaveric or non-living donors. The process of cadaveric organ donation as provided in the National Health Act (2014), involves the removal of organs from the body of a deceased person who has previously consented to organ donation in writing or whose family has given permission for the donation where the wishes of the deceased are unknown. The cadaveric donor's organs are kept viable by ventilators or other mechanical life supporting mechanisms for transplantation after being declared dead.

Before any cadaveric organ transplant can take place, there must be proper pre-mortem consent from the deceased, before such organs are extracted from the deceased's body for transplant purposes after death. Prior to their death, individuals could choose to either opt-in or opt-out of donating their organs for transplantation after they die. An opt-in refers to where proper pre-mortem consent is given by a deceased or the relatives allowing the extraction of his or her organs for transplantation after death. An opt-out, on the other hand, presumes that every person in a country is willing to be an organ donor after they die. Those who are not willing need to make this clear usually by signing an official statement to this effect which is an objection to extraction prior to death by the deceased or post mortem by the relatives. However, in some jurisdictions like Spain, Belgium and Austria, if no objection is raised pre- or post-mortem, there will still be removal of organs because consent will be presumed for the deceased and it will be implied that the deceased has presumably consented to donation by not objecting (Rithalia: 2009). This is referred to as a system of presumed consent, which is an unstated or implied wish to organ donation by a person where there is no record of an objection. It has been passed into law in some countries like France and Spain. Presumed consent and opt- in systems are similar. Under both systems, organs can be extracted once there is no objection, thus, the silence of the deceased is an implied consent to extract. A presumed consent system is more or less one and the same with an opt-out system.

Most countries now rely on cadaveric donor organs to meet the challenge of organ shortage. For instance in Spain, most of the demands for kidney have been met with cadaveric donor organs (Gowers: 1999). Cadaveric donation of

organs has been widely recognized now because it minimizes dangers of injury and also enables extraction of all organs in the body at once, since the donor is deceased. According to the Organ Procurement and Transplantation Network, in the United States alone, in 2021, there were over 39,000 organ transplants, and approximately 75% of them involved cadaveric donors. It is also widely used in the United Kingdom to meet two third of kidney needs. Also, the World Health Organization (WHO) estimates that worldwide, more than 120,000 organ transplants are performed each year, with a significant portion of them utilizing organs from deceased donors. Thus, due to the growing demand for organs, the cadaveric/ deceased donor programme is important to supplement the donor pool as only the living donor programme is not sufficient to meet this need.

2.2 Theories of medical transplantation

The theories of medical transplantation in Nigeria are diverse and often contradictory. However, the following are some of the most commonly cited theories of medical transplantation in Nigeria.

2.3 Historical Background of the Legal Framework of Medical Transplant

The history of medical transplant dates back to ancient civilizations such as the Egyptians, who documented the use of animal organs for human transplantation. Also in 300 BC, there were accounts of some Christian saints, in "The Miracle of the Black Leg" where Cosmas and Damian were said to have transplanted a leg to replace the cancerous leg of a Roman deacon with that of a recently deceased Ethiopian man. However, it wasn't until the 20th century that medical transplantation became a viable and widely practised treatment for a range of diseases and conditions. In 1905, the first successful cornea transplant was performed in Czechoslovakia by Dr. Ivan Kuchynka (Armitage, Tullo & Larkin: 1906) and in 1933 the first kidney

transplant was attempted by Dr. Voronoy in Ukraine (although it was unsuccessful). The breakthrough for organ transplantation came in the 1950s, with the discovery of immunosuppressive drugs that prevent the body from rejecting transplanted organs. This led to the first successful kidney transplant in 1954 by Dr. Joseph Murray, who transplanted a kidney from one twin to another at the Peter Bent Brigham Hospital in Boston (Barker & Markmann: 2013). This breakthrough led to the development of organ transplantation as a viable treatment option for a variety of diseases. Since then, medical transplant has advanced significantly, and many different types of transplants have been performed, including heart, lung, liver, pancreas, and bone marrow transplants.

Globally, the laws surrounding medical transplant have also undergone significant changes. In the 1990s and 2000s, international guidelines were developed to standardize the practice of organ transplantation and to promote ethical and transparent practices. The World Health Organization, in its 1987 Resolution provided for the altruistic nature of medical transplant, that organs should only be donated freely, without any monetary payment or other reward of monetary value (W.H.O Resolution). Also, the WHO developed the "Guiding Principles on Human Organ Transplantation" in 1991, which have been adopted by many countries around the world. In 2008, the WHO launched the Global Observatory on Donation and Transplantation, which aims to monitor and report on the global state of organ donation and transplantation.

2.2 Evolution of Medical Transplant in Nigeria.

In the pre- and post-colonial era in Nigeria, medical practices were primarily focused on providing basic healthcare services to the population. There were limited resources for advanced medical procedures such as transplantation. In 1952, The Corneal Grafting Act was introduced, which provided guidelines for the removal of the eyes from a deceased donor with

his/her prior consent in his lifetime and authorized by the person who has control of his/her body. After independence in 1960, the country started to focus on developing its medical infrastructure. However, the lack of resources and trained personnel limited the progress of medical transplantation.

Nigeria started to invest in the development of its healthcare system, with an emphasis on medical transplantation in the 1980s. During this period The National Blood Transfusion Service was established in 1989, in line with National Health Policy, to coordinate the collection, testing, processing, storage, and distribution of blood and blood products in Nigeria. The government established several transplant centers, including the National Organ Transplant Centre in Lagos in 1999, which was initially known as the Lagos University Teaching Hospital (LUTH) Organ Transplant Unit.

In recent years, medical transplantation has made significant progress in Nigeria, with a growing number of centers offering transplant services. The first successful kidney transplant was at St. Nicholas Hospital in 2001 (Orakpo: 2009). Regulation of medical transplant was also put in place, with the establishment of the National Health Act in 2014, which outlines the legal and ethical framework for organ transplantation in Nigeria. Today, Nigeria has a thriving healthcare system, with several specialized hospitals and clinics offering transplant procedures.

2.3 Literature Review on the Legal Framework of Medical Transplant.

The crux of this research topic is on medical transplant and the legal framework put in place to ensure that it is carried out in the appropriate way so as to ensure safety of the donor and the recipient.

Bakari AA (2012) defined transplantation is an act of transferring an organ, tissue or cells from one person (donor) to another (recipient). This position is partly correct as transplantation involves the transfer of tissue, cells and organs, however, it is not only limited to exchange of organs from one

person (donor) to another (the recipient), it can also autogenous, that is transplant of tissue, cells and organs from the same person, who is both donor and recipient. Also, transplant is not always between persons, it can also be across specie barriers, example donor organs from animals, called Xenotransplant. Another appropriate definition of Transplant is that given by Calne R.Y, as "a section of tissue or a complete organ that is removed from its original natural site and transferred to a new position in the same person or in a separate individual."

Ulasi and Ijioma have opined that for end- stage organ failure, transplantation represents not only the best clinical but also the most cost-effective care when compared with alternative available treatments. This position is acceptable, because for the successful kidney transplant recipient, the cost effective advantage of the transplant procedure over maintenance dialysis is obvious considering that the cost of hemodialysis for one year in Nigeria ranges between US\$ 10,000 and US\$ 20,000 whereas the cost of kidney transplantation is US\$ 20,000 to US\$ 30,000. (Shonibare: 2008). In addition, a successful transplantation affords the kidney failure patient a better quality of life than a maintenance dialysis does.

According to Nabena and Emmanuel, matters concerning human organ donation and transplantation in Nigeria are regulated by the National Health Act. This assertion is true to some extent. However, not just the National Health Act regulates medical transplant in Nigeria, the Corneal Grafting Act of 1952, and a host of other regulations discussed subsequently, also regulate medical transplant in Nigeria.

In explaining the provision of the National Health Act as to informed consent, Iyioha stated that free and informed consent is a principle founded on patient autonomy that reflects the patient's right to influence decisions about his or her body (Iyioha:2015). The assertion is agreeable to some extent. Certainly, by giving consent, a person exercises his or her right to make

decisions about his or her body. However, the notion of patient autonomy is not absolute and can conflict with other ethical principles, such as beneficence and non-maleficence, which require healthcare providers to act in the patient's best interest and avoid harm. Also, in cases of minors, they are deemed incapable to give consent, thus, their parents or guardians are the ones who give consent on their behalf, except where such minors below the age of consent are deemed mature and competent enough to understand the risks and benefits involved, then they can give their own consent. This is the concept of Gillick competence, and there is no specific age at which a minor may be considered Gillick competent; it is rather based on the minor's ability to make informed decisions.

Ghods and Savaj argued that in order to reduce scarcity of organs for transplantation, there is a need to reward donors either financially or through other forms of compensation by government to encourage people to come forward as potential organ donors. (Ghods&Savaj: 2006) Inasmuch as there is need to reimburse for reasonable costs made by the donor, it is an offence for anyone who has donated a tissue or organ to receive any form of financial or other reward for such donation. This provision was probably made so as to prevent the commercialization of human organs which can lead to felonious crimes like organ trafficking. Caplan *et al* opined that financial compensation for donors may lead to exploitation of vulnerable populations, such as those in poverty, and may create a black market for organs and increase the risk of organ trafficking. Slabbert and Goolam (2011) posited that "rewarding donors financially could persuade more people to come forward as organ donors, and by doing so more lives could be saved, which is in line with the promotion of life". This position is fundamentally flawed and has been condemned by the World Health Organization. The WHO first condemned payments for organs in its 1987 Resolution, declaring that 'organs should only be donated freely, without any monetary payment or other reward of monetary value (W.H.O).

Also, according to the Guiding Principles of the WHO on Human Cell, Tissue and Organ Transplantation (W.H.O 2012), payment for organs should be banned because it is 'likely to take unfair advantage of the poorest and most vulnerable groups, undermine altruistic donation, and lead to profiteering and human trafficking.

Ajayi further argued that the issues of incentives, trade and commercialization of organs and organ trafficking can be said to stem from the existing guidelines which restrict sale and compensation in donation of organs. He also stated that "It is the belief that the tighter the protocols, people are more likely to try to circumvent them," and also that since transplant laws in Nigeria are firm, commercial donors posing as relatives have been brought by recipients since some medical centers insist on relatives as donors in order to protect the centre from litigation." (Ajayi, Raji&Salako: 2016) The learned writer has a strong point; donors deserve compensation, and as the Act has provided, it is limited only to reimbursement of cost. It will not be out of place to reimburse the donor for the cost incurred during the time of providing the donation including short- and long-term medical care, loss of income, travel, accommodation to cater for them where reasonable. Creating a reward system for organ donation in order to avert commercialization of organs will only have a counter effect. It will lead to a wide spread of illegal organ harvesting and organ trafficking, so as to obtain the reward provided. One issue that may arise if compensation is allowed is the difficulty to determine what is reasonable compensation to be given to avoid selling of the organs to the highest bidder. The National Health Act is silent on quantity and type of compensation that is deemed adequate for a donor. This lacuna has affected the equitable health care in Nigerians.

Legal and Institutional Framework of Medical Transplant in Nigeria.

3.1.1 The Constitution of the Federal Republic of Nigeria 1999 (as amended).

The CFRN in Chapter IV provides for the fundamental human rights of Nigerians, which are basic rights that every human being is entitled to, simply

by virtue of being human, and are inalienable except as provided by the constitution. The right to life (Section 33) is available to every person and no one shall be deprived intentionally of his life, save in execution of a court sentence as to a criminal offence of which he has been found guilty in Nigeria. Thus, a person who consents to organ donation has a right to life, and so does the recipient. The medical practitioner carrying out this transplant procedure should exercise due care and skills as to ensure that the fundamental rights to life of both the donor and recipient are not infringed upon by negligence or carelessness.

Also, the CFRN provides for the right to dignity of human persons (Section 34), thus, every individual is entitled to respect for the dignity of his person. And, accordingly, no person shall be subjected to torture or to inhuman or degrading treatment. This fundamental right also protects the recipient and donor from any inhuman or degrading treatment in the transplant process. Transplant is voluntary and should be conducted in a dignified manner. As such, the right to privacy is an important consideration in terms of how this information is collected, stored, and shared, so as to ensure utmost confidentiality.

3.1.2 The National Health Act 2014.

In Nigeria, The NHA primarily regulates human organ donation and transplantation. The Act made several provisions in this regard, which include provisions for the establishment of a National Blood Transfusion Service for the Federation and also for the states. Under the NHA, consent is the guiding principle for living organ donation. This consent must be an informed consent, and may be waived for medical investigations and treatment in emergency cases. The provision on informed consent seeks to ensure that the donor and recipient voluntarily agreed to the process and understood properly what they agreed to embark on.

The NHA also prohibits the removal of body organs for the purpose of merchandise or commercialization. This provision seeks to prevent organ trafficking. Also, the NHA prohibits as an offence, for a person who has

donated a tissue or organ to receive any form of financial reward, except reimbursement for reasonable cost incurred by the donor in connection with the organ donation. The NHA also established the two sources of organs for transplantation, the living and cadaveric donors. The Act also prohibits the provision of organ transplant services except in a duly authorized hospital and with the written permission of the medical practitioner in charge of clinical services at that hospital. These provisions seek to regulate the removal and use of human organs donated for transplantation.

3.1.3 Trafficking in Persons (Prohibition) Enforcement and Administration Act.

The Act provides the legal framework for combating human trafficking in Nigeria. It also established National Agency for Prohibition of Trafficking in Persons and other related matters, which enforces regulations against human trafficking, investigate and prosecute trafficking suspects, and also to counsel and rehabilitate traffic victims.

The Act prohibits all forms of human trafficking for whatever reason. Such act is punishable upon conviction by imprisonment for not less than two years and a fine of two hundred and fifty thousand naira. The Act also provides that any person who, through force, deception, threat, etc, enlists, transports, delivers, accommodates, or takes in a person for the purpose of removing the person's organs, commits an offence and is liable to imprisonment for a term of not less than 7 years, and a fine of not less than five million Naira.

3.1.4 The Corneal Grafting Act of 1952.

The Act allows a registered medical practitioner to remove the eyes soon after death for graft purposes subject to certain conditions, and legalizes the bequest of eyes for graft purposes; it ensures a legal source of donor eye grafts.

The CGA provides that if any person, either in writing at any time or orally in the presence of two or more witnesses during his last illness, has expressed a request that his eyes be used for therapeutic purposes after his death, the party lawfully in possession of his body after his death may, unless he has reason to believe that the request was subsequently withdrawn,

authorize the removal of the eyes from the body for use for those purposes.

Furthermore, the CGA provides that the party lawfully in possession of the body of a deceased person may authorize the removal of the eyes from the body for such therapeutic purpose, except that party has reason to believe that the deceased had expressed an objection to his eyes being so dealt with after his death, and had not withdrawn it; or that the surviving spouse or any surviving relative of the deceased objects to the deceased's eyes being so dealt with. However, a person who has custody of the body of a deceased person entrusted into his care for the purpose of interment or cremation shall not be able to give such authority. No such removal of the eyes shall be effected except by a registered medical practitioner, who must have satisfied himself by a personal examination of the body that life is extinct. In the case of a body lying in a hospital, an authority may be given on behalf of the person having the control and management of the hospital by any officer or person designated in that behalf by the person in control of the hospital. The Act also provides that authority for the removal of eyes shall not be given under this section if the party empowered to give such authority has reason to believe that an inquest may be required to be held on the body.

3.1.7 Medical and Dental Practitioners Act, 2004.

The Act was promulgated in 1988, to establish the Medical and Dental Council of Nigeria for the registration of medical practitioners and dental surgeons and to provide for a disciplinary tribunal for the discipline of erring members, and also prescribe punishment for such members.

4.1 Challenges of Medical Transplant in Nigeria

4.1.1 Inadequacy of the Legal Framework.

The National Health Act of 2014 is the major Act that regulates medical transplant in Nigeria. Part IV provides for the control of use of blood products, tissue and gametes in humans. However, these provisions have been seen as inadequate to address issues of organ donation in Nigeria, and this is a major challenge. The paucity and lacuna in legislations coupled with poor

implementation of existing regulations in Nigeria will continually give rise to negative implication on the citizens with regard to organ donation and transplantation. (Aderibigbe & Adebayo: 2022)

The Limitations of the NHA, which need to be addressed include the following:

I) The Issue of Consent

The Act provides for informed consent as the basis for organ donation and transplant (Section 48 NHA). However informed consent is only mentioned in relation to tissues, blood and blood products without the inclusion of organs. This is probably as a result of the interpretation of a tissue under the Act to include organs. (Section 64 NHA)

This interpretation ends up distorting the clarity and certainty of the information which the Act seeks to convey which results in non-inclusion of the word organs in the heading of part VI and in section 48 (1) (a) of the Act.

II) Uncertainty of the Term "Brain Dead"

The NHA interpreted death to mean brain-death but failed to clarify the meaning of brain death under the interpretation section. This uncertainty can result in issues in ascertaining when cadaveric organs can be harvested from someone acclaimed to be brain-dead.

III) Paucity of Provisions for Cadaveric Organ Donation

The Act provides for donation of human bodies and tissues of deceased persons either through a Will or written documents. However, this section did not envision nor provide for those who are willing to donate their organ but died intestate and their family members could not be reached, thus, further compounding issues of organ shortage and wasting the chances of persons on the waiting list.

Also, the practicability of this provision in Nigeria is questionable, as it is common knowledge that Nigerians dislike the making of Will, and even when made, before the deceased's lawyer goes through the hassle of obtaining a grant of probate so as to reveal the contents of a will, the organs must have deteriorated and become incapable of harvesting. Also, a good number of Nigerians are not literate, and the requirement of giving written consent to

cadaveric donation will be impracticable in most instances.

IV) Inadequate Provisions as to Documentation for Organs for Donation

In the area of documentation of organs for donation, there are inadequate provisions for registration, transplantation, procurement and details of the donors for proper documentation especially the cadaveric donors, where the deceased donor's family cannot be traced.

V) Issue of Confidentiality

Transplant procedures involve sensitive personal information about the donor and recipient. The issue of confidentiality arises due to several factors, including the lack of a comprehensive legal framework for protecting the privacy of medical records in Nigeria, as the NHA did not elaborately make provision for non-disclosure of information about the donor and recipient.

VI) Organ Trafficking and Commercialization

Organ commercialization is the illegal buying and selling of organs for transplantation. This practice is a serious ethical issue that affects Nigeria. Though the NHA prohibited any form of payment or reward to be advanced to an organ donor, except for payment of reasonable cost, (Section 53) organs are still being sold in the black market for money. The reason is not far-fetched; most persons do not want to give up their organs at all, even relatives of the transplant patients. In fact, most transplant patients would rather protect their own family members and source for organ donors outside. The few persons willing to donate their organs would not want to do so without some form of compensation. And even in transplant centers where they insist on relatives being the donors, people go to all lengths to get an outsider to pose as a relative in exchange for some monetary compensation.

4.2 Institutional Challenges

4.2.1 Absence of a National Registry for Organ Donation and Transplantation.

In Nigeria, there is no national registry for organ transplant and donation. Such registry will provide valuable information and details of organ donors and transplant patients, and also provide data for research on organ donation and transplantation. The lack of such registry can have several negative impacts on the organ donation and transplantation system in Nigeria. Some of these

negative impacts include: difficulty in tracking and managing organ donations, increased risk of organ trafficking, as there is no registry to help to track the legal and ethical sources of organs and prevent illegal activity, lack of transparency which can help to build trust and confidence in the system among donors, patients, and healthcare professionals, limited access to donor organs as it becomes difficult to match organs with potential recipients.

4.2.2 Inadequate Funding and Facilities.

There are several reasons for the struggle with funding faced by medical transplant programs in Nigeria. One of the primary reasons is the lack of government support which has left many transplant programmes struggling to provide adequate care to patients. Additionally, the National Health Insurance Scheme does not cover services for transplantation, which makes it largely not affordable for the masses due to the huge cost of the procedure. It is pertinent to note that many Nigerians lack health insurance, which means that they have to pay for medical treatments out of their own pockets. This can be a significant financial burden for individuals and families, making it difficult for them to afford the cost of transplantation. The process of organ donation and transplantation requires significant resources, including medical personnel, specialized equipment, and facilities such as imaging machines, blood bank facilities, and specialized operating rooms, which are not readily available in Nigeria.

4.2.3 Medical Negligence

Medical negligence occurs when a health care professional or provider fails/neglects to provide appropriate action or gives substandard treatment that causes harm, injury, or loss of life to the patient. The hospital health professional is expected to provide a certain standard of care, when they fall short of this expectation, then the patient is at the receiving end. This can be a result of an error in diagnosis, treatment, poor aftercare, or health management. In the case of *Ojo v. Gharoro & ors* (2006), after a surgery in the appellant's fallopian tube, she complained of abdominal pain, and an x-ray revealed a broken needle in her abdomen. This was a clear case of medical

negligence; however the victim's claim failed because no expert evidence establishing medical negligence was provided to the Court.

Medical transplant procedures are particularly susceptible to medical negligence because they involve complex and delicate procedures that require a high degree of skill and attention to detail. Any mistake or oversight during the transplant procedure can have serious consequences for the patient, including rejection of the transplanted organ, and other complications. In Nigeria, the Medical and Dental Council of Nigeria, is the regulatory body in charge of medical practice, and they have made provisions in the Code of Ethics of Medical Practice in Nigeria; however implementation and enforcement of these provisions is a very big issue.

4.2.4 Lack of Public Awareness.

This is a challenge to medical transplant which relies heavily on the willingness of people to donate their organs, whether from living or deceased donors. It can be seen in various forms, such as unwillingness to donate, misconceptions about organ donation, lack of understanding about the transplantation process, etc.

4.2.5 High Cost of Medical Transplant.

The cost of surgery, medications, and post-operative care is unaffordable to many Nigerians, especially those from low-income backgrounds. Transplant when successful is more cost effective, and affords a better quality of life than maintenance dialysis considering that the cost of hemodialysis for one year in Nigeria ranges between US\$ 10,000 and US\$ 20,000 whereas the cost of kidney transplantation is US\$ 20,000 to US\$ 30,000. (Shonibare: 2008) However, an average Nigerian with end-stage organ failures will rather resort to frequent dialysis, because they cannot afford the bulk sum of medical transplant.

4.2.6 Lack of Government Support.

The Nigerian government has not provided adequate support for medical transplant procedures. The government's neglect of this critical aspect of healthcare has led to a situation where Nigerians who require transplantation

procedures are left to their devices.

In Nigeria, health insurance coverage is still limited, and most health insurance plans, like the National Health Insurance Scheme, do not cover the cost of transplant procedures. This means that patients have to bear the entire cost of the transplant procedure, which can be a significant financial burden.

5.1 Conclusion

Transplant is considered a medical intervention that touches on the fundamental rights of the donor and the recipient. The primary law that regulates medical transplant in Nigeria is the National Health Act of 2014. The Act made provisions for the establishment of a National Blood Transfusion Service for the Federation and also mandated that informed consent must be obtained from a person before any tissue, blood or blood product is removed from his/ her body (Section 48). The Act also prohibits the removal of body organs for the purpose of merchandise or commercialization, so as to prevent organ trafficking. The Act went further to prohibit as an offence, receiving any form of financial reward for organ donation, except reimbursement for reasonable cost incurred by the donor in connection with the organ donation (Section 53) and also prohibits rendering of transplant services except in a duly authorized hospital and with the written permission of the medical practitioner in charge of clinical services at that hospital.

Despite the existence of both legal and institutional frameworks regulating medical transplant in Nigeria, this research found out that there are still challenges affecting medical transplant in Nigeria. These challenges have been grouped into challenges of inadequacy of the legal framework of medical transplant, institutional challenges, economic challenges, religious challenges, cultural and social challenges.

5.2 Recommendations

This paper makes the following recommendations to tackle the problems associated with medical transplant in Nigeria:

1. That there should be an amendment of the National Health Act to adequately

provide more detailed and clear regulations that ensure that medical transplant is carried out in a more ethical manner that prioritizes the best interest of the transplant patients.

2. That the Nigerian Government should take a cue from other jurisdictions like in South Africa, and make adequate provisions for cadaveric organ donations, to support the living organ donation pool. It should also make provisions that allows cadaveric organ donations through oral statements in the presence of witnesses, and also make provisions for donation of a deceased person's organs where all efforts to reach his/her family have been abortive.

3. That there should be provision of adequate funding for medical transplant so as to reduce the cost of transplant and ensure that more lives are saved through this process. This can be done by the Government through allocation of more funds to the health sector so as to provide modern day transplant equipment and facilities in government-owned hospitals, and also the inclusion of transplant in the National Health Insurance Scheme (NHIS). This will also help reduce transplant tourism.

4. That there should be an establishment of a National Registry for Organ Donation and Transplant, which will serve as a database that provides valuable information and details of organ donors and transplant patients, for ease of tracking and match making with compatible donor organs, and to reduce organ trafficking to the minimum.

5. That there should frequent training of medical practitioners in the transplant process to keep them abreast of the modern day trends and requirements of the transplant process and to ensure that the medical practitioners carry out transplant process in the most ethical manner.

7. That measures be put in place that will prevent and also detect corrupt practices of medical practitioners who take bribes from patients to procure organs for them through dubious practices.

9. That the Nigerian government should provide appropriate means of reasonable compensation of voluntary donors across the country, in

authorized hospitals, so as to encourage organ donation and reduce the risk of falling victim to black market organ traffickers.

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