

The Challenges of Nursing Care Management of Vesico Vaginal Fistula (VVF) Patients in Treatment Centres in Poor Resource Settings of Nigeria

Peters, Grace. E. PhD^{1*}, Oko, Nnabuike Inya PhD.², Ekpenyong, Agnes Udoh. MSc.³, PETERS, EDIDIONG ETETE. MBBCh⁴

^{1,3}Department of Nursing Science, University of Uyo, Uyo

²Department of Administration, University of Uyo Teaching Hospital Uyo, Uyo, Nigeria

⁴Department of Family Medicine, University of Uyo Teaching hospital, Uyo

* Correspondence Author

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ABSTRACT

Introduction: Vesico-vaginal fistulas (VVF) are major health issues in Nigeria, particularly in the South-East and South-South regions. This paper examines in detail the challenges of administering the nursing care of VVF patients in these treatment centres. It examines issues with healthcare infrastructure, limited resources, staff training, and shortages in the workforce.

Methodology: Fifty (50) people participated in the cross-sectional study, including 25 nurses who were specifically chosen from the Family Life Centre in Mbreibit Itam, Uyo, and 25 nurses from National Fistula Centre in Abakaliki. These were the locations which have VVF treatment clinics where patients with this condition received therapy. The socio-demographic characteristics of the subjects were presented using frequency tables and simple percentages. However patient's perception of the challenges of nurses in the management of this VVF were also sought. The qualitative methodology was used to analyze the collected qualitative data.

Results: Among other things, the findings showed that the efficacy of nursing care for VVF patients in low-resource environments in Nigeria is significantly hampered by a lack of manpower, infrastructure, drugs, and equipment. To improve the standard of treatment and patient outcomes in Nigeria, more government intervention, more financing for healthcare infrastructure, better resource allocation, and closer ties with non-governmental organizations and international organizations are therefore required.

Discussion: In order to give nurses, the tools they need to effectively handle VVF cases, more money should be allocated to ongoing professional education, the creation of standardized treatment protocols, more financing for specialized training, and the creation of mentorship programme.

Keywords: Vesico-vaginal Fistula (VVF) Patients, Nursing Care Management, Challenges, Resource poor Treatment Centers, South-South, South-East, Nigeria

INTRODUCTION

Nursing is a profession that focuses on providing care for people with physical and emotional needs and coordinating medical care. As the largest professional group in the healthcare workforce, nurses play a crucial role in providing high-quality healthcare services and helping to improve health outcomes for individuals, families, and communities through both preventative and curative measures¹. The World Health Organization report estimated that there will be a shortage of 7.2 million health workers to deliver healthcare services

worldwide, and by 2035, the demand for nurses will reach 12.9 million. These professionals are frontline healthcare workers in the global healthcare system, not only in delivering effective quality care but also in improving the efficiency of the health system; therefore, having an adequate number of nurses is crucial in strengthening the health system to improve health coverage and achieve all health targets².

The need to address health issues in Africa is attributed to the fact that there are several health challenges in Africa, including Nigeria³. These health challenges include HIV/AIDS, Ebola, malaria, diarrhea, epilepsy, tuberculosis, and Vesico-vaginal fistula (VVF), amongst others.

According to Shrestha et al⁴, VVF is defined as an aberrant connection between spontaneous release of urine through the vaginal canal. The most prevalent kind of acquired fistula is represented by this illness. However, due to its prevalence among the most marginalized elements of society, including young, impoverished, and illiterate women who live in remote places far from medical services, VVF has remained a relatively concealed problem despite mounting concerns⁵. Because of its impact on women's morbidity and mortality, VVF must be the focus of attention due to this sensitivity to a specific gender.

As a major sustainable development goal (SDG), ensuring good health and well-being includes raising awareness of the factors affecting Vesico-vaginal fistula (VVF) among Nigerian women. The majority of women affected by VVF are from low-income countries like Sub-Saharan Africa with under-resourced and ineffective health care systems⁶. The World Health Organization estimates that between 50,000 and 100,000 women worldwide are affected by VVF each year (https://www.who.int/features/factfiles/obstetric_fistula/en). In high-income, developed nations, VVF is uncommon and typically results from radiation therapy or bladder damage sustained during gynecologic surgeries. According to Joseph et al⁷, the lack of midwives and experienced birth attendants is probably the cause of the incidence gap between high- and low-income nations. In regions with low and medium incomes, like Sub-Saharan Africa, VVF continues to be a public health issue⁸.

The causes, effects, and treatments of VVF have been covered in a number of scholarly studies.^{6,9,10,11,12}. However, little is known about the factors that contribute to this, such as a lack of resources, inadequate training for nurses and other medical professionals, and a shortage of staff members to manage the care of VVF patients. In the light of this, this study aims to assess the challenges in providing nursing care for VVF patients at treatment facilities located in underdeveloped areas of South-South and South-East Nigeria.

Evaluation Of Various Challenges:

(a) Limited resources and nursing care management of VVF patients

The quality of care is affected by the lack of adequate facilities, particularly in many low-income areas; healthcare facilities may lack the infrastructure, equipment, and medications necessary to manage VVF effectively; nurses must not manage VVF patients in settings with inadequate surgical facilities, medical supplies, and poorly maintained wards. In many parts of Nigeria, particularly in rural areas, healthcare facilities are frequently under-resourced. The lack of infrastructure, equipment, and medications in vesico-vaginal fistula health care facilities affect the nursing care management of VVF patients in these centers.

Umeha¹³, estimated that there is a nation's backlog of between 120,000 and 150,000 fistula cases, with an increase of 12,000 cases per month. He ascribed this to the lack of facilities and skilled medical professionals to care for the sick. Therefore, in order to effectively address the rise in obstetric fistula cases, a complication usually brought on by protracted labor that raises maternal mortality and morbidity in the nation, he suggested that the federal government should expand and improve health facilities and staff.

Human rights watch noted that¹⁴, a persistent issue in Kenya is the lack of access to emergency obstetric care, particularly for impoverished and rural women and a similar scenario is faced in Nigeria. Also, health facilities are always understaffed, particularly in rural regions which make it harder for women to get timely help and referrals when they experience obstetric difficulties. Insufficient ambulances and fuel lead to unnecessary delays resulting in fistulas and stillbirths in many women with obstetric difficulties.

(b) Inadequate training and nursing care management of VVF patients

It is difficult for nurses to gain the skills they need to manage these cases effectively because most nurses lack specialised training in VVF management, including surgical nursing and psychosocial support for patients. Healthcare workers, particularly nurses, seem to fall behind in their need for on-going training to be current with newer skills, which has an impact on how they manage the treatment of VVF patients, especially in Nigeria's low-resource environment.

Depending on the availability of suitable personnel and conflicting demands on staff time, hospital policies on supervision and formal competency assessment were implemented differently in different hospitals. The impact of clinical skills training on hospital nursing care towards achieving better care quality was studied by Calmita¹⁵ using a systematic review that summarises the numerous papers found through a methodical search. This research assessed the effect of clinical skills training on nursing practice, care quality, or both and recommended that on-going staff development is helpful in adjusting to the swift changes in healthcare delivery services, particularly as they relate to the care management of patients with VVF.

Healthcare providers are often so busy trying to keep up with patient demand that they do not have the time or resources to invest in training. Another reason could be a lack of healthcare training available in the hospital. It may be the result of inadequate management, a lack of accountability, or a subpar work environment. Insufficient training in the healthcare industry increases the likelihood of blunders, medical errors, and patient harm.

(c) Workforce shortages and nursing care management of VVF patients

Adel¹⁶ found that there is a significant shortage of healthcare professionals, including nurses, in VVF treatment centres, which leads to overworked nurses who are unable to provide the comprehensive care needed by these patients, especially during long-term recovery periods. Insufficient nursing staffing has led to numerous detrimental effects on patient health, especially in the treatment of VVF patients, as well as difficulties in preventing illnesses and promoting better health. Additionally, this increases the burden for nurses, which in turn lowers the quality of nursing care, jeopardises patient safety, and increases mental health problems among the workforce.

There are other factors at play, including the ageing of the nursing workforce, burnout from excessive workload, a demanding workplace, low pay, and job discontent. The need for more nurses was greatly increased by the ageing of the population, chronic illnesses, impairments, and the complexity of patient care.

In his study, Manama¹⁷ bemoaned the fact that there is a severe nurse's shortage that affects healthcare services both domestically and internationally. Less communication with patients, co-workers and mistakes made while working are the results of this, which raises the possibility of mistakes and safety issues throughout the patient care, treatment, and recovery procedures.

METHODOLOGY

Study design

The study was cross-sectional one using two locations in South-South and South-East Nigeria with relative resource poor settings

Population of the Study

All nurses working in VVF treatment facilities in the South-South and South-East Nigerian regions made up the research population.

Sample and Sampling Technique

The purposive sample technique was used to pick a total of 50 respondents for this investigation. Purposefully, 25 respondents each were selected from the National Fistula Centre in Abakaliki and the Family Life Centre in

Mbreibit Itam, Uyo, which are located in the South-East and South-South regions of Nigeria respectively. However, the patient's perception of the challenges of nurses in the management of VVF was also sought. These institutions were chosen because they are VVF treatment facilities where patients with these conditions receive care.

Procedure for Data Collection

The study obtained its data from primary sources through an in-depth interview method. The interview guide was divided into sections with open-ended questions to facilitate primary data collection. The languages used for discussion were English and Pidgin. During the interview sessions, information was gathered from 50 participants using a recording device. Notes were taken at the same time. However, this data was the foundation for collecting experimentally valid data to assess the investigation's findings. The comments gathered from selected participants represented the perspectives of all nurses in the region's VVF treatment clinics during the research period, which lasted from August to October, 2024.

Method of Data Analysis

The data was analyzed using frequency tables and percentage distribution. Both quantitative and descriptive approaches were used.

Consent to Participant

Informed consents were obtained from the participants, the information obtained was kept strictly confidential. All aspects of the research were conducted with the utmost ethical consideration.

RESULTS

Table 1: Frequency and Percentage Distribution of the Socio-demographic Characteristic of Nurses in VVF centers (n=50)

VARIABLES	Frequency (Uyo)	Percentage (%) (Uyo)	Frequency (Abakaliki)	Percentage (%) (Abakaliki)
AGE				
18-22	2	8	1	4
23-27	3	12	4	16
28-32	5	20	4	16
33-37	10	40	12	48
38 and above	5	20	4	16
Total	25	100	25	100
MARITAL STATUS				
Single	5	20	3	12
Married	16	64	18	72
Divorced/Separated	2	8	4	16
Widow	2	8	0	0
Total	25	100	25	100

LEVEL OF EDUCATION				
Registered Nurse/MidWife	15	60	12	48
BSc Nursing	6	24	8	32
Masters	4	16	5	20
PhD	0	0	0	0
Total	25	100	25	100
RELIGION				
Christianity	25	100	25	100
Islam	-	-	-	-
Total	25	100	25	100
\m				

Source: Fieldwork, (2024).

Table 1 provides useful information on the socio-demographic characteristics of nurses working in VVF treatment facilities in Uyo and Abakaliki, Nigeria. According to the marital status distribution, a significant portion of nurses in both centers are married, with the majority in Abakaliki (72%) and Uyo (64%). The nurses in both locations are primarily mid-career professionals, with the largest percentage of the workforce falling into the 33-37 age range. Given the complex and often delicate care management required for VVF patients, this suggests that the nurses are likely experienced to a considerable degree. In light of this, many nurses are likely to have family responsibilities that may impact their availability for shifts and work schedules; additionally, the small number of nurses who are widowed or divorced may suggest that personal circumstances are generally stable among the workforce, which may be beneficial for maintaining continuity of care. However, the high percentage of married nurses may also suggest that it may be challenging to strike a balance between work and personal responsibilities, especially in settings with limited resources and high demands on nurses' time.

Most nurses in both centers are registered nurses / midwives, while a sizeable portion of nurses in Abakaliki have BSc nursing degrees. Although the availability of more advanced degrees, like MSc, is significant, there is clearly a need for more support for nurses' professional growth in these contexts. More opportunities for specialization and continuing education may be necessary to raise the overall standard of care for patients with VVF, as evidenced by the shortage of more highly skilled nurses. Nursing professionals with advanced degrees may also be better equipped to handle complex patients and contribute to the development of best practices for VVF management. All of the nurses at the two facilities identify as Christians (100%), demonstrating the consistency of their religion. This shared religious affiliation might have an impact on the ethical and cultural framework in which these nurses work, which could affect how they treat patients, how empathetic they are, and how sensitive they are when caring for VVF patients, who frequently face severe social stigma.

Limited resources and nursing care management of VVF patients

Responses from nurses at the National Fistula Centre in Abakaliki and the Family Life Centre in Mberebit Itam, Uyo, South-East, and South-South regions of Nigeria showed that a lack of resources has a significant impact on the nursing care management of VVF patients, resulting in inadequate treatment, increased patient suffering, and poor recovery outcomes. Essential medications, infrastructure, medical equipment, and financial support are still major obstacles to providing effective care for VVF patients.

The respondents cited the lack of proper healthcare infrastructure in many VVF treatment centres as one of their top concerns, stating that frequent power outages interfere with laboratory testing, disrupt surgeries, and affect

the storage of medical supplies, and that some facilities rely on generator power, which is costly and difficult to maintain, further taxing the already scarce resources, making it difficult to deliver reliable, high-quality care to patients who need 24-hour medical care.

In addition, many of these facilities have poorly maintained buildings, insufficient bed space, and unsanitary conditions, which make it difficult to ensure proper infection control and patient comfort. According to the nurses, hospital ward overcrowding forces multiple patients to share limited space, increasing the risk of cross-infections. Other issues that compromise patients' care and increase the risk of post-surgical infections include poor waste disposal systems, unsanitary conditions, and the lack of a reliable water supply. Nurses from the National Fistula Centre in Abakaliki have this to say:

Our infrastructure is dated. Power outages are common, which complicates our work by interfering with surgical procedures and post-operative care. Patients undergoing high-risk surgery are at risk because there are insufficient oxygen tanks and emergency resuscitation supplies. For the repair of fistulas, our facility requires more sophisticated surgical instruments. The ones currently in use are antiquated and ineffective. More community outreach programmes are needed; however, due to financial constraints, many women in remote areas cannot be reached. Patient transportation presents difficulties. Lack of ambulances makes it difficult for residents in rural areas to get to the hospital on time. Further restrictions on nurses' capacity to deliver an emergency care in life-threatening situations is the lack of mobile medical units or well-equipped ambulances.

Other nurses from the Family Life Centre in Mbreibit Itam, Uyo, lamented:

We frequently lack essential drugs, like antibiotics, which delays the treatment of infections and worsens the condition of VVF patients; we lack adequate infection control facilities, which makes it difficult to maintain hygiene and increases the risk of post-surgical infections among VVF patients; basic surgical tools, catheters, sterile gloves, disinfectants, and other essential supplies are frequently in short supply, forcing healthcare providers to reuse disposable items or resort to outdated methods; and we lack functional operating theatres and anaesthesia equipment, which delays surgical interventions and negatively impacts patient recovery.

Inadequate training and nursing care management of VVF patients

The data collected during the IDIs showed that in both centers' nurses lacked proper training, which seriously impairs the standard of nursing care management for VVF patients in Nigeria. The absence of specialty training in fistula care among nurses leads to incorrect patient management, delays in treatment, increased complications, and poor rehabilitation outcomes. Due to restricted educational opportunities, lack of structured training programme, and inadequate government support for capacity building, many nurses rely on basic nursing knowledge rather than specialize fistula management abilities. This increases the risk of complications like urinary tract infections, fistula recurrence, and prolonged healing times. This also leads to inadequate patient assessment, ineffective wound care, and inappropriate use of medical equipment, all of which have a detrimental effect on the recovery process of VVF patients.

Infections, bleeding, or excruciating pain are common reasons why VVF patients need immediate medical attention, making it challenging for nurses without specialized training to react to such situations in a timely and effective manner. In places with low resources, this condition puts an additional burden on the already scarce healthcare resources by compromising patient safety, raising mortality risks, and lengthening hospital stays.

Nurses at Family Life Centre, Mbreibit Itam, Uyo narrated thus:

Insufficient regular VVF management training causes nurses to be ignorant of available treatments, which affects patient outcomes. Some nurses lack the skills they need to identify early signs of issues like sepsis or fistula recurrence. Pharmaceutical errors are a result of inadequate training, especially when administering antibiotics following surgery. Patients' ability to recover is hampered by this. Adequate pre- and post-operative care is impossible without proper training. Since there aren't any official refresher classes, we usually have to learn on the job. This affects the way we deal with problems like infections and incontinence following surgery.

Responses from Nurses at National Fistula Centre, Abakaliki reported that:

Some nurses might not know how to properly catheterise patients undergoing VVF, which might worsen the problem by causing infections and blockages. More instruction in infection control procedures is required. By using improper wound care techniques, some nurses inadvertently cause infections. We lack the training necessary to offer patients emotional and psychological care, even though many of them experience severe trauma and depression. Since incorrect wound care prolongs hospital stays and VVF patients are at high risk for infections, we require more specialised training in wound care management. Because they lack surgical nursing competence in VVF repair, several nurses are reluctant to participate in procedures. When it comes to treating patients with several fistulas or complex cases, there is a knowledge gap. We need to be trained on advanced VVF cases in order to become more efficient. Given that VVF patients typically experience melancholy and social rejection, it is critical that nurses receive psychological support training, which is lacking for many of them.

Workforce shortages and nursing care management of VVF patients

The information provided by nurses during IDIs was an attempt to address the question of whether nursing care management of VVF patients in these two research locations is affected by manpower shortages. The findings showed that in settings with limited resources, lack of staff has a major influence on the standard of nursing care management for VVF patients. Increased workloads, delays in patient care, nurse fatigue, and generally poor patient health outcomes are caused by the shortage of qualified nurses and medical staff in VVF treatment facilities.

A dearth of healthcare staff means that each nurse is responsible for treating numerous patients at once, as many of these patients need psychological support, post-surgical monitoring, and long-term medical treatment. Many nurses complain that they frequently don't have enough time to spend with each patient, which results in insufficient psychosocial assistance for women who are experiencing emotional anguish and stigma, delayed wound dressing, and irregular post-surgical complications monitoring. In addition, a lot of nurses complain about long workdays, insufficient downtime, and a lack of support personnel to help with patient care. The psychological and physical toll of working under such demanding circumstances lowers job satisfaction and increases turnover, which exacerbates the issue of a personnel shortage. The issue is made worse by the dearth of mental health resources available to busy nurses, which lowers motivation and makes care delivery in general less effective.

Responses from Nurses at National Fistula Centre, Abakaliki are that:

The lack of personnel has an impact on emergency and surgical care. Because there aren't enough skilled surgical nurses and anesthetists, many VVF patients must wait a long time to receive treatment, even though many of them need prompt surgical operations to repair fistulas. Lack of available medical professionals often delays surgeries, which results in severe health issues, higher risk of infections, and longer pain. Furthermore, providing immediate treatment during emergencies is challenging due to the shortage of nurses, which can result in the exacerbation of illnesses or death that could have been prevented if treated with timely intervention.

Nurses at the Family Life Centre in Mbreibit Itam, Uyo responded that:

We are supposed to offer routine catheter care and change dressings, yet some patients experience delays in these important aspects of treatment because of workload. Managing too many patients at once wears out many nurses, which hinders our capacity to provide compassionate care. Junior nurses are solely responsible for patient care, while older nurses are overworked. Errors might result from inexperience. Administrative duties are among the many jobs that many nurses are in charge of. This restricts the time allotted for direct patient care, which affects the results of treatment. Working for days without a break could cause people to lose focus and stop performing important nursing tasks. The high patient-to-nurse ratios lead to a lack of individualized care. VVF patients require tolerance and dignity, which can be difficult to provide. Responses from patient's perception of the challenges in nurses in the treatment centered mainly on the inadequacy of nursing personnel

and lack of medical equipment/consumables for nurses to work with. They were particularly concerned about the fewer number of nurses working on a particular shift in a day.

DISCUSSION

The study found that nursing care management of VVF patients at the treatment centers in poor-resource settings in Nigeria is faced with challenges. The nurses at the Family Life Centre in Mberebit Itam, Uyo, and the National Fistula Centre in Abakaliki, who responded to the survey, demonstrated the serious effects of scarce resources on the treatment and management of VVF patients in poor-resource settings in Nigeria. These results draw attention to issues that lead to subpar patient care and poor recovery outcomes, including a lack of necessary supplies, limited medical equipment, inadequate infrastructure, and drug shortages. The results validated the research conducted by Edeh¹⁸, which discovered that at least 12,000 women in Nigeria developed vesico-vaginal fistula each year and that the majority of the women affected by the condition come from remote villages that lack motor able roads, health care facilities, and numerous barriers to seeking medical attention. Similarly, Sina et al ¹⁹in their study indicated that the management of VVF patients appears to involve a greater use of private health facilities, which can be primarily attributed to factors like easier access, shorter waiting times, extended or flexible opening hours, better staff and medication availability, improved attitudes, and greater confidentiality in socially stigmatized illnesses. Also, it was reported that in Kenya there is persistent issue of lack of access to emergency obstetric care, particularly for impoverished and rural women¹⁴. The health facilities are always understaffed, particularly in rural regions, which make it harder for women to get timely help and referrals when they experience obstetric difficulties.

The findings of the study also showed that insufficient training considerably lowers the standard of nursing care management for patients with vesico-vaginal fistulas (VVF) in Nigerian settings with poor resources. Nurses who lack specialized training in fistula care are more likely to handle patients improperly, postpone treatment, increase complications, and have poor rehabilitation results. Despite providing vital care for VVF patients, many nurses admit that they frequently lack the expertise, and practical experience needed to adequately treat complex fistula cases. The work by Sare et al²⁰ supported this, demonstrating that while induction training was important, it did not adequately prepare healthcare support staff for life. A lack of time, infrequent training, ward managers' attitudes towards additional support workforce training and their need to balance this against the needs of patients and other staff members, and the use of e-learning as the default mode of training delivery were the factors that affected access to ongoing training. In the same vein, Huccu²¹observed that there are fewer trained individuals in the industry, and the training provided to healthcare workers is less relevant to what is happening in the field. Lack of education and training is frequently mentioned by medical experts as one of the main issues facing the industry today. Healthcare workers, whether they are nurses, doctors, dentists, or other medical professionals, all appear to agree that training is not given enough importance in the field. Healthcare workers, particularly nurses, seem to fall behind in their need for ongoing training to keep current, which has an impact on how they manage the treatment of VVF patients, especially in Nigeria's low-resource environment.

The results of the study equally showed that the quality of nursing care given to VVF patients in settings with poor resources is greatly impacted by inadequate workforce. Each patient receives less attention and care when there are not enough qualified nurses to handle a large patient group. As a result, nurses are overworked, patients suffer more, treatment is delayed, monitoring is insufficient, and problems are more likely to occur. This result validated Adel ¹⁶assertion that one of the challenges in delivering high-quality healthcare services to the populace in order to enhance health and well-being and attain universal coverage is the global nursing workforce shortage. Insufficient nursing staffing has led to numerous detrimental effects on patient health, especially in the treatment of VVF patients, as well as difficulties in preventing illnesses and promoting better health. This increases the burden for nurses, which in turn lowers the quality of nursing care, jeopardizes patient safety, and increases mental health problems among the workforce. Additionally, Aldashrini²² lamented that the scarcity of nurses is a complicated issue with multiple root reasons. Patients in both treatment centers also perceived that this challenges may adversely affect the quality of care received, thus delaying recovery and prolonging their stay in the hospital. There are other factors at play, including the ageing of the nursing workforce, burnout from excessive workload, a demanding workplace, low pay, and job discontentment. The primary cause of nurses'

hasty withdrawal from their careers is the emotional and physical strain that nurses endure, which can worsen burnout.

CONCLUSION

Based on the findings of the study, the effectiveness of nursing care for VVF patients in the poor-resource settings in Nigeria is severely limited by a lack of infrastructure, equipment, medications, and personnel. These issues, not only extend patient suffering and recovery time but also put additional strain on already overworked healthcare professionals. Many nurses rely on general nursing knowledge rather than specialised fistula management skills because of lack of structured training programmes.

Workforce shortage has a significant negative influence on the standard of nursing care given to VVF patients in settings with poor resources. Inadequate post-discharge care, a lack of emotional support, a delayed emergency response, a greater patient load, an excessive workload, and a decreased ability to control infections all work against nurses' effectiveness and patient outcomes. Therefore, in order to enhance the standard of treatment and patient outcomes in Nigeria, more government intervention, more money for healthcare facilities, better resource allocation, and closer ties with non-governmental organisations are required.

Additionally, more government investment in healthcare infrastructure, better working conditions, better training for support workers, and the hiring of more nurses are all necessary. The overall healthcare system for VVF patients in Nigeria will be weakened, and patient outcomes will continue to be compromised in the absence of these steps due to lack of workers.

RECOMMENDATIONS

1. To enhance the standard of treatment and patient outcomes in Nigeria, more government involvement is required, along with more financing of the healthcare infrastructure, improved resource allocation, and closer ties with non-governmental organisations and foreign organisations.
2. In order to give nurses the skills they need to effectively handle VVF cases, more money should be allocated to professional education, the creation of standardised treatment protocols, more financing for specialised training, and the creation of mentorship programmes.
3. The government ought to boost its investment in hospital infrastructure, hire more nurses, improve working conditions, and provide better training for support personnel. Without these steps, the overall healthcare system for VVF patients in Nigeria will be weakened and patient outcomes will continue to be compromised due to a lack of workers.

REFERENCES

1. Alameddine, M., Bauer, J. M., Richter, M. and Sousa-Poza, A. (2017). The paradox of falling job satisfaction with rising job stickiness in the German nursing workforce between 1990 and 2013. *Human Resources for Health*, 15(1), 55-61.
2. Aboshaiqah, A. (2016). Strategies to address the nursing shortage in Saudi Arabia. *International Nursing Review*, 63(3), 499-506.
3. Ajike, O. K., Funmilayo, V. H., Yinyinola, O. M. and Peter Babatunde, P. A. (2019). Awareness of factors responsible for vesicovaginal fistula among Hausa women in Nigeria. *IJRDO - Journal of Health Sciences and Nursing*, 4 (6)1-17
4. Shrestha, D. B., Budhathoki, P., Karki, P., Jha, P., Mainali, G., Dangal, G., Baral G., Shrestha. M., Gyawali, P. (2022). Vesico-vaginal fistula in females in 2010-2020: A systemic review and meta-analysis. *Reproductive Sciences*, 29:3346-3364.
5. Amina, E. S. (2013). Taskforce on VVF. A paper presented at Katsina, June 7th.
6. Bashah, D. T., Worku, A. G. and Mengistu, M. Y. (2018). Consequences of obstetric fistula in sub-Saharan African countries, from patients' perspective: a systematic review of qualitative studies. *BMC Women's Health*, 18(1):106

7. Joseph, G., da Silva, I. C. M., Wehrmeister, F. C., Barros, A. J. D. and Victora, C. G. (2016). Inequalities in the coverage of place of delivery and skilled birth attendance: analyses of cross-sectional surveys in 80 low and middle-income countries. *Reproductive Health*, 13(1):77-82
8. Lombard, L., de St. Jorre, J., Geddes, R., El Ayadi, A. M. and Grant, L. (2015). Rehabilitation experiences after obstetric fistula repair: Systematic review of qualitative studies. *Tropical Medicine & International Health*, 20(5):554-68
9. Hassan, M. A, and Ekele, B. A. (2009). Vescio vaginal fistula: Do the patients know the cause? *Annals of African Medicine*, 8(2)122-6.
10. Ndugbu, U. K., Madukwe, C. E., & Ezennia, C. J. (2019). Why the poor care-seeking behavior for Vescio-vaginal fistula repair/rehabilitation care among patients attending VVF centers in Northwestern Nigeria? Healthcare givers' perspectives. *Journal of Midwifery & Women's Health*, 3(1), 43-50.
11. Babatunde, L. B., Ireson, D., Adama, E. and Bayes, S. (2022). Sub-Saharan African women's views and experiences of risk factors for obstetric fistula: a qualitative systematic review. *BMC Pregnancy and Childbirth*, 22 (680) 1-12
12. Orawee, C., Pokket, S. and Apisith, S. (2023). Vesicovaginal fistulas: Prevalence, impact, and management challenges. *Medicina (Kaunas)*, 59(11):1947.
13. Umeha, C. (2016, January 4). FG urged to increase facilities to tackle obstetric fistula. *Daily Independent*. Retrieved on 12/11/16 from www.dailyindependentnig.com
14. Human Rights Watch (2018). *Barriers to fistula prevention and treatment in Kenya*. Retrieved on 05/3/2018 from <https://www.hrw.org>
15. Calmita, H. J. C. and Boag, B. R. (2021). The impact of clinical skills training on hospital nursing care towards acquisition of improved care quality: A systematized review. *European Heart Journal*, Volume 42, Issue Supplement, ehab724.3148, <https://doi.org/10.1093/eurheartj/ehab724.3148>
16. Adel, T. T. and Masoud, M. (2022). A systematic review study on the factors affecting shortage of nursing workforce in the hospitals. *Nursing Open*, 10(3):1247-1257.
17. Manana, M. (2022). Impact of the nurse's education and shortage on the patients care outcomes- Literature review. *American Journal of Biomedical Science & Research*, 15(4) 441- 443
18. Edeh, S. B. (2015). 12,000 women develop VVF every year in Nigeria. *Vanguard*. Retrieved on 22/3/2025 from <http://www.vanguardngr.com>
19. Sina, O. J., Jegede, L. I. and Ibikunle, A. M. (2014). Socio-economic status and utilization of healthcare facilities in rural Ekiti, Nigeria. *Standard Research Journals*, 2(1): 001-043
20. Sarre, S., Maben, J., Clare Aldus, C., Schneider, J., Wharrad, H., Nicholson, C. and Arthur, A. (2018). The challenges of training, support and assessment of healthcare support workers: A qualitative study of experiences in three English acute hospitals. *International Journal of Nursing Studies*, 79:145-153
21. HUCU (2025). The impact of inadequate healthcare training on the quality of care: A focus on VVF treatment. *Healthcare Education and Training Journal*, 12(3), 45-59.
22. Alshahrani, S. H. (2022). Reasons, consequences, and suggested solutions for nursing workforce shortage: A review of literature. *International Journal of Health Sciences*, 6(S5), 1557- 1568.