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Medical Migration and Transplant Tourism Economy: A Case Study of Nigeria

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Abstract

Medical migration and transplant tourism are two phenomena in the global healthcare dynamics that present significant ethical, economic, and policy challenges. This paper focused on the intersection between these trends, particularly in the Nigerian context. The study examined three key research questions: What drives transplant tourism and medical migration? How do they affect the healthcare systems of sending and receiving countries? What are the ethical, legal, and economic issues involved in transplant tourism? Using a case study approach, the paper explored Nigerian medical professionals and patients migrating abroad for better opportunities and care, as well as the influx of foreign transplant patients to Nigerian hospitals. Through a detailed analysis of economic disparity, healthcare infrastructure, and global health governance, this paper traced the history and dynamics of healthcare migration, drawing on both contemporary and historical contexts of medical tourism. The research objectives are to understand the historical trajectory of healthcare migration, analyse the socio-economic and healthcare drivers behind transplant tourism, and assess its broader impacts on healthcare systems in both source and destination countries. The case study methodological approach employed in the study assessed the dynamics of Nigerian outbound and inbound medical migration/transplant tourism, contributing to the discourse of global healthcare and providing insights into the implications of medical migration and transplant tourism, especially in developing economies. The paper concluded by offering policy recommendations to reduce the adverse effects of these practices while using their potentials for the development of the healthcare system in Nigeria and other low- and middle-income countries.

Keywords: Migration, Transplantation, Healthcare, Brain-drain, Nigeria, Governance

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Introduction

Medical migration and transplant tourism are critical occurrences that have attracted increasing scholarly attention due to their complex implications for global healthcare systems. Greta Jones, in her book “Doctors for Exports”, defines medical migration as the phenomenon where healthcare professionals, including physicians, nurses, specialists, and patients, relocate across national boundaries in search of enhanced career opportunities, increased remuneration improved working conditions, or access to cutting-edge technology and training [1]. The concept of migratory movement, commonly referred to as “brain drain,” is especially significant when healthcare professionals leave lower-income or developing countries to wealthier nations, therefore worsening the prior healthcare difficulties in their countries of origin.

The movement of patients seeking medical care in foreign countries is also considered a type of medical migration or healthcare tourism. Disparities in healthcare access, quality, and cost between countries are the main drivers of this phenomenon, which has been thoroughly examined by Lunt et al [2]. The dynamics described above are indicative of larger concerns within the governance of global health, which have substantial ethical, economic, and policy consequences for both the countries that give and receive funding.

Within the broader context of medical migration, transplant tourism refers to a distinct type of medical migration in which persons travel to foreign nations to have organ transplants [3]. The engagement in this act is frequently motivated by factors such as extensive waiting lists for organ transplants in the nation

of origin, reduced expenses, or the presence of organs that may not be obtainable within the country due to legal or ethical limitations [4]. Nations possessing highly developed healthcare systems, such as the United States and some European countries, frequently attract medical migrants in search of sophisticated medical interventions [5]. By contrast, countries in Asia, Eastern Europe, and Latin America have emerged as favoured locations for transplant tourism because of their comparatively lower expenses and, in certain instances, less strict legal and regulatory frameworks.[6]

The study of the transplant tourism economy is highly relevant and significant, as it touches on critical issues of healthcare equity, global health governance, and the ethics of organ trade. According to Reeves, understanding the dynamics of transplant tourism is important not only for meeting the healthcare requirements of patients but also for safeguarding that the economic advantages of medical migration do not disadvantage vulnerable people in destination countries[7]. Moreover, examining the economic consequences of this activity can offer valuable understanding of how transplant tourism influences the healthcare systems of both the countries of origin and destination. This influence extends to various aspects, such as healthcare infrastructure and the legal regulations that govern organ donation and transplantation [8].

This paper seeks to answer key questions like: What drives individuals to engage in medical migration and transplant tourism? How does medical migration and transplant tourism impact the healthcare systems of both the countries from which medical migrants or patients originate and the countries that serve as destinations? What ethical, legal, and economic challenges are associated with transplant tourism? These questions are critical for understanding the motivations behind this practice, its broader implications, and the potential policy responses needed to address its complexities.

The primary objectives of this paper are threefold. First, it aims to historically analyse the intersection between healthcare and migration. Second, a cursory examination of the emergence of medical migration and transplant tourism and the factors driving medical migration and that of organ transplants, exploring the socio-economic and healthcare-related reasons that lead individuals to seek transplants abroad. Finally, the paper will explore some case studies of medical migration and transplant tourism it seeks to evaluate the economic impact of medical migration and transplant tourism on destination countries, considering both the benefits and potential drawbacks for their healthcare systems and economies. By addressing these objectives, the paper will contribute to a deeper understanding of medical migration and transplant tourism and its place within the broader context of global health and health-related migration.

The Dynamics of Healthcare Mobility

Trajectory-wise, healthcare workers' migration involves the large-scale movement of medical professionals from lower-income or developing countries to more developed nations in search of better career opportunities, higher salaries, improved working conditions, and access to advanced training and technologies[9]. This migration is more driven by stark economic disparities. For instance, according to the World Bank Report (2012), Nigerian doctors earn approximately ₦5,000,000 (about $6,500 USD) annually, compared to the $210,000 USD earned by doctors in the United States. Similarly, Filipino nurses, who earn around $3,500 USD per year in the Philippines, can make over $50,000 USD annually in countries like the U.S. or the UK[10]. This economic imbalance, along with poor working conditions and resource shortages in low- and middle-income countries (LMICs), has resulted in mass migration. In most of the sub-Saharan African countries, hospitals operate with an average of 0.2 doctors per 1,000 people, compared to 2.6 per 1,000 in Organization for Economic Cooperation and Development (OECD) countries, further straining healthcare workers in Low- and Middle-Income Countries (LMICs) [11].

According to the Volume 1 report of Contemporary Developments and Perspectives in International Health Security, 2021, Nigeria has been severely impacted by this trend, with the Nigerian Medical Association (NMA) reporting that nearly 40,000 Nigerian doctors work abroad, about 10,000 of them in the UK alone, leaving the country with a doctor-patient ratio of 1:5,700, far below the 1:600 recommended by the WHO [12]. The Philippines has also experienced a significant exodus, with over 200,000 nurses migrating to the U.S., UK, and other nations between 2010 and 2020, leading to a shortage of about 70,000 nurses at home. Similarly, Zimbabwe's deteriorating economy and political instability have driven over 4,000 healthcare professionals abroad between 2019 and 2021, leaving the country with a doctor-patient ratio of 1:12,000, among the worst globally[13].

Globally, the World Health Organization (WHO) notes that while sub-Saharan Africa accounts for 16% of the world's population, it has only 3% of the global healthcare workforce, while North America and Europe, with just 14% of the global population, host nearly 30% of the healthcare workforce [13]. The OECD reports a 60% increase in foreign-trained doctors in countries like the U.S., UK, and Canada over the past two decades. In the UK, 36% of doctors and 26% of nurses are foreign-trained, with many coming from countries like India, Nigeria, and the Philippines [14]. This migration has a devastating impact on source countries, leading to worsening health outcomes, increased mortality rates, and

healthcare worker burnout. Economically, these nations lose billions in training costs. According to a study report at the University of California, African countries lose about $2 billion USD annually due to healthcare worker migration[15].

Brief Historical Evolution of the Intersection Between Healthcare and Tourism

The relationship between healthcare and tourism has a long and complex history that dates back centuries, although it has evolved significantly with time. The origins of what we now recognise as medical tourism can be traced to ancient civilisations, where people would travel considerable distances to seek cures in renowned healing centres [16]. The Mesopotamians are the people who originally established medical tourism on the planet Earth. Medical tourism can be traced back to the third millennium B.C. Historical evidence showed that Mesopotamians traveled to the temple of a healing god or goddess at Tell Brak, Syria, in search of a cure for eye disorders [17]. In ancient Greece, the Temple of Asclepius in Epidaurus was a prominent destination for those seeking remedies for various ailments [18]. Similarly, the Romans were known for their spa towns, where individuals visited for therapeutic baths believed to cure illnesses [19]. These early examples demonstrate how healthcare and tourism were intertwined, even in antiquity, with the allure of sacred or natural healing sites drawing visitors from far and wide.

> The Sanctuary is the earliest organized sanatorium and is significant for its association with the history of medicine, providing evidence of the transition from belief in divine healing to the science of medicine. Initially, in the 2nd millennium BCE it was a site of ceremonial healing practices with curative associations that were later enriched through the cults of Apollo Maleatas in the 8th century BCE and then by Asklepios in the 6th century BCE. The Sanctuary of the two gods was developed into the single most important therapeutic center of the ancient world. These practices were subsequently spread to the rest of the Greco-Roman world and the Sanctuary thus became the cradle of medicine [19].

During the Middle Ages, religious pilgrimages often had a healthcare dimension. Many of the faithful traveled to monasteries or holy sites in search of miraculous cures, particularly in Europe and the Middle East. One of such examples is the pilgrimage to the Sanctuary of Our Lady of Lourdes in France, which began in the 19th century. The site is still visited today by millions of people annually, many seeking spiritual or physical healing, showcasing how religious tourism and healthcare have historically been linked.

In the 18th and 19th centuries, the idea of health-oriented travel became increasingly institutionalized. Europe witnessed the rise of ‘spa towns’ like Bath in England, Baden-Baden in Germany, and Vichy in France [20]. These destinations capitalised on their mineral-rich hot springs, which were thought to have curative properties for ailments ranging from arthritis to respiratory conditions. The rise of these health resorts marked an important phase in the commercialisation of healthcare as part of the tourism industry [21]. People, particularly the wealthy, would travel not only for leisure but also to improve their health, thus laying the foundation for modern medical tourism.

The development of modern medicine in the late 19th and early 20th centuries and the advancements in medical technology have revolutionized the healthcare industry, contributing to the rise of medical migration [22]. This further intensified the link between healthcare and tourism. Advances in surgery, anesthesia, and the understanding of infectious diseases meant that specific destinations began to emerge as hubs for cutting-edge medical care [23]. By the mid-20th century, specialised medical centers, particularly in Western countries, became destinations for international patients seeking advanced treatments unavailable in their home countries [24]. This early form of medical migration was mostly limited to wealthy individuals who could afford the high costs associated with international travel and private healthcare. For instance, in the 1950s and 1960s, American and European elites often traveled to Switzerland for pioneering cosmetic surgery or to the United States for specialized cancer treatments [24].

By the late 20th century, medical tourism began to shift from a niche phenomenon to a global industry driven by the forces of globalisation, advancements in medical technology, the liberalisation of trade and the ease of international travel have allowed patients to access medical care from a wider range of countries, and the rising cost of healthcare in developed nations [25]. The term “medical tourism” itself started gaining popularity in the 1990s as countries in Asia, Eastern Europe, and Latin America began to actively market their healthcare services to international patients. The economic liberalisation of countries like India and Thailand in the 1990s spurred the growth of private healthcare facilities that offered world-class treatments at a fraction of the cost compared to Western countries [26].

> In recent years, a dense Internet network has connected even the most remote places in the world. “The world has flattened” and on the global economic playfield, all major players are now able to connect, compete and collaborate online in a manner unseen before. Medical services, like any other goods, have become the

subject of international exchange. Having online access makes it easier to find entities treating rare diseases; and doctors can easily exchange information, compare methods, experiences and results of different treatments. Patients cease to be helpless. Knowing their needs and rights, they can actively seek specialists who will be able to help them (following the introduction of cross-border health care in Europe), thus becoming a part of transnational health care [26].

By the early 2000s, countries such as India, Thailand, and Singapore had positioned themselves as key players in the medical tourism industry, attracting millions of patients from around the globe. India, for example, became a major destination for cardiac surgeries and organ transplants [27]. The country capitalised on its relatively low costs, highly trained doctors, and advanced medical facilities to draw patients from countries like the United States, the United Kingdom, and Africa. According to a 2019 report by the Federation of Indian Chambers of Commerce & Industry (FICCI), India's medical tourism industry was valued at approximately $3 billion and was projected to reach $9 billion by 2020 [28]. This rapid growth highlights how countries with robust yet cost-effective healthcare systems have become integral to the global medical migration landscape.

Similarly, Thailand and Singapore became hubs for medical tourists seeking cosmetic surgery, dental work, and fertility treatments. A 2018 report by the Global Wellness Institute estimated that Thailand attracted over 2.5 million medical tourists annually, contributing significantly to the nation's economy [29]. The availability of affordable healthcare, combined with the allure of exotic travel experiences, has made these countries attractive to patients from wealthier nations. Thailand's Bumrungrad International Hospital, one of the largest private hospitals in Southeast Asia, treated over 500,000 foreign patients annually by the mid-2010s, underscoring the scale of this industry [30].

In contrast, countries like the United States and Western European nations became destinations for highly specialised and technologically advanced medical treatments. Wealthier individuals from countries with underdeveloped healthcare systems would travel to the U.S. or Europe for treatments unavailable in their home countries [31]. For example, the Mayo Clinic in the United States and the Harley Street Clinic in the UK have long attracted patients seeking advanced care in fields such as oncology and neurology. However, the high cost of healthcare in these countries also fueled the outbound flow of medical migrants, particularly for non-emergency procedures like organ transplants, fertility treatments, and cosmetic surgery [32].

In recent years, the global medical tourism industry has grown into a multi-billion-dollar sector. A report by the Medical Tourism Association (MTA) estimated that the global medical tourism market was valued at $54.4 billion in 2020 and was projected to grow at a compound annual growth rate (CAGR) of 21.1% from 2021 to 2027. The rise of affordable air travel, advancements in medical technology, and the increasing availability of information through the internet have made medical tourism more accessible to a broader range of patients [33]. Countries like India, Thailand, Malaysia, and Mexico have continued to dominate the medical tourism landscape, offering a range of treatments, from elective surgeries to complex procedures like organ transplants and fertility treatments. For instance, according to Malaysia Healthcare Travel Council (MHTC), Malaysia received over 1.2 million healthcare travelers in 2019, generating more than $380 million in revenue. Similarly, Turkey has emerged as a leading destination for hair transplants and cosmetic surgery, with over 700,000 medical tourists visiting the country in 2019 [34].

In contrast, the United States and Western Europe remain key destinations for highly specialized care, particularly for patients from Middle Eastern and Asian countries seeking advanced cancer treatments, neurosurgery, and cardiovascular care. A 2018 report by McKinsey & Company estimated that about 60,000 to 85,000 medical tourists visit the U.S. each year, contributing significantly to the private healthcare sector[35].

The Emergence of Transplant Tourism

One of the more controversial forms of medical tourism is 'transplant tourism,' which has grown significantly in recent decades. This practice refers to the movement of patients across borders specifically to receive organ transplants. The global demand for organ transplants far outpaces supply, with thousands of patients in countries like the United States and the United Kingdom facing long waiting lists for organs. This shortage, combined with prohibitive costs and restrictive legal frameworks, has led many patients to seek transplants in countries with more lenient regulations or more available organs. Nations like India, Pakistan, and the Philippines have been focal points for transplant tourism due to their lower costs and more flexible organ donation laws [36].

According to the World Health Organization (WHO), approximately 10% of all organ transplants worldwide are performed as part of the black-market organ trade, often involving vulnerable populations who sell organs out of economic desperation. For example, in the mid-2000s, Pakistan became notorious for its illegal kidney trade, where impoverished individuals would sell kidneys to wealthier foreign patients for as little as $1,000, while the

surgeries were performed in clandestine clinics [37]. This phenomenon has raised ethical concerns about the exploitation of vulnerable populations and the commodification of human organs.

A 2007 study by the WHO reported that over 10,000 illegal organ transplants were performed globally each year, with many taking place in Southeast Asia, Eastern Europe, and Latin America. This estimate underscores the scale of transplant tourism and its impact on both global healthcare systems and vulnerable populations [38]. In response, many countries have tightened regulations surrounding organ transplantation and donation. For instance, in 2008, the Declaration of Istanbul on Organ Trafficking and Transplant Tourism was created, aiming to combat the illegal trade of organs and promote ethical transplant practices globally [39]. However, the demand for organs continues to drive patients to seek transplants abroad, often in countries with lax regulatory environments.

Case Studies of Outbound Transplant Tourism

Outbound Transplant Tourism, what I call OTT, refers to the phenomenon where patients travel from their home country to another country for the sole purpose of organ transplant or medical treatment. This movement is often driven by factors such as the lack of advanced healthcare facilities in their home country, high treatment costs, long waiting periods, or a desire for specialised procedures not available locally. It is part of the broader concept of medical tourism or cross-border healthcare.

For directedness and proper scope, this paper will focus on cases of some Nigerians who had indulged in OTT, since in recent years, outbound medical migration has become an increasingly significant trend in Nigeria, with patients traveling to countries like India, UK South Africa, and the United Arab Emirates (UAE) for medical procedures, particularly organ transplants. Sources are derived from varied National Newspapers.

A prominent case often cited is that of Chief Emmanuel Udoka, a businessman from Lagos who traveled to India in 2019 for a kidney transplant. Udoka had been on dialysis for nearly two years and, after consulting with various doctors in Nigeria, was advised that a transplant would be the best option for his long-term survival. However, the long wait time for a suitable kidney donor in Nigeria, coupled with the high cost and limited availability of specialised medical facilities, led him to explore options abroad. In an interview with *The Punch* newspaper, Udoka explained that the entire process of traveling to India, receiving treatment, and recuperating cost him about $25,000, which, while expensive, was still significantly cheaper than what he had been quoted in private Nigerian hospitals [40]. According to him, the experience in India was positive, with well-coordinated care and access to state-of-the-art technology that facilitated a smooth operation. Udoka's case underscores the cost disparity between local and international healthcare services and the appeal of well-organised healthcare systems abroad [41].

Similarly, in 2021, *The Guardian Nigeria* reported the case of Mrs. Olanike Agbaje, a middle-aged woman from Abuja, who traveled to South Africa for a liver transplant after being diagnosed with liver failure. Agbaje had initially sought treatment in Nigerian hospitals, but the lack of specialised transplant surgeons and inadequate post-operative care options made her opt for medical migration. With the help of a medical travel agency, Agbaje was able to connect with specialists in South Africa and undergo a liver transplant at a hospital in Johannesburg. Her experience was mixed: while the surgery was successful, she faced complications during her post-surgery recovery, which extended her stay in South Africa by several months. This added to the financial burden, raising her total medical expenses to approximately $40,000 [42]. Agbaje's case highlights the unpredictability of medical migration, where patients can encounter both success and complications, adding to the complexity of such journeys.

In another illustrative case reported by *Vanguard* newspaper in 2020, the story of Ahmed Musa, a 35-year-old civil servant, sheds light on Nigerians' medical trips to the UAE. Musa had been suffering from a heart condition that required a transplant. After exploring options in Nigeria, he was advised to seek treatment abroad due to the unavailability of advanced cardiac transplant centers within the country. With financial support from his family and contributions from his community, Musa traveled to Dubai for surgery. According to *Vanguard*, his treatment in the UAE cost approximately $100,000, which included pre-surgery consultations, the transplant procedure, and rehabilitation services. Despite the high cost, Musa expressed satisfaction with the overall experience, praising the high level of professionalism and the advanced facilities in the Dubai hospital [43]. His case illustrates the significant financial burden that medical migrants often face, even when the outcomes are favorable.

One of the most prominent, recent and controversial cases is that of Ike Ekweremadu, a former Deputy Senate President of Nigeria, whose involvement in a transplant-related case in the UK attracted widespread media attention. In 2022, Ekweremadu and his wife, Beatrice, were arrested in the United Kingdom on charges of conspiracy to arrange the travel of a young Nigerian man to the UK for organ harvesting. The Ekweremadus had reportedly facilitated the travel of the young man with the intention of having him donate a kidney to their ailing daughter, who needed a transplant. According to reports

by *The Nation* newspaper, the young man, who had been recruited from Lagos, later alerted the British authorities, claiming he had been misled about the purpose of the trip, leading to the Ekweremadus' arrest [44].

The case, which was extensively covered by Nigerian newspapers like *Premium Times* and *The Punch*, raised serious ethical and legal concerns about the boundaries of medical migration, especially in relation to organ donation. The couple denied any wrongdoing, claiming that the young man had voluntarily agreed to the donation and that the medical procedures were to take place in accordance with UK regulations. However, the UK authorities accused them of attempting to exploit the donor's vulnerable status, further complicating the saga. This case underscores the potential dark side of medical migration, where desperate families may turn to unregulated and illegal channels to secure organs for transplants [45].

While the Ekweremadu case cast a spotlight on the ethical challenges of organ transplants abroad, other cases highlight the financial and logistical challenges of medical migration. For instance, in 2017, *The Guardian Nigeria* reported the story of Joseph Adekunle**,** a businessman who traveled to India for a kidney transplant after experiencing kidney failure. Adekunle, who had exhausted all possible treatment options in Nigeria, was advised by his doctors to seek a transplant in India due to the lower costs and the availability of specialised transplant centers. According to *The Guardian*, the entire process, including surgery, accommodation, and post-operative care, cost Adekunle approximately $30,000. Adekunle's experience was largely positive, and he expressed satisfaction with the quality of care he received in India, where the medical infrastructure was far more advanced than in Nigeria [46].

Similarly, the story of Fatimah Abdulkareem, as reported by *ThisDay*, illustrates the lengths to which Nigerian patients go to seek medical treatment abroad. Fatimah, a 45-year-old teacher from Kano, had been diagnosed with end-stage liver disease and required a liver transplant to survive. After exploring options in Nigeria, her family decided to send her to Dubai for the procedure, as there were no available liver transplant facilities in the country at the time. With support from family members and donations from her local community, Fatimah underwent the procedure in a hospital in the UAE. While the surgery was successful, Fatimah's family faced significant financial strain, as the total cost of the procedure, including travel, accommodation, and post-operative care, was over $85,000. Despite the high cost, Fatimah's family expressed relief that she had been able to access the life-saving care abroad [47].

Moreover, in another case covered by *Vanguard* newspaper in 2020, Michael John, a Lagos-based civil servant, traveled to South Africa for a heart transplant. John had been suffering from a degenerative heart condition, and after several consultations with Nigerian doctors, he was advised that the best course of action would be a heart transplant. Unfortunately, due to the lack of adequate facilities for heart transplants in Nigeria, John and his family were forced to look abroad [48]. After extensive research, they opted for a medical facility in Johannesburg, South Africa, where the surgery could be performed at a relatively lower cost compared to Europe or the United States. The procedure cost John and his family around $60,000, but they were ultimately satisfied with the outcome. However, the family expressed concerns about the logistical challenges they faced, including obtaining the necessary visas and coordinating the complex post-surgical care required to manage John's recovery.

The experiences of these patients reflect common themes: "dissatisfaction with the Nigerian healthcare system, high costs associated with medical migration, and varying degrees of success in transplant surgeries abroad." Despite the expenses, patients often perceive the quality of care in countries like India, South Africa, UK and the UAE as superior to what is available in Nigeria. This perception is fueled by the advanced medical infrastructure, shorter wait times for organ transplants, and the availability of specialized surgeons. According to an investigative report by ThisDay, many Nigerians are willing to endure the financial strain of medical migration to secure better healthcare outcomes, even if it means traveling far from home [49].

Case Studies of Inbound Transplant Tourism (ITT)

Inbound Transplant Tourism is the movement of foreign nationals into a country to receive organ transplants [50]. While the phenomenon of medical migration and transplant tourism are often discussed in the context of patients from less developed countries seeking advanced medical care in more developed nations, there is also a growing trend where individuals from developed regions, particularly where regulations on organ procurement are stringent, travel to countries with more permissive or underdeveloped legal frameworks [51]. In this case, Nigeria, as one of the largest and most populous countries in Africa, has been increasingly positioned within the global discourse on transplant tourism.

Although, there are limited comprehensive reports that detail foreign nationals specifically traveling to Nigeria for organ transplants. Instances of foreign nationals coming to Nigeria for medical procedures have been noted, albeit not extensively documented [52]. However, Nigeria's growing private healthcare industry, along with the rise of specialized medical centers, has contributed to the perception of the country as a burgeoning hub for

healthcare services, including organ transplantation. Patients from neighboring West African countries seek medical services in Nigeria due to its relatively advanced health infrastructure in comparison to other parts of the region. For instance, there have been reports of patients from countries like Ghana and Cameroon seeking kidney transplants in Lagos and Abuja, where private medical facilities offer such services. A notable example can be drawn from discussions surrounding "Lagoon Hospitals" in Lagos, which has a track record of performing kidney transplants and treating patients from neighboring countries. Although the majority of patients in Nigerian hospitals are locals, the influx of foreign patients, especially for specialised surgeries like transplants, is not unheard of. These foreign nationals are typically drawn by a combination of factors: reduced costs compared to Western nations, shorter waiting times, and the absence of stringent organ procurement laws that exist in many Western nations

While the documentation of inbound transplant tourism to Nigeria is relatively sparse, it is likely that the phenomenon exists informally. Corruption, lack of enforcement of existing laws, and socioeconomic pressures create an environment where organ procurement may occur outside legal frameworks. Reports from Premium Times, a Nigerian investigative journalism outlet, have pointed to the trafficking of organs within West Africa, including Nigeria. The presence of an informal and sometimes illicit market could potentially attract individuals from countries with stricter organ procurement laws.

Medical Diaspora, Nigeria's Potential as a Destination for Transplant Tourism Economy: A Recommendation

Medical migration and transplant tourism have significantly contributed to the economies of several countries, notably the United States and India, by injecting substantial revenue into their healthcare systems and boosting their GDP. For instance, the United States, renowned for its advanced medical facilities, attracts a large number of international patients seeking high-quality care. According to the American Medical Association, medical tourism in the U.S. was estimated to contribute around $7.6 billion annually to the economy as of 2022. This influx not only supports hospitals and clinics but also stimulates various sectors such as hospitality and transportation [53].

India, another prominent destination for medical tourism, has seen similar economic benefits. The Medical Tourism Association (MTA) reported that India's medical tourism sector was valued at approximately $5 billion in 2022. The country's ability to offer high-quality medical care at lower costs than Western countries has positioned it as a leading hub for medical and transplant tourism [54]. This influx of patients has bolstered India's GDP, created jobs, and supported its healthcare infrastructure. Other countries, such as Thailand and Malaysia, have also benefited from medical tourism. Thailand's Ministry of Public Health estimated that the medical tourism sector contributed about $6 billion to the national economy in 2021, while Malaysia's healthcare tourism sector generated around $1.6 billion in 2022, according to the Malaysia Healthcare Travel Council [55].

Nigeria, with its growing network of medical professionals abroad, has the potential to harness similar economic benefits by developing its transplant tourism sector. Nigerian medical professionals working overseas, particularly in the UK and the United States, can and should be involve in referring patients back to Nigeria for specialised treatments, including organ transplants. This medical diaspora can serve as a bridge to attract international patients by promoting Nigeria's lower-cost yet high-quality medical services.

To effectively leverage this potential, the Nigerian federal government, through its Ministry of Health, must focus on resolving legal and ethical loopholes in its organ donation and transplantation regulations. Strengthening regulatory oversight will enhance the credibility and safety of Nigeria's transplant programs, making them more appealing to international patients. To achieve this too, there is a need to resolve the issue of economic disparities between the rich and the poor. The vulnerability of a large number of Nigerian populations is quite enormous; this Nigeria's large population, with millions living below the poverty line, already provides a ready pool of potential organ donors, both voluntary and coerced. Reports of organ trafficking and exploitation of vulnerable populations have been widespread in Nigeria. A 2020 report by the United Nations Office on Drugs and Crime (UNODC) highlighted Nigeria as one of the countries most affected by human trafficking, including organ trafficking [56]. This dark side of transplant tourism could definitely attract individuals seeking quick solutions for organ transplantation, despite the ethical concerns.

Additionally, Nigeria's comparative cost advantage where medical procedures are significantly less expensive than in advanced countries can be a key selling point. By capitalizing on these factors, Nigeria can create a competitive and attractive destination for transplant tourism, mirroring the success seen in countries like India and the United States. The cost of organ transplants in Nigeria is significantly lower than in developed countries. For example, the average cost of a kidney transplant in the United States ranges between $200,000 and $400,000, while in Nigeria, the same procedure can be performed for as little as $20,000 to $30,000 [56]. This vast price disparity can make Nigeria a potential destination for

patients from both neighboring African nations and even Western countries seeking lower-cost medical care.

Conclusion

The growing trend of medical migration, along with the simultaneous growth of the transplant tourism market, offer complicated problems for global health governance and fairness. The exodus of healthcare professionals from resource-limited countries, such as Nigeria, to more developed nations, often termed "brain drain," has profound implications on the quality of healthcare services in the countries of origin. Medical migration and transplant tourism have direct impacts on the healthcare systems of developing countries, resulting in a severe deficit of highly trained personnel and impeding their ability to effectively respond to urgent public health demands.

Moreover, the emergence of transplant tourism, in which persons from rich countries actively pursue organ transplants in low- and middle-income countries, has intensified ethical and regulatory challenges. This practice exposes weaknesses in health policies, giving rise to worries regarding the illicit trade of organs, the exploitation of underprivileged donors, and the unequal availability of healthcare services. Transplant tourism functions in a global health milieu characterised by economic inequalities that contribute to the commercialisation of organs and provide a market-oriented motivation for unethical medical procedures.

Given the interconnected nature of these problems, an exhaustive and globally coordinated policy solution is necessary. Such policies should strive to advance healthcare equity by not only reducing the adverse consequences of professional emigration but also by strengthening restrictions on organ transplantation to avoid exploitation and maintain ethical medical norms. To effectively address the issues presented by medical migration and transplant tourism, it is necessary to strike a balance between guaranteeing the movement and rights of healthcare professionals and protecting the health and dignity of those who are vulnerable.

Highlights

What Is Already Known?

Over time, scholarly literature has shown that medical migration, the movement of healthcare professionals and patients across borders, has been driven majorly by economic disparities, differences in healthcare infrastructure, and different regulatory strategies. This migration has, in many instances, resulted in "brain drain" from lower-income countries and the attraction of patients seeking services that are either inaccessible or of lower quality in their home countries. Also, preceding research indicates that transplant tourism, an extension of healthcare mobility, entails the transnational exchange of organs under circumstances that often provoke concerns regarding exploitation and inequity, as it involves vulnerable populations due to its commercial and coercive characteristics.

What Does This Study Add?

This study advances our knowledge of human healthcare mobility and organ transplantation associated with medical tourism, situating it within the geographical context of Nigeria. Initially, it examines the motivations for transplant tourism and general medical migration; it emphasises that economic inequality and inadequate infrastructure are not only passive circumstances but active influences on the global health dynamics. Also, this study clarifies the transnational dynamics involving Nigerian medical professionals and patients: local national issues compel both groups to pursue opportunities overseas, while Nigerian hospitals covertly attract foreign transplant patients due to lower costs or less stringent regulations. Additionally, this work emphasises longstanding patterns of unfairness while also reflecting on the economic conditions that have consistently reshaped these practices over time.

Authors' Contributions

I conceptualised the subject of discourse; reviewed extant literature; selected, curated, analysed, and interpreted the secondary data sources; drafted and critically revised the final approval of the editor's version to be published. The author is solely responsible for all aspects of the work.

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Conflicts of Interest Disclosures

No conflict of interest.

Consent For Publication

I agree to let the journal publish this paper according to its policies.

Ethics approval

This study does not need ethical approval. It relies solely on publicly accessible secondary data sources (written literature, media reports, and archival materials) and does not include primary data gathering from human subjects or fieldwork.

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The extent of AI use

There was no use of generative AI. All information taken from external sources is properly cited.

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