

**BELIEFS, BARRIERS, AND CYCLICAL PATTERN OF CARE:  
EXPLAINING TREATMENT PATHWAYS OF  
VESICOVAGINAL FISTULA PATIENTS IN EBONYI AND  
PLATEAU STATES, NIGERIA**

**Okwuchi Chioma Efam<sup>1\*</sup> & Nalong H. Yale<sup>2</sup>**

<sup>1,2</sup>Department of Sociology, University of Jos, Plateau State, Nigeria

\*chiomabioma@gmail.com

**ABSTRACT:** Vesicovaginal Fistula (VVF), which is an abnormal opening between the bladder and the vagina that results in uncontrollable leakage of urine, remains a major public health concern among women in sub-Saharan Africa. In Nigeria, VVF is perceived to be caused by multiple factors, including obstetric complications, spiritual forces and bad omen. These perceptions strongly influence the treatment options women pursue, resulting in diverse treatment pathways. The study adopted the Health Belief Model as its theoretical framework and employed a comparative qualitative design. Data were generated through in-depth interviews and key Informant Interviews involving forty (40) VVF patients (20 per state) and eight (8) healthcare professionals (4 per state) in Ebonyi and Plateau States. The data were analysed using thematic content-analysis. Findings revealed multiple treatment pathways involving repeated movements between home remedies, traditional healers, faith-based centres, primary health care facilities, hospitals and specialized VVF centres. Key factors influencing treatment pathways included perceived causes of VVF, financial constraints, place of delivery and distance to health facilities. Cues to action included a doctor's referral, media publicity and significant others. Although some contextual differences were observed between the two states, treatment pathways were largely similar. The findings contribute to understanding sociocultural determinants of delayed VVF treatment and inform future sensitization efforts on the causes and appropriate treatment of VVF to reduce delays and improve health outcomes.

**Keywords:** Treatment pathway, Vesicovaginal fistula, Referral, Health-seeking behaviour

### **Background**

Vesicovaginal Fistula (VVF) is a maternal health condition characterized by an abnormal connection between the bladder and the vagina, resulting in involuntary leakage of urine (Rajaian, Pragatheeswarane, & Panda, 2019). It is a debilitating condition that requires prompt medical intervention. In Nigeria, health care delivery has evolved over time to encompass traditional, spiritual, and orthodox medical systems. Prior to colonial influence, healthcare was largely provided by traditional healers who were patronized because of their perceived understanding of the environment and illnesses (Adefolaju, 2014). With colonization and missionary activities came the introduction of orthodox medical services (Adefolaju, 2014; Alubo, 1995). Alongside orthodox medicine, spiritual and faith-based healing practices remain widely utilized in Nigeria (Badru, 2001; Owumi, Raji, & Aliyu, 2013). In addition, patent medicine vendors and pharmacies serve as

alternative sources of healthcare. This pluralistic medical landscape, influences how individuals interpret illness and navigate care-seeking pathways.

Treatment choices are shaped by perceptions of illness causation, severity, accessibility of services, cost and advice from significant others. In many African settings, illness is understood through plural explanatory frameworks that combine biomedical, spiritual, and moral interpretations. (Jegede, 2002; Gordon, 2016). Movements across healthcare systems are often non-linear, involving repeated shifts between traditional, spiritual and modern medical services (Frederick & Stephen, 2007; Sibley & Amare, 2017; Dempsey et al., 2021).

Despite documented perceptions of VVF as a punishment from God or a sexually transmitted condition (Okoye, Emma-Echiegu, & Tanyi, 2014), limited attention has been paid to the treatment pathways adopted by affected women. Treatment choices are implicated in the increasing rate of untreated VVF, as reliance on non-specialised care, delayed care-seeking, and repeated transitions between providers, reduces timely access to specialized treatment, thereby increasing the rate of untreated VVF cases. This study examines and compares the treatment pathways of VVF patients in Ebonyi and Plateau States, exploring how beliefs and structural barriers shape movements across healthcare systems. This study enriches scholarly discourse by providing a comparative, context-specific evidence on the treatment pathways of women living with VVF in Ebonyi and Plateau States, revealing pluralistic and non-linear nature of care-seeking that involves repeated movements across healthcare systems. The study demonstrates how socio-cultural meanings and economic constraints interacts with plural health systems to shape treatment-seeking behaviour, hence, informing culturally sensitive interventions.

This study seeks to answer the following questions:

1. What is the nature of movement across healthcare systems by VVF patients?
2. How do beliefs and structural barriers influence treatment pathways of VVF patients?
3. what cues to action influence patients' decision to seek specialized treatment for VVF?

The Health Belief Model (HBM) was employed to explain treatment pathways of VVF patients. The HBM posits that health-seeking behaviour is influenced by individuals' actions to perceptions of susceptibility, severity, benefits, barriers, and cues to action. For instance, Women who perceive continuous urine leakage as a normal post-delivery condition may delay seeking treatment and rely on simple home remedies. Also, when VVF is perceived as severe, patients are more motivated to seek treatment. But the choice of treatment may be dependent on how VVF is interpreted. Choice of treatment is influenced by patients' perceived benefit or barriers to action. Women who believe that prayer, or traditional medicine, can heal VVF may initially choose these options, thereby shaping alternative treatment pathways. Orthodox treatment could be avoided if perceived as expensive, or the distance from the place of residence to the health centre could also be a barrier. Whether a patient will go to the hospital, a traditional healer or a faith clinic depends on their cue to action (significant other, media, health workers outreaches, etc.).

While this model offers useful insights into individual-level cognition, its application in African maternal health contexts has been critiqued for insufficiently accounting for the social and structural

conditions within which health decisions are made. Social-ecological perspectives challenge the HBM's individualistic orientation by situating health behaviour within multiple, interacting levels of influence, including interpersonal relationships, community norms, institutional arrangements, and broader sociocultural environments (Glanz, Rimer, & Lewis, 2000). In maternal health settings characterised by plural medical systems, women's treatment decisions are rarely autonomous. Instead, they are shaped by spouses, extended kin, religious leaders, traditional healers, and community expectations. Consequently, perceptions of benefits and barriers are not merely personal assessments but are socially negotiated and collectively reinforced. This limitation suggests that the HBM, when applied in isolation, risks oversimplifying complex decision-making processes by attributing delayed or non-biomedical care primarily to individual belief deficits.

Despite these limitations, recent studies demonstrate that the HBM remains analytically valuable when applied as a flexible interpretive framework rather than a predictive model (Sibley & Amare, 2017; Dempsey et al., 2021). When situated within sociocultural and structural realities, the HBM illuminates how beliefs about illness causation intersect with poverty, distance, gender relations, and health system fragmentation to shape care pathways. In African maternal health settings, perceived severity may coexist with delayed care-seeking when biomedical services are inaccessible or culturally misaligned, while perceived benefits of traditional or faith-based care may reflect moral and spiritual logics rather than biomedical efficacy

In this study, HBM constructs are interpreted as operating within layered social and structural contexts that shape how beliefs are formed, reinforced, and acted upon. Perceived benefits of traditional or faith-based care are understood not simply as cognitive preferences but as reflections of moral economies, spiritual worldviews, and institutional accessibility. By extending the HBM in this way, the study provides a context-sensitive explanation of non-linear and cyclical maternal health-seeking behaviour in pluralistic African healthcare settings.

## **Materials and Methods**

This study adopted a comparative qualitative design. Ebonyi and Plateau states were purposively selected due to the presence of functional VVF referral centres that attract patients from across Nigeria. The population comprised women diagnosed with VVF at the selected specialised centres (National Fistula Center, Ebonyi and Bingham University Teaching Hospital, Plateau State) and healthcare professionals (medical doctors and nurses) involved in VVF management. Data were collected through 40 interviews (20 per state) and key informant interviews with healthcare professionals (4 from each state). The interview guide was translated into Igbo and Hausa languages in Ebonyi and Plateau, respectively, for better understanding by each respondent. Ethical consent was obtained from all participants prior to data collection. Data were analysed using thematic content analysis. All interviews were audio-recorded, transcribed verbatim, and translated in English language where necessary. Transcripts were imported into Atlas.ti version 9.1 for systemic coding and data management. Open coding was conducted inductively to identify recurring concepts and patterns emerging from the data. Afterwards, related codes were grouped into broader categories through axial coding reflecting treatment pathways, sociocultural beliefs, structural barriers, and cues to action. The HBM informed data interpretation by providing an analytical

framework for linking participants' narratives to specific belief constructs that shaped treatment pathway.

## Results

The socio-demographic characteristics of the respondents indicated that their mean age was 29.60 years (Ebonyi 33.5 years; Plateau 26.54 years) and their mean age at first birth was 20.1 years (Ebonyi 23.4 years; Plateau 16.8 years). One-third (33.3%) had no formal education (Ebonyi 5%; Plateau 56%), and 31.1% had attained secondary education (Ebonyi 60%; Plateau 8%). Results on the occupation of respondents showed that the highest proportion of respondents were traders (31.7%) (Ebonyi 45%; Plateau 19.1%), but women who were housewives were 26.8% (Ebonyi 5%; Plateau 47.6%). Most respondents reported a monthly income of less than N18,000 and identified as Christian, comprising 74.7% overall, with regional variations such as 96% in Ebonyi and 58.6% in Plateau.

### Treatment Pathways adopted by the Patients of VVF

Patients adopted varying treatment pathways. Using the first point of remedies as the primary parameter for determining pathways, eight (8) pathways have been identified

#### 1. Home remedies, hospitals and VVF Centre;

Prior to other treatment options, home remedies have been identified as the first line of defence. For some VVF patients, starting with home remedies was due to perceived barriers such as financial constraints, and not necessarily their initial desire. One of the VVF patients in her explanation, stated that:

...We were told to go to a hospital for repair, but I did not go because we did not have money and the place was far. I stayed at home trying out different treatments suggested by relatives, but later stopped because it was not working, and I went to the hospital, but the funds were not there. A relative who works in this centre told me about Jos for treatment, but I did not bother to tell anyone because even if I did, there is no money for treatment (some actually taught repairs are being paid for). But I later came down to Jos after 2 years for repair (IDI/VVF patient/25 years Old/Plateau).

Adding to the perspective of using home remedies as the first line of treatment option, another patient described how herbs were first applied when it manifested, thereafter purchased over-the-counter antibiotics before visiting the hospital and finally being directed to the VVF center in Plateau State for treatment. In her narration:

Since it started with rashes, I put herbs there and gave her over the counter antibiotics and continued rubbing the herbs but it did not stop. Then we went to Bauchi for the first repair still the leakage continued, did the second here it did not still stop. This is our third repair. After we came here, we stopped all other

treatments because they told us it will not work that it is only surgery that can stop it (IDIVVF Patient 10 years Plateau).

For other VVF patients, lack of knowledge on where VVF could be treated informed their start point of treatment. Further narratives by a VVF patient reveals how ignorance shaped her choice thereafter, got a cue that led to specialized care. As she noted:

When it started, I had no idea where it could be treated, and my village is very far from Gombe. I stayed at home, sitting and drinking warm water, taking spicy things. But the leakage did not stop. After 4 years, an outreach team from Gombe came to our village, and we got to hear about the treatment. We did the first repair in Gombe. At some point I lost faith because both the home remedies and modern medicine did not stop the leakage, ... after two years, I heard about Jos from another outreach team and then came down for treatment (IDIVVF Patient 30a years Plateau).

However, these experiences shows that factors, such as ignorance, treatments barriers despite perceived severity of their condition influences the treatment movements from home before seeking care at hospitals and subsequently at VVF centres for specialized management and repair. Due to delays in accessing specialist medical care and prompt referral, it is evident that the majority of patients who follow this pathway are likely to experience severe social and health consequences.

## **2. Traditional home/herbs, hospitals or no hospitals and VVF Centre;**

Beyond the use of home remedies, the findings revealed that some VVF patients sought care from traditional healers before attending hospitals and VVF centres. For these patients, funds were a barrier to seeking treatment from the hospital as one of the interviewed patients indicated. As she explained:

Firstly, I went to the hospital, the price made us decline treatment... I went to another place, which normally uses traditional herbal and orthodox medicine to cure people, and we paid 150,000 for the treatment. I was given treatment for one month, but the leaking didn't stop. We decided to come here for the treatment (IDI VVF Patient 33 years Ebonyi).

Another respondent who went to a herbalist before going to the hospital and the VVF centre received a recommendation from a friend who assured her of the efficacy of herbal treatment. After failed treatment, she went to the hospital and was referred to the VVF centre.

Immediately, the leakage started, I told my friend, and she said we should go back to the herbalist. We did, and he gave me herbs to take saying it would heal it in 21 days, but it did not work. I think I have told you that I have visited so many hospitals before I was directed to this place... (IDI VVF Patient 34 years Ebonyi).

For another VVF patient, the choice of not visiting a hospital was attributed to the unfortunate incident she had at the hospital. To her, patronizing a herbalist will be of benefit to her. She later visited a hospital and then a specialized centre after getting a cue from a doctor. In her words:

I have never visited any place for this problem because I was angry; I feel the hospital will cause more harm to me because if a hospital can do this, then they cannot be trusted anymore...I tried some herbs at intervals. I lived with urine leakage from 2012 until 2019. When I developed heart/chest pain, and visited the hospital, the doctor observed that I was leaking urine and referred me to this place (IDI VVF Patient 35 years Ebonyi).

In another view, a health professional stated that she does not know what they use at the onset of VVF, but averred that traditional therapy before visiting the VVF centre should not be discarded. In his statement:

I do not know if they take any other form of treatment aside from hospital treatment, but it is very possible and should not be discarded. They will usually not report that to us because they know we will frown at it. But as I said, it cannot be ruled out, especially with the case of a woman in the ward who inserted herbal drugs in her vagina and got it blocked. With that alone the use of traditional medicine cannot be totally ruled out. We, the doctors, rarely ask if traditional medicine was used. Some may even attempt over-the-counter drugs. It is possible that this alternative treatment affects them sometimes and makes them not come on time for treatment (KII/Health Professional/Plateau).

Corroborating the treatment pathways with the onset of traditional home remedies, one of the matrons interviewed in Plateau State stated that many of the VVF patients usually drink herbs, inserting herbal medicine into the vagina before visiting the VVF centre for repairs. As she explained:

Some have used herbal drugs before coming here; they have also gone to other VVF treatment centres for repairs, but they still leak. Some of them will tell us that when they took the traditional medicine, it helped them a bit, while some ended up causing more problems for themselves, but the only solution to VVF is surgical repair. (KII/Health Professional/Plateau).

In view of the foregoing accounts, despite being susceptible to severe social and health consequences. VVF patients started with traditional remedies, due to factors, like lack of funds, cues from significant others and negative experiences from hospital during child birth. The failure of traditional remedies, implies that seeking medical attention in a traditional home might not be handled more effectively, while also influencing the time they sought help from specialised centres,

### **3. Prayer house, hospital visit and VVF Centre**

According to the description of another pathway, it was stated that when the VVF condition first manifested, she attended two different churches for prayer before seeking medical attention at the hospital and ultimately being referred to the VVF Centre in Abakaliki. In her statement:

I did not go to any place; I only attended church. I used to go to church and pray from 7am to 12 pm every Friday. I went to two different churches for prayer. The hospital I went to for the treatment referred me to this place. They said this place is the last place for me to come for the treatment. (IDI/VVF patient/55 years Old/Ebonyi).

Another VVF patient who was referred to the Jos VVF centre but for funds claimed that while she was waiting to go to the hospital and the VVF centre, she began praying to God for healing and went to churches for prayers. As she noted:

When it happened, I was referred to this centre, but I did not come due to lack of funds. And the urine leakage was not much so I decided to manage it. In the waiting time, I was praying for God's healing, visiting churches and places of deliverance for prayers... When the leakage increased, we started looking for money to come to this centre, and the repair has been done, and I pray it will be perfect (IDIVVF Patient 25b years Plateau).

In support of the above narratives, one of the medical professionals stated that many VVF patients seek healing through prayers from their spiritual leaders.

Yes, some still seek help from their pastor and other spiritualists, though secretly (KII Matron Ebonyi 2020).

The narratives described above imply that the respondent's notion of VVF condition as a supernatural explanation influenced this pathway. In Nigeria, it is common knowledge that the majority of complicated medical conditions have spiritual underpinnings, making spiritual therapy a necessary component of treatment.

### **4. Primary Health Care (PHC) centre, traditional medicine or home remedies and VVF Centre**

It is well understood that the belief, attitude, location, financial resources available, and the efficacy of treatment option for the sufferer influences treatment pathway. This also applies to the first point of call, such as using PHC, as one of the VVF patients indicated:

My parents took me to the Local Government Hospital for treatment because we thought it was another problem. I took traditional medicine for the problem before I came to the VVF centre (IDI/Repaired VVF patient/20 years Old/Plateau/).

Another VVF patient described how she began her treatment options at the clinic, but also used traditional treatment before discovering the VVF centre. As she narrated:

When it started, I was given drugs in the clinic where I gave birth, but it did not stop the leakage. When I got home, I took the traditional medicine my father gave to me, but it still did not stop. Luckily for us, it did not take long before we heard about this centre, and then we came here immediately, and the repair has been done (IDIVVF Patient 25c years Plateau).

From the above narratives, typical home/traditional remedies used after PHC were ineffective. This could be a result of receiving substandard medical care or being hampered by inadequate facilities at previous treatment options.

### **5. Private hospital, Prayer house or no prayer house and VVF Centre**

With this treatment pathway, while starting from a private hospital informed faster movement to a specialized centre for some VVF patients, others patronized spiritual healing before going to a VVF centre. One of the respondents explained that she first sought medical help from Father Ede's Hospital (a private hospital) before being referred to the VVF centre. As it was narrated:

When I started smelling urine and noticed I could not urinate on my own again, we went to Father Ede's Hospital, and they gave us a referral to this place. We did not go to any other place again (IDI/VVF patient/23 years Old/Ebonyi)

Another participant, who initially went to a private hospital, prayed for recovery at a church before being referred to the VVF centre in Abakaliki, expressed this:

I have not gone to any place for treatment. The doctor from Pieta Hospital where I had my delivery referred me to this centre. What I usually do before coming to this place is go to the chapel to pray. After praying, I come back to the house. I still seek prayers from my chapel pastor (IDI/VVF patient/36 years Old/Ebonyi).

According to the above narrative, even if there are no facilities to treat the condition, going to a private hospital indicates that a diagnosis has been made. Additionally, it was explained that some patients still prayed before the VVF centre. It suggests that those who followed this type of treatment plan believed the illness had a spiritual root that needed to be addressed through prayer in addition to using medical facilities.

In the description of another VVF patient who was discharged from a private hospital and took OTC drugs before finally visiting the VVF centre, she explained that:

I was discharged to go home, then after one week, another chemist man said he can cure me, he charged us 1000 naira and gave me drugs (OTC). I took and finish the medicine but, it did not work, I decided to stay like that while trying some natural

herbs, I did not go to any other place for any medication (IDI VVF Patient 40b years Ebonyi).

From the above narratives of these treatment pathways, it was observed that visiting private hospitals at the onset of VVF symptoms was common among patients from Ebonyi State, while their counterparts from Plateau State took to other treatment options at the onset of the condition, such as PHC, traditional homes, etc.

#### **6. Government hospital, faith/traditional remedies or no faith/traditional remedies and VVF Centre**

It was noted that before being referred to the VVF centre, patients would still stop at other locations along the pathway that begins at government hospitals, such as prayer houses. This further implies that many VVF sufferers, despite having attended hospitals with trained professionals, think that supernatural forces can help their condition get better. One VVF patient in Ebonyi State, for instance, described her experience and said that she had visited a government hospital before going to the VVF centre. According to her:

The first hospital we went to checked me and requested a scan; the ultrasound result showed VVF. I went to the Teaching Hospital Ohiria, and the doctor said he could fix it through a catheter. After one month, the leakage continued. I decided that I will not go to any other place except to come to Abakaliki and prayers (IDI/Repaired VVF patient/29 years Old/Ebonyi).

Some patients, particularly those who have unique viewpoints on the causes of VVF, believe that hospitals are the best places to go along their treatment pathways. As an interviewee narrated:

I did not receive any treatment elsewhere, except at this place. We were referred to this place from the Federal Medical centre (FMC), Asaba. (IDI/VVF patient/20 years Old/Ebonyi).

In another view, a patient who was referred to the VVF centre after several visits to different hospitals in Gombe State and prayer houses, noted that:

When it started, we were told repair could be done in Jigawa, Gombe and Jos, but the boy who got me pregnant chose Gombe due to cost. We refused because we had heard about Jos. We later went to Gombe for the repair, but the leakage did not stop. We came to Jos, and the repair has been done, and I pray it will be successful. But before the second repair, I went to my pastor for prayers so that I could be healed. I still call for prayers. (IDIVVF Patient 16 years Plateau).

Treatment regimens for VVF patients appear to be influenced by a number of factors. For instance, while some believe that it has a spiritual element and needs to be treated in the domain of supernatural powers, despite the fact that the hospital is the first place of visit, others have doubts about the efficacy of hospital treatments as they believe that the combination of both would be more

efficacious than the conventional therapies. In the narration of another VVF patient who used a government hospital at the onset and later used the traditional method before she was moved to the VVF centre explained that:

After I was discharged from the hospital, I was referred to this centre, and a repair was done, but it was not successful. Then 2 years later (2010) I came back for another repair, which was also not successful. After that, my aunt decided to allow me remain at home. I cannot count the types of concoctions I have taken. People kept suggesting different kinds of things to take, and I had no choice but to take them because I wanted to be whole again and live normally like every other girl. I have been to different pastors for prayers. At one time, I took herb and almost died, but God saved me. Sometimes chemists will tell my aunt that they can treat it and mix plenty of drugs for me. God is the one saving me. I decided to come back here this year to try my luck again (IDI VVF Patient 24 years, Ebonyi).

This also implies that she might have encountered delays in her treatment following diagnosis in the Kano hospital, which could have an impact on the management of VVF condition before she was sent to a specialist hospital.

Before going to the VVF centres, some patients patronised traditional remedies. In the narrative of a patient from Plateau State for example, she noted that:

I was placed on catheter treatment for two months at the hospital; the doctor said he would correct it. I kept drinking water at the hospital for me to be cured. After the two months, I did not heal; I was discharge to go home. It was when my mother came for “Omugwo” that we started calling people and asking them about such a health condition. Then, a relative told us about this place. But before then, some people suggested the use of herbs (traditional medicine), which we tried out, but it did not stop the leakage. (IDI VVF Patient 35b years Ebonyi).

Given that many VVF patients visited government hospitals before being referred to the VVF centre, it appears that more patients in Plateau State than in Ebonyi State went directly to the VVF centre. Again, it is noted that many of the patients had alternative treatment options prior to their actual attendance at the VVF facility. This may be as a result of factors such as financial constraints, attitudes toward modern health care, and the conviction that the combination of traditional and modern healthcare is more effective in treating health problems than just one therapy.

## **7. Direct to VVF Centre**

There have also been instances where VVF patients went straight to the VVF centre by themselves without a prior visit to the hospital or any other location. In a patient who directly visited the centre based on a relative who had a similar experience, it was stated that:

I came to the VVF centre first for treatment because my in-laws' VVF situation was treated in this Center successfully. I have not taken any other type of treatment except that from this centre (IDI VVF Patient 25 years Plateau).

Patients who went directly to the VVF centre for repairs suggest that circumstances such as accessibility to the VVF centre, awareness, and the patient's unique perspective were factors that made it an ideal option compared to other patients.

### **8. Back and forth treatment pathways**

In addition to the many treatment pathways that VVF patients reported and described, a back-and-forth movement was seen in their patterns of therapies. For instance, a patient who was referred from a hospital to the Jos VVF centre claimed that she was unable to be repaired because of funds. Instead, she went to Bauchi, where she was unsuccessfully repaired before turning to traditional medicine and eventually came to the Jos VVF centre for treatment. In her description:

When it started, I was referred to Jos, but I did not have money to go, hence my staying at home. After one year, I went for a repair in Bauchi, which was not successful; although it reduced, but if I feel like urinating, it will start leaking before I stand up, then after a while, the urine became difficult to come out, even if I am pressed. I resorted to home remedies and traditional medicine. I started taking traditional medicine to help ease the passage of urine, and it helped me a bit (they usually cook it hot for me to drink). Sometimes I sit in hot water, and it helps. When this issue persisted, we decided to come to this centre, and the repair was completed. I called for prayers so that it will stop with this (IDIVVF Patient 20b years Plateau).

Additionally, a patient in Jos who initially went to the hospital, returned, took traditional medicine, then repeatedly attended a VVF centre recounted a similar experience of back-and-forth movement and explained that:

When it started, I went back to the hospital, and I was told to come back after three months. I went back, and the repair was done, but I was still leaking. I took traditional medicine before the second repair “mai ciwo wawa ne, mai ciwo kasuwa ne” (a sick person is a fool, a sick person is a market). Anyone can recommend something to you, and you do all in the name of trying to get well; I kept vomiting anytime I took it, so my husband told me to stop and said we should face hospital treatment. We went back to the hospital and was told to come back after one year, but we had no money to go back, so I delayed for another 3 months. A second repair was done and the leakage reduced; sometimes when I feel like urinating, I go to the toilet and do it myself and other times it just pours out by itself. After a month, I went back, and a third repair was done, and it stopped completely. After that, my period started with so much pain, and then I took some traditional herbal drugs. Then, later, the leakage started and increased more than previous times. Then I was told about Jos and I came to try it out. “You know this urine sickness, anywhere you seek treatment and get tired and out of money, you rest then when you get

money, you get up and start again” (especially money for transport fare)  
(ingredients used: *mai shanu*, *dawadawa*, *kaza* (IDIVVF Patient 44 years Plateau).

Narrating a back-and-forth movement, a patient from Ebonyi State reported first using traditional treatment, then taking herbs and turning to prayer before returning to the Abakiliki VVF centre. In her explanation:

From 1999-2008 (9 years), I was at home taking traditional medicine; they boiled different kinds of things for me to drink, but there was no improvement. I was later taken to the fistula centre in Abakiliki. The repair was done but it was not successful. Different suggestions kept coming, and after the unsuccessful repair, I was referred to a woman and was told that if I took herbs, it would close. I took the herbs for a long time, and it did not work. The repair has been done 4 different times, but all have not been successful. At one point, I started mixing traditional medicine with modern treatment. At intervals, I visited churches for prayers since I felt other treatments had not worked. I turned to God for help. I came to the fistula centre March 2018 after 4 unsuccessful repairs. After the 5th repair, it stopped, and I was hopeful that it was over, but after a while, it started again, but not as much as before. This last repair was done through the stomach. I have a very long tear on my stomach. Since I came to this centre, I have not taken any other form of treatment aside from modern medicine (IDI VVF Patient 30 years Ebonyi).

These findings imply that, despite similarities in the initial location of care for VVF patients from Ebonyi and Plateau States, there were variations in the patterns of care sought by the states afterwards.

### **Factors influencing the first point of treatment**

From the findings, the following factors influenced the first point of treatment that determined their pathway:

- a) Perceived cost of treatment.
- b) Distance from the place of residence to the health centre
- c) Perceived cause and symptoms of the condition
- d) Ignorance of where it can be treated
- e) Place of birth
- f) Experiences with health centres (for patients who started with herbal home)

### **Cues To Action**

VVF patients visiting the VVF centres were due to the following cue to action;

- a. Doctors’ referrals;
- b. VVF Patients’ personal knowledge through media publicity on VVF
- c. Family members or significant others’ referrals.

**a. Doctors' referrals**

Most of the respondents identified that their treatment pathways, especially for those who used modern treatment regimens, were doctor referrals, even to the VVF centre. According to a VVF patient interviewed, it was explained that it was:

From the doctor's referral, I was directed to come here with a letter; the letter is in my folder, and if you open it, you will see it. I did not go to any other place for medication (IDI VVF Patient 28 years Ebonyi 2020).

In another experience, a VVF patient who first visited a herbalist before visiting the hospitals and was finally referred to the VVF centre, narrated that:

First of all, I went back to the herbalist to repair what he scattered but it did not work. I started moving from hospital to hospital. I came based on a referral note on competency and am seeing it; this hospital only treats people with these special cases, urine and faeces leakage (IDI VVF Patient 34 years Ebonyi 2020).

In the explanation of a patient from Jos, it was stated that:

I was referred to this clinic from the hospital where I gave birth (IDIVVF Patient 18b years Plateau 2020).

A patient from Gombe also noted that she was referred to Jos VVF centre by a doctor, as she describes:

I was told about this centre by a doctor in Gombe; he brings any case of VVF he hears of down to Jos, and for the fact that with all I have done, I was still leaking (IDIVVF Patient 22c years Plateau 2020).

These results demonstrate that the majority of treatment pathways were influenced by doctor referrals up to the very end, particularly for those who visited hospitals.

**b. VVF Patients' personal knowledge through media publicity on VVF**

Publicity and efforts in the media also had an impact on how VVF patients were treated. For instance, a patient who heard about the VVF treatment at the Abakaliki centre described hearing about it on the radio. As she narrated:

I heard it on the radio at that time, and the doctor who did the operation also told us to come here. That the treatment is free. (IDI VVF Patient 24 years Ebonyi 2020).

In another patient who said she got the information through an outreach, stated that:

I came to this centre because of the outreach team that came to Adamawa. I do not know of any other treatment method (IDIVVF Patient 22 years Plateau 2020).

According to the above narratives, treatment pathways for VVF patients were influenced more by information they received via radio campaigns and other publicity than by doctors' referrals.

**c. Family members or significant others' referrals.**

It is important to recognize the efforts put forward by family members or significant others who recommend VVF patients to various levels of care. This is partly because they also had an impact on how VVF patients choose to proceed with their therapy or repairs. One VVF patient in Ebonyi State, for instance, remarked that her relatives had a significant influence on the majority of her treatment decisions. In her statement, when asked:

I told you; it was one of our cousin sisters who directed us to this place through an old, repaired person from this place. Since the catheter and the herbs did not work, I decided to come to this centre (IDI VVF Patient 35b years Ebonyi 2020).

From another patient in Plateau State, it was stated that a man in their community informed her of the VVF centre in Jos. She described that:

It was a man in my community who told us about this place, so we decided to come and try since the former treatment did not work (IDIVVF Patient 9 years Plateau 2020).

Another VVF patient who was influenced by a repaired woman said that:

I came to this centre because I was leaking, and a woman who had her repair here successfully told me about this place (IDIVVF Patient 19 years Plateau 2020).

In a patient whose influence was from an in-law who had her repaired in Jos VVF centre, said that:

I chose this centre because my in-laws' repair was done here, and it was done well. She said they have very good hands and are experienced (IDI VVF Patient 25 years Plateau 2020).

This implies that many of the VVF patients were influenced to take specialized treatment they undertook either through doctors' referrals, personal knowledge through media publicity or referrals from family members or significant others.

**Discussion**

The findings of this study demonstrate that treatment pathways for vesicovaginal fistula (VVF) in Ebonyi and Plateau States are shaped by the interaction of individual health beliefs, sociocultural

meanings, and structural constraints, producing pluralistic, non-linear, and often cyclical patterns of care-seeking. Women's movements across home remedies, traditional healers, faith-based centres, primary health facilities, hospitals, and specialised VVF centres reflect contextually rational responses to uncertainty, poverty, and multiple explanatory models of illness rather than poor health-seeking behaviour. These patterns are best interpreted using the Health Belief Model (HBM), while recognising the broader social and structural conditions within which health decisions are made.

Perceived susceptibility to VVF was generally low at symptom onset, particularly among women who interpreted continuous urine leakage as a normal or temporary consequence of childbirth. This perception reduced the urgency of seeking biomedical care and legitimised initial reliance on home remedies, herbs, and over-the-counter drugs. Similar findings have been reported in maternal health studies across sub-Saharan Africa, where delayed recognition of obstetric complications limits early care-seeking (Sibley & Amare, 2017). As symptoms persisted and disrupted daily activities, susceptibility became more salient, prompting movement toward other treatment options. However, heightened risk perception alone did not result in immediate hospital attendance, as women continued to navigate competing interpretations of the condition and constraints on access.

Perceived severity of VVF increased markedly with prolonged leakage and social stigma. These experiences reinforced the seriousness of the condition and heightened motivation to seek a solution, consistent with HBM assumptions. Nevertheless, severity was frequently interpreted through spiritual or moral lenses, including beliefs about divine punishment, spiritual attack, or curse. Such interpretations directed care-seeking toward prayer houses and traditional healers, either as first points of care or alongside biomedical treatment. This finding aligns with earlier studies showing that supernatural explanations of illness strongly influence maternal health-seeking behaviour in African contexts (Owumi, Raji, & Aliyu, 2013; Gordon, 2016). Thus, while perceived severity encouraged action, it did not necessarily channel women toward specialised biomedical care.

Perceived benefits strongly shaped the sequencing of treatment options. Traditional and faith-based therapies were often viewed as beneficial because they aligned with dominant cultural explanations of illness and were endorsed by trusted community members. This aligns with previous studies, where traditional healers are perceived to be specialised in certain areas (Okafor, et al., 2014). Reports of partial symptom relief reinforced continued use despite the absence of definitive cure. Biomedical treatment and specialised VVF centres were perceived as beneficial when women became aware of surgical repair and successful outcomes, often through outreach programmes, media campaigns, or testimonies from successfully repaired patients. However, recognition of these benefits frequently occurred late in the illness trajectory, after other options had failed, prolonging circulation within non-specialised care settings. Comparable delays in escalation to specialist care have been documented in studies of maternal complications in other low-resource settings (Dempsey et al., 2021).

Perceived barriers emerged as the most influential factor shaping treatment pathways and delaying access to specialised care. Financial constraints (transport costs, fear of high medical expenses) were repeatedly cited as reasons for postponing hospital visits and referrals. Geographical distance

and weak referral systems further restricted access, particularly for rural women. Health system barriers such as misdiagnosis, failed repairs, and inadequate counselling reinforced uncertainty and contributed to repeated back-and-forth movements across facilities. Negative experiences with health providers during childbirth undermined trust in biomedical care and pushed some women toward traditional or spiritual alternatives. These findings support Frederick and Stephen's (2007) argument that treatment switching reflects constrained choices within plural health systems rather than indecision.

Cues to action played a decisive role in redirecting women toward specialised VVF care and often marked turning points in their treatment trajectories. Doctor referrals, community outreach programmes, radio announcements, and testimonies from repaired women reframed VVF as a medically treatable condition and reduced uncertainty. Family members and significant others also acted as critical triggers by mobilising resources, providing information, and legitimising decisions to seek specialised care. In the absence of such cues, women were more likely to remain within familiar treatment spaces despite high perceived severity, underscoring the importance of external prompts in activating care-seeking behaviour.

Although treatment pathway in Ebonyi and Plateau states exhibited similar patterns of movement across healthcare systems, notable differences emerged in the nature and timing of care-seeking. Respondents from Ebonyi State were more likely to present early contact with private hospitals, reflecting relatively greater awareness of biomedical services. In contrast, women in plateau state frequently reported prolonged reliance on home remedies, traditional healers before accessing specialized centres. Earlier age at first birth, lower educational attainment among plateau respondents may likely explain these patterns. Despite these differences, both states exhibited pronounced back-and-forth movements across health systems, indicating that geographic proximity to specialized centres alone does not eliminate delays. Rather, delays are socially produced through the interaction of beliefs, referral inefficiencies, poverty and inconsistent health system responses. This extends Okoye, Emma-Ehehiegwu, and Tanyi's (2014) findings by demonstrating that sociocultural barriers shape treatment trajectories.

### **Conclusion and Recommendations**

Despite contextual differences, VVF patients in both states exhibited similar patterns of movement across healthcare systems, including repeated back-and-forth transitions. These pathways contribute to delays in receiving appropriate care. These findings highlight the need for multilevel interventions addressing both belief systems and structural barriers in VVF management. The back-and-forth movement challenges linear assumptions of HBM, revealing its limitations in contexts where treatments are socially negotiated and embedded in overlapping traditional, spiritual and biomedical systems. Hence, the need to situate individual beliefs within broader sociocultural and structural contexts. The study emphasises need to strengthen referral linkages across community actors such as traditional healers who already function as key decision makers for VVF treatment.

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