Cross Current International Journal of Medical and Biosciences

Abbreviated Key Title: Cross Current Int J Med Biosci

ISSN: 2663-2446 (Print) & Open Access

DOI: https://doi.org/10.36344/ccijmb.2025.v07i04.001



Volume-7 | Issue-4 | Jul-Aug, 2025 |

Original Research Article

Effects of Brain Drain on Health Care System in South-South Nigeria

Gbaranor K. B.^{1*}, Oreh Adaeze C.², John E. E.³, Barinua-Gbaranor N. P.⁴, Moses M. F.⁵, Ekeng O.⁶, Opara J. C.⁷, Nmerukini C.⁸, Amachree E. E.⁸, Mube-William E. C.⁹, Okoiseh, O. S.³, Etuk M. S.³, Sarone F.¹⁰, Monday N. S.¹¹, Woke H. A.¹², Kinanen, D. L.¹³, Ogbor-Omorie O. V.¹³

¹Department of Human Physiology, College of Medical Sciences, Rivers State University, Rivers State, South-South, Nigeria

²Ministry of Health, Rivers State, South-South, Nigeria

³Department of Obstetrics and Gynaecology, University of Uyo Teaching Hospital, Akwa Ibom State, South-South, Nigeria ⁴Department of Office and Information Management, Faculty of Administration and Management, Rivers State University, Rivers State, South-South, Nigeria

⁵Procare Hospital, Abuja

⁶Department of Anaethesia, Nile University, Abuja, Nigeria

⁷Department of Community Medicine, PAMO University of Medical Sciences, Port Harcourt, Rivers State, Nigeria ⁸Department of Internal Medicine, College of Medical Sciences, Rivers State University, Rivers State, South-South, Nigeria ⁹Department of Agriculture Extension and Development Studies, Faculty of Agriculture, University of Port Harcourt, Rivers State, South-South, Nigeria

¹⁰Department of Human Physiology, PAMO University of Medical Sciences, Port Harcourt, Rivers State, Nigeria
¹¹Cardinal Care Hospital and Maternity, Abuja

¹²Rivers State Primary Health Care Management Board, Rivers State, South-South, Nigeria

¹³Department of Emergency Medicine, University of Port Harcourt Teaching Hospital, Rivers State, South-South, Nigeria

*Corresponding author: Gbaranor K. B

| Received: 02.06.2025 | Accepted: 18.07.2025 | Published: 28.07.2025 |

Abstract: Healthcare system in Nigeria is constantly facing several issues due to inadequate personnel or professionals to mount the facilities and attend to both in-patients and outpatients at various levels of healthcare system, ranging from primary, secondary and tertiary levels of healthcare across Nigeria in general and South-South in particular. This inadequate healthcare professionals have led to the decaying of facilities thus placing the healthcare system in a moribund state creating room for patient's apathy. This study is aim to evaluate the Effects of Brain Drain on Health Care System in South-South Nigeria. This was a cross-sectional study involving 350 (final year medical students 200 and house officers 150). A well-structured questionnaire was administered to participants. The study lasted for a period of 2 months. Statistical analysis was done using SPSS version 25.0 and p < 0.05 was significant. The results revealed that 85.7% of the participants agreed that brain drain actually affects healthcare system, 97.1% was due to shortage of manpower, 94.3% agreed it affects patients, 71.4% affects revenue generation, 71.4% agreed BD increases quackery, 85.7% of them said it led to over labour, and 71.4% agreed that affects the economy. The study shows inadequate healthcare professionals as a result of brain drain has ruined our healthcare system and this have affected the revenue generation, training and re-training of healthcare personnel as well as contributing to patient's apathy towards patronizing the healthcare facilities.

Keywords: Effects, Brain Drain, Health, Care, System.

Introduction

Brain drain (BD) is the movement of highly educated individuals or professionals from a low socio-economic country to a more advanced socio-economic country for professional opportunities or Brain drain (BD) is the movement of healthcare professionals from a country of poor standard of living to a country with high or better living conditions (Gbaranor, *et al.*, 2025a; 2025b)

In Nigeria, brain drain among healthcare professionals is on the increase and this is affecting the healthcare sector by creating a vacuum or caused shortage of manpower in the sector. Barin drain is an important issue that the government must give attention to the determining factors in order to curtail future occurrence (Gbaranor, *et al.*, 2025b).

However, better standards of living and quality of life, higher salaries, access to advanced technology

Quick Response Code



Journal homepage: https://www.easpublisher.com/

Copyright © 2025 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

Citation: Gbaranor K. B et al (2025). Effects of Brain Drain on Health Care System in South-South Nigeria. Cross Current Int J Med Biosci, 7(4), 71-74.

and more stable political conditions in the developed countries attract talent from less developed areas. The majority of migration is from developing to developed countries. This is of growing concern worldwide because of its impact on the health systems in developing countries. These countries have invested in the education and training of young health professionals. This translates into a loss of considerable resources when these people migrate, with the direct benefit accruing to the recipient states who have not forked out the cost of educating them. The intellectuals of any country are some of the most expensive resources because of their training in terms of material cost and time, and most importantly, because of lost opportunity (World Bank, 2000).

The role of governments and recruitment agencies in systematically encouraging the migration of health professionals increases the pull (Bach, 2005). Migrant health professionals are faced with a combination of economic, social and psychological factors, and family choices (Connell and Brown, 2004), and reflect the 'push-pull' nature of the choices underpinning these 'journeys of hope'. De-motivating working conditions, coupled with low salaries, are set against the likelihood of prosperity for themselves and their families, work in well-equipped hospitals, and the opportunity for professional development (Narasimhan, et al., 2004).

Young, well-educated, healthy individuals are most likely to migrate, especially in pursuit of higher education and economic improvement (Meji'a, et al., 1979; Awases, et al., 2003). The distinction between 'push' and 'pull' factors have been recognized (Bach, 2005). De motivating working conditions, coupled with low salaries, are set against the likelihood of prosperity for themselves and their families, work in well-equipped hospitals, and the opportunity for professional development (Narasimhan, et al., 2004)

Previous study by Gbaranor, *et al.*, 2025a, revealed that Nigerian's doctors are willing and ready to serve their father's land if the necessary conditions are put in place by the government.

The study also shows that majority of the participants said that good working conditions, attitudinal change by the consultants, provision of jobs for doctors, equipping of hospitals with good facilities and ending kidnapping of doctors are instruments of reversing brain drain in Nigeria and that when these factors that encourage brain drain in Nigeria are addressed, it will reverse the trend of brain drain (Gbaranor, et al., 2025a). Employers in receiving countries take a different position; they have their own shortages of skilled people in specific fields and can drain a developing country of expertise by providing job opportunities (Pang, et al., 2002). Kupfer et al., provided the strategies to discourage migration to the USA, a major recipient country (Kupfer, et al., 2004). Higher education is one of the principal conduits of permanent emigration (Meyer and Brown, 1999). The majority of specialized doctors acquire and postgraduate professional qualifications in the host country. Half of the foreign-born graduate students in France, UK and USA remain there after completing their studies (Martin, et al., 1998).

MATERIALS AND METHOD

This was a cross-sectional study involving 350 (final year medical students 200 and house officers 150) who were within the age of 18 to 47 years. A well-structured questionnaire was administered to participants. Each participant had one questionnaire to fill appropriately and independently after instructions were given to them by the Research Assistants. Data collection took place over two months, from March 1st to April 30th, 2024.

RESULTS

The results revealed that (85.7%) of the participants agreed that brain drain affect healthcare system (Table 1), 97.14% said BD results in shortage of manpower (Table 2), 94.3% said BD gave patients apathy to patronize healthcare system (Table 3), 71.4% agreed it affects revenue generation (Table 4), 71.4% agreed that BD increases quackery (Table 5) and 85.7% said BD led to over labour (Table 6).

Table 1: Brain drain affects healthcare delivery

Response	Frequency	Percentage (%)
Participants who agreed that brain drain affects healthcare system	300	85.7
Participants who do not agreed that brain drain affects healthcare system	50	14.3
Total	350	100.0

Table 2: Shortage of manpower

Response	Frequency	Percentage (%)
Participants who agreed that brain drain caused shortage of manpower	340	97.1
Participants who do not agreed that brain drain caused shortage of manpower	10	2.9
Total	350	100.0

Table 3: Patients apathy

Response	Frequency	Percentage (%)
Participants who agreed that BD induces patient's apathy	330	94.3
Participants who do not agreed that BD induces patient's apathy	20	5.7
Total	350	100.0

Table 4: It reduces the revenue for the hospital and the state

Response	Frequency	Percentage (%)
Participants who agreed that BD affects revenue	250	71.4
Participants who do not agreed that BD affects revenue	100	28.6
Total	350	100.0

Table 5: BD increase quackery

Response	Frequency	Percentage (%)
Participants who agreed that BD increases quackery	250	71.4
Participants who do not agreed that BD increases quackery	100	28.6
Total	350	100.0

Table 6: Brain drain (BD) caused over labour

Response	Frequency	Percentage (%)
Participants who agreed that BD caused over labour	300	85.72
Participants who do not agreed that BD caused over labour	50	14.29
Total	350	100.0

DISCUSSION

Brain drain (BD) has caused havoc to the healthcare system thus giving rise to poor service delivery. Healthcare system in Nigeria is constantly facing several issues due to inadequate personnel or professionals to mount the facilities and attend to both in-patients and outpatients at various levels of healthcare system, ranging from primary, secondary and tertiary levels of healthcare across Nigeria in general and South-South in particular. This inadequate healthcare professionals have led to the decaying of facilities thus placing the healthcare system in a moribund state creating room for patient's apathy. Also, BD has hindered proper healthcare administration, health research, policy development and innovation, due to the exodus of healthcare professionals mounting those areas.

The shows that majority (85.7%) of the participants agreed that brain drain affect healthcare system. This implies that as a result of continuing exodus of doctors to countries with good working conditions, the healthcare system is suffering, leading to poor service delivery to the people. This movement of healthcare personnel affect all departments and specialties in the hospital. This movement of healthcare personnel from low and middle-income country like Nigeria has increased patient-to-doctor ratio, leading to longer wait times for patients. Also, BD has reduced the number of specialists thus, patients no longer get accurate diagnosis and expert management. Again, majority 97.1% of the participants revealed that brain drain has led to shortage of manpower within the hospital thereby affecting service delivering. This shortage of manpower has led to limited access by patients to qualified healthcare professionals thus, leading to higher morbidity and

mortality. This also led to decline in quality care. This scenario has resulted in poor health outcomes and is not encouraging. This shortage of manpower has increased burden on the remaining staff, thereby leading to burnout, poor job satisfaction and medical errors.

The study also shows that 94.3% of the participants revealed that BD gave patients apathy to patronize healthcare system and this may be due to limited access to healthcare professionals and thus worsen their health situation. Majority of the patients now seek treatment through herbal medicine to get healing. Due to limited access healthcare professionals, patients employed cheaper and more accessible alternatives to remedy their situation. This apathy is due to long waiting or cue to see healthcare professionals or specialists, yet no access to healthcare professionals. Several (71.4%) of the participants agreed that BD affects revenue generation of the hospital and indeed the country. This has led to waste of economic and educational investment. The Government individuals invest in training healthcare professionals and when they leave their father's land for greener pasture, this results in huge economic and educational loss to the country. Brain drain has also increases medical quackery due to the migration of qualified medical professionals with practicing license. This massive exodus of qualified healthcare professionals leaves a gap in the healthcare system and this gap are taken over or occupied by quackery who pretended that they are qualified and this occur mostly in rural areas. Again, because the patients are more desperate to seek for care, and there is limited qualified healthcare professionals, the patients are more likely trust and patronize quacks mostly when these quacks are accessible, available and affordable. This study revealed that BD contributes to an increase in medical quackery through shortage of qualified healthcare professionals and creating access gap. These gaps created by exodus of healthcare professionals gives room to these untrained individuals to exploit those gaps thus causing poor healthcare outcome. The research shows that majority (85.7%) of the participants revealed that BD led to over labour The migration of skilled workers led to fewer healthcare professionals thus making them to work longer shifts with no or little breaks and this led to exhaustion and burnout. The stress from being overworked without support may lead emotional exhaustion, poor job satisfaction, decline in quality of care. Brain drain induces worked overload for the few healthcare professionals who has not embark on emigration by reducing staff-to-patients ratios, increasing stress and burnout, reducing quality of care, thus creating medical errors.

CONCLUSION

Brain drain (BD) is a continuing process in low and middle-income countries and this has affected healthcare system. The study revealed that majority of the participants agreed that BD has affected the healthcare system through shortage of manpower, work overload, thus creating gap that are in turn filed by quacks. Again, BD has led to poor economic generation and apathy to patients who thus seek an alternative means that are accessible, available and affordable.

Acknowledgments

We acknowledge Nazor Barinua-Gbaranor, Nuazor Victory Barinua, Kedumle Success Barinua, Tuamene Excellent Barinua and Excellent Support Global Foundation for their moral support, prayers, understanding, and encouragement during the period of this research.

Funding: No funding

Conflict of Interest: None declared

Ethical Approval: Not required

REFERENCES

 Bach, S. (2003). International Migration of Health Workers: Labour Geneva:International and Labour Office, [www. ilo.org/public/english/dialogue/sector/papers/health/wp209.pdf].

- Connell, J., & Brown, R. (2004). The remittances of migrant Tongan and Samoan nurses from Australia. Human Resources [www.humanresources-health.com/content/2/1/2/abstract].
- Gbaranor K. B, Oreh Adaeze C, Mube W. A, Robinson E. D, Sokolo J. E. E, Tamuno-Opubo A, Biralo P. K, Nnadi N. O, Biibaloo L. L, Ogbonda N. P, Nwogu H. C, Etuk M. S, John E. E, John E. E, Okoiseh, O. S, Ile V. I, Odimabo M (2025a). Reversing Health Sector Brain Drain among Medical Students and House Officers in South-South Nigeria. Saudi Journal of Medicine. 10(2): 72-76.
- Gbaranor K. B., Barinua-Gbaranor N. P., Biralo P. K., Ogbonda N. P., Umar A. A., Mube W. A., Ile V. I., Ikakita Y., Ekeng, O., Odimabo M., Nwogu H. C., Wifa A. N., Abdussalam F., George U. A (2025b). Ascertaining The Factors Determining Brain Drain Among Final Year Medical Students and House Officers In Tertiary Institutions In South-South Nigeria. Eurasian Medical Research Periodical. Volume 42|, ISSN: 2795-7624.
- Kupfer, L., Hofman, K., Jarawan, R., McDermott, J., & Bridbord, K. (2004). Strategies to discourage brain drain. Bulletin of the World Health Organization, 82(8), 616-619.
- Martin-Rovet, D., Terouanne, D., & Neher, E. (1998). Higher Education in France and the International Migration of Scientists. Proceedings of an NSF Workshop: Graduate Education Reform in Europe, Asia and the Americas and the International Mobilization of Scientists and and the International Mobilization of Scientists and Engineers.
- Meyer, J. B., & Brown, M. (1999). Scientific diasporas: a new approach to the brain drain, (Management of Social Issues. Social Transformations, Discussion paper No. 41). Paris: UNESCO.
- Narasimhan, V., Brown, H., Pablos-Mendez, A., Adams, O., Dussault, G., Elzinga, G., ... & Chen, L. (2004). Responding to the global human resources crisis. The Lancet, 363(9419), 1469-1472.
- Pang, T., Lansang, M. A., & Haines, A. (2002).
 Brain drain and health professionals: a global problem needs global solutions. Bmj, 324(7336), 499-500.
- World Bank. (2000). World Development Report. Washington, DC: World Bank.