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Factors Influencing Brain Drain Among Health Workers in Ghana

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Abstract

Purpose: The advent of the covid-19 pandemic exacerbated the need for more professional health workers to serve as front-line workers in hospitals in Ghana and other developing countries. This study aimed to ascertain the factors influencing health workers' brain drain in Ghana.

Methodology: The study was a survey with an accessible population of 15510 people in different categories of health workers. Sampling was through stratification for a sample size of 400 respondents across the Greater Accra Region of Ghana. Structured questionnaires were used for the data collection and analyzed using the Statistical Package for Social Sciences (SPSS) as a statistical tool to generate descriptive statistics that included the mean, standard deviation and ranks based on which inferences were drawn.

Findings: The study found that government inaction on the conditions of service of health workers such as low remuneration, inadequate opportunities for staff development, poor equipment replacement policies, political interferences in their workplaces, high standards of living and inadequate housing and personal reasons amount to the reasons why Ghana is losing the majority of her finest health workers to the developed nations. The study concluded that the migration of healthcare professionals from developing to developed nations has negative effects on the delivery of healthcare in Ghana especially coming out of a deadly pandemic.

Recommendation: The study recommends that government deals with the motivation and hygiene factors as well as the push and pull economic factors that drive many health workers to seek "greener pastures" outside the country hence the trend could continue in the coming years.

Keywords: *Developing countries, health workers, migration, brain drain, low remuneration.*

1.0 BACKGROUND

The study of Owusu-Ansah (2015) on brain drain in Ghana's health sector found that medical doctors and nurses trained with public funds emigrate to practice in developed countries due to low remuneration and poor working conditions. Oleribe, et al. (2016) indicated that despite the absence of a statistically significant difference in the response on leadership and management compared to other issues if staff welfare issues such as promotions, management's failure to deal decisively with promotion issues, denial of basic entitlements like salary and sponsorship of training are not catered for, it can be stated that leadership will have problems with the entire workforce which are the most frequently cited cause for health workers current brain drain in Ghana.

According to Alhassan et al. (2013), other factors including limited opportunities for staff development, ineffective equipment replacement procedures, limited accommodation facilities even in rural areas and the inability to obtain essential social services, such as housing, transportation, etc could also be cited as the causes of the mass exodus of some health workers from Ghana. Other sources have cited the rigorous recruitment of health or medical personnel in Ghana as compared with the western nations. According to Shiao et al. (2017), the motivation for the brain drain in terms of health workers has antecedents that may differ with time. Since Ghana need to retain these personnel in a post-COVID-19 restructuring of the health services across Ghana, there is a need to find out what motivates the health workers who are currently leaving the shores of Ghana.

Other studies conducted were not conducted in Ghana which led to a knowledge and literature gap. Despite enormous efforts to expand the health workforce, which increased the density of doctors, nurses, and midwives from 1.07 per 1000 people in 2005 to 2.65 per 1000 people in 2017, Ghana still struggles with a shortage of health workers and ineffective distribution (Asamani, et al., 2021). It stands to reason that many personnel leave the shores of Ghana to practice in other countries after the government of Ghana has used the little resources at its disposal to cater for their training. It implies also that improving patient satisfaction levels is essential to a healthcare organization's long-term success because it is one of their main objectives to not only meet but also exceed patients' expectations. Recent social changes place a strong emphasis on gathering the opinions of service users, and the healthcare industry has developed techniques for doing so, particularly in the last ten years (Ghana Health Service, 2020). Healthcare organizations must carefully consider the needs and expectations of their most important clients if they are in the business of serving their clients.

Due to globalization, the migration of medical personnel is a problem that has a global impact. Through incorporation, communication, cultural exchange and travel, people now depend on one another globally (Labonte et al., 2015). People relocate for a variety of reasons, such as changing their lifestyle, escaping oppression, or looking for employment. The demand for healthcare workers in OECD countries is also being driven by rising income levels, new medical technology, increased specialization of health services, and population ageing (Organization for Economic Cooperation and Development [OECD], 2010). An international migrant worker is "a person who is to be engaged, is engaged, or has been engaged in a remunerated activity in a state of which he or she is not a national," (United Nations, 2015). According to the United Nations Population Division (2003) statistics, 175 million people worldwide are estimated to be migrants or about 2.9

percent of the world's population. The majority of migrants in the world are thought to reside in Europe (56 million), Asia (50 million), and North America (41 million), of which 60–65 million are thought to be economically active. Although the phenomenon of international migration is not new, its significant growth, particularly in terms of size and velocity, suggests a change in the way people move around (IOM, 2005). The movement of skilled labour is the main concern of policymakers. Concerns about ensuring a just distribution of human resources among source and destination countries arise due to the occupational categories that are moving (OECD, 2002a). Due to the liberalization of trade brought about by the General Agreement on Trade in Services (GATS), new opportunities are emerging for health professionals, with the potential for better pay and career opportunities (OECD, 2002b).

Despite the aforementioned claim, during the 1950s and 1960s, many nations started hiring foreign healthcare professionals to advance their healthcare systems. This increased public concern about taking early action to combat brain drain syndrome which prompted the World Health Organization (WHO) to start a study on the flow and stock of health worker migration (Short, 2016).

According to statistics from a recent study, the USA, UK, Canada, and Australia employ between 22 and 28 percent of all physicians who received their training abroad, highlighting the reliance of developed nations on medical graduates with international training and education (Sampath, 2019; Mullan, 2005). Particularly, low-income nations send between 40 and 75 percent of their medical school graduates to the nations mentioned earlier, with the United Kingdom and the United States receiving the most of these contributions (Mullan, 2005). According to additional data, the UK's medical professional migration is up by about 5%, and the OECD's member countries have seen a 20% increase in foreign-born medical professionals (WHO, 2006). According to Chibango (2013), highly skilled workers in the health sector are migrating from African countries, particularly those in Sub-Saharan Africa which is subpar, making it more difficult to estimate magnitudes and trends. Recent health professional migration has resulted in a human resource management crisis on a global scale (Joint Learning Initiative, 2004). The need for medical professionals is greatest in Africa as the crisis grips the entire planet but Africa is experiencing a shortage of human resources as a result of the emigration of medical professionals, population growth, and the burden of diseases.

The International Organization for Migration (IOM) estimates that a significant portion of Africa's human capital has been lost, and that loss is continuing to grow, with 20,000 doctors, university professors, engineers, and other professionals leaving the continent every year since 1990. In most countries, especially those with low fertility, migration had been seen as a way to fill a labour market gap in response to market demands in developed countries (Anarfi, 2010). There are currently over 175 million migrants who leave their home country for other nations for a variety of reasons. An increasing number of these migrants according to Anarfi (2010), are nurses, and the majority of them were women. Additionally, it was mentioned that these health workers emigrated from Ghana, Ethiopia, Nigeria, and South Africa.

Additionally, because of the increased demand for services brought on by the health reform in the USA, which aims to provide healthcare to a significant number of uninsured people, international health workers will undoubtedly emigrate (WHO, 2020). Although the US health system has considered ways to reduce costs to increase the impact on the delivery of health services, less

emphasis must be placed on health expenditures, but rather on the fact that more healthcare professionals are required to serve the additional millions of people (Foster, 2010). The difficulties that developing countries face in finding enough quality health workers are made worse by the rise in demand. It is crucial to understand the reasons behind emigration to fully comprehend the health worker crisis on the international, regional, and national levels which is referred to by Orszag and Emanuel (2010) as "pull and push factors of international migration."

Collaboration among health workers is critical to retaining our best health workers regardless of government attitude towards the health personnel resulting in their inclusion in a researchable topic for this current study. Not all, there is a need to conduct a study that allows for an in-depth examination of the impact of health workers' brain drain on the health sector and Ghana as a whole. There is a need to conduct a study to generate new ideas that can be tested through other methods and connected to theories that aid in bringing together the various facets of health workers' agitation that led to brain drain and the various management practices that are associated with organizational growth and sustainability in Ghana's health care industry.

Studies show that Ghana faced serious health and human resource challenges due to the COVID-19 pandemic with damning effects on the economy, society and lifestyle of Ghana (Ghana Health Service, 2020). The health workers in Ghana were tasked by the government to spearhead the fight against the pandemic as front liners who were heavily burdened due to the nationwide spread of the virus and secondly, due to its novelty. Several factors are identified to have caused brain drain among other personnel in Ghana but there is no definite evidence of the brain drain of health workers in post-Covid-19 Ghana. Secondly, most of the studies conducted were on other sectors in developed countries. For instance, a study conducted by Pujari (2020) found that developing countries were suffering from their greatest decline in terms of their education after the heat of the pandemic. Studies such as Woday, Mihret and Biset (2020) and Tiruneh (2020) were conducted in developed and developing countries and provided evidence that did not deal directly with health issues or health workers' willingness to stay and work in Ghana but rather on education. Evans (2020) however, concentrated on the socio-economic issues that the pandemic bestowed on Ghana and other developing countries.

Therefore, in finding answers to the factors influencing brain drain among the health workers in Ghana, the studies conducted in Ghana are insufficient since the knowledge and literature provided did not address the Ghanaian situation with post-Covid-19 empirical evidence that aligns with the Ghanaian healthcare delivery system. Considering the discussion on the effects of the pandemic on the healthcare sector and the several agitations that possibly led to the brain drain of health workers and healthcare delivery, it is critical to examine the interrelationships of the study variables that remain significant over time and the need to fill knowledge, literature and methodological gaps that previous studies failed to initiate in seeking to maintain the majority of the health workers in Ghana and to demonstrate beyond a reasonable doubt that organizational capabilities are used to reverse the brain drain effect on health facilities in Ghana.

This study is relevant as it sought to investigate and bridge the human capital gaps in the health sector taking cognizance of the impact of the COVID-19 pandemic and the need for a vibrant health sector and ready personnel to stay and serve Ghana. The study, adds to the expanding literature on the need for quality healthcare facilitated by experienced and qualified personnel hence the study conclusions contribute to theory, policy, and academic understanding.

The researcher employed the Two Factor Theory of Herzberg in the study since health workers' brain drain issues are related to employee satisfaction which is influenced by motivational and hygienic factors as indicated in the study background. To this effect, factors such as salary, job security, and other similar issues are considered hygiene factors, whereas interest in one's profession, opportunities for career advancement, and recognition of personal accomplishments are motivational factors. The overall effect is that different combinations of motivational and hygiene factors when not catered for can result in a situation where employees start complaining all the time leading to attrition (Dartey-Baah & Amoako, 2011). It implies that job dissatisfaction is a dimension that can lead to health workers' brain drain in Ghana.

Applicable to the study, the two-factor theory offers a way to assess employee satisfaction levels and sheds light on what causes either favourable or unfavourable employee outcomes leading to their willingness to stay, which sparks patient satisfaction in the services rendered. Herzberg's Theory according to Goetz et al. (2017) applies in the sense that health personnel report factors that contributed to their increased job satisfaction, including relationships with coworkers', increased job responsibilities, greater recognition, and flexibility in terms of job tasks. According to research by Raza, Akhtar, Husnain, and Akhtar (2015), positive job satisfaction among employees was significantly correlated with motivators like job security, achievement, responsibility, and the work itself. In summary, while Herzberg's Two Factor Theory is a central tenet in motivating employees to achieve high levels of job satisfaction, they never directly cause someone to experience high levels of job dissatisfaction. In Herzberg's model, motivating factors have the potential to make people who are currently only moderately satisfied extremely satisfied, but they do not affect satisfaction in the absence of hygiene factors that include achievement, recognition, advancement, and empowerment.

2.0 METHODOLOGY

2.1 Population and Sample Size

In this study, the accessible population consisted of health professionals working in different departments/departments of government or public hospitals in the Greater Accra Region of Ghana. The hospitals identified according to the Ghana Health Service (2010), include the Korlebu Teaching Hospital, 37 military Hospital, SSNIT Hospital, Bank of Ghana Hospital, Police Hospital, Greater Accra Regional Hospital (Ridge), University of Ghana Medical Center, Achimota Hospital, Amasaman Hospital, Mamobi General Hospital, and North Legon Hospital. The inclusion criteria were all health professionals working in their current wards and department for at least three months. The exclusion criteria included hesitation to participate in the study and health workers who were on leave at the time of the data collection. According to the Ghana Human Resource for Health Country Profile (2021), there are 15510 health workers (general category) in government hospitals in the Greater Accra Region comprising medical officers, Specialist, Professional nurses, Midwives, Community health nurses, Biomedical scientists, Radiographers, Pharmacist, Pharmacy Technician, Health assistant (enrolled nurse), Medical assistant, Dental surgeon and Other clinical who qualify as the study population for the collection of quantitative data.

The researcher used the Taro Yamane (1967) sample size formulas cited in the study of Joseph and Kingsley (2016) as follows; $n = \frac{N}{1+N(\alpha^2)}$

N = sample frame (population), n = sample size and α = confidence interval. The researcher chose a margin of error of 5% and a confidence interval of 95%. The following substitutions were therefore made $N= 12500$ and $\alpha = (0.05^2)$ into the sample frame formula,

$$\text{Therefore, } n = \frac{15510}{1+15510 (0.05^2)}$$

$$n = \frac{15510}{38.7775}$$

$$n = 399.9$$

Hence, $n = 400$ to 1dp

The final sample size determined for the quantitative data was 400 health workers.

2.2 Sampling Techniques

Having known the sample size, there is a need to use a sampling technique that ensures that the respondents have an equal chance of being selected to participate in the study. Stratified sampling was used due to its ability to indicate the exactness of the sample size from each stratum (hospital). To ensure that all the 15510 serving as the population are duly represented, the researcher estimated that if 80% of those asked to participate in the study do respond, then there is a need to invite more. As a result of the predicted response rate, 450 health workers were asked to participate in the study. To calculate the number of respondents for selection in each stratum (hospital), the researcher adopted the Whitley and Ball (2002), formula

$$n(u) = \frac{N(u)}{N} \times n$$

Where; $n(u)$ = Sample size for stratum u ,

$N(u)$ = Population size for stratum u ,

N = Total population size = 15510, and

n = Total sample size = 400

Table 1: Sample distribution

SN	Public Hospitals in Greater Accra Region	$N(u)$	$\frac{N(u)}{N} \times n$	$n(u)$
1	Korle bu Teaching Hospital	3745	$3745 / 15510 \times 400$	97
2	37 military Hospital	2456	$2456 / 15510 \times 400$	63
3	SSNIT Hospital	1434	$1434 / 15510 \times 400$	37
4	Bank of Ghana Hospital	465	$465 / 15510 \times 400$	12
5	Police Hospital	1324	$1324 / 15510 \times 400$	34
6	Greater Accra Regional Hospital	2312	$2312 / 15510 \times 400$	60
7	University of Ghana Medical Center	1327	$1327 / 15510 \times 400$	34

8	Achimota Hospital	412	412 / 15510 x 400	11
9	Amasaman Hospital	654	654 / 15510 x 400	17
10	Mamobi General Hospital	756	756 / 15510 x 400	19
11	North Legon Hospital	625	625 / 15510 x 400	16
Total		N=15510		n=400

Source: Hospital data (2022).

The Simple Random sampling technique which forms part of the stratification process was applied in selecting respondents for the quantitative data which according to Polit and Beck (2017) is the most fundamental method of probability sampling and involves the development of a sampling frame indicating the list of population elements.

2.3 Method of Data Collection

Data as indicated by Ajayi (2017), is a general concept that refers to the fact that some existing information or knowledge is represented or coded in some form suitable for better usage or processing. The researcher collected primary data with closed-ended questionnaires which according to Coghlan and Brydon-Miller (2014), can lead to the avoidance of errors and ambiguity in a research study. The survey questionnaire addressed the response rates, validity and reliability as critical components in the design. For effective data analysis the data, the questionnaire was coded according to a five (5) point Likert Scale 1 = Strongly Agree (SA), 2 =, Agree (A), 3 = Uncertain (U), 4 = Disagree (D) and 5 = Strongly Disagree (SD).

The researcher visited the health institutions and sought the appropriate permission and declaration of intent to collect the data with trained assistants to aid the data collection or instrument administration. The researcher self-delivered all questionnaires and the completed questionnaires were collected by the researcher. Each of the respondents took about 10 - 20 minutes in filling out the questionnaire and the researcher was always available throughout the data-collecting process in case the respondents needed any clarifications.

2.4 Data Analysis and Management

Numerical data is best analyzed, using descriptive statistics that allow for presentation in either tables, graphs or other visuals, to summarize a collection of data for easy understanding (Curtis and Curtis, 2011). The data collected was checked for completeness, and accuracy and coded into the Statistical Package for Social Sciences (SPSS) software version 22. The key parameters for analysis of the quantitative data were descriptive statistics made up of mean, standard deviation and ranks to allow all the responses to be adequately compared with one another to make inferences.

The data management process was used to ensure that the data entry followed sequential steps to ensure effectiveness. Hard copies of the answered questionnaire were stored well with coding, editing and data entry made using the Statistical Package for the Social Sciences (SPSS) version 22. Each questionnaire was numbered to avoid duplication and made to accompany the formal coding structure. Data cleaning was carried out by comparing data and questionnaires to ensure that responses to each questionnaire were entered correctly and that any discrepancies were

resolved appropriately. The researcher ensured that the data collection instrument (questionnaire) was limited to the study objectives hence the instrument's questions adequately reflect the concepts being measured as indicated by Polit and Beck (2017). To ensure reliability, the researcher made sure that all questions were worded correctly to avoid misunderstandings and the questionnaire was tested before the final survey.

2.5 Ethical Consideration

Ethical issues that were of interest to the study included obtaining the necessary permissions, protecting respondents' anonymity, communicating the study's objectives, avoiding dishonest practices, respecting individual differences and the potential power imbalances during data collection, respecting the indigenous organizational culture and keeping sensitive information private and finally protecting participants' identities as indicated by Curtis and Curtis (2011).

3.0 RESULTS OF THE STUDY

The researcher presented the study results according to a table and described the quantities obtained according to the table. Out of the 400 respondents anticipated as the study sample, 372 responded forming a 93% response rate. Results obtained on the factors influencing brain drain among health workers in Ghana are presented in Table 3 which shows the mean, standard deviation and ranks based on the analysis. Respondents collectively indicated which factors are high per the ranks indicated from the lowest to the highest ranks indicated as 1st, 2nd, 3rd etc.

Table 2: Factors influencing brain drain among health workers in Ghana

Statement	Mean	SD	Rank	Total (n)
1. I want to achieve my future ambitions.	1.42	0.23	3	360
2. Poor replacement policies for equipment.	1.46	0.24	5	360
3. Low remuneration even relative to countries within sub-region.	1.47	0.39	1	360
4. Inadequate opportunities for staff development.	1.52	0.27	4	360
5. I want to better my education to develop my career.	1.38	0.5	2	360
6. Inadequate accommodation even in rural areas.	1.28	0.38	6	360
7. Inadequate consumables for work.	1.24	0.4	8	360
8. My family and friends are influencing me.	1.38	0.19	10	360
9. The standard of living is too high.	1.24	0.45	9	360
10. Active canvassing of western countries for health professionals.	1.19	0.38	7	360
11. Inability to acquire basic social amenities eg. housing, transport etc.	1.47	0.17	12	360
12. There are high political interferences in my organization.	1.38	0.28	11	360

Source: Researcher's Construct (2022)

Results presented on the factors influencing brain drain among health workers in Ghana as presented in table 2 indicate that the response on results on low remuneration even relative to countries within the sub-region was ranked 1st with a mean of 1.47 and SD of .39 in affirmation. Results on I want to better my education to develop my career was ranked 2nd and has a mean score of 1.38 and SD of .50 to confirm. I want to achieve my future ambitions and was ranked 3rd with a mean score of 1.43 and SD of .23. Inadequate opportunities for staff development were ranked 4th and had a mean of 1.52 and SD of .27 as a confirmation factor. Results on poor replacement policies for equipment were ranked 5th and have a mean of 1.46 and SD of .24 to affirm.

Results on inadequate accommodation even in rural areas were ranked 6th and had a mean value of 1.28 and a standard deviation of .38 in affirmation. Active canvassing of western countries for health professionals was ranked 7th with a mean of 1.19 and SD of .38 to affirm. The results on inadequate consumables for work were ranked 8th and had a mean score of 1.24 and SD of .40. The standard of living is too high and was ranked 9th with a mean of 1.24 and SD of .45.

Results on my family and friends influencing me were ranked 10th and had a mean of 1.38 and SD of .19. Results on there are high political interferences in my organization were ranked 11th with a mean score of 1.38 and SD of .28. Inability to acquire basic social amenities e.g. housing, transport etc was ranked 12th with a mean score of 1.47 and SD of .17. The results as indicated in table 3 shows that though there are few scores of dissenting opinions, most of the respondents consented to vary degrees of factors amounting to the brain drain of health workers in Ghana.

4.0 DISCUSSIONS OF FINDINGS

The study found that the highly ranked factors influencing brain drain among health workers in Ghana include low remuneration even relative to countries within the sub-region, the need to better their education to develop their careers, the need to achieve future ambitions, inadequate opportunities for staff development, poor replacement policies for equipment, inadequate accommodation. The least ranked factors included active canvassing of western countries for health professionals, inadequate consumables for work, too high standards of living, family and friends influence, high political interferences, and the inability to acquire basic social amenities e.g. housing, transport etc.

The implications are that there is a history of migration of healthcare workers from developing countries to developed countries resulting in more negative effects than positive on healthcare delivery. According to the Ghana Health Service (2020), facts and figures, there is also the government's inability to deal with the push and pull economic factors hence the brain drain is attributed to push and pull factors that affected the health and human resources, such as job insecurity, poor remunerations, a lack of individual freedoms, and poor infrastructure in most of the health facilities, especially in the rural area, with poor working conditions. The inability of the government to address the basic requirements of the health workers such as financial rewards, career development, hospital infrastructure, resource availability, hospital management, political issues, family issues, as well as issues pertaining to training, education, and development will see a continuous brain drain of health personnel. The issue of competition from the private sector where the competitors (private) offer better salaries, regular working hours, and fringe benefits, some of which include housing loans, school fees, and transport allowance as opposed to the public sector, many will have to leave the public sector if not for the private, then outside the country to seek 'greener pastures'. Not all, there are also factors of external competition and exogenous

factors that call for the brain drain from Ghana and other developing countries to the developed world.

The findings of this study directly relate to a previous study by Labonte et al., (2015) which found that due to globalization, the migration of medical personnel is a problem that has a global impact. The study emphasized that through incorporation, communication, cultural exchange, and travel, people now depend on one another globally and relocate for a variety of reasons, such as changing their lifestyles, escaping oppression, or looking for lucrative employment.

According to the OECD (2010), the demand for healthcare workers in OECD countries is also by rising income levels, new medical technology, increased specialization of health services, and population ageing. It implies that the findings of the current study are directly related to previous studies which made similar findings on the brain drain effect. The United Nations Population Division (2003) made similar findings that the majority of migrants in the world are thought to reside in Europe (56 million), Asia (50 million), and North America (41 million), of which 60–65 million are thought to be economically active. It implies that though the phenomenon of international migration is not new, its significant growth, particularly in terms of size and velocity, suggests a change in the way people move around. The overall effect is that the movement of skilled labour must be the main concern of policymakers in every country. The issue of brain drain is directly proportional to human resource distribution among source and destination countries which arises due to the occupational categories that are moving (OECD, 2002).

The study of Short (2016) on the United Nations' distribution of health workers' resources revealed that, as of 1972, 140,000 physicians worldwide lived outside of their country of nationality, making up about 6% of the total. The findings of Short (2016), corroborate the current study as it reveals the number of migrating health workers in the world which was estimated to be less, at around 5%. It implies that health workers' brain drain is a phenomenal challenge that affects developing countries but enhances the healthcare systems of recipient nations. The statistics of Sampath (2019) support the current study by showing that the USA, UK, Canada, and Australia employ between 22 and 28 percent of all physicians who received their training thus, highlighting the reliance of developed nations on medical graduates from developing countries. It implies that all these studies point to low-income nations whose trained personnel depart their shores for greener pastures due to conditions that do not support their stay and willingness to work in their mother countries with 40 and 75 percent of medical school graduates emigrating to the nations mentioned earlier, with the United Kingdom and the United States receiving the most of these contributions.

The study by Chibango (2013) provides evidence to support the current study that highly skilled workers in the health sector from African countries are migrating abroad, particularly those from sub-Saharan Africa. According to the Ghana Health Service (2020) update on the Covid-19 situation it is evident that the need for medical professionals in Africa, in general, is greatest and particularly in Ghana. But Ghana is likely to experience a shortage of human resources because of the emigration of medical professionals considering the current agitations emanating from government policies on pensions and other issues. This study supports that factors influencing brain drain among health workers in Ghana include low remuneration and the need to improve their education to advance their careers. The study did not rule out the need to achieve future ambitions in Ghana since staff development policies are ineffective with poor replacement policies

for equipment in hospitals and insufficient accommodation for personnel across Ghana. The implications are that health care worker migration from Ghana to other developed countries has had more negative effects on the health care delivery system while the government looks on helplessly as the push and pull economic factors open up to cause the brain drain without recourse to the ramifications on the health sector. The government's role is to address the basic needs of health workers such as financial rewards, career development, hospital infrastructure, resource availability, hospital management, political issues, family issues, and training, education, and development to reverse the continuous brain drain of health personnel from Ghana.

5.0 CONCLUSION

The study concludes that due to government inaction on the conditions of service of health workers such as low remuneration, inadequate opportunities for staff development, poor equipment replacement policies, political interferences in their workplaces, excessively high standards of living and inadequate housing and personal reasons that include the need to improve the educational status, family and friends influence, career advancement and the need to achieve future ambitions, Ghana is losing the majority of her finest health workers to the developed nations each year. To this effect, the migration of health care professionals from developing to developed nations has negative effects on the delivery of health care in Ghana. Since the government is unable to deal with the push and pull economic factors to address the fundamental health workers needs, such as remuneration issues, career development, hospital infrastructure, resource availability, hospital management, political issues, family issues, and training, education, and development and competition from the private sector, many health workers are forced to seek "greener pastures" outside the country.

6.0 RECOMMENDATIONS

Based on the findings and conclusions of the study, it was recommended that the government address the motivation and hygiene factors as well as the push and pull economic factors that motivate many health workers to leave the country in search of "greener pastures" otherwise, the trend on brain drain of health workers in Ghana is likely to increase subsequently.

Competing Interest

The researcher declares that she has no competing interests in the study.

Authors Contribution

Sussana Adjei-Mensah was the researcher and only author of the study except for citations and references.

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REFERENCES

1. Ajayi, L. (2009). An exploration of pre-service teachers' perceptions of learning to teach while using the asynchronous discussion board. *Educational Technology & Society*, 12 (2), 86-100.
2. Alhassan R K, Spieker N, van Ostenberg P, Ogink A, Nketiah-Amponsah E, & de Wit T. F. (2013). Association between health worker motivation and healthcare quality efforts in Ghana. *Human Resource Health.*, 11:37.
3. Anarfi, J., Quartey, P., & Agyei, J. (2010). *Key Determinants of Migration among Health Professionals in Ghana*. Development Research Centre on Migration, Globalization & Poverty. Brighton, UK.
4. Asamani, et al. (2021). The cost of health workforce gaps and inequitable distribution in the Ghana Health Service: an analysis towards evidence-based health workforce planning and management. *Human Resource Health* 19(43).
5. Boakye, D. S., & Mavhandu-Mudzusi, A. H. (2019). Nurses' knowledge, attitudes and practices towards patients with HIV and AIDS in Kumasi, Ghana. *International Journal of Africa Nursing Sciences*, 11, 100147.
6. Chibango C. (2013). Zimbabwe's Medical Brain Drain: Impact Assessment on Health Service Delivery and Examination of Policy Responses – A Literature Review. *European Journal of Sustainable Development* 2(4), 43-58.
7. Coghlan, D. & Brydon-Miller, M. (2014). *The SAGE Encyclopedia of Action Research*. London: Sage.
8. Curtis, B., & Curtis, C. (2011). *Social research*. SAGE Publications, Inc.,
9. Dartey-Baah K, & Amoako G. K. (2011). Application of Frederick Herzberg's Two-Factor theory in assessing and understanding employee motivation at work: a Ghanaian Perspective. *European Journal of Business Management* 3(9):1-8.
10. Evans, O. (2020). Socio-Economic Impacts of Novel Coronavirus: The Policy Solutions. *BizEcons Quarterly*, 7, 3-12.
11. Foster R. S. (2010). *Estimated financial effects of "patient protection and affordable care act" as amended*. Baltimore: Centers for Medicare & Medicaid Services.
12. Ghana Health Service (2010). *The Health Sector in Ghana: Facts and Figures*. Accra: Ghana.
13. Ghana Health Service (2020). *Human Resource Annual Report—2019*. Accra: Ghana Health Service.
14. Ghana Health Service (2020). *Situation update, COVID-19 outbreak in Ghana*. Accra: Ghana.
15. Ghana Human Resource for Health Country Profile (2021). <https://www.moh.gov.gh/wp-content/uploads/2016/02/Ghana-hrh-country-profile.pdf>
16. Goetz, K, Kleine-Budde, K, Bramesfeld, A, Stegbauer, C. (2018). Working atmosphere, job satisfaction and individual characteristics of community mental health professionals in integrated care. *Health Soc Care Community*, 26(2)176– 181
17. International Organization for Migration (2005). *The Millennium Development Goal and Migration* 20(2), 1607-338.
18. Joint Learning Initiative (2004). *Human Resources for Health: Overcoming the Crisis*. Cambridge, MA: Global Equity Initiative, *Harvard University Journal*, 3(1), 34–37.

19. Labonté, R., Cobbett, E., Orsini, M., Spitzer, D., Schrecker, T., & Ruckert, A. (2015). Globalization and the health of Canadians: 'Having a job is the most important thing.' *Globalization and health*, 11(1), 1-16.
20. Oleribe O O, Ezieme I P, Oladipo O, Akinola E P, Udofia D, Taylor-Robinson SD. (2016). Industrial action by healthcare workers in Nigeria in 2013–2015: an inquiry into causes, consequences and control—a cross-sectional descriptive study. *Human resources for Health* 14(1):1–10.
21. Organization for Economic Cooperation and Development (2002): *International mobility of the highly skilled* (Paris, 2002a). Trends in international migration: Annual report, Migration statistics and GATS mode 4, Paper presented at the UN/EU Conference of European Statisticians.
22. Organization for Economic Cooperation and Development (2010). Effects of Migration on Sending Countries: What Do We Know? OECD Development Centre. Working Paper (250). Research Programme: Economic and Social Effects of Migration on Sending Countries in Okeke E. (2009). *African doctor migration: Are economic shocks to blame?*
23. Orszag P. R., & Emanuel E. J. (2010). The health care reform and cost control. *The New England Journal of Medicine*, 363(7), 601–3.
24. Owusu-Ansah, J. (2015). *Brain-Drain in Ghana's Health Sector: A Case Study of Why Doctors and Nurses Emigrate*. THESIS Submitted to KDI School of Public Policy and Management in partial fulfilment of the requirements for the degree of Master of Public Policy.
25. Polit, D.F. & Beck, C.T., 2017. *Nursing research: Generating and assessing evidence for nursing practice*; 2008. 10th edition. Philadelphia: Lippincott Williams & Wilkins.
26. Pujari, D. R. (2020). Impact of CORONA Virus on Indian Education Systems. *UGC Care Journal*, 31, 1-3.
27. Raza, Y. & Akhtar, W. & Husnain, M. & Akhtar, M. (2015). The Impact of Intrinsic Motivation on Employee's Job Satisfaction. *Management and Organizational Studies*. 2. (10), 543.
28. Sampath, F. P. J. (2019). *The Relationship between Brain Circulation and Industry Growth: A Case Study of the Knowledge Services Industry in Sri Lanka* (Doctoral dissertation, Nagoya University)
29. Shiao J S-C, Koh D, Lo L-H, Lim M-K, Guo Y L. (2017). Factors Predicting Nurses' Consideration of Leaving their Job During the Sars Outbreak. *Nursing Ethics*.14(1):5-17.
30. Short, S. D. (2016). *Health workforce governance: Improved access, good regulatory practice, safer patients*. Routledge.
31. Tiruneh, D. (2020). *COVID-19 School Closures May Further Widen the Inequality Gaps between the Advantaged and the Disadvantaged in Ethiopia*. The Education and Development Form.
32. United Nations (2015). Setting norms in the United Nations system: the draft Convention on the Protection of the Rights of All Migrant Workers and their Families in relation to ILO in Standards on Migrant Workers'. *International*.
33. United Nations Population Division (2013). *International migration report 2012* www.unpopulation.org.
34. Whitley, E., & Ball, J. (2002). Statistics review 4: sample size calculations. *Critical care (London, England)*, 6(4), 335–341.

35. WHO (2006). *The World Health Report 2006—Working Together for Health*. Geneva: World Health Organization
36. WHO (2020). *Promoting health through the life course [Internet]*. WHO. World Health Organization; Available from: <http://www.who.int/life-course/en/> [Cited 11 Jun 2020].
37. Woday T. A, Mihret S. T, Biset G. (2020). Psychological Impacts of COVID-19 among College Students in Dessie Town, Amhara Region, Ethiopia; Cross-Sectional Study, *British Medical Journal* (pp. 1-16).