Is East Africa Strained By Brain Drain?

The Impact of Medical Migration on the Healthcare Crisis

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Abstract

This thesis explores the impact of medical migration on the healthcare crisis in East Africa. With a qualitative research design of ten semi-structured interviews it shall help to understand the relationship between medical migration and the healthcare crisis in East Africa. Accordingly, by interviewing doctors with ties to East Africa and relevant experiences for the topic of study, the following research question shall be answered: How do doctors' experiences regarding medical migration in East Africa help to understand the healthcare crisis in the region?

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We hope you enjoy the final product!

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1. Introduction

1.1. Background

Charles-Edward Armory Winslow (1951) once wrote: "Men and women were sick, because they were poor; they got poorer because they were sick and sicker because they were more poorer" (p.9). This statement describes a vicious cycle that impacts poor people everywhere. People in developing countries are particularly vulnerable to getting caught up in this downward spiral. This is because a lack of money can limit access to education, basic hygiene and food, thereby making people with fewer financial resources more susceptible to illness (Winslow, 1951). Furthermore, various factors have exacerbated the aforementioned cycle. For example, the current drought in East Africa, where "20 million people are on the brink of famine, including 1.4 million children at imminent risk of death" (New York Times, 2017, no pagination) has likely played a role. Additionally, the high rate of population growth (Cobbinah, Erdiaw-Kwasie & Amoateng, 2015) is likely to have contributed to that cycle. Thus, there is a high demand for healthcare in East Africa. As the provision of healthcare seems to be a significant challenge, especially in poor areas of the developing countries in East Africa, ways to address the healthcare crisis need to be found (World Health Organization, 2016).

Given that especially in the context of globalization, mobilization of workers is increasing, the question of the impact of migration on developing countries appears to be more and more in the focus of the literature (Stalker, 2000). Accordingly, in view of the healthcare crisis, it is important to explore the impact of *medical migration*, or the movement of health care professionals, on healthcare services in developing countries (Clark, Stewart & Clark, 2006). Therefore, knowledge about doctors' migration patterns and their impact on healthcare services in East Africa could help identify suitable ways of addressing the crisis (Koehn, 2006).

Within this paper we will explore different types of medical migration and the impact they have on the healthcare crisis in East Africa. The results of this exploration may provide suggestions for managing medical migration. Adjusting management responses to the crisis could improve the healthcare services in the areas within East Africa that are most in need.

Given the current famine in the Horn of Africa, within East Africa, which has exacerbated the healthcare crisis in the region, we believe our study is particularly timely.

Thus, we believe the findings of our study regarding the impact of migration on the crisis are relevant and useful to addressing the crisis.

1.2. Research Purpose, Objectives & Aim

Purpose:

According to Mateo and Kirchhoff (2009), the *purpose* of a study is "is the statement of the essence of what the investigators are attempting to explore" (p.95). We interpret this to mean that the purpose is a statement about the topic that we wish to learn about through our study. As such, the purpose of our study is to explore the impact of medical migration on the healthcare crisis in East Africa.

Objectives:

Mateo & Kirchhoff (2009) described *objectives* as the "components of a study that can be measured … [which] can help to fulfill the purpose of the study" (p.96). In the case of our study, the component that will help us to achieve our purpose is researching the experiences of doctors regarding their migration into, out of, or within East Africa. Our primary objectives are to: (1) conduct semi-structured interviews with doctors who have ties to East Africa, (2) collect qualitative data about the doctors' experiences with medical migration, and (3) analyze the empirical data collected. We have selected these objectives because we believe that semi-structured interviews can facilitate the collection of rich qualitative data which can provide us with insight into interviewees' reasons for migrating. Additionally, we believe that these objectives will help us to understand the impact that medical* migration may or may not have on the healthcare crisis.

Aim:

Once again, according to Mateo & Kirchhoff, "[w]hile the purpose is the essence of what is being studied, the aim is more aligned with ... what the researchers want to accomplish" (p.96). In our case, as mentioned above, the *purpose* of our study is to gain insight into the impact of medical migration on the healthcare crisis in East Africa. With this insight we aim to present relevant debates and discuss the management of medical migration. Since many of the debates are centered around brain drain control policies, we see an exciting opportunity to discuss their significance in relation to the healthcare crisis in the region.

Given our purpose, objectives and aim, we have selected the research question: How do doctors' experiences regarding medical migration in East Africa help to understand the healthcare crisis in the region? The answer to our question could provide insight into how to manage medical migration so that those in greatest need can have access to better healthcare services. Since everyone has a right to have access to healthcare (World Health Organization, 2015), our project could contribute to increased health equality. We both have a heart for helping people with disadvantages and people in need. For this reason, this project reflects our passion for making this world a better place.

1.3. Significance

Our study is significant in that the findings can contribute to the literature on *medical migration* as well as *push and pull factors*. The rich qualitative data that we collected can describe and clarify: (1) the situations that cause doctors to migrate, (2) their patterns of migration, and (3) the *extent* to which push and pull factors influence their decisions. Thus, we believe the aforementioned points are the ways that our study can contribute to the literature.

Our qualitative data in the form of doctors' personal stories will shed light on individuals' reasons for migrating into, out of or within East Africa. Accordingly, the rich descriptions of their experiences could help us to understand doctors' migration decisions and the impact of their migration patterns. Furthermore, our data enables us to reflect on the experiences and migration patterns of doctors in relation to their different backgrounds. More specifically, we can compare the experiences and migration patterns of doctors from more developed countries with those from less developed countries. Lastly, since there appears to be little research done on doctors from more developed countries who immigrate to East Africa, we believe our study is significant because it can help to fill a gap in the literature.

1.4. Overview of Thesis by Section

1.4.1. Summary of Literature Review

Our literature review introduced and explained various theories and concepts relevant to our study. In this section we first provided an overview of what the literature has taught us

about the healthcare crisis in East Africa and medical migration. We then explored medical migration into, out of, and within East Africa. This portion of the literature review was broken up into two parts: 'medical migration within East Africa' and 'medical migration into and out of East Africa.' Following this, we also introduced and explained some of the key debates that are relevant to our subject of study. The main debate is regarding brain drain, the net loss of highly skilled professionals such as doctors due to emigration. We chose to focus on the significance of this debate in relation to healthcare crises in less developed countries. Thus, as part of our literature review, we presented support for two different perspectives on the matter. The first perspective essentially argued that brain drain is significant to the crisis and should be managed. In contrast, the second perspective disputed that claim by arguing that brain drain is *not* significant to the crisis and thus brain drain control policies will not address the crisis. Having just provided a summary of the contents of the literature review, we will now provide more detailed information about our methodology.

1.4.2. Summary of Methodology

In the methodology section, we described our research design in terms of the type of research, our approach to doing the study and our methods. We mentioned that our research is qualitative, abductive and based upon semi-structured interviews. We then provided more detailed information about our target population for the interviews and our reasons for targeting this group of people. Next we discussed our methods for identifying prospective interviewees, for selecting certain participants for our study and for conducting the semi-structured interviewees. After discussing the data collection process, we then explained how we reduced and sorted our transcription material. In doing so we explained how we uncovered and selected the rich qualitative data with consideration to the research question. We then described what we planned to do with the empirical data. More specifically, we described how we planned to: analyze our data, present our findings, relate our empirical data to the literature, and discuss our findings and assumptions in relation to the key debates. We then touched on some of the ways that we hoped to contribute to the literature. Ultimately, we concluded this section by reflecting on the limitations and feasibility of our study.

1.4.3. Summary of Analysis & Findings

In the analysis section we presented, interpreted and discussed the rich qualitative data which we found to be most relevant to our study. Our aim was to analyze the empirical data such that we could answer our research question: 'How do doctors' experiences regarding medical migration in East Africa help to understand the healthcare crisis in the region?' Through our critical analysis, we uncovered several key findings. We then extrapolated those findings and presented five assumptions. These assumptions were organized into three categories: those specific to doctors coming from more developed countries (MDCs) who immigrate to East Africa; those specific to doctors from East Africa who are working in the region; and those which apply to both groups. In wrapping up our analysis, we our assumptions and conclusions derived from our findings became the basis of our guess that push factors in the public sector in rural areas need to be *addressed* in order to mitigate the harmful aspects of medical migration on the healthcare crisis in East Africa. This guess was then discussed in the next section.

1.4.4. Summary of Discussion

The discussion section was dedicated to discussing the empirical data as well as our findings and assumptions in relation to the literature that we presented earlier. Accordingly we discussed our guess and developed it further. We added to the guess and presented it as our claim: push factors in the public sector in rural areas need to be *prioritized over brain drain control policies* in order to mitigate the harmful aspects of medical migration on the healthcare crisis in East Africa. We argued that, even though brain drain control policies can help to increase the number of doctors in the region, the policies will not necessarily address the healthcare crisis. This is because the increasing the number of doctors in the region does not necessarily address the shortage of doctors in the public facilities in rural areas where the need is the greatest. Furthermore, we believe that the poor distribution of doctors within the region is caused by the strong push factors in the public sector and rural areas. Therefore we *disagreed* that brain drain control policies are significant to address the crisis. Rather, we suggest that the push factors in the public sector within rural areas should be prioritized.

1.4.5. Summary of Conclusion

In this section, we summarized our thesis by revisiting the themes discussed above. As part of the conclusion, we highlighted how our findings and assumptions contribute to the literature on medical migration as well as push and pull factors. We also commented on the practical implications of our research and made some recommendations for further research.

2. Literature Review

In this section we will present background information with statistics about the healthcare crisis in East Africa and touch upon its relationship to medical migration. Then, we will explain key concepts and theories related to medical migration. Next, we will take a closer look at medical migration into, out of and within East Africa. Lastly, we will outline debates regarding attempts to manage migration through policy. The debate most relevant to our study is that regarding the significance of brain drain control policies.

2.1. The Health Care Crisis in East Africa and Its Relationship to Medical Migration

At the heart of our study is an interest in understanding what can be done about the healthcare crisis in East Africa. The World Health Organisation's health statistics of 2016 reflect and confirm the seriousness of the crisis in the region (World Health Organization, 2016). Furthermore, data about *health poverty coefficients* indicate that the health inequalities are most significant in East Africa in the context of Africa (Dowling & Yap, 2012). Therefore, it is important to understand some of the challenges within the region's healthcare systems. In reading about the crisis, we learned that part of the problem appears to be a shortage of medical professionals in the region (Dowling & Yap, 2012). This theory is supported by 2016 statistics stating that there are only 0.3 doctors per 10,000 people in Tanzania and Ethiopia with an average ratio of 2.7 doctors per 10,000 people (World Health Organization, 2016, p.69). Additional proof of the strain that this shortage places on the healthcare systems is described here:

> 'sub-Saharan Africa has a tenth of the nurses and doctors for its population that Europe has: Ethiopia has a fiftieth of the professionals for its population that Italy doe
> s'. Furthermore, low-density areas have a much higher burden of disease than high-density areas. Dr Tim Evans of the WHO has calculated that Africa has approximately 25% of the burden of the world's diseases but only 1.3% of the world's health work force. On a global scale it has been estimated that the global shortage of health workers is more than four million and that sub-Saharan countries must nearly triple their current number of workers by adding

the equivalent of one million workers through retention, recruitment and training if they are to come close [to] approaching the MDGs for health (Bergström, 2005, p.1168).

In other words, the region of interest has far fewer health professionals per capita than European nations and yet disease poses a much greater challenge in sub-saharan Africa. Additionally, the above quote points out the importance of recruiting and retaining doctors in order to address the shortage. However, the recruitment and retention of doctors within a particular country's healthcare system can be quite difficult (Lehmann, Dielmann & Martineau, 2008). The challenges of recruiting and retaining doctors is likely to exacerbate the negative effects of the "flight of healthcare personnel, a flight which has become a migration crisis for many low-income countries" (Lehmann, Dieleman & Martineau, 2008, no pagination). The idea that East Africa's healthcare crisis may be a *medical migration crisis* is confirmed by Ogilvie et al. (2007):

> while international migration is only a part of the complex web of factors leading to the crisis in health-care in low-income countries, the plethora of information generated since the late 1990s highlights the urgency of understanding and addressing what appear to be threats to global health and equity in relation to increased international mobility of nurses, physicians, dentists and pharmacists (p.114).

Even though the international migration appears to be only one of many factors contributing to the healthcare crisis, we recognize the urgency in understanding the relationship between medical migration and the crisis. Therefore, we researched related theories.

2.2. Review of Concepts & Theories Related to Medical Migration

There are many concepts that can be used to describe and understand *migration,* the "movement of people to a new area or country in order to find work or better living conditions" (Oxford University Press, 2017, no pagination). Our review of the literature revealed that *migration* can be described both in terms of *who* is migrating and the *direction* of the movement. For example, the migration of healthcare professionals is often referred to as *medical migration.* Given that doctors can be categorized as *highly skilled workers* or *knowledge workers*, the migration of doctors can also be described as *highly skilled*

migration. The movement of highly skilled workers is also referred to as: *brain migration*, *brain exchange* (Salt, 1997)*,* and *brain circulation (*Patterson, 2007*)*. In essence, all of these terms relate to *inflow, outflow* and *return flow* of highly skilled workers or, as Morrison (2001, cited in Lidgard, 2001) might say, a "circulation of the elite" (p. 326). Meanwhile, *brain exchange* "implies a two-way flow of expertise between origin and destination" (Salt, 1997, p.5) and thus, both the emigration and immigration of highly skilled workers. As such, brain exchange includes both *brain drain* and *brain gain* (Salt, 1997)*.*

The concept of brain drain is key to understanding the migration of highly skilled workers such as doctors. According to Watanabe (1969), brain drain "is applied to all emigration of highly trained people from one country to another" (p. 401). As such, the term can be used to refer to three distinct kinds of migration: "between developed countries, from developing to developed countries, and between developing countries" (Watanabe, 1969, p. 401). The literature on brain drain seems to emphasize emigration and call attention to the negative impact of the outflow of highly skilled workers. Additionally, there appears to be an increasing interest in the loss of human capital caused by certain migration patterns from less developed countries, or LDCs, to more developed countries, or MDCs (Wright, Zerbe, and Korniewicz, 2001). While brain drain tends to be the focus of literature on migration, it is also important to be aware of its lesser-known counterpart: brain gain.

Brain gain is the aspect of brain migration that refers to "human capital acquisition" (Boeri, 2012, p.3). Thus, brain gain could be migration from MDCs to LDCs, either foreign experts immigrating to LDCs or experts returning home to LDCs. Consequently, brain gain serves as a reminder that migration can benefit the place of origin. As the opposite of brain drain, brain gain is also known as *reverse brain drain* or even *brain return* (Varmar & Kapur, 2013). According to Davenport (2004), brain return "is an inherent part of the brain drain debate, albeit a less visible part" (p.618). This quote suggests that brain return should not be overlooked in the brain drain debate. Nevertheless, in order to understand the debate, one must first understand the significance of *net flow*.

It is important to keep in mind that brain drain and brain gain refer to the net flow of highly skilled workers. Thus, while it is possible and even likely that highly skilled workers are emigrating at the same time that others are immigrating, it is impossible for an area to experience both brain drain and brain gain for the same group of people at the same time. For example, *if* the net flow of expertise is from LDC to MDC, the flow is brain drain for the LDC (Salt, 1997 cited in Davenport, 2004). More broadly speaking, the countries with net inflow can be referred to as *host countries* or *receiving countries* (Ahmad, 2005) depending

on the *home country* (Davenport, 2004) of the person migrating. Countries with net outflow are called *source countries* (Chiswick, 1987*)*, s*ending countries* or *donor countries* (Longombe et al., 2007). The discussion of migration patterns is further complicated by the fact that some people go back and forth. Thus, *multiple relocations* is also a relevant concept (Blitz, 2014) Additionally, it is worth noting that migration can also be described based on the length of a person's stay in a particular location, e.g. *short-term* and *long-term* migrations (Blitz, 2014)*.*

When considering the flow of highly skilled workers from LDCs to MDCs, it is important to keep in mind that brain drain does not necessarily mean that the outflow from LDCs is inherently bad. Brain drain can in fact benefit individuals, receiving countries and sending countries (Schiff, 2005*)*. Highly skilled workers emigrating from LDCs to MDCs may benefit from opportunities for personal and professional development that they might not have had access to in their countries of origin. Receiving countries of course benefit from the inflow of highly skilled workers which may help to fill a labor gap. Additionally, source countries may benefit when those who emigrated end up returning home after having increased their human capital abroad, thereby creating brain gain for the source country (Schiff, 2005*)*.

While aspects of brain migration can be beneficial to various parties, there is of course reason to consider what happens when highly skilled workers are unable to move to places or roles where they can use or develop their human capital. The term *brain waste* is one possible negative consequence of limiting brain migration. More specifically, brain waste is "when highly skilled workers go into employment that does not make use of their skills/experience" (Salt, 1997, p.5). Thus, ideally, brain migration would minimize the *deskilling* associated with brain waste while also maximizing brain gain. Although many of the aforementioned migration-related terms may sound similar, particularly those related to brains, there are subtle and important distinctions. Familiarity with these concepts and the differences between them is useful in understanding and explaining medical migration in the context of the healthcare crisis in East Africa. Given our desire to understand why doctors migrate to certain destinations, we chose to research migration patterns in relation to *push and pull factors.*

Push and pull theory appeared frequently in our review of the literature. The theory refers to the factors that drive people out of a particular area and/or attract people to other areas. Push and pull factors are often "multi-facetted and complex" (Lehmann, Dieleman & Martineau, 2008, no pagination) and may vary according to rural/urban setting, country,

region, and industry. Within in the realm of international medical migration, some of the areas that have the greatest pull are the USA, UK, Canada and Australia (Zubaran, 2012). Generally speaking, the pull factors relate to "the perceived prospect of better opportunities and quality of life in the host country coupled with the fact that immigration policies in the host countries tend to favour the more highly educated" (Davenport, 2004, p.618). Common push and pull factors impacting the emigration of highly skilled health professionals are described by Ahmad (2005):

> among the push factors are low wages, poor motivation, persistent shortages of basic medical supplies, dangerous working conditions, outdated equipment, lack of supervision, and limited career opportunities. Involuntary factors such as human rights violations, ethnic and religious tensions, political persecution, wars, and economic collapse also play a part. Economic reasons, access to professional development opportunities, and job security are among the most important pull factors (p.43).

The above quotation suggests that there is a seemingly endless number of factors that contribute to the movement towards or away from particular locations/areas. Also, apparent in this quotation is the variety of factors that play a role in medical migration. The forces that drive people from and/or attract people to certain places may be economic, political, religious, etc. Given that the aforementioned reasons motivate highly skilled workers to migrate, "perceived prospect of better opportunities and quality of life" can be considered a pull factor for highly skilled workers in areas that lack such opportunities. Another push factor that has contributed to brain drain in particular countries or regions is *brain overflow*: "an oversupply of educated professionals" (Davenport, 2004, p.618) in certain fields. Brain overflow is problematic because it means that educated professionals, such as doctors, are unable to find employment in their field. As such, brain overflow can contribute to brain waste in that it may prevent highly skilled workers from using their skills.

2.3. Medical Migration Into, Out of & Within East Africa

In the context of this thesis, we limited our focus of medical migration down to doctors with ties to East Africa. As mentioned earlier, we chose this regional limitation due to the healthcare crisis in that specific region.

2.3.1. Medical Migration Within East Africa

Throughout our literature review we learned about the importance of considering both the *number* of doctors in relation to the population and the *distribution* of those doctors (Longombe et al., 2007). Consideration of the distribution of doctors is particularly important since the shortage of doctors appears to be much greater in the rural areas in comparison to more urban areas (Marchal & Kegels, 2003). Evidence of this can be seen in the statement: "[i]n most developing countries, the health workforce is concentrated in the major towns and cities, while rural areas can only boast of about 23% and 38% of the country's doctors and nurses respectively" (Anyangwe & Mtonga, 2007, p.93). One possible explanation for rural areas having disproportionately fewer doctors is that "rural areas struggle to recruit and retain health professionals" (Molinari & Bushy, 2011, p.198). This is most likely due to urban areas having greater pull. Hence, *urbanization,* the "process that leads to the growth of cities due to industrialization and economic development" (Patil, 2014, p. 335), is an important factor to our subject of study.

The phenomenon of urbanization is particularly relevant since it is "now a rising trend seen all over the world, especially in an alarming rate in developing countries" (Bekele, 2005, p.1). Furthermore, Lehmann, Dieleman and Martineau (2008) point out that the increasing popularity of and migration to urban areas has serious implications for health service policy makers and managers:

> it is in this global context of accelerating inequities that health service policy makers and managers are searching for ways to improve the attraction and retention of staff in remote and rural areas. But the development of appropriate strategies first requires an understanding of the factors which influence decisions to accept and/or stay in a remote post, particularly in the context of mid and low income countries (MLICS), and which strategies to improve attraction and retention are therefore likely to be successful (no pagination).

Thus, the management of human capital should take into consideration the effects of urbanization and the push and pull factors which have contributed to such dramatic shifts from rural to urban.

A closer examination of the push and pull factors, in relation to the movement of health workers, provides insight into the reasons for the poor distribution of doctors within East Africa. Some examples of push factors in rural areas are "poor working and living

conditions," "work-overload" and "emotional burnout" (World Health Organisation, 2009, p.14). These and other push factors cause doctors to want to leave rural areas and essentially drive them out of the areas where there is arguably the greatest need. Meanwhile, pull factors, such as "improved working conditions" (World Health Organisation, 2009, p.14) in urban areas, encourages doctors to relocate to more urban environments.

Doctors are not only migrating within countries, from rural to urban, but also between different healthcare sectors. In order to understand this movement, it is helpful to understand the different sectors. According to Psacharopoulos & Nguyen (1997), there are three main sectors: the public/government sector, the private/for-profit sector and the nonprofit sector consisting of NGOs and mission/church organizations. It appears that, within each of those sectors, doctors tend to leave the public sector for one of the other sectors. This type of movement within the region is again due to push and pull factors. An example of a push factor would be low pay in the public sector. Meanwhile, better pay in other sectors serves as a pull factor drawing people away from the public sector (Shinn, 2008). The literature suggests many push and pull factors for both types of migration, from rural to urban and from public to private or nonprofit. Nevertheless, the migration patterns themselves are of greatest relevance to our study.

2.3.2. Medical Migration Into & Out of East Africa

In addition to the migration of doctors within and between countries in East Africa, there is also an international labor market for highly skilled workers. This international labor market causes inter-regional migration of expertise (OECD, 2012). This is relevant to our study because East Africa is affected by the international market (OECD, 2012). With regards to the inter-regional migration, statistics illustrate that the movement of doctors is mainly out of East Africa, as opposed to into (OECD, 2012). The East African countries of Mauritius, Malawi and Zimbabwe are particularly affected. These countries have lost approximately one third of their highly skilled workers (OECD, 2012). The following quotation puts that loss in perspective: "there was a time when it was estimated that there were more Malawian doctors in Manchester (UK) than in the whole of Malawi … [this] demonstrates the reality of the human resource crisis in poverty-stricken countries in Africa" (Okonofua, 2014, p.67). This quotation describes brain drain in Malawi and speaks to the overlap between the human resource crisis, medical migration and East Africa's healthcare crisis. The medical migration seen in the case of Malawi has been described as a "medical

carousel*"* (South African Medical Journal cited in Bundred & Levitt, 2000, p.245)*,* a process through which doctors continually move towards countries with higher working and living standards. This concept is helpful because, through our research, we hope to gain a better understanding of the 'medical carousel' in East Africa and what drives its movement.

According to our review of the literature, little research has been done on foreign doctors immigrating to East Africa and East African doctors returning to their home countries after having left the region. Nevertheless, we recognize that foreign doctors could immigrate to East Africa via international aid organisations. An example of a medical humanitarian organisation is *Doctors without Borders* or *Médecins Sans Frontières* with a base MSF East Africa (Fox, 2014, p.252) in the region. The fact that we have not found scholarly literature on doctors immigrating to East Africa suggests that there is a gap in the literature. We suspect that our assumptions based on our empirical findings will help fill that gap by explaining how immigrating doctors' migration patterns influence the healthcare crisis in East Africa.

2.4. Key Debates About Medical Migration in East Africa

Throughout the course of our literature review, we discovered a number of debates which we touched on above. The main debates about medical migration seem to be centered around the impact and significance of the brain drain from LDCs. In essence, some scholars argue that brain drain *is* a significant factor contributing to the healthcare crises in LDCs and thus should be managed. Meanwhile, other scholars argue that brain drain is *not* significant to the healthcare crises in LDCs. We will now discuss the key debate from those two perspectives.

2.4.1. Perspective I: Brain Drain *Is* Significant to the Crisis

The first perspective argues that brain drain from LDCs contributes to and/or exacerbates the healthcare crises in LDCs in significant ways. This belief is reflected in the following quotation:

> the major challenges facing Africa are to reverse the loss of skilled professionals from
> the continent and to develop ways to benefit from the knowledge and expertise of
> those who are now working in the developed world (Columbus & Wusu, 2006, p.99).

By referring to Africa's loss of skilled professionals as one of the major challenges that the continent faces, Columbus and Wusu (2006) essentially argue that brain drain has had both a negative and significant impact on LDCs. Since the countries in East Africa are LDCs and healthcare professionals fall under the category of skilled professionals, the above passage is relevant to understanding the relationship between medical migration and the healthcare crisis in East Africa. Another example of this first perspective can be seen here:

> increased international migration of health professionals is weakening healthcare systems in low-income countries, particularly those in sub-Saharan Africa. The migration of nurses, physicians and other health professionals from countries in sub-Saharan Africa poses a major threat to the achievement of health equity in this region (Ogilvie et al., 2007, p.114).

The above passage emphasizes the negative impact that international medical migration has on healthcare systems in LDCs. Furthermore, the quotation highlights that the aforementioned phenomenon is particularly problematic in the sub-Saharan countries of Africa, an area which includes East Africa. The negative impact is further described by Connell et al. (2007) who state: "migration has been at considerable economic cost, it has depleted workforces, diminished the effectiveness of healthcare delivery and reduced the morale of the remaining workforce" (p.1876). In this passage we see that brain drain hurts healthcare systems in LDCs because migration is costly to source countries who invest in its people only to lose many of them to the international market.

Given that sending/donor countries are often LDCs, brain drain in those countries means that the already-struggling healthcare systems suffer from a loss of human capital. Thus, medical brain drain affects the total number of healthcare professionals in the region and raises concerns. These concerns regarding the loss of healthcare professionals and the impact of those losses are legitimized by statements such as this one: "[i]t has been proved beyond reasonable doubt that the density of the health workforce is directly correlated with positive health outcomes" (Anyangwe & Mtonga, 2007, p.93). Focusing on the number of healthcare professionals in relation to the health of that area's population ultimately promotes the idea that brain drain is connected with negative health outcomes. Consequently, for some, brain drain is significant to the healthcare crisis in that it can negatively affect health outcomes.

The aforementioned perspective on brain drain influences the discussion about how to address the healthcare crisis. *If* brain drain in the form of inter-regional migration from LDCs

to MDCs is the problem, then one solution could be to manage, or control, the migration. Ahmad (2005) supports this idea by stating, "[m]igration of health workers from poorer to richer nations is unlikely to stop, but we can and must put policies in place to minimise the damage it causes" (p.43). One way to minimize the damage is through policies aimed at curbing, stopping and/or reversing the brain drain. These policies are referred to as "brain drain 'control' policies" (Davenport, 2004, p.617). Blitz (2010) argues the importance of utilizing policies to address labor shortages:

> there are also many political forces influencing the movement of skilled people around the globe: the continued efforts of states to address domestic labor shortages and restock through preferential immigration policies and international recruitment drives are ever more important (p. 3292).

This perspective has apparently gained quite a following because "[c]ountries have sought to implement national policies to manage migration, mitigate its harmful impacts and strengthen African health care systems" (Connell et al., 2007, p.1). These attempts to 'manage migration' by 'mitigating its harmful impacts' are essentially policy responses to brain drain.

According to Lowell (2001) there are six different policy responses to brain drain: *return*, *restriction*, *recruitment*, *reparation* for loss, *resourcing of expatriates*, and *retention*. Each of these policy responses to brain drain is essentially an attempt to mitigate the negative effects of medical migration while maximizing the benefits. Nevertheless, only "*return*, *restriction*, and *recruitment* are policies directly affecting the movement of people (e.g., migration policies)" (Lowell, 2001, p. 3). Given our focus on medical migration, we will only explain the first three types of policies responses as they are most relevant to our interest in migration. The first type, *return*, seeks to reverse the brain drain by encouraging doctors who emigrated to other countries to return to their countries of origin (Milio et al., 2012). The second type, *restriction,* aims to reduce brain drain by making it more difficult for doctors to leave in the first place (Milio et al., 2012). Meanwhile, the third type, *recruitment,* attempts to reduce the impact of brain drain by attracting new doctors to fill a labor gap (Milio et al., 2012). While each of these approaches mitigates brain drain through migration policy, there is debate about the ethics of the second type, *restriction* policies. According to Lowell (2001), "[r]estrictive admission (or exit) policies touch on the rights of the individual international migrant, as well as run the risk of impeding positive feedback effects" (p.20). Thus, restrictive policies are arguably unethical because they restrict individual rights by

limiting freedom of choice and movement. Nevertheless, in some cases restrictive policies can be useful and appropriate.

In summary, all three migration policies, *return*, *restriction*, and *recruitment* could control brain drain by increasing the number of doctors in LDCs. Even though all three types of policies *could* benefit East Africa and its crisis, restriction policies are highly debated due to their questionable ethics.

2.4.2. Perspective II: Brain Drain Is *Not* Significant to the Crisis

On the other side of the migration debate are scholars who essentially dispute the significance of brain drain in relation to the crisis. We will now provide an overview of arguments supporting this perspective.

The significance of brain drain in relation to the healthcare crisis in East Africa is downplayed for a number of reasons. Firstly, more migration occurs within regions than between regions (Adepoju, 2000) and thus medical migration *between* regions is arguably a less significant factor for consideration than migration *within* a region. Secondly, regardless of whether we look at inter-regional medical migration from the perspective of brain drain, brain gain, or both, one can argue that the ambiguity surrounding these terms limits one's ability to understand the phenomena. Consequently, it becomes difficult to support claims that the aforementioned forms of brain migration are significant factors worthy of consideration. Baldwin (1970) summarizes this perspective beautifully here:

> the statistics on international manpower flows are of limited help in telling us how serious the problem is. This is partly because the statistics themselves are not very good … but even good statistics are of little use unless one knows what one is trying to measure (p. 359).

The reason that even good statistics are not particularly useful is because "there is much ambiguity as to what is a 'brain' and what is a 'drain'" (Baldwin, 1970, p. 360). This is problematic for at least two reasons. Firstly, since there is no clear definition of 'brain' in this context, it is difficult to measure brain migration and thus it is difficult to support claims that medical brain drain is a significant factor for the crisis. Secondly, even if brain migration terms were not ambiguous, focusing on brain drain is problematic because not every 'brain' has an equal impact. In fact, the literature suggests that only a small number of the total

migrating 'brains' are really key (Baldwin, 1970). Thus, the *amount* of brain migration does *not* necessarily correlate with the impact on healthcare systems. In other words, depending on who the brains are and whether or not they are considered *key individuals* (Baldwin, 1970), brain drain may not be significant to addressing the healthcare crisis.

Even if there is a brain drain of doctors, that does not necessarily mean that the brain drain creates a shortage of doctors within the region. *Shortage* is, again, a highly ambiguous term. Thus, the degree to which the healthcare crisis in East Africa can be blamed on a shortage of doctors depends largely on how shortage is defined. According to the literature, one can define the shortage in a variety of ways:

> if one looks that epure 'need' of an underdeveloped country for doctors … then it is easy to see shortages. But if you look at the number of unfilled jobs, or the number of university graduates who have difficulty finding what they consider acceptable employment then surpluses often appear. So part of the argument over whether or not a brain drain exists depends on whether one looks at a society's 'human needs' of an economy's 'effective demand' (Baldwin, 1970, p. 362).

In other words, the ambiguity surrounding the term *shortage* means that the presence of a shortage of doctors in East Africa is debatable. As such, the literature suggests that focusing on shortage caused by brain drain as a means of explaining and/or addressing the healthcare crisis is not helpful. This is particularly true if the supposed shortage of brains does *not* refer to a shortage of the key individuals. In summary, brain drain is arguably *not* significant to the crisis because key terms associated brain drain are highly ambiguous. Thus, brain drain control policies would *not* necessarily address the health healthcare crisis in East Africa.

2.5. Summary for Literature Review

To summarize, our literature review introduced various theories and concepts related to medical migration and the healthcare crisis in East Africa. Medical migration was then discussed in terms of migration patterns into, out of and within East Africa. We then presented two perspectives on the debate regarding the significance of brain drain in relation to the health crisis in LDCs. We will now provide more detailed information about the methodology for our study.

3. Methodology

3.1. Research Approach & Design

We chose qualitative research as it provides the opportunity to get a deeper understanding of the impact of medical migration on the healthcare crisis in East Africa. Qualitative research fits our exploratory research design in that it enables us to answer our research question: How do doctors' experiences regarding medical migration in East Africa help to understand the healthcare crisis in the region? We believe that our research question could *not* have been answered via a quantitative research. Even though quantitative data such as statistics of certain migration patterns of doctors could give an impression of movement tendencies, we believe that the detailed descriptions of the doctors' experiences and emotions are essential to understand their decisions in certain situations. Through semi-structured interviews, we learned about various aspects about the experiences of working as a doctor in East Africa as well as of medical migration. Our approach was *abductive*, thus, our research question was answered with a reasonable guess with aims of enhancing knowledge (Swedberg, 2014). Our guess, based on our empirical data, is that push factors in public facilities in rural areas need to be addressed in order to mitigate the harmful aspects of medical migration on the healthcare crisis in East Africa. With this guess in mind, we aim to critically discuss the debate around the significance of brain drain.

3.2. Data Collection Method

The literature suggests several methods to collect qualitative data, such as individual interviews, observations and focus groups (Morgan, 1996). Our decision to *not* conduct observational studies is due to the cost and time needed for traveling to the region of our interest, East Africa. Furthermore, we chose individual interviews instead of focus groups in order to be able to compare our learnings about individuals' experiences. We chose individual interviewees with different relationships to and experiences in East Africa to ensure that our rich qualitative data reflected a variety of perspectives. More specifically, we interviewed people *from* and *outside* of the region who are working *in* the region, and people *from* the region who are now working *outside* the region.

The number of interviews that we conducted was based on our access to the target population, the relevance of the material collected and our time constraints. The fact that we were not based in East Africa, but rather Sweden, made it more difficult for us to identify and access the people we wished to interview. As a result, we conducted outreach via social media posts and our personal contacts with ties to the region. Due to the time constraints of our study, we relied on our contacts and interviewees to connect us to others with relevant experience. This method is called snowball sampling (Atkinson & Flint, 2001). Snowball sampling enabled us to quickly identify and access prospective interviewees with relevant experience and, thus, quickly increase the size of our sample.

With regards to our target population, we interviewed ten people who we believed to have the experiences necessary to provide valuable insights into our topic of study. More specifically, we interviewed people who *have worked*, are *open to working*, or are *currently working* as doctors in East Africa:

1. **Medical students from developed countries** with an interest in working in East Africa and some experience working in developed countries
   a. **Fredrik** - male medical student from/in Sweden with short-term experience with a missionary organization in Nepal
   b. **Simon** - male medical student from/in Sweden with experience at a missionary organisation in Mozambique
   c. **Tina** - female medical student from/in Germany with experience working with a missionary organisation in Tanzania
2. **Doctors with experience working in East Africa**
   a. **Elvar** - male doctor from Denmark who completed his medical training in Denmark, moved to Sweden in order to become a surgeon, and then worked for 10+ years at a mission hospital in Ethiopia
   b. **Michael** - male doctor from the United States who completed medical training in the United States and had short-term experience in Ethiopia and Kenya via organisations.
   c. **Carsten** - male doctor from Germany with 12 years of experience working in Tanzania in a mission hospital
3. **East African doctors** who have experience with and/or knowledge of East Africa's public healthcare systems;

a. **Jennifer** - female doctor from Uganda, who completed medical training in Uganda and has since worked in the public sector of the country and switched to working in projects

b. **Edgar** - male doctor from Kenya who completed medical training in Kenya, has worked in the public sector of the country and switched to the private sector

c. **Catherine** - female doctor from Kenya who completed medical training in Kenya and has since worked in the public sector of the country and switched to the NGO sector

4. **East African doctor** who emigrated from the region;

a. **Daniel** - male doctor from Kenya who left to complete medical training in Germany and is now working in Germany while completing his specialization; he wants to return to Kenya but has yet to do so

In each of the cases where in-person interviews were not possible, we chose platforms that allowed for face-to-face communication such as Skype or Facetime. We believed that face-to-face communication was preferable to audio-only options for two main reasons. Firstly, face-to-face communication is useful in putting interviewees at ease and building rapport. Secondly, the ability to see facial expressions and gesticulation could help people on both sides to understand what was being said and to make sense of the communication.

With regards to the length of the interviews, we aimed for conversations between 30 and 60 minutes long depending on the depth of the conversations. Most of the interviews ended up being approximately 50 minutes in duration. Given our interest in understanding medical migration in the region East Africa, we asked our interviewees a variety of questions related to the topic (Kline, 2003). We expected it to be helpful to ask our interviewees about: the employment options/locations they chose from; their reasons for choosing to work in a certain country/sector and their knowledge of and experiences with migration into, out of, and within East Africa. In terms of migration, we asked for actual or anticipated reasons for leaving a specific workplace. We did so in hopes of getting a better sense of: what their deal breakers were, what their level of commitment was in the face of difficulty and their perceptions regarding their impact as doctors. Furthermore, in cases where the interviewees had worked or were currently working in East Africa, we aimed to understand our interviewees' experiences there. Thus, we asked them to describe their most

challenging/rewarding experiences, their expectations in relation to the work, their professional aspirations etc. Throughout all interviews, some of the open-ended questions were standard such that we were able to more easily compare data as part of our analysis. However, most of our questions we asked were customized follow-up questions in response to what the interviewees shared. This approach with some planned questions and many improvised ones allowed us to explore interesting topics/themes on a deeper level. Accordingly, semi-structured individual interviews was an appropriate means of collecting our data for our study (Kvale S., 1996).

3.3. Data Analysis

As preparation for the data analysis, we recorded and transcribed the interviews; this resulted in 127 pages of empirical data. The accompanied process for analyzing our data included a variety of methods such as reducing, sorting and arguing (Swedberg, 2012). While reading through all of our transcriptions, we highlight passages with rich descriptions that gave a nuanced account of the interviewees working experiences. Thus, these passages reflected the value of our qualitative approach. After re-reading these highlighted passages we identified eight common themes for which we developed a coding system:

Symbol	Meaning
E	Expectations
P	What doctors should know before working in East Africa
△	Stories about major changes or transitions
✝	Christian references (i.e. references to Christian missionary hospitals, calling from God, etc.)
D	Ethical or moral dilemma facing doctors working in East Africa
C	A difficulty or challenge facing doctors working in East Africa C- = a difficulty or challenge associated with frustration C+ = a difficulty or challenge associated with excitement/fun

X	References to death, dying, and life-threatening circumstances in East Africa
✓	Example of being "useful" or having an impact in East Africa

This system allowed us to group rich quotes by these eight themes. With special consideration to relevance to our research question, we again highlighted key-words/phrases within these groups. We looked for new themes with special consideration to the doctors' backgrounds and the countries in which they are/were working. Nonetheless, we remained open to the possibility that those factors may or may not influence the results. For example, in the case that we observe patterns, such as 'several doctors from X country....' or 'several doctors working in X country...', we will consider them hermeneutic clues for further research and analysis (Alvesson & Sköldberg, 2009). This openness to interpreting our findings as clues rather than building blocks of knowledge is consistent with Mats Alvessons' description of hermeneutics (Alvesson & Sköldberg, 2009). Accordingly our process for reviewing and re-categorizing the data identified three new themes which we believed to be more relevant to our research question:

1. Experiences of doctors from East Africa in the region's public sector
2. Experiences of doctors from MDCs in East Africa
3. Placement decisions of doctors from MDCs

Next, we regrouped our data, cut down on unnecessary text unrelated to the new themes and chose the richest qualitative examples of the main ideas. We then eliminated duplicate words and fillers like 'ehm', 'you know', 'like', etc. Ultimately, we reduced 127 pages of transcription material down to 13 pages of the richest qualitative data which was most relevant to our research purpose.

As such, we chose to focus our further analysis of qualitative data on the reduced material of the above mentioned three themes. We chose this focus in order to answer our research question: 'How do doctors' experiences regarding medical migration in East Africa help to understand the healthcare crisis in the region?' After we analysed our data and summarized our main findings, we extrapolated those findings in order to make broader assumptions. We then based our discussion upon those assumptions such that we can relate our work to the relevant debates. Ultimately, we hope to contribute to the literature on

medical migration, push/pull factors, and immigrating doctors. Additionally, we wish to discuss the practical implications of our findings and provide recommendations for further research.

3.4. Validity and Reliability

We recognize that our research design and our methods have a number of limitations. These limitations may in turn influence the reliability and validity of our research (Brink, 1993). In this section we will discuss these limitations. The discussion will be divided into two sections. The first section will focus on the limitations of our data collection methods while the second one will address the limitations of our data analysis.

3.4.1. Limitations of Data Collection Methods

Many of our limitations are due to the tight timeframe that we had for completing the study. These circumstances did not allow for a sample size larger than ten interviewees or even a repetition of our study at a different time with different people. Therefore, our data may over/under-represent certain phenomena. However, we believe that this limitation would have a greater impact on quantitative studies. Thus, we interpret that a sample size of ten interviewees was large enough to do a qualitative and interpretive study such as ours. Another limitation was the fact that we were located in Sweden. This was an issue because our location made it difficult to arrange for in person interviews with our target population. Consequently, most of the interviews were conducted via video calls. We chose to use video calls in order to see facial expressions and gesticulation. However, we are aware of the limitations associated with video calls. Interruptions due to poor internet connection affected the ease of communication as well as our ability to understand and transcribe. These types of problems could have influenced the interviewees' willingness to continue the conversation.

Another limitation due to our location was our dependence on snowball sampling in order to identify and access prospective interviewees. While snowball-sampling can be helpful when time is limited, we recognize that there are drawbacks to this method of sampling. For example, snowball sampling may have affected our findings by leading us to certain types of people with certain experiences/perspectives more so than others. More specifically, since several of our primary contacts happened to be Christians whose

experiences in East Africa were tied to mission-based projects/organizations, snowball sampling may have resulted in us having a notably high number of interviewees with similar experiences and/or perspectives. To be clear, how our interviewees identified, in terms of religion, gender, specialization, etc., is *not* in itself problematic. Nevertheless, we believe it is important to acknowledge that snowball sampling may have affected our study in terms of the number of perspectives that we were able to capture and consider. However, the fact that we have multiple perspectives on the same topic is likely to increase the reliability of our study. The four perspectives that we focus on are those listed in *Section 3.2 Data Collection Method*. Our interest in capturing various perspectives aligns with the concept of *triangulation* (Denzil, 1989, cited in Brink, 1993). Thus, we believe that interviewing people from different backgrounds/perspectives enhanced our understanding of medical migration.

Another factor that may have influenced our results was language. For several interviewees, English was not their native language. Nevertheless, the interviews were conducted in English and thus our choice of language for the study may have influenced our interviewees ability to express their emotions and describe their experiences.

Lastly, our interview skills may have influenced the results of our study. Since both of us have limited experience conducting semi-structured interviews in the context of qualitative research, we may have unconsciously communicated our own insecurities, either verbally or nonverbally. Consequently, metacommunication may have impacted our trustworthiness and thus the willingness of our interviewees to share their personal experiences. In order to reduce the impact of this possible limitation, we gave each other feedback about our interview skills after each interview. The consistent feedback enabled us to improve our interviewing skills and build confidence.

3.4.2. Limitations of Data Analysis

We recognized that our research was not only affected by limitations of data collection but also by limitations of data analysis. The validity of our data might be affected by the so called "holistic fallacy" (Miles & Huberman, 1984 cited in Brink, 1993, p.37). The holistic fallacy is a bias which refers to developing certain patterns at the expense of other data (Brink, 1993). As mentioned above, we developed themes in which we categorized our data. Accordingly, the headings of each group can influence our interpretations of the quotations. However, by defining completely new themes for further reduction, we aimed to

overcome this bias. Additionally, we kept checking in with our supervisor, sharing our progress, as well as asking for and incorporating feedback. Hence, we hoped to increase our validity through these efforts (Morse & Field, 1995).

In summary, we considered the aforementioned limitations in relation to our research design and made efforts to mitigate the impact of the limitations in order to ensure the feasibility, reliability and validity of our study. Accordingly, we believe that our findings about our interviewees' experiences in East Africa, and the assumptions based upon those findings, will enable us to better understand the phenomenon of medical migration and its implications for East Africa.

4. Analysis & Findings

In this section we will present the qualitative data that we found to be the richest, most compelling and most relevant to our research question: How do doctors' experiences regarding medical migration in East Africa help to understand the healthcare crisis in the region? As mentioned in the methodology, the reduced qualitative data has been organized into three categories based on themes. The three themes are: (1) experiences of doctors from East Africa in the region's public sector (2) experiences of doctors from MDCs in East Africa (3) placement decisions of doctors from MDCs. Ultimately, our interpretation and analysis of the data will reveal findings and enable us to make assumptions which can later be discussed in relation to the literature.

4.1. Work Experiences of East African Doctors

As mentioned in the methodology section, three of our ten interviewees were East Africans working in the region. Each of the three, Edgar, Catherine and Jennifer, spoke about their work experiences. Edgar, the Kenyan doctor based in Kenya, spoke about his working conditions in Kenya's public healthcare sector:

> if you read the demands from the doctors you'd get at some of what is demotivating us. Number one, we don't have supportive - we don't have adequate equipment. We don't have adequate commodities. We don't have a proper HR management system where there is adequate recognition of skills and experience, leading to promotions and improved remuneration. So those are some of the issues we're fighting for. And those are some of the reasons why doctors leave the public sector and go to private sector. Doctors in public sector are very poorly remunerated if you compare with colleagues in similar situations, doctors in Kenya are poorly remunerated … [W]e don't have adequate equipment. We don't have adequate commodities ... For example, a simple device as an examination light. ... if you don't have a working examination light, ... you cannot be able to see a source of the bleeding and so on. (Edgar)

Edgar's example highlights his concerns about the working environment of doctors in the public sector. He basically lists elements which he interprets to be missing in the sector. Furthermore, he not only mentions them but describes the consequences of having a poorly

resourced workplace. The story about not having a basic examination light shows how limited access to resources can negatively impact quality of care and a doctor's ability to make a difference. Additionally, Edgar mentioned that the lack resources in the public sector is demotivating for doctors and thus may cause them to leave the public sector. Another interviewee from Kenya, Catherine, also emphasized the importance of resources:

> obviously the biggest challenge as a doctor came in whereby I had limited resources because my job is to save lives and it would be extremely frustrating to have the knowledge and know exactly what I need to do but to be limited ... When I moved to this private hospital where I currently work I remember my first real emergency situation. There was a child who came in, very badly injured, had fallen off the balcony of their home and it was just, it was terrible. So this child came in. Obviously I can't disclose so much but all I can say is that within 30 minutes we had been able to secure this child, stabilize the child. ... Now, typically, if this happened in the government hospital where I worked so, we don't have a ventilator ... so we would have to make a ... phone call, sometimes they tell you there are no beds, so you have to watch sometimes and wait and watch somebody die, so you are just supervising death. I give you a scenario, a situation just like that, exactly like that when I was waiting in the government hospital. And we called and they told us: 'yes, we have got an ICU bed that has a ventilator, so I had to escort the patient from my level four hospital to the level five hospital which was two hours away. So we got into the ambulance and I had to manually bagg the patient. I had to do that for two hours straight in an ambulance. And by the time we got to the level five hospital...we got there and they told us: oh you know the bed, you called for has been taken. And I literally watched this...it was a young man... I watched him die. He died. So now you can see the comparison. Whereby in 30 minutes I had saved a life, you know, and I felt so good about it. And it was not something I had done. I had just been given the resources to do it, you know. That's when I feel most useful when I have this support system to do what I know I can do, what I am capable of. (Catherine)

This quotation by Catherine gives insight in her work in both the private and the public sector which allows for a comparison. First, she shared an experience she had in the private sector which she found rewarding. She described a time when she and her colleagues stabilized a child that was very badly injured. In this case, an ICU bed and a ventilator were available for the child and they were able to save the child's life within 30 minutes. Catherine said that she felt 'so good' about this experience. In contrast, her description of her work in a government hospital in the public sector was regarding an unsuccessful attempt to save a life. She

described the experience as one of 'supervising death'. She implied the lack of resources, e.g. no bed in ICU and no ventilator, was the reason for the patient's death. Thus, she concluded that the lack of resources negatively affected her ability to apply her skills, save lives, and make a difference. The fact that Catherine equated her job with "saving lives" seems to explain why the experience of "supervising death" was so frustrating for her. Another interviewee, Jennifer, expressed similar frustrations when describing her experience in the public sector of Uganda. Like Catherine, Jennifer was also frustrated by the fact that she was not able to treat patients the way she would have wanted to due to a lack of resources. An example of this is when Jennifer told us about a time when she had to treat malaria without access to the necessary medications. Thus, we believe that a lack of resources is likely to limit doctors' ability to make an impact and thus increases their frustration.

Catherine mentioned two different strategies for overcoming her frustrations due to the limited resources in the public sector: moving into policy work and moving to the private sector. With regards to the first strategy, she talked about leaving her profession and entering the political system since she thinks she would be able to save more lives by changing policies. The following quote reflects her desire to save lives and points out her interpretation of how she could satisfy this desire by working in the political system: "if I am bold in the conversation and ensure that every level five hospital has a ventilator. Can you imagine how many more lives can be saved just from that one policy" (Catherine). Furthermore, we interpret this to be Catherine's recommendation for how to improve the healthcare systems in the region. Thus, in changing policies to make resources more available, Catherine would not only eliminate the frustration from 'supervising death' but could also help reduce the frustration of other doctors. With regards to the second strategy, Catherine acknowledged that the private sector has the necessary resources to save lives and thus finds the private sector appealing. According to all three interviewees, resources seem to be more available in the private sector than in the public sector. Therefore, we assume that the level of frustration is likely to be higher in the public sector and doctors' level of impact higher in the private sector. Consequently, the private sector appears to be a more attractive work environment for doctors in East Africa. Thus, it is not surprising that Catherine transitioned from the public sector to the private sector and that continues to aspire to work in policy. Catherine describes her migration between sectors as follows: "I made the switch from public to private and for me this was ideal because now I was getting to work in a facility where I had all the resources [at my] disposal. We had a good lab, drugs were never lacking, the system basically worked"

(Catherine). In this next quotation, Catherine explains that the lack of resources is not only more likely in the public sector, but also more likely in rural areas:

> I should mention that the highest level in the government is level six which is the national hospital … There is only one. So now you can see that level five is also quite big because it's just immediately under the level six hospital … So, you find that the level six hospital is called Kenya's national hospital. … That's where you find most that they have a bigger human resource. You have much more doctors. They have got a blood bank so it's definitely a bigger structure. When you go to level five it's still a referral hospital. But it is basically out of town. It's out of the capital city. So, it's in the major cities in Kenya. You have about, in every city you have around twenty-two, thirty level five hospitals. So, as you go down level five, four – they are smaller hospitals and they are in the remote areas. …so, you find like a level one hospital is more or less a health centre. Most of the time they don't have doctors. … They are able to do the first aid and all that. And when it comes to for example when a patient comes into a level one hospital and requires major surgery the clinical officer will just right refer to a required note, put them into an ambulance and send them to the next level … It is well known that level two, level three, level four don't have ICU-care. (Catherine)

According to Catherine's description of the one-through-six level system in Kenya, the level of a healthcare facility correlates with the size and location of the facility. The higher the level, the bigger the hospital and the more likely that the hospital is located in an urban setting. As per Catherine's description, the difference between lower level facilities and a level six hospital is that the lower level facilities are hugely under-resourced in terms of staff and equipment. While these observations about the system might only be true in Kenya, Jennifer confirmed that a similar level system also exists in Uganda. Based on what Catherine said about the level system and her desire to have the necessary equipment to save lives, we assume that Catherine not only prefers working in the private sector, but would also prefer urban facilities to rural ones.

In addition to mentioning the lack of resources, all three East African doctors working in the region raised concerns about pay. This is what Catherine had to say on the matter:

> doctors in the government-sector haven't been paid as well as they ought to be. Especially when you make comparison to the private sector. ... We had strikes, industrial strikes. We had three of those. The first time I was an intern and it was my first job. I should mention that interns are paid. We were not paid for the first six months of employment. So here I am, away

from home, I'm living in a town away from home so I have to pay rent, I have got bills to pay, it's a very demanding job. I'm sure worldwide interns do a lot of work and yet at the end of the months I don't see my pay and it goes on for up to six months. And so we went on strike and struck for another whole month until the government head officer eventually paid us. And I'm saying that this happened three times. So for me that was, it was just the worst for me. To some of the reasons why I had to quit because it's very hard to plan for your life when you know you don't get paid on time, if it's delayed it was just not working for me. ... I saw people come and say: 'You know it's not about the money, it's about passion. You need to go back to work. People are dying.' So there was not a lot of public support for this strike. (Catherine)

In this excerpt Catherine describes another experience that she had while working as an intern in the public sector. According to her statement, she was supposed to be paid for her work but was not paid at all for the first six months. Thus, even though she worked hard in a 'demanding job,' Catherine still struggled to pay her bills as a result of late payment. We found the fact that Catherine mentioned being 'away from home' on two separate occasions noteworthy. We suspect her emphasis of this point in the context of this particular story means that she was far away from the support of family and, thus, on her own in many ways. This is significant to the topic of pay because, if Catherine was truly on her own financially, no pay and/or late pay would have serious implications for her, personally and professionally. This assumption of ours is supported by her statement that 'it's very hard to plan for your life when you know you don't get paid on time.' Ultimately, the richness of the qualitative data in Catherine's story helps us to understand just how bad the 'economic push factors' are in public facilities in rural areas.

The issue of late payment is not the only economic push factor that Catherine mentions in her story. She also talks about the strikes in Kenya. The length of the strike and the public's reactions to the strike convey the seriousness of the situation. We interpret Catherine's comments about the strikes as a qualitative measure of doctor's frustrations. Additionally, we interpret the public's reaction as a qualitative measure of the society's frustration with the public healthcare system. Thus, we see great value in Catherine's story in that it provides rich qualitative data about the experiences of doctors in the public system and the circumstances that motivate them to migrate to other sectors or areas.

Jennifer comments on many of the same themes that came up in Catherine's interview. This quotation from Jennifer provides additional insights into the experiences of doctors in the public sector and the impact they have on doctors' employment decisions:

the government pays a very small salary ... So, the work in the government hospitals, is not very attractive. And, the people who come in, and actually work for government are always looking for something else to do so they can top-up their money ... They come work a few hours and then run to a private hospital, work a few hours there so they can get some extra money to add on to their income' ... because the doctors are not paid well enough they charge mothers for things that are supposed to be free. So they'll tell a mother they need a cesarean section but I won't operate you unless you bring this amount of money. And they're not supposed to do that. And actually if they were to take them to the authorities they would be in big trouble. So they know they won't take them to the authorities and they know that she needs the cesarean section immediately. So you know, you pay. So yes, people find themselves doing things that aren't really straight. (Jennifer)

Through this statement we learn about some of the different ways that doctors cope with the types of challenges that Catherine described earlier. Jennifer mentions that some doctors cope with the poor pay in the public sector by taking on jobs in other sectors to supplement their income. Yet other doctors turn to corruption as a way of coping. Jennifer's story about the doctors who charged desperate mothers for cesarean sections even though they are not supposed to illustrates how financial strain can encourage corruption and negatively impact access to healthcare. Given the rich qualitative data, we see reason to believe that issues with pay and corruption serve as strong push factors in the public facilities in rural areas.

In summary, we conclude that the working conditions in the public sector are unattractive for at least two reasons: (1) the lack of resources and (2) issues with missing/insufficient/delayed payment which invite strikes and/or corruption. Accordingly, the unfavorable conditions in public facilities affects doctors professionally and personally. More specifically, the lack of resources and insufficient/delayed payment impact their ability to do their jobs and their ability to plan their private lives.

We noticed that all three of the East African doctors cited the same types of reasons for migrating from the public/government sector to work in other sectors. This statement by Jennifer suggests that the flight from public/government to other sectors is actually quite common:

we kind of get out of government work and go into projects because they pay better, cause they give you the stuff you need ... In the private sector things are much straighter because everyone is being paid. ... So money doesn't have as much power as it does when you're working in the government system. Yeah and then with the nonprofits that have funding, a lot of things are available so you don't have to charge mothers for something - a simple thing - because it's already available ... So there's less corruption in terms of how you deal with patients at the levels giving that healthcare when you're working with thouse organizations than you do with- when you do when you're with the government. ... Organizations work much better and are much less corrupt and much more straightforward than working in other health facilities. (Jennifer)

In this passage Jennifer states that doctors who leave government work in the public sector tend to go into private and/or to NGOs because those jobs have better pay, better funding, more resources, and less corruption. Jennifer's account seems to suggest that leaving the public sector is a third way that doctors respond to the frustrations in the public sector which were mentioned early on in this section. Given the stark contrast between doctors' experiences in the public sector and the other sectors, we see reason to believe that doctors who end up working in either the private sector or NGO sector are unlikely to migrate into the public sector. Thus, our qualitative data suggest that more doctors are leaving the public sector in rural areas than entering.

Throughout this section about the East African doctors' experiences with the public healthcare sector we learned that the working conditions for doctors can be very challenging. The doctors we spoke to mentioned the lack of resources, insufficient/late payment, strikes, and corruption as negative experiences. Additionally, they conveyed that these negative experiences heightened their levels of frustration and ultimately drove them out of the public sector. We recognize that there may be many other reasons that the public sector is such an unattractive place for doctors and that other doctors may have a different perspective on the matter. Nevertheless, the interviews that we conducted revealed that the migration from public to private or NGO is quite common and that the reasons cited for the change are often the unattractive circumstances in the public facilities. Therefore, our data seems to suggest that, with regards to the medical migration out of East Africa's public health facilities, the push factors in the public sector play a larger role than the pull factors elsewhere.

According to our interviewees' comments, the healthcare services seem to be particularly bad in the public facilities in rural areas. This leads us to believe that strong push factors in public facilities in rural areas would either keep doctors out of those facilities or cause high turnover within those facilities. Thus, simply finding ways to keep more doctors in the region does not appear to be a suitable solution to the healthcare crisis in the public sector in rural areas. Our hunch is supported by Catherine in the following quotation:

> it's not because we don't have enough doctors, it's because they are not paid well. And if they did pay the doctors well, you see even an outflow of the private sector to the public. So just improve pay, staff, good equipment, supply of medicines, just improve the systems. (Catherine)

In the above passage Catherine suggests that the problem is not the number of doctors but rather the insufficient pay. Furthermore, she suggests that the way to improve the healthcare services in the public sector is to increase doctors' pay and the availability of resources. Her comments about the possibility of outflow from private to public led us to believe that the way to increase the quality of healthcare services in low level public facilities is to focus on addressing the push factors within the public sector and rural areas. Accordingly, we suspect that the best way to recruit and retain doctors within public facilities in rural areas is to address the push factors which they cite as their reasons for leaving.

4.2. Experiences of Doctors From Developed Countries

In this section we will present, interpret and discuss empirical data. This bulk of the empirical data comes from two stories, that of Elvar and that of Carsten. The discussion of the stories and their significance is done in relation to data from some of the other interviews. This first passage is a string of transcript excerpts from the interview with Elvar, a Danish doctor who first emigrated to Sweden and later ended up working as a surgeon at a mission hospital in Ethiopia for over 10 years.

> I had to invent some new appropriate technology … Well I used things that I was able to find like spokes from bicycles to fix fractures also I used wooden - wood to fix fractures. Also bicycle pumps, you can take the valve and reverse it and use it as a suction machine. You just have to use your fantasy. ... You of course need to know your anatomy you have to know your pathology and you have to be a good surgeon but in that sense you have to ... have the

knowledge of surgery but the equipment you don't have but there you have to use your fantasy. ... They have to re-think. They cannot take the methods that they learned in the home, the Western world, and bring it there. They have to adopt to a whole new situation. They have to be flexible. ... [medical students who are in the process of finishing their education and have expressed interest in working in East Africa] will need to know they may not contribute a lot. There is a tendency - you think that coming from the Western world you are ferengi - that you can come and "save Africa," but ... Ethiopian doctors are very, very competent. So if you are a medical student, you don't have much to offer. ... If you come as a student, you cannot contribute with that much, I think … It would be narcissistic if you didn't [send people to training] because you think I am the big surgeon saving lives in Ethiopia but when you go back you leave a vacuum when you go back. That is not really a help for Ethiopia. But the training is so important. (Elvar)

The above quotation describes some of the challenges that Elvar faced while working as a surgeon in Ethiopia. He provides examples of times when he had to repurpose available materials, such as a bike parts, in order to create new tools. Elvar goes on to explain that this type of creativity is necessary due to the lack of resources and specialized equipment. Elvar clarifies that the equipment that doctors from developed countries might expect is simply not available. In talking about his experiences, Elvar emphasizes the importance of being flexible. He explains that it is particularly important for doctors from developed countries to be ready to improvise, either by creating new tools or coming up with new methods. This is because much of what doctors from developed countries have learned in the West is of little help without specialized equipment. Consequently, Elvar argues that doctors need to be prepared to think creatively, be flexible, and improvise on the spot. Elvar later points out that medical students coming from developed countries ought to know that their education, training and experiences in a developed country has likely not prepared them for the type of improvisation which is necessary when working in East Africa. He cautions foreign, or "ferengi", medical students from assuming they have the knowledge and skillsets necessary to "save Africa." Lastly he points out that the local doctors are likely much better prepared than a visiting medical student and thus more likely to make valuable contributions.

The main ideas that Elvar puts forward are: the need to be flexible, that resources and equipment are lacking, and the idea that one's ability to make a difference may be limited. These ideas are not unique to his story; many of our other interviewees described similar experiences. For example, Michael, a US doctor with experience in Tanzania and Ethiopia, echos Elvar's sentiments regarding the need for flexibility and a willingness to adopt new

methods: "[I would] tell them you have to go with an open mind and be flexible because things are done differently than you know what you're used to ... There are always gonna be unexpected things that come up" (Michael).

The fact that several of our interviewees related to aspects of Elvar's experience suggests that his comments speak to a larger phenomenon in the region. Thus, there seems to be reason to believe that Elvar's depiction of the nature of the work is both accurate and critical to answering our research question. Ultimately, Elvar's story and the supporting data from other interviews helps us to understand what incoming doctors from developed countries may find shocking or frustrating.

In this next string of excerpts we hear from Carsten, the German doctor who moved to Tanzania. Here he shares some of what he experienced while working as a missionary doctor in Tanzania and the impact that the experience had on him and his family:

> we had every week, everyday we had deaths and that was horrible sometimes. Well and, you know, the totally different culture and lifestyle. And we were threatened as a family many times by serious sickness and well very often we had deaths. ... Friends of us died. You know Africa is totally different from Europe. In Europe you have hospitals and whatever services but not in Africa. And you are confronted by the deaths from day to day. And the people are desperate. ... I have experienced things which nobody else has seen and that makes you feeling for the rest of your life somehow lonely. ... So the people must be prepared to come into a shock a, culture shock. To suffer somehow. ... Well I would recommend to be aware about a completely different culture and maybe everybody has its own expectations and they must be aware that the expectations are not fulfilled, in general, not fulfilled. ... One of our assisting churches stopped our donations. So we had not enough money to stay longer there, then my own health after such a long time was bad. And we had to separate us family from each other. You know two of your children went to the capital city for a long time and I had the feeling that for your family it is not very helpful to go on with this in the situation. So I decided at all to go home again. ... I mean it is an economic problem. A missionary doctor can't change an economic problem of the country. (Carsten)

In the above passage, Carsten speaks of what we understand to be some of the most challenging aspects of his time in Tanzania. In talking about the differences between Africa and Europe, he emphasizes the amount of life-threatening illnesses and death. We learn that his family has been uncomfortably close to death, and that he has also lost friends to illness. By advising incoming doctors to prepare for "shock" and "suffering," we are given reason to

believe that he himself has experienced both. Similarly, when he says "everybody has its own expectations" and that those expectations won't be fulfilled, we assume that he speaks from experience he had which were not fulfilled. The information that he provides next gives us insights into the types of hardships that he had likely not anticipated: loss of funding, not having enough money, personal health issues, having to send his children away to ensure they got an education, etc. Given the less than desirable situation, it is understandable why Carsten questioned whether or not it was a good idea for his family to continue in that situation and why he ultimately returned home to Germany. The fact that he concludes with, "[a] missionary doctor can't change an economic problem of the country" suggests that much of what he experienced was due to the country's economic problem and that it was beyond his realm of influence. As such, it seems like the hardships that he and his family experienced in Tanzania were greater than expected and therefore overwhelming in a negative sense.

Just as with Elvar's story, the challenges mentioned in Carsten's story also came up in some of our other interviews. For example, Tina, the German medical student, also struggled with being in such close proximity to death. She remarked, "I think it can be too hard for you if you have to see death and you feel like they are still suffering and you can't do anything" Meanwhile, Edgar, the Kenyan doctor in Kenya, gave another example of how incoming doctors from developed countries are likely to experience shock from the unexpected and cultural differences, "You might not expect that when you come to work in Kenya you will be sent to the farthest in the country where you don't even understand the local language" (Edgar).

Jennifer, the Ugandan doctor, also made valuable points that are consistent with Carsten's experience. With regards to financial difficulties, she said, "one thing [incoming doctors from outside East Africa] need to know is that it doesn't pay as well and people here are generally not very willing to pay for healthcare." Jennifer goes on to describe that reality as "very frustrating and very shocking for so many people who come from outside the region." In other words, financial difficulties is a big challenge which we assume could be large enough to impact the length of time that a doctor spends in the region. In another statement, Jennifer comments that, "Being in a place where I don't have what I call my family would really be a strange land for me." This last statement suggests that separation from family would also be very difficult and thus could impact her willingness to work under those circumstances.

In some respects, our interviewees from or based-in developed countries had realistic expectations of working in East Africa. For example, Simon, a Swedish medical student,

acknowledged that there would be challenges when he said, "I think I would enjoy the challenge of limited resources and I would enjoy treating the really really sick" (Simon). Nevertheless, other interviewees shared expectations that were not aligned with the reality described in Elvar and Carsten's stories. For example, in this passage from Fredrik, the Swedish medical student, conveys high hopes and unrealistic expectations:

> I'm hoping [that working in East Africa] would be a good experience … I'm expecting to be able to do good every day [in East Africa] when I'm there. To feel like every work day is a day where I get to tangibly make a difference. At least that's what I'm hoping. I think for that to happen though, you have to be on the correct team and have the right resources with you as well. It's not enough just going there. And that's what I'm hoping and what I would expect if I do get a job there. I wouldn't want to go if I didn't feel like I had that support and backup and those resources. (Fredrik)

Given all that we have learned about the nature of working as a doctor in East Africa, there is reason to believe that such idealistic goals are likely to not be met.

We found it especially interesting that the interviewees who spoke most positively of the challenges likely to be found in East Africa separately stated that the types of conditions that would cause them to leave East Africa are the very challenges that Elvar and Carsten's stories lead us to believe are highly likely. For example, in the words of Tina, "[I would leave East Africa] if one of my family-members or me would get sick, would get a disease, for example, or if one of my family would say I can't take it anymore."

Nevertheless, even Daniel admits that many of the challenges that Elvar and Carsten described in their stories, particularly limited resources, would likely mean that anyone who hopes to "use less to achieve more" will likely be frustrated by unmet expectations:

> I think it would be very difficult for me to work in a rural area ... because of limited resources. So I think that is more the issue, especially in the rural areas. Because you can have the doctor but not an assistant so the doctor is doing everything. So you can have the resources but you don't have the manpower. So it's a question of whether one, you have the right tools to do the right work. (Daniel)

Similarly, Fredrik, a Swedish medical student with limited experiences in the developing country of Nepal, shares what some of the aforementioned challenges would mean for his ability to make a long-term commit to working as a doctor in East Africa.

I wouldn't want to go if I didn't feel like I had that support and backup and those resources. ... I would probably want to go for no longer than about 3 months ... at the moment, I couldn't see myself going for the commitment of 10 years. That doesn't work for me. ... I don't think [the experience of working in East Africa is] going to push me forward, in that sense, very much ... it's not going to be like credit on my resume that is as huge as If I worked trying to specialize in Sweden ... I want to work in a safe environment. So, that would definitely be a thing that could make me consider - reconsider - where I go. And also it's the most important thing after that is the resources available in the organization that I would go to work with. ... I want it to be a good and serious well-functioning medical organization. So that I have resources to grow and learn and to help people. (Fredrik)

Fredrik, like Daniel, is someone who is able to frame the challenges of working in developing countries as a strength. In spite of that, as seen above, he is also clear that his work in the region is conditional upon having certain expectations met. The problem is that what he expects -- "a safe environment," "well-functioning medical organization" and "resources to grow" -- are in direct conflict with the reality that Carsten described. Given what other interviewees have said about their desire to make a difference, the reality of not being able to do your job due well due to the lack of basic resources is likely to be both highly frustrating and highly demotivating. As such, we believe that medical students and doctors coming from MDCs would not only experience shock from unmet expectations but would also be unlikely to make a long-term commitment to practicing in the region.

This apparent tension between expecting "challenges" and the conditions that would likely cause people to leave East Africa leads us to believe that many folks coming from developed countries would be unwilling or unable to make a long-term commitment in the region. Nevertheless, several of our interviewees were able to frame the challenges in a positive light. For example, when asked what he would say to encourage his doctor friends to consider working in East Africa, Daniel, a Kenyan doctor based in Germany, stated: "I would tell my friends this is an opportunity to grow. This is an opportunity for you to face new challenges. This is an opportunity to use less to achieve more. And this is an opportunity to transfer that knowledge to other people who need it" (Daniel). While Daniel is clearly able to frame the experience of working in an under-resourced environment in a positive way, it is difficult to know if those arguments will persuade him to uproot himself after more than ten formative years in Germany.

In summary, both Elvar and Carsten's stories provide rich descriptions of what it is like to be a doctor from a developed country working in East Africa. Special attention is given to the impact of working in an under-resourced environment. The insights that they offer regarding the challenges of their work in East Africa ultimately help us to understand what is meant by "healthcare crisis in East Africa" and why doctors and medical students alike are likely to think twice about working in East Africa. Carsten's story and the supporting empirical data helps us to understand what incoming doctors ought to expect, what they are likely to find challenging, and how the "unmet expectations" may limit their ability to work in East Africa for long periods of time. Unfortunately, we conclude that the majority of doctors coming from developed countries are unlikely to stay for more than a few months or years at a time. Furthermore, even if they would stay long term doctors from MDCs are likely to be unprepared to work with such limited resources and to improvise.

4.3. Placement Decisions of Doctors Immigrating to East Africa

In this section we will focus on the doctors from MDCs who immigrated to East Africa. We seek to interpret and analyze both their experiences working in the region and their decisions about where to work, which we will refer to as 'placement decisions.' More specifically, we want to understand what influenced doctors' placement decisions and the impact of their decision/migration in relation to the healthcare crisis in East Africa. Three of our foreign interviewees spoke about factors which influenced their placement decision in East Africa. The first of these interviewees is Tina, a medical student from Germany.

Tina shared that she has been to Tanzania before twice and that she would want to work there in the future. We learned that her decision to go to Tanzania with a missionary organization was due to her own Christian background. This is how she describes her experiences at the Christian hospital:

> Because it was also like a Christian hospital I experienced in a way that they were also praying for the patients and were delivering it to God that they have only certain resources and yeah do their best but the rest should God do. And there were really crazy wonders and things that I couldn't explain somehow. Yeah, many patients got a really good treatment there. ... I think I wouldn't work at all in a governmental hospital. I would just prefer to work in a foreign hospital. Because I know the standard is also very bad in a governmental hospital. (Tina)

According to this quote, Tina seemed to have had positive experiences at the Christian hospital. She mentioned that the patients received good quality care and the fact that prayer was a big part of the daily work of the doctors. Given Tina's positive perception of the hospital, the care patients received, and the work environment, we believe that Tina is inclined to choose missionary hospitals over other options. This hunch is supported by the fact Tina said she is not willing to choose a government hospital due to low standards in the public sector. Tina's perceptions about the standard in public hospitals align with what our East African doctors said about the sector. As a result, we conclude that the aforementioned push factors not only drive East African doctors to leave the public sector but also cause foreign doctors immigrating to the region to avoid public facilities.

The second doctor from Germany, Carsten, also chose to work at a Christian hospital. In this passage he explains the rationale behind his placement decision, his choice to work in a developing country:

> Okay so that was a special calling by God, by the Lord, which I experienced in the age of 25 and that was a very special occasion and a special word of God hit me at the time and I knew I had to go to the mission field and that was my calling, you can say that. And from this time onwards I tried to go to the mission field as a doctor. (Carsten)

This quote shows that Carsten's placement decision was largely influenced by 'a calling by God.' This background information seems to suggest that Carsten's aim was not simply to work in a developing country but to join the mission field as a doctor. Thus, it is understandable why Carsten chose a missionary organisation to answer his calling. Passages such as the one above give us reason to believe that Carsten and other Christians are inclined to choose work at missionary hospitals over other options/placements in East Africa.

The third example of someone from an MDC discussing placement decisions is by Fredrik, from Sweden. When we asked Fredrik about what would influence his placement decision he immediately started talking about what kind of organization he would chose and why: "I would also want to find out more about the organization ... and the employers I would have, if they are trustworthy and if their organization is good and if their organization is helpful to people." Based on this passage, we believe that Fredrik would chose organizations that he deems to be trustworthy which have the capacity to make a positive impact. Since he did not mention any consideration of public hospitals, we see all the more

reason to believe that he would likely chose work in the NGO sector over work in the public sector.

In summary, none of the doctors from MDCs chose to work in the public sector. Instead, all three focused on the NGO sector. Given the small sample size of three people, this similarity across experiences may be a coincidence and thus not generalizable. Nevertheless, we still suspect that foreign doctors immigrating to East Africa have the tendency to choose work in the NGO sector over other options. Interestingly, Edgar, a Kenyan doctor working in Kenya, confirmed our suspicion about foreign doctors' migration patterns: "[w]e have quite a number of foreigners who work in the health system. Mainly in the mission supported hospitals. We have very big, very good mission hospitals that are full of foreign doctors ... We have a huge blossoming NGO world." This quote supports our hunch that doctors from MDCs tend to choose missionary organizations or NGOs over opportunities to work in the public sector.

With consideration to our research, these findings will help us to understand how brain exchange in East Africa relates to the healthcare crisis in the region. If East Africa managed to reverse the brain drain of doctors, there would by definition be a net inflow of doctors instead of a net outflow of doctors. Nevertheless, since doctors from MDCs appear to prefer work in NGOs over work in the public sector, the increase in doctors within the region is unlikely to increase the number of doctors working in the public facilities in rural areas. Thus, reversing the brain drain is not the solution to the health care crisis in East Africa.

4.4. Presentation of Findings

Before we discuss our empirical data in relation to the literature presented in the literature review, we will provide a summary of our findings most relevant to answering our research question: How do doctors' experiences regarding medical migration in East Africa help to understand the healthcare crisis in the region?

4.4.1. Findings

Our critical interpretation and analysis of the empirical data lead us to various findings, some specific to our interviewees and some more general. With regards to our interviewees from MDCs, we found that they experienced a great deal of challenges while working as doctors in East Africa. Furthermore, we found that the degree of frustration that they experienced in the face of those challenges was often heightened due to the differences

between the MDCs and the LDCs. While differences in language and culture were referenced in several interviews, generally speaking, the greatest challenges appeared to be tied to encounters with death as well as under-resourced health facilities. According to our interviewees, working as a doctor requires the ability to improvise. Nevertheless, our interpretation of the empirical data found that the training and experiences of these interviewees left them feeling unprepared and overwhelmed by the challenges of working as a doctor in East Africa.

When extrapolated, our findings led us to five assumptions related to medical migration in relation to the healthcare crisis in East Africa. We will now present those assumptions in three categories: those specific to doctors coming from MDCs who immigrate to East Africa; those specific to doctors from East Africa who are working in the region; and those which apply to both groups. In the first category, we assumed that doctors who immigrate to East Africa from MDCs are likely to: (1) feel overwhelmed by the challenges of working as a doctor in East Africa, (2) be unprepared to work with limited resources, (3) avoid the public sector in general, including public facilities in rural area. In the second category, we assumed that doctors from East Africa who work in the region are likely to (4) leave the public sector. Lastly, in the third category, we assumed that both groups of doctors are likely to (5) avoid the public sector in rural areas because of the frustrating working conditions which serve as push factors. We will now elaborate upon those assumptions.

With regards to the assumptions listed under the first category, we believe that doctors immigrating to East Africa from MDCs are likely to experience a greater clash between their expectations and reality. Furthermore, we assume that part of the reason that it is so difficult for doctors from MDCs to work in under-resourced environments in East Africa is that they lack region-specific training and experience improvising under pressure. Additionally, we see reason to believe that doctors from MDCs are less likely to choose work in the public system over opportunities in other sectors. Thus, our three assumptions in the first category lead us to conclude that doctors from MDCs are unlikely to play a significant role in addressing the healthcare crisis as we defined it.

With regards to the assumptions listed under the second category, we believe that even the doctors who had strong personal ties to developing countries in East Africa, e.g. family, East African identity, sense of home in the region, and a desire to respond to the dire need for doctors in the region, were likely to leave the public sector as a practicing clinician. Lastly, with regards to the assumptions listed under the third category, we see reason to believe that even the most committed and/or most well-intentioned doctors are unable to

address one of the greatest concerns within the public healthcare system: the shortage of committed doctors in public facilities in rural areas.

4.5. Conclusion for Findings & Analysis

In summary, our interpretation and analysis of the empirical data enabled us to come to certain conclusions regarding the migration patterns of doctors with ties to East Africa. We believe that doctors immigrating to East Africa from MDCs are *unlikely* to make a significant impact over the long-term in relation to the crisis for three reasons: (1) they are likely to only stay short term, (2) they are likely to be unprepared for the challenges of working in the region, (3) they are unlikely to choose to work at public facilities in rural areas. On the other hand, we see reason to believe that East African doctors who end up working in public facilities in rural areas are likely to leave. Ultimately, the data seems to suggest that doctors generally avoid/leave the public sector in rural areas due to the strong push factors in those facilities. Thus, we conclude that increasing the number of doctors in the region will not necessarily address the crisis which we have found to be concentrated in public facilities in rural areas. As such, we proceed to the discussion with the following guess in mind: the push factors in public facilities in rural areas need to be addressed in order to mitigate the harmful aspects of medical migration on the healthcare crisis in East Africa. This guess will be discussed further in relation to relevant literature in the next section.

5. Discussion of Findings In Relation To The Literature

Throughout our literature review we presented concepts, theories and statistics about the healthcare crisis in East Africa as well as medical migration. We realized that the literature about the healthcare crisis in East Africa is often tied to discussions about the management of medical migration and the aforementioned debates about brain drain control policies (Davenport, 2004). Accordingly, within this discussion, we will explain how our findings, both specific and generalized, agree, disagree, and/or contribute to the literature and the debates about brain drain control policies.

We will start this section by discussing our guess regarding doctors' migration tendencies in relation to relevant literature. We believe our guess will be relevant to discussions on medical migration management approaches which aim to address the crisis. More specifically, we will revisit debates about the impact of brain drain control policies on the crisis and argue that such policies will likely not address the crisis. Furthermore, we claim that push factors in the public sector in rural areas need to be prioritized over brain drain control policies in order to mitigate the harmful aspects of medical migration on the healthcare crisis in East Africa.

5.1. Doctors' Tendencies to Leave/Avoid the Crisis

5.1.1. Healthcare Crisis in East Africa

In this section we will draw upon our empirical data in relation to the literature in order to specify what is meant by 'the healthcare crisis in East Africa.' The literature describes the healthcare crisis by pointing out the number of people in the region who lack access to even basic healthcare services due to poorly resourced and poorly staffed healthcare facilities. While the literature suggests that the healthcare crisis is concentrated in the public facilities in the rural areas, the qualitative data from our interviewees' narratives offer a clearer picture of how public facilities compare with other types of facilities and what that means for people in different areas.

The East African interviewees who worked in public facilities in Kenya and Uganda emphasized how poorly resourced those facilities were in terms of staff and equipment. They explained how the lack of resources influenced the quality of healthcare services. Catherine,

for example, shared stories about how the lack of specific types of equipment resulted in unnecessary deaths. Additionally, Edgar spoke about how the poorly equipped nature of the public facilities impacted doctors' abilities to diagnose. Furthermore, Catherine explained that the situation in the public facilities is even worse when those facilities are located in the rural areas of the region. More specifically, Catherine's testimony about the level-system for public hospitals helped us to understand what types of facilities exist within Kenya's public healthcare and the differences between them. The different levels essentially reflect capacity to meet patients' health care needs. The lower level facilities based in rural areas have limited resources and few healthcare professionals, meanwhile the higher level facilities in urban areas are quite well equipped and well staffed. Our interviewees' qualitative descriptions of what it is like to work in different types of facilities, at different levels, revealed that doctors in the low-level public facilities are likely to end up "supervising death" (Catherine) when they could have been saving lives if they had only been in a higher level facility or another sector.

Therefore, we conclude that the quality of healthcare services seems to be worse in the public sector in comparison to the NGO/private sector. Additionally, we conclude that, within the public sector, facilities in rural areas appear to be worse than those in urban settings. Our conclusions align with what the literature said about the crisis being concentrated in public facilities in rural areas.

5.1.2. Migration patterns of doctors

In the previous section we described the healthcare crisis as being concentrated in public facilities in rural areas. In this section we will point out that the migration patterns of doctors represent a movement away from the crisis. More specifically, we will argue that doctors tend to leave or avoid public facilities in rural areas and thus tend to leave or avoid the crisis.

We mentioned in the literature review that there appear to be two movement tendencies of doctors in East Africa. The first tendency is to move from rural to urban areas and the second tendency is to move from the public sector to either the private/for-profit sector or the NGO/ non-profit sector.

DOCTORS' MIGRATION PATTERNS IN EAST AFRICA:

	Public Sector	Private/ For-Profit Sector	NGO/ Non-Profit Sector
Rural Areas	*[Location of Crisis]* Doctors tend to move to private sector, NGOs and/or to urban areas	Doctors tend to move to urban areas	Doctors tend to move to urban areas
Urban Areas	Doctors tend to move to private sector or NGOs	-	-

These tendencies, or migration patterns, align with our findings from the empirical data analysis. Our empirical data suggests that once the challenges within the public sector become too great, healthcare professionals will transition either from public to private/NGOs or out of the healthcare field altogether. This is also the case for doctors in rural areas who tend to migrate to urban areas. Our interviewees, Jennifer, Catherine and Edgar, all strongly emphasized their negative personal experiences with the undesirable working conditions in the public facilities in rural areas. They mentioned that the working conditions in the public sector are less attractive than those in the other sectors and that the working conditions are even worse in low-level public facilities in rural areas. The East African interviewees talked about the emotional strain due to their experiences with "supervising death" (Catherine), strikes, corruption, frustration due to poorly resourced environments and desperation due to no/delayed pay. Ultimately, all of the East African doctors that we spoke to left their work in the public sector and thus the crisis. The migration pattern was from public to private sector, projects in the NGO sector and/or urban areas. When comparing their work experiences before and after their move, interviewees emphasized that their decision was the right one. The fact that the East African doctors felt good about their decision to migrate gives us reason to believe that it is highly unlikely that they will migrate back to public facilities in rural areas as long as the push factors in those facilities are unaddressed. This aligns with the migration patterns which we presented in the literature review. Ultimately, the two migration patterns described in the literature and our empirical data suggest that public facilities in rural areas are not only center of the crisis, but also the least attractive employment option in East

Africa's healthcare systems. Accordingly, we assume that doctors working in public hospitals in rural areas are likely to leave the sector and/or the rural area and thus the crisis.

We believe that our qualitative data can contribute to the literature on migration patterns. The presented movement tendencies of doctors refer to movement within the region while our data suggests inter-regional patterns in relation to the crisis as well. In the case of Catherine, who is open to leaving her job as a doctor to work with policy in other countries, our data suggests that doctors not only move from rural to urban areas and/or public to private/NGO but also consider alternative employment in other fields and/or countries. Thus, our qualitative data can contribute to the literature in as it does not only suggest that doctors tend to leave the crisis by migrating either intra- or inter-regional but also that immigrating doctors tend to *avoid* the crisis. Here, we want to address the placement decisions of doctors from MDCs immigrating to East Africa, for example, Fredrik, Carsten and Tina. All stated a strong desire to work in the NGO sector and emphasized resistance to choose a public facility due to the unattractive work environment.

Our discussion of the empirical findings in relation to the literature led us to the conclusion that doctors tend to *leave* as well as *avoid* work in the public sector in rural areas and therefore tend to leave or avoid the crisis.

5.1.3. Push factors cause migration patterns of doctors

We believe that the richness of our qualitative data helps to understand the reasons that doctors tend to leave or avoid work in public facilities in rural areas and, in doing so, leave or avoid the crisis. All of our interviewees who either left or avoided the crisis the undesirable working conditions as the reason for their migration decision. As mentioned in the empirical section above, our interviewees described emotional strain from "supervising death" (Catherine), strikes, corruption, high frustration due to under-resourced environments and desperation due to no payment. Thus, our interviewees' rich descriptions about the challenges that they faced and the emotional toll they paid provided us with valuable insights into what drives doctors to migrate to other sectors, areas, and/or regions.

Since most of our interviewees cited the negative aspects of their experiences in challenging environments as reasons for making a change rather than, for example, a desire to pursue professional development opportunities elsewhere, we believe that push factors in under-resourced environments play a greater role in motivating migration than pull factors. Therefore, we see reason to believe that the push factors associated with the crisis are the

doctors' primary reasons for leaving or avoiding public facilities in rural areas. As mentioned above, sometimes the push factors are so great that doctors consider leaving the field altogether because the circumstances limit their ability to do their job to their satisfaction and their ability to plan their lives. One could argue that pull factors may have played a role in migration out of the sector, area, or field, however, we see reason to believe that *even if* there were *no* pull factors, in some cases, the *push* factors were so great that the doctors would *still* have left. After all, how much longer could Catherine have afforded, emotionally and/or financially, to work as a mere "supervisor of death" far from home when she is not paid for up to six months at a time? With such extreme conditions making it hard for Catherine to plan her life, it is understandable why she and others in her position would seriously consider leaving their work/field, even if they did not have other opportunities pulling them away.

While the literature discusses both push and pull factors, our findings suggest that push factors are more significant when it comes to medical migration in the context of East Africa. Hence, our qualitative data seems to support that the aforementioned push factors appear to drive the movement away from the crisis. In doing so, our qualitative study contributes to the literature on pull and push factors and medical migration by suggesting that, in the context of the healthcare crisis in East Africa, the push factors tend to be more significant than pull factors.

To summarize, we found that our guess, based on the empirical data, aligns with the literature. Furthermore, we believe that our study contributes to the literature on medical migration patterns and push and pull theory in the context of East Africa. In the next section we will use our guess to discuss the significance of brain drain control policies for the crisis in East Africa.

5.2. Brain Drain Policies As a Response to The Crisis

5.2.1. Brain Drain Policies Aim to Increase the Number of Doctors in the Region

Given our focus on medical migration, we believe it is important to limit our discussion on policy to the three responses to brain drain categorized as "variants of migration policy, eg. return, restriction and recruitment" (Lowell, 2001, no pagination). Thus, each of these three types of migration policies seek to mitigate the negative effects of brain drain by *decreasing* the *outflow* of doctors from East Africa and/or *increasing* the *return flow*

to the region. As such, the literature suggests that balancing the levels of inflow and outflow through migration policies is key. Decreasing the region's loss of doctors while increasing their gains through inflow or return flow would likely improve healthcare in the region. Nevertheless, we argue that these approaches to mitigating the effects of medical brain drain in the region would not necessarily address the healthcare crisis in East Africa.

5.2.2. Simply Increasing the Number of Doctors In The Region Will Not Address The Crisis

In this section we will relate our description of the healthcare crisis in East Africa to the tendencies of doctors to leave or avoid the crisis. Additionally, we will argue why simply increasing the number of doctors in the region is unlikely to address the crisis.

To begin, we want to point out that the total number of doctors in the region can be increased by: *increasing in inflow* of foreign doctors, e.g. Fredrik, Tina, Elvar or Michael; by *decreasing the outflow of doctors*, e.g. Daniel who left Kenya; or *increasing in return flow of doctors*, e.g. Daniel, if he were to return to his home country of Kenya. However, we argue that, even if the number of doctors in the region is increased, the change is unlikely to improve the situation in public facilities in rural areas. This is due to the migration tendencies of doctors within the region and between sectors as the result of push factors. Hence, an increase of the number of doctors in the region is unlikely to address the shortages in the public sector in rural areas and thus unlikely to address the crisis. Therefore, we can conclude that an increase in the number of doctors in the region is not necessarily significant to the crisis. Rather, the distribution of the doctors is relevant to the crisis. Thus, even if the number of doctors migrating inter-regionally increased/decreased, thereby impacting the number of doctors within the region, this change would not necessarily impact the number of doctors in public facilities in rural areas. Hence, neither a decrease nor an increase in the number of doctors in the region would necessarily address the crisis since the significant push factors, mentioned by our interviewees, are likely to keep the doctors outside the public facilities in rural areas.

On a different note, even if immigrating doctors coming via inflow or return flow would choose to work in public facilities in rural areas, we believe they are unlikely to have a sustainable impact on the crisis. This interpretation is due to our empirical findings from, for example, Fredrik, Carsten and Elvar. Fredrik shared about his willingness to not stay longer

than three months and therefore represents that immigrating doctors may only stay short-term instead of long-term. In contrast, Carsten immigrated to Tanzania without an end date in mind. However, he eventually returned to Germany due to the fact that the challenges exceeded his ability to cope. Furthermore, Elvar shared, that foreign doctors who come for a short time are often unprepared for the challenges of working in public facilities in rural area as they have not learned how to improvise with limited resources. Accordingly, they are more learners than doctors who can offer healthcare services to address the crisis. Thus, our empirical findings suggest that, even if inflow would address the shortage in public facilities in rural areas, inflow to the region is unlikely to have a sustainable and beneficial impact on the crisis.

In summary, we assume that addressing the poor distribution of doctors in the region is more significant to addressing the crisis than increasing in the number of doctors in the region. Since the latter refers to medical migration policies, we will now discuss the impact of those policies on the crisis.

5.2.3. Brain Drain Policies Are Inappropriate Responses To The Crisis

In the previous section we argued that simply increasing the number of doctors in the region is unlikely to address the crisis in the public facilities in rural areas. We will now outline how this claim relates to the management of medical migration.

Based on our definition of the crisis, we suggest that management of medical migration can only be beneficial if it increases the number of doctors working in public facilities in rural areas or decreases the number of doctors leaving those facilities. Thus, we will argue that managing medical migration through brain drain control policies is not an appropriate way of responding to the crisis.

The three aforementioned migration policies focus on curbing, stopping and/or reversing the brain drain in order to reduce the loss of doctors from the region and increase the number of doctors via in-flow or return-flow. As such they focus on increasing the number of professionals in the region. Through our research we learned that increasing the number of doctors in the region is *less* important in addressing the crisis than re-distributing doctors who are already in the region. As such, we see reason to conclude that managing medical migration by attracting more doctors from MDCs and/or making it more difficult for doctors to leave the region will not necessarily address the crisis and thus migration control

policies are an inappropriate response to the crisis. With this in mind, we disagree with the claim that managing medical migration through brain drain control policies is essential to address East Africa's healthcare crisis. Therefore, we argue that governments should address the crisis by means other than simply reversing the brain drain or attracting more doctors from MDCs.

We also argued above that, even if return flow and/or inflow increased the number of doctors in the public sector in rural areas, the incoming doctors are unlikely to be prepared for the level of improvisation that is required and/or unlikely to stay long-term. Accordingly, even if return and/or recruiting policies increased the number of doctors in the region, the policies would not necessarily ensure sustainable improvements to the quality of health care services in the areas with the greatest need. This again aligns with the argument regarding the ambiguity of 'brain' and 'shortage.' Thus, if for example Fredrik would choose to work in the area of the crisis, he would not necessarily contribute to brain gain or address the shortage, as he might not be qualified for working with under-resources facilities.

In summary, our study shows that migration control policies can be problematic as the policies do not necessarily improve the situation in the public facilities in rural areas and thus do not help to address the crisis.

5.3. Practical Implications For Responses To The Crisis

5.3.1. Push-Factors Need To Be Prioritized (Over Brain Drain Control Policies)

In the previous section we argued that attempts to address the healthcare crisis in East Africa via brain drain control policies are inappropriate given the nature of the crisis. Our main argument was that the policies' contribution of increasing the number of doctors in the region may be beneficial for East Africa's healthcare services but is unlikely to address the shortage of doctors where the crisis is most severe. Therefore, we believe that the goal of re-distributing doctors within the region, between sectors and across areas appears to be more appropriate for addressing the crisis than simply increasing the number of doctors in East Africa via brain drain control policies. Furthermore, re-distributing doctors from the region is more likely to benefit the crisis than recruiting doctors from MDCs due to their qualifications to work in areas of the crisis. Even though the issue of poor distribution could be the case due to push and pull factors, we argued, that the strong push factors that doctors, such as our interviewees, experience in public facilities in rural areas are the primary cause and need to

be addressed. Accordingly, we suggest that management of medical migration is only helpful in addressing the crisis if the strategies acknowledge and address the heart of the crisis: the push factors of under-resourced health facilities in the public sector in rural areas.

Since so many people in the region rely on public healthcare facilities in rural areas, it is particularly important that the public sector and rural areas in East Africa receives the attention and support that they deserve. Consequently, the most effective way of managing the medical migration out of or away from public facilities in rural areas is to make the public sector and rural areas a less unattractive place to work. According to our interviewees, it is the push factors that cause doctors to either leave and/or avoid the public facilities in the rural areas. In other words, mitigating the push factors of the crisis could help to retain or recruit healthcare professionals in the crisis. Thus, reducing the severity of the crisis requires investments that reduce the push factors that cause local and foreign doctors alike to move away from public facilities in rural areas. Therefore, we argue, that the only way to reduce the likelihood of doctors overlooking opportunities in public facilities in rural areas and their tendency to leave the crisis area is to address the push factors that make it such an unattractive place to work. According to our empirical data the most frustrating push factors include: insufficient payment and under-resourced facilities.

To conclude, we developed our guess into a claim. Our claim is: push factors in the public sector in rural areas need to be *prioritized over brain drain control policies* in order to mitigate the harmful aspects of medical migration on the healthcare crisis in East Africa. In this last section of the discussion we will explain why addressing push factors is more important that controlling inter-regional migration through brain drain control policies.

5.3.2. Possible Consequences of Addressing Push Factors

We suspect that addressing the push factors would not only improve the quality of healthcare services for the patients, but also facilitate the retention and/or recruitment healthcare professionals in this sector most affected by the crisis. More specifically, we believe that increasing the availability of necessary equipment, like the ventilators and exam lights that Catherine and Edgar mentioned, would help doctors to save lives. Additionally, such actions would help reduce the frustrations that drive doctors' out of the sector, the region and/or out of the healthcare field. Furthermore, addressing the push factor of insufficient/delayed payment would most likely not only reduce the amount of strikes and/or

corruption, but also make it more appealing for doctors to either stay in or pursue public facilities in rural areas.

Until push factors in the public sector and rural areas are addressed, we argue that any other approach to managing the crisis is likely to be inappropriate. More specifically, we argue that, in order for certain low-level facilities to experience some of the potential benefits of inter-regional medical migration, push factors must first be addressed. Thus, until the push factors in the public sector and rural areas are addressed, the use of brain drain control policies is unlikely to resolve the crisis or improve the quality of healthcare in a sustainable way. The only way to ensure that Tina, and others like here, would not avoid the public sector in rural areas is to improve the conditions in the public facilities in those areas. If the conditions were improved, incoming doctors would be less likely to avoid and more likely to consider working in public facilities in rural areas. The *inflow* of non-East Africans and/or *return flow* of East Africans to the region could benefit the areas in crisis and the individuals who chose to take on the personal and professional challenges that the region offers. Additionally, those who come to the region could help motivate other doctors to get involved by sharing their stories and/or supporting projects in the region. Essentially, doctors with ties to East Africa, regardless of their background, can become liaisons who build bridges between East Africa and other regions of the world.

In conclusion, we recommend the following: address push before pull. This recommendation aligns with Catherine's suggestion of addressing weaknesses in the healthcare system in order to increase the quality of healthcare services and save more lives. Like Catherine, we believe that, in order to address the crisis in the region, the focus must be on improving the public hospitals at the lower levels by increasing the availability of resources. This conclusion is supported by the argumentation above.

5.4. Conclusion for Discussion

In the beginning of our discussion we described the healthcare crisis as being concentrated in public facilities in rural areas. We then pointed out that the migration patterns of doctors represent a movement away from the crisis. More specifically, we argued that doctors tend to leave or avoid public facilities in rural areas and thus tend to leave or avoid the crisis. Furthermore we used our qualitative data to suggest that push factors tend to be more significant than pull factors in terms of driving this movement away from the crisis. With this in mind, we then discussed three brain drain control policies which all aim to

increase the number of doctors in East Africa. Next we explained why simply increasing the number of doctors in the region is unlikely to address the crisis. Therefore, with regards to the crisis, we interpreted that addressing the poor distribution of doctors throughout East Africa is more important than increasing the number of doctors in the region. Since the latter refers to the brain drain control policies, we claimed that brain drain control policies are unlikely to benefit the areas most in crisis.

In summary, our discussion revealed that simply increasing the number of doctors in the region through brain drain control policies is unlikely to address the crisis in the public facilities in rural areas due to the significant push factors in the crisis. Hence, we suggest that management of medical migration can only beneficial if it increases the number of doctors working in the public facilities in rural areas or decreases the number of doctors leaving those facilities. Since mitigating the push factors could change doctors' tendency to leave or avoid the crisis, we believe that efforts to address push factors are more appropriate ways of addressing the crisis than brain drain control policies. This is summarized in our claim: push factors in the public sector in rural areas need to be prioritized over brain drain control policies in order to mitigate the harmful aspects of medical migration on the healthcare crisis in East Africa. Lastly, we supported the significance of our claim by naming possible consequences of a successful mitigation of the push factors and emphasized likely benefits for the crisis.

6. Conclusion

6.1. Conclusion and Implications

Throughout our study, we explored the impact of medical migration on the healthcare crisis in East Africa. We intended to answer the research question: How do doctors' experiences regarding medical migration in East Africa help to understand the healthcare crisis in the region? Accordingly our research objectives were to: (1) conduct semi-structured interviews with doctors who have ties to East Africa, (2) collect qualitative data about their experiences with medical migration, and (3) analyze the empirical data collected. Our study achieved the research objectives in as the answer to our research question helped us to understand the relationship between medical migration and the healthcare crisis in East Africa. Our empirical data generated from the semi-structure interviews with doctors with ties to East Africa offered relevant insights to our purpose and aim of study. Their experiences as doctors in the region led to the following five assumptions:

Doctors coming from MDCs immigrating to East Africa are likely to...

1. feel overwhelmed by the challenges of working as a doctor in East Africa
2. be unprepared for working with limited resources
3. avoid the public sector in general, including public facilities in rural areas.

Furthermore, *doctors from East Africa* who are working in the region are likely to…

4. leave the public sector.

Lastly, *all doctors in the region,* regardless of their background, are likely to….

5. leave or avoid the public facilities in rural areas because of the frustrating working conditions in the facilities which serve as push factors.

Our study is significant in that it contributed to the literature on medical migration. Our rich qualitative data revealed that push factors are likely to influence a doctor's decision to migrate away from the crisis in public facilities in rural areas to a greater extent than pull factors do. Furthermore, since there appears to be little research done on migration patterns of foreign doctors immigrating to East Africa, we may be able to help to fill a gap in the literature. Our insights about foreign doctors immigrating to East Africa from MDCs suggest that, as long as push factors remain, this group of doctors is unlikely to have a significant and sustained impact on the crisis due to the first three assumptions mentioned above.

We believe that all our five assumptions, which are based on our empirical data and our findings, could not have been discovered via a quantitative study. Even though there is a value to quantitative data, such as statistics, we believe that the rich descriptions of the doctors' experiences and emotions are essential to understanding the doctors' placement/migration decisions in East Africa. Accordingly, we believe that it is thanks to our rich qualitative data that we were able to conclude that, in the context of East Africa's healthcare crisis, push factors played a larger role in shaping placement decisions and migration patterns than pull factors.

Our analysis of the empirical data provided the opportunity to create the following guess: push factors in public facilities in rural areas need to be addressed in order to mitigate the harmful aspects of medical migration on the healthcare crisis in East Africa. We used our guess to critically discuss relevant literature. We then used theories from medical migration to contribute to a more nuanced understanding of both push and pull factors that impact doctors' willingness and ability to make a difference in the public healthcare systems within East Africa. Additionally, we discussed the debate about the significance of brain drain control policies in relation to the healthcare crisis in East Africa. We then argued that, even though brain drain control policies can help increase the number of doctors in East Africa, simply increasing the number of doctors in the region will not necessarily address the healthcare crisis in the region. The limited benefits of brain drain control policies is mainly due to the migration patterns within the region which exacerbate the already poor distribution of doctors. Therefore, we disagreed that brain drain control policies are an appropriate approach to addressing the crisis. Rather, we suggest that it is important to address push factors before first aiming to increase the number of doctors in the region. Accordingly, we claimed that push factors in public facilities in rural areas need to be prioritized over brain drain control policies in order to mitigate the harmful aspects of medical migration on the healthcare crisis in East Africa.

We believe that addressing the push factors could improve healthcare services for those in greatest need, such as those currently affected by the famine in the Horn of Africa. Thus, we interpret that our study achieved the aim. Our findings answer the research question. More broadly speaking, our work contributes to increased health equality and efforts to break the vicious cycle described by Charles-Edward Armory Winslow (1951): "Men and women were sick, because they were poor; they got poorer because they were sick and sicker because they were more poorer" (p.9).

6.2. Recommendations for Future Research

We believe that our study provided significant insights into the impact of medical migration on the health care crisis in East Africa. In summary our research suggested that, in order to mitigate the harmful aspects of medical migration on the crisis, push factors in public facilities in rural areas need to be prioritized over brain drain control policies. As a result, we recommend additional research on how inter- or intra- regional policies could help to address push factors such as under-resourced facilities and insufficient/late pay. Further research comparing findings about different types of healthcare professionals and/or the experiences of doctors in different countries/regions could also be helpful. Another possible topic for future research is training. It would be interesting to know what type of training would help doctors from MDCs to integrate more quickly and/or improve their ability to improvise in under-resource environments. We believe that the above recommendations for further research could help improve the health care services.

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