

Doctors with Borders: Medical Brain Drain Through the Ethical Lens

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TABLE OF CONTENTS

<i>LIST OF FIGURE</i>	<i>iii</i>
1. <i>INTRODUCTION</i>	<i>1</i>
2. <i>LITERATURE REVIEW</i>	<i>5</i>
Background	<i>5</i>
Causes of medical brain drain	<i>9</i>
Consequences of medical brain drain.....	<i>11</i>
Ethics of migration	<i>14</i>
Current measures taken	<i>19</i>
3. <i>CASE STUDIES</i>	<i>22</i>
Methods	<i>22</i>
South Korea: a success story?	<i>23</i>
South Africa: pass-through of global migration.....	<i>28</i>
Malawi: the ethics of aid	<i>36</i>
4. <i>DISCUSSION</i>	<i>42</i>
Cross-cultural ethics of policy.....	<i>42</i>
Ethics of development	<i>44</i>
South-South Collaboration: a possible future	<i>49</i>
Limitations of this study.....	<i>51</i>
5. <i>CONCLUSION</i>	<i>53</i>
<i>REFERENCES</i>	<i>55</i>

LIST OF FIGURE

Figure 1: epistemic typology of medical brain drain. 8

1. INTRODUCTION

Immigrant healthcare professionals play essential roles in contemporary American healthcare: according to data spanning from 2002 to 2017, around one quarter of physicians in the United States are foreign-trained, mostly in low-income or lower-middle income countries (“Foreign-Trained Doctors are Critical to Serving Many U.S. Communities”, 2018; Hagopian et al., 2004). However, while making great contributions to the United States, the American wealth of immigrant health workers co-occurs with the alarming scarcity of human capital in healthcare sectors of the source countries of immigration. The global maldistribution of healthcare workforce is greatly exacerbated by this migration flow from the Global South to the North, commonly known as the medical brain drain: healthcare workers leaving their home in low-resource setting and migrating to the more affluent countries for various financial, social, or political reasons. Against a backdrop of globalization and ideals of economic freedom, medical brain drain could be explained and excused as just another manifestation of the “invisible hand” of economy; the reality, however, is that the ethics of migration, international development, and relevant policy making in health should be further examined.

International migration of all highly-skilled persons, commonly referred to as the “brain drain” phenomenon, has long plagued the Global South (Masanjala, 2018; Jamal et al., 2018; Hagopian et al., 2004; Dei & Asgharzadeh, 2002). While the global migrant stock grows at a steady rate that parallels world trade and world population, migration from South to the North increased from ten million to 55 million between 1960 and 2000, faster than trade (Docquier, 2014). Moreover, the number of highly educated workers exceeds that of low skilled workers in virtually all countries (Docquier, 2014). Thus, the most valuable human capital of the South continues to emigrate at a growing rate. As health professionals are essential to ensuring a

nation's basic welfare and their emigration is damaging to the source country, movements of the healthcare sector are central to the issues of brain drain (Skeldon, 2008; Masanjala, 2018). The phenomenon of brain drain could devastate the healthcare infrastructure of source countries, many of which already struggle to create a system to train qualified healthcare workers. Migration of these "brains" renders healthcare system development efforts rather fruitless, since the investment makes much less impact on the domestic healthcare systems than it should.

The factors driving medical brain drain are complex, intertwined, and deeply rooted in structure and history. There are many financial, social, and political push and pull factors that incentivize emigration of healthcare professionals (Hashmi et al., 2012; Dei & Asgharzadeh, 2002). Firstly and most obviously, the promise of financial prosperity in the North introduces great incentive for individuals to pursue careers abroad. The highly industrialized and commercialized North attracts immigrants with the help of globalization as well as neocolonialism: the societal incentives for immigration are as persuasive, if not more so, as financial ones (Dei & Asgharzadeh, 2002; Hashmi et al., 2012; Glaab, 2018). The exceptionally high social status of physicians and healthcare professionals in the United States probably also contributes to the American attraction to foreign physicians. Last but not least, political factors constitute another significant part of motivations for medical emigration. For one, war and violence are strong push factors that drive people out of the country. Domestic corruption and political employment discrimination can also incentivize emigration.

Brain drain's many negative impacts to the source countries include not only economic ones but also social ones. Aside from the resulting fiscal loss and the detrimental effect on the labor structure (Bhargava & Docquier, 2008; Docquier, 2014; Konduah, 2018), the brain drain effect also leads to the erosion of middle and upper-middle strata, resulting in a society devoid of

a strong middle class, which is not politically, economically, and culturally healthy: such a social structure in turn contributes to the erosion of democracy (Dei & Asgharzadeh, 2002; Docquier & Rapoport, 2012). In many cases, countries suffer from double burden of brain drain and high domestic unemployment, both results of inept or corrupt governments and fragile private sectors (Jamal et al., 2018). The vicious cycle of weakened healthcare system, unstable or corrupted politics, and healthcare worker migration is likely to sustain itself if left without intervention.

And interventions were indeed put in place by local governments and international governing bodies such as the WHO. However, the ethics of these interventions requires further, more nuanced examination. Ethical policy-making and development in the age of globalization and pluralistic cultural interactions becomes even more complex when considering neocolonial world order and cultural/ethical variables around the world. The role of ethics is especially prominent in the issue of medical brain drain, which touches on several topics of public health ethics such as individual or community good, migration, and knowledge/power. Thus, it is now more important than ever to reflect on how global health practices and policies should incorporate public health ethics and ethical analysis, as the current system remains largely unjust and ineffective. As this thesis investigates what went wrong with current interventions meant to mitigate medical brain drain, the more difficult question that it attempts to answer is – to put quite simply – what is the right thing to do?

With this thesis, I wish to explore the ethical dimensions of medical brain drain in relation to global inequality, cultural relativism, and epistemic injustice through case studies of three countries' experience combating medical brain drain: South Korea, South Africa, and Malawi. I argue that, in order to approach the issue of medical brain drain in ethical and responsible ways, academia, policy makers, and global health practitioners should examine on

the role of cultural diversity, neocolonial world order, the depoliticization of humanitarian aid, and the current model of global health projects, while recommending South-South Cooperation as a potential ethical solution to medical brain drain.

Through these crucial discussions, this thesis connects with and participates in the qualitative fields of critical theory and public health ethics, while combining theoretical frameworks commonly employed in these fields with quantitative studies of international affairs, migration, and health economics. The methodology of interdisciplinary literature review used in this thesis serves as a further advocate for more cooperation between these relevant fields on the topic of medical brain drain.

2. *LITERATURE REVIEW*

Background

“Brain drain”, “human capital flight”, or “skilled immigration” are all terms commonly used to describe the same phenomenon: that of skilled individuals choosing to emigrate to a different country. Depending on the authors’ choices and the varying focuses of their studies, brain drain can specifically refer to the emigration of individuals who are trained in their home country (or the “source country” of brain drain) or if they are trained abroad (likely the “receiving country” of “brain gain”), or both. For the purpose of this thesis, I will use these terms interchangeably, referring to the migration patterns of groups of highly skilled immigrants who are trained either in their home country or abroad.

Brain drain is in no way a new phenomenon, nor is it unique to immigration from the Global South to the North. In fact, the phrase was first created to describe the human capital flight from Europe to North America in the aftermath of World War II. The phenomenon of skilled emigration itself can be traced to even earlier, notably during the height of anti-semitism in pre-World War II Europe. Notably, scientists like Albert Einstein, Sigmund Freud, and Enrico Fermi participated in the emigration out of Europe.

Today, however, brain drain mostly applies to skilled migrations from the less to the more affluent places, a dominant pattern of international migration and a characteristic of globalization. The immigrant-to-population ratio in the North has tripled since 1960 and doubled since 1985, and the number of highly educated immigrants exceeds that of low skilled ones in virtually all countries (Docquier, 2014). Skill bias in emigration, indicated by the ratio of skilled migrants to total number of emigrated people, is especially pronounced in low income countries. The worst-affected countries – small, poor countries in the tropics such as Haiti or Jamaica – see

more than 80% of their “brains” emigrating abroad; about twenty other countries are losing between one-third to half of their college graduates to emigration (Docquier, 2014).

In the healthcare sector, specifically, brain drain has profound impact on the management of human resource for health (HRH). The same migrational pattern from South to North in the health sector, compounded by the chronic global shortage of HRH in the North, results in the extreme imbalance and maldistribution of healthcare workforce worldwide. As a robust healthcare workforce is essential for the health sector of a country, the erosion of it through medical brain drain is detrimental to health systems in the South.

Epistemic Genealogy and Typology

Although discussions about brain drain began as early as the 1950s, the prevalent discourse of the episteme evolved greatly in the following decades. In the 50s, literature on brain drain mainly focused on the politically driven migration in the North and its negative consequences on welfare, social structure, and populations. In the 60s and 70s, the dialogue shifted to the mainly economically driven migration from South to North, primarily focusing on the market’s inadequacy in employing skilled workers. The main policy recommendations then involved compensating taxation of emigrants. Going into the 1980s, the literature landscape progressed to a more micro-level view of migration motivations such as the income disparity for skilled workers between the North and the South. Correspondingly, the policy direction of this period shifted away from taxation and towards incentives for repatriation. In 1990s and 2000s, the brain drain literature continue to focus on micro aspects of migration: individual non-financial motivations for migration. At the same time, new econometric data suggested positive

consequences of brain drain, encouraging policy direction to maximize this potential “brain gain” in the source countries (Masanjala, 2019; Docquier & Rappoport, 2012).

Today, a diverse range of disciplines engage in the migration of healthcare workforce: perhaps most significantly, the field of international development and health economics (Mountford, 1995; Batista et al., 2012; Hagopian et al., 2004; Docquier, 2014; Bredtmann et al., 2019). These disciplines generally prefer methodologies that are data-driven and quantitatively-focused. Most significantly, these quantitative methodologies produce results on the economic consequences of brain drain, as well as health and immigration policy evaluations (often with focus on economic outcomes). Alternatively, medical brain drain is also studied under sociological or anthropological contexts. These investigations take the form of surveys and ethnographies or semi-structured interviews, employing both quantitative and qualitative methods. Being sociological studies, they draw from theoretical foundations such as migrational “push and pull” theory or Maslow’s theory to explore the questions of motivations of migration (Chimwaza et al., 2014; Tahir et al., 2011; Mathauer & Imhoff, 2006; Dolhman et al., 2019). Some also employ diaspora studies and inquire into the experience of émigré physicians within a certain context (Dei & Asgharzadeh, 2002; Dogbey, 2016). Lastly, a few approach medical brain drain with stronger emphasis on the theoretical and the ethical (Hidalgo, 2013; Dunn, 2013; Kollar & Buyx, 2013). These literatures generally concern themselves with issues of justice, harm, and policy proposals, and usually draw on quantitative evidence for a qualitative discussion.

It is clear that the issue of medical brain drain is enveloped in – and borders on – several broader discussions and disciplines. However, interdisciplinary cooperations are rather scarce, and the view of medical brain drain as an economic problem – perhaps *only* as an economic

problem – arguably dominates the topology of literature on medical brain drain. This neoliberal emphasis on the importance of economic factors, anthropologist Tobias Rees (2010) argues, began with World Bank’s entry into global health in 1980s and its conception that health is a financial issue and must be treated as such. This overrepresentation of economic perspective on medical brain drain is thus consistent with the overall terrain of global health today: neoliberal policy values such as money, consumer choice, and market-based decision-making dominate global health practices, and health becomes a marketable commodity (Fusheini & Eyles, 2016). As such, disconnect remains between, most significantly, literature from different methodologies. Conversations remain to be made between those who study the motivations of brain drain and those who argues for the morality of migration, or between the inquiries into émigré doctor diasporas and the policy recommendations. Thus, situating the phenomenon of brain drain at the intersection of various paradigms – as roughly illustrated in Figure 1 – allows this thesis to not only employ but to also call for interdisciplinary approaches in the studies of brain drain.

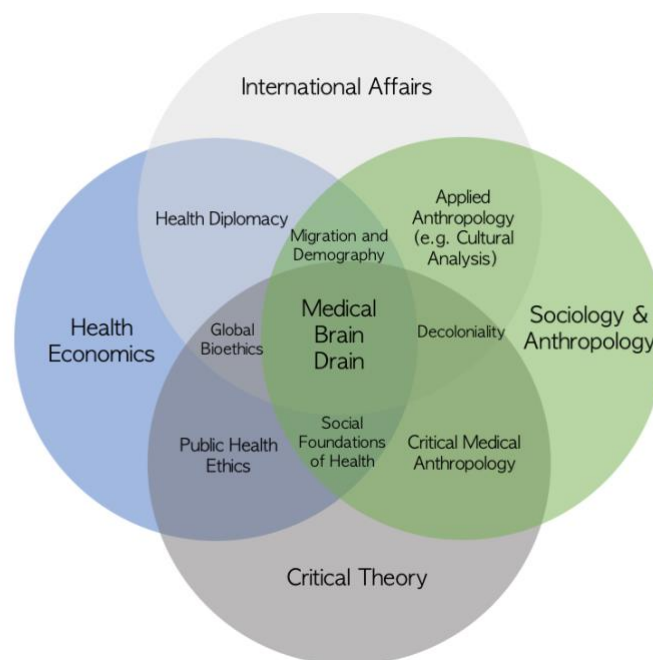


Figure 1: epistemic typology of medical brain drain.

Causes of medical brain drain

As demonstrated by the epistemic genealogy of brain drain, causes of migration could be explained in a macro-level paradigm or at the micro-level. At macro-level, the phenomenon of brain drain is inseparable from globalization. The rate of immigration into high income countries is related to the growth of international trade: the ratio of immigrant stock to population and the ratio of world real trade to world GDP follows the same trajectory globally (Docquier, 2014). Reasonably, the new ease of mobility and cultural aspects of globalization are contributing to increased migration. At micro level, the discussion generally centers on the push and pull theory of migration that focuses on individual motivations. Interviews, surveys, and ethnographic studies of both emigrated and prospective HRH are the main methodologies in investigating push and pull factors for skilled emigration. They could be broadly categorized into three groupings: financial, societal, and political incentives, though the three are naturally interlinked and overlapping.

Firstly and most obviously, the promise of financial prosperity in the North introduces great incentive for individuals to pursue careers abroad. Not only do the countries of the Global North give hope of better employment opportunities, prospects of economic growth, and higher salaries, but often the source countries of the South also present push factors such as low wages , high unemployment rates, and lack of proper human resource management in health (Hashmi et al., 2012; Jamal et al., 2018). The inequalities of working environments also incentivize brain drain: while the North presents better living and working conditions, many countries in the South remain plagued by HIV/AIDS, and concerns about caring for HIV+ patients are cited as a major reason for HRH emigration. Furthermore, because of the global chronic shortage of HRH, some countries in the North – notably the United Kingdom – actively recruit healthcare workforce

from the South to replenish its own HRH stock, increasing the migration flow of human capital (WHO, 2014). The economic disparities between the source and receiving countries, made evident by globalization and exhibitions of North opulence, understandably incentivize HRH immigration and will likely continue to be a compelling factor in medical brain drain.

The highly industrialized and commercialized North attracts immigrants with the help of globalization as well as neocolonialism: the societal incentives for immigration are as persuasive, if not more so, as financial ones (Dei & Asgharzadeh, 2002; Hashmi et al., 2012; Glaab, 2018). Globalization introduced the North with promises of social security, equality, freedom, and opportunities of personal development (Hashmi et al., 2012), while neocolonialism pictures the North as having superior ways of life and social values (Dei & Asgharzadeh, 2002). Furthermore, a career in the North also heralds greater workspace equality, healthier work environment, and labor rights (Hashmi et al., 2012). The exceptionally high social status of physicians and healthcare professionals in the United States probably also contributes to attraction to foreign physicians.

Political factors constitute another significant part of motivations for medical emigration. Obviously, war and violence are strong push factors that drive people out of the country. Domestic corruption and political employment discrimination can also incentivize emigration. Many also have little faith in the healthcare training systems (Jamal et al., 2018). On the other hand, highly skilled individuals may be attracted to pull factors such as political stability, access to justice, and the relative transparency of political systems in the Global North (Hashmi et al., 2012).

This brief overview of the factors that encourages HRH emigration yields three general observations that hold significant implications to policy making. First, the legacy of colonialism

– economic disadvantage, political instability, and “colonial mentality” (Dei & Asgharzadeh, 2002) – remains at the root of these incentives for emigration. The three categories of migration incentives are, in effect, manifestations of the same core problem of transnational inequality and injustice.

Second, most of the factors driving the migration pattern implicitly involve prospects of future. The highly-skilled seem to migrate based on belief that, not only is the present situation in their home countries unsatisfactory, but the future also holds little hope for improvement. Healthcare system development in the Global South is already intimidatingly difficult, but more difficult still might be the restoration of faith.

Third, these motivations of emigration are legitimate pursuits of freedom and happiness, though they are in conflict with the interests of their home countries. Any policy or guideline attempting to address the phenomenon of brain drain, then, should be under scrutiny regarding its ethical implication (in addition to discussions about effectiveness) because of its necessary infringement of personal freedom, directly or indirectly.

The diverse set of motivations driving medical brain drain, again, situate the issue of brain drain on the borders of multiple theoretical paradigms. Therefore, it is essential to understand and evaluate brain drain with interdisciplinary angles.

Consequences of medical brain drain

The health consequences of medical brain drain have been a point of moderate debate because of the significant difficulties in measuring causality, especially in low resource settings with low monitoring power. While medical brain drain would seem logically a reason for bad health outcomes in the source countries, multiple studies have found no significant relationship

between a nation's health indicators (such as child mortality or vaccination rates) and number of physicians abroad or physician-to-population ratio (Clemens, 2007; Chauvet et al., 2010). However, about just as much literature finds correlations between medical brain drain and worsened health indicators with alternative methodologies such as numerical simulation, claiming that simulation models can more accurately assess causal relationships than simple data analysis (Docquier & Rapoport, 2012; Bhargava & Docquier, 2008). Without unequivocally endorsed methodologies and better monitoring or data collection, accurately assessing health consequences of medical brain drain might remain a controversial effort. What both sides of the argument can agree upon, however, is that even if medical brain drain is stopped, its initial positive effect on health outcomes might be insignificant because of the remaining issues such as healthcare infrastructure or availability of drugs.

Other than direct consequences in health outcomes, medical brain drain has significant impact on the societies of source countries. Flight of the highly skilled human capital results in great loss of the middle and upper middle social strata in the source countries, leaving in the South the very rich and the very poor (Dei & Asgharzadeh, 2002). The polarization of social-economic status due to brain drain creates greater inequality, which often correlates with poorer public health. Furthermore, in the absence of a strong middle class, a society lacks political checks and balances that are essential to maintain democracy and abstain from corruption.

The theoretical consequences of brain drain, therefore, create positive feedback loops that only further aggravate the detrimental effects of human capital loss. Without good healthcare infrastructure, those with resources and access – the highly skilled – are motivated to seek lives in other countries. This is especially evident in the case of HIV/AIDS, where the tension of the epidemic and high possibilities of infection further discourage domestic retention of human

resources for health (Bhargava & Docquier, 2008). In the meantime, the erosion of the social strata further destabilizes political systems of the South and feeds back to the push forces that drive away the highly skilled. In many cases, countries suffer from double burden of brain drain and high domestic unemployment, both results of inept or corrupt governments and fragile private sectors (Jamal et al., 2018).

Though the disadvantages of brain drain might seem straightforward or even one-dimensional, many researchers add complexity to the issue by arguing for the benefits that source countries might receive from emigration of highly skilled persons. With predictions of econometric models using macro- and micro-data, some speculate that the prospect of emigration encourages more people to complete intermediate secondary education, which in turn increases the total human capital of a country, because relatively few individuals would actually be able to emigrate compared to those who are encouraged to attain higher education by the prospect (Batista et al., 2012; Mountford, 1995). Brain drain could also benefit the source countries in the form of remittance, both financial and social. Some scholars argue that countries of the Global South benefit from a moderate amount of emigration of highly-skilled persons (Bredtmann et al., 2018; Docquier, 2014), as workers' remittances provide the second largest source of external funding for source countries, just behind foreign direct investment (Ratha, 2003). Moreover, social remittance – skills, ideas, and practices that immigrants spread back to their home country – might be of positive effect on the source country's society in long term (Bayor, 2018). Most notably, skill transfer from immigrants to domestic healthcare professionals could justify migration as an investment (Masanjala, 2018).

There is, however, arguably more harm than good done by the loss of healthcare human capital in countries that have the most need of it. Firstly, many factors could offset the stated

benefits of brain drain. Investment in higher education often comes from public funding, while workers' remittances, though providing financial gains for source countries, are largely private and unlikely targeting or benefitting the public health sector (Masanjala, 2018). While econometric models may show brain drain's positive effect to a source country's education and human capital as a whole, the healthcare sector will not necessarily reap any direct benefit, especially with the prevalence of HIV/AIDS that discourage healthcare professional retention (Bhargava & Docquier, 2008). The advantages of social remittance, especially in the form of skill transfer, are also discounted by the reality that the vast majority of migrated professionals do not return with skills to their countries of birth (Masanjala, 2018). With these complications, one would be hard pressed to argue that the benefits of brain drain would significantly offset its detrimental effects if the phenomenon was to be left unchecked.

Ethics of migration

The discussion of ethics in this thesis is grounded in the definition of ethics as beliefs about the right and the wrong, the just and the unjust. Thus, ethics is inseparable with value-shaping factors such as culture, history, and ideology. With this broad definition of ethics, an ethical analysis is one that investigate the system of value judgement – “what is the right thing to do” – as well as the application of the system in various practices.

Medical brain drain has long been a focus in discussions of global public health ethics. The discourse identifies the moral agency of the regulatory bodies in both Global South and the North, as well as the migrating individuals. The debates center around the issues of classic bioethical importance: autonomy, beneficence, community good, justice, and health as a human right. This review of the ethics of migration not only further sheds light on the complicated

nature of the issue at hand but, more importantly, displays how a bioethical approach to the brain drain phenomenon could be a good starting point of an interdisciplinary investigation - one that intend to draw from quantitative and qualitative methodologies.

Firstly, I shall clarify the importance of the ethical dimension in medical brain drain. With the backdrop of global social and economic injustice, some may view the phenomenon as a classic demonstration of the invisible hand: aggregated individual choices leading to unintended social consequences. One could therefore argue that medical brain drain is morally neutral, or amoral: that the phenomenon is just another economic problem to solve, rather than an issue with considerable ethical dimensions. However, such argument begs the question: should health and health resources be treated the same as other capital? If a consensus is reached that health is human right, then migration of healthcare professionals requires special attention and we ought not to be complacent about the invisible hand of the global human capital market (Kollar & Buyx, 2013). It follows that the ethical dimensions of medical brain drain are quite relevant to the discourse.

The ethical issue in medical brain drain, like many other public health issues, brings into focus the conflict of individual autonomy and community good. Individuals may choose to migrate in pursuit of better pay, better social equality, or safer political environment and absence of violence, all of which are results of global inequality that will likely remain constant in the near future. On the other hand, the aggregate impact of individual choices leads to the many negative impacts on the source countries discussed above.

Numerous ethical considerations should influence policies from both receiving and source countries that aims to curb brain drain,. Some receiving countries of migrant health professionals are heavily reliant on immigrant doctors: in the United States as well as Australia,

one fourth of all physicians are foreign-trained (“Foreign-Trained Doctors are Critical to Serving Many U.S. Communities”, 2018; O’Sullivan et al., 2019). The reliance is especially pronounced in rural or otherwise low-resourced regions of the receiving countries, where domestically trained health professionals may be reluctant to work. These receiving countries may seek to promote self-sufficiency and increase the ratio of locally trained health professionals through ethical recruitment that identifies countries most vulnerable to medical brain drain, and subsequently develop better strategies to reduce recruitment in these source countries. Meanwhile, discriminative policies that prioritize employment of locally trained health professionals may raise ethical questions of fairness of opportunities and distributive justice. Another possible proactive strategy from receiving countries is to provide compensation – in the form of foreign aid and infrastructure development – to the countries vulnerable to human capital loss in healthcare. Meanwhile, the compensation ought to be sensitive to the possibility of facilitating neocolonial dependency.

In the meantime, source countries of the migrating physicians could provide financial and social incentives for medical students, promising better pay and higher socioeconomic status. On one hand, the advantages given to healthcare professionals (and other highly-skilled citizens) could help build a strong middle class in an otherwise class-polarized society. On the other hand, the same strategy may aggravate the domestic inequality and injustice by adding to the unjust distribution of resources and by disproportionately affecting those who were already at financial disadvantage, especially if sociopolitical factors weigh more in the motivation of migration. Another possible measure to tackle medical brain drain is to increase domestic capacity of training in order to compensate for the human capital loss. This strategy, though appearing to be ethically upstanding, cannot address the global inequality that remains at root of the migration

phenomenon, resulting in limited success. As in for many other public health conundrums, policies addressing brain drain likely involve trade-offs between effectiveness and ethical standards.

Example of an ethical take on brain drain

Though brain drain's undesirability is more or less unequivocally recognized, controversies remain about whether the receiving countries and recruitment agencies are morally responsible. Javier Hidalgo, a bioethicist who supports active recruitment, argue firstly that the agencies follow the principles of permissible recruitment – voluntary consent, fair working conditions, and not violating moral claims of any third parties (Hidalgo, 2013). He cites empirical evidence that shows a lack of correlation between HRH shortage and worsened health outcome, claiming that lowered retention of HRH due to active recruitment does not directly enable harm, as most had believed. He further presented his rationale that because no harm is directly inflicted on the source countries, no social moral contract is broken, and migrant doctors produce the benefit of remittance, that the active recruitment of physicians from the Global South is morally permissible (Hidalgo, 2013).

Conversely, some responded to the Hidalgo article arguing that there could be no ethical way of active recruitment at all, using a variety of cross-paradigm perspectives. Most prominent is the counter argument that causality between medical brain drain and health outcome is difficult to measure only using correlation, because of the ripple effect in a complicated issue such as health outcome. Most significantly, the argument points out that consequences of brain drain are difficult to measure and ascertain, because of the complicated causal relationship and ripple effects that must be considered (Bhargava, 2013; Dunn, 2013). Some, like economist-

bioethicist Alok Bhargava, suggest that predictive methods such as econometric modeling – using macro- and micro-data – would be more helpful than methods that look for correlation (Bhargava, 2013). Furthermore, brain drain is situated within a background of global injustice which cannot be disentangled from the issue itself: the recruitment agencies may not be able to rectify the inequality or provide compensation, but some do argue that these agencies have duties to not exacerbate the harm through active recruitment of physicians (Hooper, 2013; Dunn, 2013; Sterckx, 2013). The background injustice further demands bioethicists interested in the issue of brain drain to delve into political philosophy, in order to adequately address ethics of policies such as immigration restrictions (Dunn, 2013). Therefore, no simple “benefit and harm” analysis could encompass a complex issue like medical brain drain that requires more holistic approaches.

A bioethical angle on brain drain, as illustrated by this brief example, requires not only understandings of ethics but also discussions involving various disciplines from economics to political philosophy in order to make informed and convincing arguments. Therefore, this thesis employs a bioethical angle as the lens for an interdisciplinary discussion.

Limits of global bioethics

While the ethics of migration certainly is a topic that is critical and urgent, the impact of such discussions could be somewhat limited. Unlike conversations of domestic public health ethics, global bioethics lacks the governing of law – only codes of conduct issued by international agencies such as the World Health Organization (WHO). Therefore, bioethicists focusing on international issues may find it harder or more frustrating to make specific international policy recommendations due to the lack of jurisdiction power.

The issue is further complicated by the varying ethical and moral standards across cultures that may differ, for example, on the scale of individualism to community-centered. Following the tradition of cultural relativism – that each culture should be examined within itself and without a (Westernized) judgement system – attempting a sweeping judgement or policy concerning brain drain would be not only ineffective but also unethical. Therefore, though the causes and consequences of brain drain from different parts of the world share many similarities, they often require solutions that specifically target the country and the sector, adding obstacles to attempts of global regulations. Responsible ethical analyses, in the case of medical brain drain, should be situated within specified national and cultural contexts.

Current measures taken

While the Millennium Development Goals (MDG) did not directly address international migration, the United Nation summits have long been aware of the issue, and sectors of the UN have called for inclusion of international migration into the Sustainable Development Goals (SDG) (“Integrating migration into the 2030 Agenda for Sustainable Development”, 2015). Both the Global North and the South recognize the urgency of addressing medical brain drain. Countries of the North seek self-sustainability in domestic HRH and ethical and reasonable recruitment of foreign HRH, while the South usually focuses on country-specific retention policies.

Perhaps the most significant international effort to curb brain drain is the WHO Global Code of Practice on the International Recruitment of Health Personnel, adopted in the World Health Assembly of 2010. The Code aims to “establish and promote voluntary principles and practices for the ethical international recruitment of health personnel and to facilitate the

strengthening of health systems” (“Managing health workforce migration - The Global Code of Practice”, n.d.) through, among other measures, discouraging Member States from active recruitment in countries at risk of brain drain. In short, the Code – like most other international efforts to directly regulate physician migration – serves as a recommendation rather than enforceable policy, and positions the receiving countries as the main agency to promote change, due to the non-governmental nature of international regulatory bodies such as the UN and the WHO.

In support of the Code, the Global Health Workforce Alliance (GHWA) and the WHO launched an EU-funded project, “From Brain Drain to Brain Gain”, which aims at “generating momentum and accelerating progress in Code implementation, supporting the normative work undertaken by WHO on producing guidelines for minimum data sets and reporting requirements for Code implementation” (“Managing health workforce migration - The Global Code of Practice”, n.d.). The project, running from 2014-2017, mainly served as a tool for monitoring and evaluation of the Code by implementing migration data reporting in five targeted countries: three priority source countries (Uganda, Nigeria and India), one destination country (Ireland) and a country that is both a source and destination for migratory flows of health workers (South Africa).

On the other hand, source countries who experience brain drain seek to implement country- or even region-specific migration policies in response (Masanjala, 2018; Dovlo, 2003; Mahlathi & Dlamini, 2017). Some of the most commonly seen strategies including socio-economic incentives for HRH retention or repatriation (Song, 1997; Bajunirwe et al., 2013; Skeldon, 2009), South-South recruitment and inter-country arrangements (Dovlo, 2003; Padarath et al., 2003), capacity building and other infrastructure adaptation to HRH loss (Masanjala, 2018;

Dovlo, 2003), or improved local management of Human Resources (Mathauer & Imhoff, 2006).

The practicability and effectiveness of these policies often vary based on socio-economic contexts. Therefore, the following case studies seek to analyze and evaluate a variety of these source country strategies in diverse settings.

3. *CASE STUDIES*

Methods

This thesis analyzes three separate vignettes of countries at different stages of combating medical brain drain. South Korea, one of the “economic miracles” of Asia, was able to successfully reverse its outflow of skilled immigrants through state-led efforts in 1980s. South Africa, a pass-through country of migrants from Africa to the North, has seen the beginning of brain drain reversal, but not without continued rural-urban maldistribution and replacement recruitment from the rest of Southern Africa that worsened brain drain for its neighbors. Lastly, Malawi represents the characteristics of brain drain in the lowest-income countries: low training capacity in medicine, high HRH outflow, and heavy reliance on global aid in the health sector. Through interdisciplinary literature review that draws from cultural analysis, international affairs, decolonial theory, and critical medical anthropology, these case studies investigated the context and their strategy against brain drain in these countries, focusing on the ethical dimension of brain drain policies in a global, pluralist setting.

South Korea: a success story?

Along with the other members of the “four Asian tigers” – Singapore, Hong Kong, and Taiwan – South Korea is often cited as “role model for economic success of developing countries” (Chakrabarti, 2016). The nation was able to achieve rapid industrial development and economic success – the miracle of the Han River – following its destitute, war-ravaged years of 1950s and 60s. One of its significant achievements was the reversal of brain drain: the return rate of human capital who earned doctorate degree in the US went from less than 10% in the 1960s to over two-thirds in 1990s (Song, 1997). Despite the lack of literature focusing on its health sector, the nation’s success story in repatriating its skilled human resource even while its economy was in relative disadvantage compared to the receiving countries should reasonably provide insight on future steps for the Global South to take to quell brain drain. However, the specific cultural and political context of South Korea must be taken into account while determining the real referential value of South Korea’s experience.

Brief Overview of South Korea’s Economic History

Having survived both World War II and the Korea War (1950-1953), South Korea in the 1950s was one of the poorest countries in the world and relied heavily on foreign aid (Song, 1997). Its 1960s were characterized by state-led effort to develop light industries and export, beginning with the aggressive “First Five Years Development Plans” launched by the new regime in 1962 (Yoon, 1992). South Korea’s economy then, mainly supported by less-skilled workers, heavily relied on copying and borrowing foreign technologies. As its labor-intensive, low-skilled economy reached a bottleneck in the 1970s, the government of South Korea used both financial incentives and political pressure to coerce its big companies to invest in heavy

industries such as steelmaking, automotive industry, and shipbuilding, as well as research and development (R&D) (Song, 1997). These investments, compounded with South Korea's liberalization and establishment of a democratic regime (leading to favorable relationship with the US amidst the Cold War), led to intensive development in science and technology in the 1980s that attracted much repatriation of South Korea's skilled emigrants. In the meantime its export-focused economy saw great success because of the surrounding markets like China and Japan, who were also undergoing rapid economic development. The significant growth was the lead-in to the nation's democratization and political stability in the 1990s, transforming South Korea's migrational flow with positive feedback loops that further strengthened its industrial and educational development.

Although repatriated skilled workers have enjoyed various financial and social perks since the 1960s (Yoon, 1992), South Korea's many repatriation-specific policies and strategies were not introduced until the 1990s when the nation was experiencing liberalization and was receiving more repatriates (Song, 1997). Before that, its human resource strategies were mainly focusing on maximized utilization of limited skills. On one hand, this history shows the limited use of incentives in repatriation: the perks given to repatriated workers in the 1960s did not co-occur with higher repatriation. On the other hand, South Korea's experience shows the benefit of proper human resource management in times of human capital shortage – an important lesson to the current Global South countries like Malawi, who are in dire need of better management and employment capacity.

As such, South Korea's journey to repatriating its highly skilled emigrants was characterized by a high level of state involvement in institute building, industrial transition, and investment in research and development. The story is no doubt inspirational; its value for

policy reference might not be as much. The nation's development was set in quite a different context, both temporally and geopolitically. Furthermore, South Korea's cultural values also contributed to its success, making the "miracle" hard to replicate.

Cultural factor: Confucianism

In a now often cited article, Hahzoong Song claimed that the tradition of Confucianism was key to the success of reversing brain drain in South Korea. Song observed, through analysis in cultural anthropology as well as interviews, that South Korea's cultural tradition of Confucianism was the main reason for the repatriation of highly-skilled workers even while the people still believed that countries like the US had superior economy and power compared to their home country.

Confucianism has been recognized as one of the factors that drove the rapid economic growth in East Asia in the latter half of the 20th century. Rooting in beliefs of filial piety, Confucianism is related to many aspects of South Korean (and much of East Asia's) political life such as communitarianism, authoritarianism, elitism, and high respect for education, all of which had contributed to progress on reversing brain drain.

Communitarianism – as opposed to the western culture of individualism – encourages patriotism and devotion to one's home community through repatriation. Authoritarianism allowed for a powerful government that was able to execute significant institute building and industrial development. Confucian elitism has been cited as a strong drive to achieve high status, while the high respect for education has led to both the state's effort to develop education and the individual émigrés' propensity to return to South Korea as teachers, thus increasing the nation's Human Resources sustainably.

Discussion

The case study of the South Korean reverse brain drain, as Song emphasized, highlights the importance of culture and cultural analysis in policy evaluation. The story of South Korea is one where ideology and cultural values seem to prevail over economic disparity as drivers of reversing brain drain. As Song illustrated with the discussion of South Korean culture, the communitarian belief of Confucianism promotes the utilitarian ethics of “maximum happiness to the most people”, which can be an argument for the highly-skilled to return to a home country with less economic prospect. Thus, South Korea was able to see much success with its repatriation-incentivizing policies. Without situating South Korea’s reverse brain drain in this cultural context, the effectiveness of its policies may be misunderstood as universal, rather than context-specific.

Viewing the South Korean culture within itself, and its policies within the culture, is consistent with the approach of cultural relativism. An axiom first popularized in cultural anthropology, cultural relativism is both a stance and a methodological tool that attempts to limit bias from the observer’s own culture and to view another culture as a self-contained system without comparison. While most now agree upon cultural relativism, and that culture can shape ethics and morality, the related idea of moral relativism – that a system of morals and ethics should also be examined as contained within itself – is largely controversial because of the implication that the good and the bad are relative and not universal. This thesis will not attempt the philosophical debate of moral relativism; specifically in ethics of medical brain drain and policy-making, however, I argue that the normative principles of policy and public health ethics, which often concern effectiveness and community good, call for a utilitarian focus. Thus, as culture influences effectiveness of brain drain policy, it is morally permissible and responsible to

regard policy-making in a culturally relativistic light. Cultural analysis, then, should be regarded an important tool when discussing health policy, especially policy transplantation and role-modeling, for culture-influenced topics such as medical brain drain.

South Africa: pass-through of global migration

South Africa poses an unusual case in the global dynamics of health workforce migration. On one hand, its “brains” are lost to the countries of the North: as an example, in a 2004 study, Hagopian et al. reported that South Africa contributed 35% of all migrant physicians from sub-Saharan Africa to the United States. On the other hand, South Africa receives and even actively recruits HRH from other low-income countries such as Nigeria, the Democratic Republic of Congo, and Cuba, whose emigrants constitute more than 10% of South Africa’s total medical workforce (Mahlathi & Dlamini, 2017). With the highest amount of immigrant stock in Africa, comprised mostly of economic migrants (as opposed to refugees) (Masanjala, 2018), South Africa acts as a pass-through of the migration flow of HRH from the South – predominantly sub-Saharan Africa – to the North. Its rising status as the Southern African hub of economic and technological prosperity has no doubt alleviated the pressure of brain drain and reduced emigration (Nwadiuko & Paina, 2019), but maldistribution of health workforce remains an issue for the nation (Padarath et al., 2003), and it still experiences a net, though slower than before, brain drain (Kaplan & Höppli, 2017). While South African healthcare workers enjoy high international mobility because of their globally competent training and proficiency in English, the inflow of immigrant healthcare professionals is met with a historical legacy of xenophobia, making it difficult for them to fill in the positions left empty by the emigrated South African HRH (Mlambo & Adetiba, 2019). This imbalance of migration, compounded with the domestic brain drain from rural South Africa (Mlambo and Adetiba, 2019; Mahlathi & Dlamini, 2017), continues to contribute to the maldistribution of healthcare workforce in the nation and hinder its further development.

This case study further illustrates the importance of considering historical context in policy making: South Africa's history of apartheid has a critical role in its current situation of brain drain. Moreover, the nuanced migration dynamics that see an influx of HRH into urban South Africa demands more attention to the ethics of replacement recruitment. In order to have more clear-cut, responsible, and effective policies against brain drain, South Africa must consider its many non-financial aspects of migration.

Historical context

The historical legacy of apartheid is clearly present in the patterns of South African skilled migration. Before apartheid, South Africa used to be an immigration country: legal immigration exceeded emigration, and white immigrants were especially welcomed due to the nation's white nationalism and its many privileges given to white citizens (Crush, 2002). While the onset of apartheid brought along even more explicitly racially discriminatory migration policies, the ensuing political turmoil also turned away some of the potential white immigrants (Crush 2002). Following the end of apartheid in the early 1990s, South Africa saw large outflow of its white citizens who were simultaneously some of the best educated and most highly-skilled: South Africa's advanced higher education sector equipped its "brains" with arguably the most competitive, transferable skills in sub-Saharan Africa (Crush, 2002). To make things worse, South African scientists were ostracized in protest against apartheid, leading to many South African research reports with less international credibility even after the end of apartheid (Coghlan, 1995). Therefore, post-apartheid South Africa was left with little to rebuild its scientific and medical community. In order to distance itself from apartheid-era's discriminatory migration policy, the new democracy declared amnesties for the undocumented black immigrants

in South Africa at that time; in the meantime, however, the nation also saw rising nationalism that sought to construct a new national identity and saw immigrants as a threat to that (Crush, 2002). The latter rhetoric led to tightening of immigration policies soon after, sometimes with the moral subtext of refusing to do unto other countries what the North had done to South Africa. The result was that South Africa's highly-skilled population continued to emigrate to the North while fewer immigrants entered to replenish the skill market (Crush, 2002). However, the economic need and the force of globalization eventually trumped nationalism and led to the policy of replacement recruiting in 2010, the same year the WHO Code of Practice – which had South Africa as one of the targeting countries – was adopted. Despite changes in the policy direction, xenophobia remain an obstacle for any foreign healthcare workers in South Africa: they are unable to fill the positions left vacant by the emigrated South African HRH because they are not entrusted to be competent with these jobs (Mlambo & Adetiba, 2019).

Another crucial, albeit indirect, consequence of the apartheid era in health and migration is South Africa's attention to freedom of movement, protected by its post-apartheid Constitution in 1996. Some speculate that the constitution is the reason for South Africa's lax, if not absent, control and monitoring over emigration even with help from the WHO's "From Brain Drain to Brain Gain" data reporting project, which made relevant policy work rather difficult (Mahlathi & Dlamini, 2017). Furthermore, the sector-wide acknowledgement of this constitutional right shows through WHO-conducted physician interviews in South Africa. Several of the interviewees expressed that stricter control of skilled migration would only achieve the opposite: encouraging more emigration over concerns of violation of their constitutional rights (Mahlathi & Dlamini, 2017). Organizations such as the South African Medical Association (SAMA), which reflects the opinions of South African health personnel themselves, also voiced support of

migration freedom of HRH, and affirmed their reasons for doing so (Padarath et al., 2003). Both the national and the career-wide awareness of the freedom of movement may be an obstacle, as WHO's report suggested, to the better monitoring and control of skilled migration, as well as the national willingness to come up with migration strategies with more specificity.

Besides apartheid, the history of colonialism in general and South Africa's Western-centric history of health system development has created in South Africa a healthcare terrain that is disconnected from its people. Echoing Franz Fanon's chapter on medicine and colonialism in Algeria (1965), colonial development of the health sector disjoins medicine and the colonized people not only because of the marginalization of African "traditional medicine" or "alternative medical systems" (Tilley, 2016), but also through ideological and epistemological disconnect at large. Thus, not only is medical education locally impractical in a colonized health system, but the health system is colonially developed in ideological disjunction with the remainder of the society as well. Cultural colonialism in health system, in the case of South Africa, persisted long after decolonization of economy, and still contributes to medical brain drain.

In order to evaluate the ethics and effectiveness of policies in South Africa, its history – especially that of apartheid – may be an inevitable topic. Its deep influence to modern South Africa's public consciousness, similar to how Confucianism shaped South Korea's culture, makes further implications on the realistic adaptation of one nation's success to another, and the role-modeling strategy of policy-making in general.

South-South migration, domestic migration

Much demographic evidence suggests that, as a nation, South Africa is seeing its brain drain problem gradually reversed and its healthcare workforce replenished (Mahlathi & Dlamini,

2017). However, the progress is not without its caveats. South Africa's migration dynamic is characterized by its role in the persistent maldistribution of HRH in Southern Africa, both internationally and domestically. As the more reachable destination of affluence, urban South Africa draws – and actively recruits – many healthcare professionals from their worse-off hometowns, contributing to the brain drain issues of its neighboring countries and its own rural regions. South Africa now faces the same dilemma for which it had condemned Global North countries such as Canada only a few decades ago: that they had to replace their own void of skilled labor in medicine with recruitment that harms healthcare development elsewhere (Crush, 2002). Because of these downsides of South Africa's progress of stemming brain drain, the nation should consider more sustainable, ethical strategies to recruit healthcare workers to replenish its HRH stock.

Thanks to the aforementioned strategic change in 2010, welcomed immigrant healthcare workers now constitute more than 10% of South Africa's medical workforce (Mahlathi & Dlamini, 2017). With this new dependence on migrant HRH, South Africa plans to continue its implementation of foreign competence recognition, an effort that is consistent with and encouraged by the WHO. However, as previously discussed, xenophobia remain an obstacle for immigrant HRH to fully utilize their skill, leading to rather significant “brain waste” – when countries are unable to realize their health workers' full-potential contribution to public health (Dovlo, 2005).

Domestically, urban South Africa draws rural HRH away from their home communities with its opulence, better education and work environment, and prospects to further migrate abroad. The relative ease of domestic migration also encourages the human capital movement towards urban areas. This domestic flow of healthcare workforce is significant but not well

monitored, and the dynamic leaves rural South Africa with exacerbated Human Resources situation.

In order to develop truly sustainable and responsible strategy to quell South Africa's medical brain drain, these nuanced migration dynamics must be considered. The replacement recruitment solution to brain drain, while effective, may further do harm to a nation's rural area and/or neighboring countries.

Current strategy

Since the beginning of its regulation of the healthcare workforce in 2001, South Africa has made several efforts to retain its domestic HRH. The relevant policies include the 2003 "Scarce Skills Allowance" that provides financial incentives for those with skills needed in the nation; the 2007 "Policy on Remuneration of Health Professionals Working in Public Health Service" that provides differentiated pay for HRH in the public sector; and the aforementioned 2010 policy that provides guidance for non-citizen HRH recruitment (Mahlathi & Dlamini, 2017).

There are, in the meantime, non-policy strategies to bolster South African HRH. Perhaps most notable is the South African Network of Skills Abroad (SANSA), which aims to establish connection between expats and their domestic skill counterparts in order to facilitate skill remission as well as encourage repatriation through diaspora networking (Path et al. 2003).

Despite these steps taken to quell brain drain, South Africa still lacks clear cut policy directions relating to skilled migration, and rural areas especially suffer from lack of human capital in all sectors (Mlambo & Adetiba, 2019). A WHO report in 2017 (Mahlathi & Dlamini, 2017) still pointed out the lack of any strong migration monitoring in South Africa – as Statistics

South Africa stopped collecting emigration data more than a decade ago (Kaplan & Höppli, 2017) – which lead to significant difficulties of policy making and evaluation. Again, this unwillingness to monitor was attributed to the constitutional right to freedom of movement (Mahlathi & Dlamini, 2017), and further shows the difficulties of stemming medical brain drain in South Africa.

Discussion

South Africa plays a rather unique role in the global migration dynamic because of its geographical, cultural, linguistic, and economic position between the Global South – mainly the rest of Sub-Saharan Africa – and the North. As illustrated by the domestic and international migration pattern of South Africa, the nation represents a mid-point between South Korea and Malawi on the continuum of combatting medical brain drain and achieving self-sustainability of HRH. While South Africa saw lower emigration and higher return migration of physicians in recent years (Nwadiuko & Paina, 2019), domestic and sub-Saharan Africa’s maldistribution of HRH remain issue to and responsibility of South Africa. Furthermore, the country lacks monitoring of emigration despite being one of the target countries of the WHO initiative, “From Brain Drain to Brain Gain”, which funds migration data collection and management (Mahlathi & Dlamini, 2017; Kaplan & Höppli, 2017).

Because of South Africa’s position as a mid-point of the three case studies, its experience offers insight to the other two cases through comparison and contrast. Just like the case of South Korea, South Africa’s history and culture also has strong influence over its policies and policy effectiveness regarding medical brain drain, as physician opinions and current policies alike show reluctance to monitor migration. The case study of South Africa also displays some

challenges that lower-income countries like Malawi could anticipate in the future, due to their shared history of colonialism. Thus, cultural analysis, critical medical anthropology, and decoloniality are all important approaches to conceptualizing the South African experience of medical brain drain.

Malawi: the ethics of aid

One of the poorest countries in the world, Malawi is representative of the struggle of HRH retention in many low-income countries. They generally have very low stock of health staffing and doctor-to-population ratio, little training capacity for HRH, poor working environment, and frequent political unrest and corruption. These nations, lacking much basic healthcare infrastructure and awash in the HIV/AIDS epidemic, are heavily reliant on foreign aid and NGO support in their health sectors.

Aid takes the forms of financial supply, infrastructure development, and volunteering HRH, among others. External aid has been proven to be extremely important and effective in times of crisis, such as the epidemics of HIV/AIDS, Ebola, or malaria (De et al. 2015; Kavanagh & Chen 2019). Therefore, the world today shares the understanding that it is the moral obligation of the Global North to provide health aid to the poverty-stricken countries. However, often eschewed in discussions of humanitarianism is the fact that the challenging situation in the health sectors of these countries are stemming from global and historical inequalities that are difficult, if not impossible, to rectify with aid. While humanitarian aid provides much resources and primary care to the countries with poor health, the community rarely engages in or advocates for critical or political examination of aid. The depoliticization of global humanitarian work is sometimes a result of implied pessimism and sometimes intellectual conviction; nonetheless, this brand of humanitarianism directs much work in the international aid community today.

Another complicating factor is the phenomenon of epidemiological transition, during which the main cause of mortality and disease burdens transitioned from infectious diseases to non-communicable diseases. The deadliness of epidemics such as malaria or HIV/AIDS in the South is being eclipsed by the new killers such as cardiovascular diseases, cancer, and mental

illnesses, all of which require far more health infrastructure than vaccination supplies or volunteering nurses that were so essential to curbing infectious diseases outbreaks (Harper & Amelagos 2010). Thus, healthcare infrastructure development in the low income countries is more urgent than ever.

Context

Historically, up until the country's liberalization in the 1990s, Malawi mainly exported low-skilled laborers such as miners, who were recruited by the South Africa chamber of mines until 1988. Following the cultural and political liberalization of Malawi, emigration from the nation transitioned towards a higher representation of skilled workers. These migrant workers mostly ended up in other African countries: Mozambique, Zimbabwe, and South Africa are the three major destinations that hold over half of global Malawian emigrants. Outside of Africa, the UK – Malawi's previous colonizer – is the most popular destination (Masanjala, 2018).

Unsurprisingly, Malawi's health workforce faces one of the most strenuous work environments and worse healthcare infrastructures in the world, which had both led to and suffered from significant loss of human capital in healthcare. Before the establishment of the first medical school in Malawi in 1991– at the same time of the nation's liberalization – the main channel of HRH loss was through foreign-trained health workforce choosing to stay in the more affluent countries they were trained in (Masanjala, 2018). With the medical school, Malawi was able to expand its training capacity, but the progress in infrastructure did not improve HRH retention. The nation still lacks ability to provide post-graduation training facilities, and many medical graduates still sought further training abroad and decided to stay abroad.

In 2004, Malawi had the lowest doctor staffing levels in all of Southern Africa, prompting the nation to declare a human resource crisis and to launch its Emergency Human Resource Program (EHRP). The program, focusing on increasing training capacity and providing (mainly financial) incentives for recruitment and retention for HRH, was able to significantly increase human capital output and stem emigration of lower-skilled HRH such as nurses (Masanjala, 2018).

For high-investment human capital like physicians, however, the financial incentives were far less effective, as a doctor could earn as much as 10 times their Malawian salary by moving to South Africa and, with a little more effort, 20 times more by moving to the Global North. A country with Malawi's economy simply cannot compete financially with these other options. Moreover, motivation for their emigrations was not only financial. Healthcare professionals from Malawi are migrating to equally poor neighboring countries like Zambia and Tanzania, and the phenomenon speaks volumes about the non-financial reason for their emigration such as frustration and disappointment in the human resource management of Malawi health sector. In 2015, the government informed all graduates from Malawi's only medical school that it had no resources to employ them for the mandatory 18-month residency at a government hospital – a persuasive demonstration of Malawi's poor human resource management and lack of employment capacity (Masanjala, 2018). Needless to say, the lucrative career option abroad and domestic healthcare's incompetency make for a compelling case for migration.

Global response

Because of Malawi's extreme and obvious need for external aid, especially with the HIV/AIDS epidemic and the nation's difficulties in reaching the Millennium Development Goals, the global community has always been keen on providing aid to Malawi, such as the Global Fund for Fight AIDS (Kavanaugh & Chen 2019). Malawi's government is very much dependent on foreign aid, and any donating country's decision to retract funding would be devastating (Khomba et al. 2016).

The role of the international aid community – NGOs, charities, and institutions such as the United Nations – in development has been a somewhat controversial one. Obviously, aid and development projects have seen great results globally in prolonging life expectancy and increasing life quality. Contrary to some beliefs, foreign aid is also proven to reduce corruption and strengthen democracy in the receiving countries (Goldsmith 2001; Kavanaugh & Chen 2019). As national security is one of the main motivators for countries to fund foreign aid projects such as PEPfAR, the resulting stability and Westernized political order of foreign aid continue to prompt governments in the Global North to fund aid projects.

However, the current model of foreign aid is not without flaws. Continued funding is only guaranteed by data showing significant results during the previous funding cycle, and funding must be used up in order for the organization to be granted as much money in the future – a lesson taught tirelessly in MPH programs. The grant-driven preference for immediate, data-backed results is likely the largest pitfall of foreign aid: the effect of aid projects on economic development are shown to plateau after 2-3 years (Khomba et al. 2016). Moreover, due to the lack of international governance of foreign aid, there are often program duplication and lack of coordination between different projects in one catchment area, preventing the maximization of

funding utilization (Adhikari et al. 2019). And perhaps most important to the healthcare workforce of these low-income countries is foreign aid's fostering and consolidating of the Western-centric model of medicine and medical training, which, while making the Malawian HRH more competent and employable in affluent countries, further promotes emigration of healthcare workforce due to this neocolonial dynamic.

Discussion

Malawi, like most other low-income countries, suffers the most archetypical of medical brain drain problem: healthcare workers, especially the highest-skilled ones, emigrate from their poverty-stricken home countries that have the most severe shortage of HRH. The extreme inequality of income and general socioeconomic prospect between Malawi and the potential receiving countries obviously constitutes a large portion of motivation for emigration. However, the experience of Malawi also shows the importance of non-financial incentives – poor human resource management, for example – for their departure.

The case study of Malawi provides an opportunity to examine medical brain drain in light of global injustice and decoloniality. Among the poorest countries of the world, Malawi lacks the financial and human capital for a self-sustainable health sector and must rely on external assistance. As such, Malawi's fight against medical brain drain is highly dependent on and characterized by the global aid community and its funds. In the case of Malawi and many other countries with similar circumstances, this dependency calls for a rather different discussion of ethics than the two previous cases due to its role in perpetuating an economic neocolonial global dynamic. While the aid community has indeed achieved much in health (notably, prolonging life expectancy), its participation in the Global South's continued financial dependency on the North

– and thus, cultural colonialism and “colonial mentality” (Dei & Asgharzadeh, 2002) – is partaking in a system of inequality and injustice. The consequences of these legacies of colonialism, as illustrated by South Africa’s case, are independent from, and persist long after, relative economy autonomy. Therefore, in order to ethically resolve medical brain drain in countries like Malawi, the international aid community – as the party that has overwhelmingly more agency – must reexamine its role and re-imagine a decolonized, autonomous, and just future for the countries and people it aims to help.

4. DISCUSSION

Cross-cultural ethics of policy

One of the most urgent discussions to be had in the field of brain drain management is the influence of culture and cultural ethics. Without understandings of culture – workplace culture, diaspora culture, or national cultural identity – policies can hardly be as effective as desired. Furthermore, with understandings of cultural relativism and that cultures shape ethics, the ethics of policies can also vary by culture. Through comparing and contrasting the brain drain experience of South Korea and South Africa, the importance of incorporating cultural analysis in both policy-making and literature is self-evident.

The significance of cultural difference in policy effectiveness is made apparent by comparing and contrasting the case studies of South Korea and South Africa. While both were experiencing economic development, the South Korean government was successful in its state-led movement to repatriate “brains” with financial and social incentives, yet South Africa was unable or unwilling to enforce important steps towards better brain drain policies, such as improved monitoring. The difference could be attributed to the cultural differences between the two. South Korea’s Confucianism, often cited as the special factor for its economic success, supported its relatively authoritarian approach to reverse brain drain while promoting communalist values that prioritize community interest. The culture of post-Apartheid South Africa tends to resist governmental influences on movement, with some noting that stronger control will prompt more emigration. As such, a policy that disregards the cultural context can be ineffective or even counterproductive, because of either the lack of operationability or the people’s dissent. Therefore, a transplanting or role-modeling approach to brain drain policy is likely in need of more nuanced cultural considerations.

Not only is effectiveness a concern, but the moral permissibility of a policy also changes depending on the context. In a relatively communitarian culture such as that of South Korea's, policies and rhetorics that support community interest would be more culturally ethical and acceptable, and an utilitarian argument – most happiness for most people – is more applicable in this context. In the case of South Africa, physicians' distaste of migrant monitoring and controlling policies shows how the country's relatively westernized, individualistic culture values freedom of movement and freedom of choice. In other words, the violation of freedom – regardless of consequences – is inherently immoral. In a deontological context like this, rhetorics that sacrifice those freedoms for utilitarian reasons – maximized happiness for the most people – are fated to be controversial, to say the least. With the principles of cultural relativism, these two different cultural contexts should be examined within themselves. Then, it follows that the disparaging ethical standards of the two should also be situated within their own cultural contexts, rather than adapting to a consistent, global standard. The respect and consideration of different ethics and ideologies, as such, are crucial to responsible policy making and transplantation.

Another important ethical question in HRH migration is if healthcare workers have a special obligation to their home country. If health is a special good – a human right – then it should follow that healthcare workers owe special obligations to their home countries, as their departure indirectly brings harm to the health of their people. However, neither South Korea nor South Africa seem to agree with this. South African physicians, when asked about monitoring of HRH migration, brought up the injustice that “they don't monitor accountants or lawyers” and that “we are private individuals” (Mahlathi & Dlamini 2017). The notion that these occupations should be equal presupposes that healthcare workers do not have special obligations to their

home nations. In the meantime, South Korea seems to value education more highly than healthcare, putting much more emphasis on the repatriation of teachers than HRH – another manifestation of Confucian values (Song, 1997). With these relatively non-health-centered ideologies in place, the argument for HRH’s special obligation – and thus the argument for repatriation, monitoring, or a required domestic service period of healthcare workers – would reasonably be much less persuasive. These nations may find better results through focusing on capacity building and general strengthening of healthcare infrastructure. Thus, understanding the cultural consensus on health could greatly benefit the effectiveness of policies against brain drain.

Through examining the case studies of South Korea and South Africa, the importance of cultural analysis in policy making should be self-evident: not only are cultural considerations in policy ethical and responsible, but they are also vital in policy effectiveness. Literature on policy-making and effectiveness that examines a particular case, then, should be encouraged to participate in interdisciplinary cooperation and to incorporate relevant cultural analyses that would provide more context on the adaptability of the discussed policies.

Ethics of development

As early as with his 1973 book, *How Europe Underdeveloped Africa*, Walter Rodney has pointed out the issue with the Western world’s development of Africa with a capitalist, colonialist structure. Though the aid communities today are arguably more thoughtful and well-meaning, many issues remain with the field of global health and foreign aid. The case studies of Malawi and South Africa, illustrating respectively the process and consequence of neocolonialism in health, call attention to the necessary critiques of international healthcare

development projects: their role in solidifying the neocolonial world order characterized by economic dependency and epistemic hegemony, their guiding principle of depoliticized humanitarianism, and the dangers of evidence-driven aid projects. With theoretical concepts of decoloniality and critical medical anthropology, this section aims to examine the ethics of international development projects in relation to medical brain drain.

The role of foreign aid communities in perpetuating some aspects of inequality has always been a concern; however, more nuanced discussions have emerged concerning the variety of impact that foreign aid has in different sectors: economic, health, or State governance. A long-standing concern for foreign aid is that it seems correlated with static or diminishing state performance, leading to the theory that aid dependency is related to misrule and state failure. However, according to analysts such as Arthur Goldsmith (2002), Rajlakshmi De et al. (2015) and Kavanaugh & Chen (2019), foreign aid is found to be associated with a small positive effect on democracy and economic freedom. But these overall positives in the countries of the South do not equal positives in the health sector: in the case of Malawi, much of the malfunctioning of the health system can be attributed to the miscoordination of foreign aid (Adhikari et al. 2019). In order to accurately assess the causalities of foreign aid and inequality, more nuanced, sector-specific analyses are needed.

In the meantime, international development projects and globalization bring about some inherent injustices. A less-discussed effect of aid dependency is the perpetuated epistemic injustice and coloniality of health and medical education systems. Several of the policy recommendations combating medical brain drain suggest less western-centric curricula for medical education would help with HRH retention (Masanjala 2018; Dovlo 2003, 2004; Greysen et al. 2011), noting that the legacy of foreign aid-fueled development in these source countries

has created the curriculum that may not reflect the local reality. This disconnect between education and practice, compounded with the teaching of biomedicine superiority, provides push factors for HRH emigration out of the South since their skills have higher applicability in the North. Furthermore, a literature review of sub-Saharan Africa medical education revealed that, despite the vast language and cultural heterogeneity of the region, the available literature is published predominantly in English in journals based in South Africa, the UK, and the US, and first authors usually come from these countries (Greysen et al. 2011). The disparaging prestige of academic journals, already a codified means of epistemic oppression, is even more impactful in the global setting given the vast cultural, linguistic, and political diversity: that the target of aid has little representation in available literature presents even more obstacles to effective and ethical development. As such, this hegemony of knowledge production not only results in the encouragement of HRH emigration, but also the negligence of the medical and social experience and expertise from the South. The exclusion of local voices and local realities in medical education and academia reflects and perpetuates the neocolonial maldistribution and inequality in knowledge, and therefore the colonial matrix of power.

Not only are these epistemic inequalities unjust, they also have dire consequences in health outcome. Obviously, the western-centric education system and the emigration of healthcare workforce harms the healthcare infrastructure development of the source country. The injustice also hampers the non-infrastructure aid in the South. For example, the 2014–2015 emergency response to Ebola in Guinea, Liberia, and Sierra Leone illustrates how global authorities' misinformation camouflages and exacerbates the conditions actually responsible for high rates of mortality and chronic illness in Africa (Lauer, 2018). The lack of indigenous knowledge in the aid process is a significant hindrance in the effectiveness of foreign aid. The

stagnant or even weakened healthcare systems due to epistemic injustice, furthermore, add to the incentives for medical brain drain, exacerbating the issue even more. Therefore, epistemic justice should become a higher priority in the future of international development for reasons both principle and utilitarian.

The general principle of ethical humanitarianism directs the work of many modern international NGOs that provide much-needed primary care and resources to those in need. However, the global health community and practitioners often fall short on encouraging intensive reflection on structural violence or structural competency, or even view such reflection as a form of intellectual inaction (Dubal, 2012). Instead, humanitarian aid now is often moral but depoliticized: shifting attention from the causes of violence to its consequences in a way that replaces a politics of justice with a politics of compassion. The result is the lack of acknowledgement of the inherent politics of current humanitarian aid: its complacency in the injustices of development as previously discussed. Instead of prompting the question of “what is the right thing to do”, depoliticized humanitarian aid seeks to apply an unchallenged idea of “the right thing to do” to global health practice. This negligence of the political, in favor of the seemingly undebatable, ethico-ideological concept of humanity and humanitarianism, would only further promote epistemic hegemony of the North.

The neglect of the political in global health is consistent with the aid community’s relative lack of attention on issues such as medical brain drain, or the attitude that medical brain drain and other global injustices are unavoidable, morally neutral phenomena that cannot be helped externally— despite the enormous financial and human power that the aid community commands. This neoliberal notion of an amoral economic phenomenon in health, as previously

discussed, is consistent with the topology of literature on global health overall and on medical brain drain specifically.

The depoliticized humanitarianism, moreover, possibly contributed to the disconnect between global health practitioners and social science scholars with cultural analyses or political discussions of global health inequalities: a disconnect that prevents more interdisciplinary collaboration and innovation in methodologies from taking place. Political topics, such as social determinants of healthcare or decoloniality, are all epistemes that could be taken into account in global health education and practices; continuing to avoid them, on the other hand, will inevitably exacerbate the global injustice and neocolonial world order - issues that are inescapably political. Furthermore, as interdisciplinary discussions of medical brain drain, such as the incorporation of cultural analysis, improve the understanding of its root causes and policy effectiveness, the lack of such discussions will only slow the progress to tackle the issue at hand.

Lastly, the aid community's pursuit of sustainability proves to be flawed, as aid effectiveness usually plateaus after 2-3 years (Khomba et al. 2016). To relieve structural issues such as those that led to brain drain – poor work environment, human resource management, employment capacity, and lack of faith in the nation's future – requires relatively long term effort. The lack of sustainability is not for the lack of infrastructure building, which most sustainability-focused projects aim to do (Yang et al. 2010). Rather, the model of global health projects itself sets up structural barriers for improving the less quantifiable indicators of the migration push factors: because the review and reapplication of project grants that requires measurable outcomes, aid projects are financially driven to tackle quantifiable – thus, often symptomatic rather than structurally at the root of medical brain drain – health issues. As such, the model of aid projects is structurally hindered from relieving the above-mentioned local push

factors of medical migration. The structure of grant-driven aid projects again shows neoliberal characteristics that consider health issues as economic issues, emphasize cost-effectiveness, and marketize healthcare (Rees, 2010). While it can be difficult to reimagine an alternative model for international aid to directly tackle the less quantifiable root causes of medical brain drain, the global health academia should not shy away from discussing the limitations of current models of international aid operation and reimagining a qualitatively-oriented paradigm in discussing medical migration.

The ethics of development is a vast and complicated topic that this brief analysis cannot hope to cover completely; therefore, only aspects related to infrastructure and human resource development are touched on here. Nevertheless, as both the legacy of colonial world order and a way to rectify the injustice of it, international development projects must consider their impact on global health inequality and maldistribution. The medical brain drain phenomenon represents one of the aspects of development that calls for more attention on ethics, justice, and causalities beyond health. As the current system of apolitical humanitarian aid often fails at considering these structural issues, the international aid community should seek a new and more political angle of healthcare development: one that, perhaps, blurs the line between health and politics, health practitioners and activists, or aid and academia.

South-South Collaboration: a possible future

Having discussed the importance of a decolonial future of development and the migration dynamics between countries of the South, this thesis identifies south-south collaboration (SSC) as a potential direction for future plans concerning brain drain. Following the theoretical foundation of decoloniality (and for Africa, pan-Africanism), SSC is a strategy that promotes

unity between the countries in the South and collective self-reliance (Olu et al., 2017; Were et al., 2019). The horizontal, rather than vertical, collaborations of nations could be an opportunity and channel for epistemic autonomy, the full utilization of expertise of the South, and eventual systemic autonomy.

SSC in healthcare has yielded much success in health system strengthening and healthcare human resource management in the past, and many nations in the South have benefitted from such programs. Beginning in 1995, South Africa has been working with Cuba and sends medical school candidates to train there; the Cuban returnees constitute 8% of the annual medical graduates output (Mahlathi & Dlamini, 2017). Another case of success is Mozambique's 2015 study tour to Rwanda, through which the Mozambican health administrators learned much about Rwanda's experience in health system strengthening (Olu et al., 2017). More recently, Kenya – who has one of the most long-running and comprehensive systems for human resource information in health thanks to PEPfAR funding – was able to help develop Zambia's HRH monitoring system within 2 years, less than half the time it took Kenya to develop it initially (Were et al. 2019). The variety of ways through which horizontal collaboration programs like these were able to directly or indirectly relieve HRH shortage show good promises for many more future projects. Other than the improved human resource situation, SSC also promotes epistemic autonomy of the South (Lauer, 2016). With reduced influence from and dependency to the North and more emphasis on expertise from low-resource settings, SSC provides a possible future for stemming medical brain drain from its roots.

However, there is still much to improve for these horizontal collaborations. The collaborative projects – especially knowledge sharing and exchange programs – still need to take into consideration regional differences and knowledge applicability. For example, one of the

criticisms of the South Africa-Cuba exchange program is that the Cuban training may not adequately prepare the HRH for South African context and needs such as C-section, anesthesia, or TB and HIV treatments (Mahlathi & Dlamini, 2017). Moreover, SSC still faces many challenges such as the possibility of poor coordination or lack of data for monitoring and evaluation. These challenges, while significant, can foreseeably be resolved through steady infrastructure-building in the South.

Limitations of this study

There are several factors limiting the scope and methodologies of this study. Firstly, the lack of access to proper primary data – demographic information of skilled migration – prevented this thesis from having a quantitative aspect. The lack of monitoring capacity from many of the source countries in the South decreases the reliability of their data. Therefore, valid data can only account for immigration into countries such as the US, the UK, Australia, or New Zealand, limiting the investigation of South-South migration. Moreover, the most relevant sources of primary data are, judging from literature review, registry data such as the physician mastersheet from American Medical Association (Hagopian et al., 2004) or the physicians' registry from South Africa (Nwandiuko & Paina 2019). However, these higher quality databases are hardly accessible to the public. Alternatively, American census data accessible from databases such as IPUMS do not have detailed or specialized data concerning migration of HRH; the relevant available datasets from IPUMS – country of birth, immigration year, and occupation – offers relatively inadequate approximation of the full picture of HRH migration. Therefore, this thesis decided against quantitative methodology for lack of better, more statistically sound primary data.

A related, second limitation to this study is the relative lack of perspective from countries of the South because of lack of literature access. This is partially because of the aforementioned lack of data from these nations due to their low monitoring capacity; another reason is the relative lack of influence and credibility of African academic journals because of the previously discussed epistemic injustice. The result of this injustice is the lack of access to these journals with local perspectives either due to absence of institution-granted access or viruses on their websites, lowering their credibility even further. With these barriers to research, the epistemic hegemony of the Northern perspective is secured.

For further research that seeks to include quantitative analysis, the most reliable sources of data are those reported by the receiving countries because of their high capacity of monitoring their workers compared to most countries in the South. Some source countries, such as Kenya, also have relatively high quality data and human resource information systems thanks to aid effort. If accessible, these sources would probably reflect HRH migration most accurately.

5. *CONCLUSION*

What is the right thing to do? This quintessential question of ethics, situated in the context of public health and medical brain drain, becomes a conundrum of justice in an already unjust world, an inquiry about righting the systematic, ever-present wrong. Nevertheless, the question is worth investigating not only because of the importance of solving medical brain drain in the works of global health, but also because the issue of medical brain drain provides a nexus of the disciplines of migration, aid, health, and economics, through which one can peer into the ethical issues at large in each.

The experiences of South Korea, South Africa, and Malawi are examples that are representative of the continuum of medical brain drain, its causes, and its interventions. Through assessing their experiences with a focus of ethics, this thesis illustrates the importance of culture and cultural analysis, critiques the coloniality of foreign aid and international development, and imagines a future of South-South collaboration in combatting medical brain drain. Through the lens of ethics, the findings of this thesis connect the generally quantitatively focused topics of global health, migration studies, and human resource management with qualitative, theoretical fields such as cultural analysis or critical medical anthropology at the nexus of the medical brain drain phenomenon.

Doubtlessly, more discussions – with more diverse methodologies and disciplinary expertise – on the ethics of medical brain drain are still needed. The future of global bioethics is one that not only would benefit from more interdisciplinary cooperation with humanities and social science, but also from better data collection, management, and access in migration and human resource management. With more careful, responsible, and creative scholarship, the study of global bioethics would foreseeably benefit global health practices and those who are affected

by global health issues. In the meantime, studies of medical brain drain provide opportunities of discovering new perspectives for global health issues. Many of the relevant paradigms of medical brain drain, discussed earlier in the “epistemic genealogy and typology” section, offer possible directions of future research and interdisciplinary conversations, not only in medical brain drain, but in the broader field of global health as well.

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