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The Effects of Vesico-Vaginal Fistula in the Lives of Women in Southeastern Nigeria

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Abstract

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MPH, Walden University, 2016

BA, University of Massachusetts Boston, 2011

Dissertation Submitted in Partial Fulfillment
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Abstract

Vesico-vaginal fistula (VVF) is a maternal health problem faced by women in developing countries. VVF is one of the most devastating consequences of prolonged obstructed labor and is still prevalent in resource-poor countries like Nigeria where fertility is high, the status of women is low, and obstetric services are often inadequate. The objective of this study was to enrich our understanding of the effects of VVF as it relates to women's experiences in southeastern Nigeria. I adopted the Transactional Model of Stress and Coping in this study; this theory posits that people, when contending with any kind of stressors, are disposed to adopt either a problem-focused or emotion-focused coping style. Information on women suffering from VVF is important as it can inform the design and delivery of programs and interventions to address the challenges this population faces. I conducted in-depth interviews with 20 women at the National Fistula Centre in Abakaliki, Nigeria. I coded the data and generated themes from codes. Spousal support was a primary theme; the participants reported receiving varying levels of spousal support from their partners. They also faced multiple challenges, such as abandonment, emotional distress, and job loss. The findings from this study can create positive social change to increase spousal support for women coping with VVF. However, degraded spousal support may have considerable effects on such women's self-image and their wellbeing. Women who feel supported by their partners may experience less stigma and may have a greater willingness to acknowledge this childbirth injury. Providing women with VVF with support can help ensure their physical and emotional comfort and improve their lives as well as the lives of their families and the entire community.

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Dedication

This book is dedicated to the lord Jesus Christ for keeping me alive in the land of the living to witness this testimony of earning a PhD. This book is also dedicated to my wonderful mother, Dorathy Chinelo Uwakwe. I would not be a doctor today if you had not encouraged me to pursue my dreams. Thank you for all your support in prayers and for standing by me despite all the ups and downs.

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To my mother, Dorathy Chinelo Uwakwe, who inspired me daily to reach for my dreams and to aim at the stars. My mother enthusiastically encouraged me to pursue this dream. She supported me financially and supported me tirelessly in prayers. It would have been a rough journey without your support, Mother.

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Chapter 1: Introduction to the Study

Introduction

In Nigeria, vesico-vaginal fistula (VVF) is considered a common public health and social problem. It is not only a common public health problem but a critical medical condition with far reaching social implications for its sufferers, their households, and communities (Amodu et al., 2018; Sullivan et al., 2016). VVF is a preventable maternal condition resulting from prolonged obstructed labor, and it most often found in developing countries (Baba et al., 2017; Lo et al., 2019). VVF results in holes between the vagina and the urethra and in uncontrollable leakage of urine or feces (Bashah et al., 2018). The eradication of this condition remains a major public health challenge, especially in Nigeria where health systems are weak and adequate obstetric care services are lacking (Amodu et al., 2018; Delamou et al., 2016).

Nigeria's levels of maternal mortality and morbidity are among the highest in the world. VVF morbidity is estimated to affect more than two million women worldwide but estimates of incidence and prevalence are based on the numbers of women who seek treatment in the hospital and are therefore likely to be highly underreported (Ugochi et al., 2019). Current estimates indicate that 400,000 to 800,000 women suffer from this health condition in Nigeria; 20,000 new cases are reported annually, and 90% percent of cases go untreated (Federal Ministry of Health, 2016). According to Ugochi et al. (2019), Nigeria has been identified as the country with the highest number of cases of VVF, accounting for 40% of the global cases of VVF, which are estimated at one to two million. In recent years, researchers have conducted many studies on the problem of VVF, but they have focused mainly on the major direct cause and formation of VVF. A significant limitation of their approach has been their inability to provide insight into the effects of VVF in the lives of women, drawing on the perceptions of women who are directly impacted by this condition (Amodu et al., 2018; Dennis et al., 2016). The effects of VVF are important that need to be explored to provide insight into the true magnitude of the problem (Shepard et al., 2017; Sullivan et al., 2016).

The effects of VVF are often considered to be personal, related to marital relationships and family ties (Dennis et al., 2016). According to Dennis et al. (2017), the actions of unsupportive partners seemed to hurt women with VVF emotionally. The findings of Dennis et al. (2017) indicated that, for women with VVF, receiving emotional and social support was correlated to lower depression scores, higher self-esteem scores, and plans to discuss VVF with others. Scholars found a similar association between depression and social support among obstetric fistula patients in Kenya, which suggests that degraded social support may have considerable effects on mood and self-image (Sullivan et al., 2016). Given the past findings linking VVF with deficits in spousal support, the support of men can help women with VVF reintegrate into their communities and obtain relief from their VVF (Dennis & Sullivan, 2016). However, women with VVF typically experience lower levels of support, which often result in separation or divorce (Dennis & Sullivan, 2016). In many cases, the development of VVF exacerbates existing problems in the relationship, such as damage to one partner’s physical wellbeing and a lack of intimacy and spousal support, rather than serving as a novel cause of these problems (Dennis & Sullivan, 2016). The preservation of marriage is an important determinant of how much support women tackling VVF receive; therefore, without spousal support, the likelihood of women continuing a healthy and productive existence is small (Sullivan & Umar, 2016).

As a result, this study was designed to enrich our understanding of the impact of women having spousal support during their experiences combating VVF. Women gaining spousal support influences their ability to seek treatment during delivery or when experiencing birth-related complications (Dennis & Sullivan, 2016). VVF continues to occur not only in southeastern Nigeria but also throughout many other sub-Saharan African countries. Therefore, this study was intended to shed light on the effect of VVF in the lives of women in southeastern Nigeria, while gaining insight about the impact of spousal support prior to and after women with VVF receive surgery. By conducting this study and giving women an opportunity to describe their experiences in their own voice, these findings will hopefully present a call for action aimed at increasing spousal support for women with VVF.

Background

VVF is a childbirth injury that is still quite common in sub-Sahara Africa. It is regarded as a public health epidemic as many women give birth to their babies alone or without a skilled birth attendant (Amodu et al., 2017; Debrework et al., 2018). While poverty plays a significant role in perpetuating VVF, sociocultural practices also present some barriers to the condition. VVF leads to a tear in the vaginal wall, thereby resulting in the “uncontrolled leakage of urine and feces through the vaginal” (Amodu et al., 2017, p. 259). As Amodu et al. (2017) observed, the “condition may be further complicated by infection, painful rash, vaginal ulcers, scarring and stillbirths, as observed in 78–95% of cases” (p. 259). According to the World Health Organization (WHO, 2016), VVF is under-documented in most third-world countries due to economic insecurity and social instability. The primary causes of VVF in Nigeria result from prolonged or obstructed labor, including unskilled birth attendance and a late presentation to health facilities (Amodu et al., 2017; Sullivan et al., 2016).

In addition, the higher prevalence of VVF in Nigeria reflects existing disparities in healthcare access for women, and this inequity is an underlying factor that puts women at risk for VVF (Amodu et al., 2017; WHO, 2015). Nigeria is considered a country where women are more likely to be alone during childbirth, making maternal health challenges a global health concern (Amodu et al., 2017). Overall, most cases of VVF can be prevented, as with a cesarean section, and treated with surgical repair, but the condition occurs most often in women who are marginalized and impoverished, especially when there are few medical facilities in their area (United Nations Population Fund [UNPF], 2015).

As mentioned, one of the major side effects of VVF is urinary incontinence, which can stigmatize women with the condition, making them unable to maintain a relationship or keep their husbands, thus marginalizing them in their culture (Amodu et al., 2017). According to Debrework et al. (2018), some studies found that, in Africa, certain beliefs and behaviors, such as infidelity and disrespect for the authority of one’s husband or elders, are believed to lead to an obstructed labor. The development of VVF is one of the major causes of maternal mortality and obstructed labor (WHO, 2016). Amodu et al. (2017) indicated that the main cause of fistula in Nigeria is a prolonged and obstructed labor.

In this study, I examined the effects of VVF in the lives of women in southeastern Nigeria. An understanding of these effects can show the degree to which women can integrate into their communities through available support mechanisms, as surgery alone is insufficient to reclaim women's lives. Given past findings linking VVF with deficits in spousal support, the support of men could help women reintegrate into their communities and obtain relief from their condition (Dennis & Sullivan, 2016). To date, women do not receive adequate spousal support from their partners, as mentioned in the experiences of social support recounted by women presenting with obstetric fistula in the periods immediately preceding obstetric fistula repair surgery and following reintegration (Dennis & Sullivan, 2016).

In terms of a gap in knowledge, most research conducted on this topic has centered on reconstructive/surgical repair treatment in developing countries. As such, increasing public awareness on issues surrounding safe delivery and broadening VVF treatment at all levels would reduce its prevalence (Beardmore et al., 2017; Engender Health et al., 2017). The studies in this area have provided a considerable amount of knowledge on the leading techniques used to treat VVF surgically. Despite these contributions, a significant limitation of past studies has been their inability to provide insight into the experiences of the women impacted directly by VVF (Gosh & Sullivan, 2016).

Treatment-seeking for VVF remains low and should be improved by addressing barriers to public awareness and limitations in the health system. Including men as key partners in women's health will improve treatment-seeking for women with VVF (Dennis & Sullivan, 2016). Through this study, I gained an understanding of the availability and type of support women experience when making decisions regarding their reproductive health. I examined the impact of spousal support on women during their battles with VVF.

To do this, I identified key gaps in the existing literature. For example, a few clinical studies have defined the best practices for surgical techniques to repair fistulas. Owing to this gap in knowledge, there is little knowledge about the experiences of women with VVF, specifically related to the kind of support they receive from their partners and their strategies for coping with the condition. From past systematic studies, it is clear that surgical repair and subsequent physical recovery do not automatically equate to women’s psychological wellbeing and social reintegration (Khisa et al., 2017).

Several barriers prevent their effective recovery, one of which is internalized stigma. Women learn to cope in a hostile environment, where others are ignorant or unsympathetic (Khisa et al., 2017). Returning to such an environment is fraught with obstacles, particularly as women are marginalized in their own communities. This lack of belonging, which for many women lasts many years, is difficult for them to overcome, particularly as exclusion is the major determinant of social isolation (Sullivan, 2016). Hence, having the support of a partner is an important factor to examine.

Problem Statement

In this study, I focused on the effects of VVF in southeastern Nigeria and how women in the region have fared in contending with this health challenge. I also examined the impact of spousal support on women with VVF. I focused on identifying whether there is spousal support among women diagnosed with VVF in southeastern Nigeria (Dennis & Sullivan, 2016). Obstructed labor resulting in VVF occurs after a severe or failed childbirth (Umar, 2016). As the public is largely ignorant about VVF and its associated effects, they often consider the cause to be personal as the reality of motherhood is often unrelentingly harsh (Samba, 2016; Umar, 2017). This view has social consequences, which in turn set the stage for divorce and women's eventual isolation from their family and community members (Sullivan et al., 2016). This situation relegates affected women to the margins of the society, with no hope of returning to full and productive lives (Dennis & Sullivan, 2016).

With no access to health services, women with VVF experience emotional disturbance, the loss of ability to work, a lack of social acceptance, and a lack of support from their husbands, family members, and community members (Mwini-Nyaledzigbor & Sullivan, 2016). The feeling of having no control and the emotions related to their physical challenges with VVF affect these women's relationships at home, with friends, and with their husbands. These feelings result in a loss of control over daily routines, i.e., self-care, household chores, and filling the role expected of a wife in the community (Sullivan et al., 2016). In such a setting, the lack of capacity to provide emergency obstetric services or treatment in a timely fashion result in death or disability from complications related to pregnancy and childbirth (Amodu et al., 2017).

As previous research has shown, the challenges these women encounter indicate that VVF takes a high personal toll in terms of emotional breakdown, physical injury, and the deprivation of social and emotional support needed to deal with the trauma (Dennis & Sullivan, 2016). Tackling the incidence of VVF requires increased knowledge about the risk factors that make women susceptible and the challenges they face while living with the condition (Nsambi et al., 2018; Samba, 2017). To obtain relief from this condition, women need familial and spousal support in order to accept their changed reality and to change their perspectives on life (Sullivan & Dennis, 2016). With increased knowledge, there is a need to provide adequate support for women with VVF through family support systems (Sullivan et al., 2016). This will require interventions that increase community initiatives to ensure that men support their spouses, as well as community-based institutions that can reduce the high rates of VVF (Swain et al., 2020).

Abdullah et al. (2016) revealed that most studies on VVF in Nigeria have addressed the sociocultural and health system factors that predispose women to the condition, its implications on their livelihoods, and the barriers to health-seeking behaviors and management for women with VVF (Abdullah et al., 2016; Ryan, 2019). What is poorly documented in the existing literature are direct accounts and experiences of women living and coping with the condition. As a result of this gap in knowledge, little is known about these women's experiences and strategies for coping with the condition. The main objective of this study was to shed light on the role of spousal support as a strategy for women coping with VVF in southeastern Nigeria. This information can inform the design and delivery of programs and interventions to address the challenges these women face.

Purpose of the Study

The purpose of this study was to examine the extent to which women in southeastern Nigeria receive spousal support when contending with vesico-vaginal fistula (VVF). Recent findings show that VVF victims receive little or no spousal support, and about half of women from several studies described having strained relationships with their partners and reported challenges in finding social support (Amodu et al., 2017;

Heller, 2015). The reasons for the strained relationships varied. Some women acknowledged receiving limited support from their partners, and this seemed to influence their decision-making about the future of their relationships. Since the actions of unsupportive partners seemed to hurt the women emotionally, they seemed to prefer to end their relationship rather than to return to their partner (Dennis & Sullivan, 2016). Further, some women were discouraged by their partners from attending follow-up visits. For instance, one woman relayed that her husband was no longer intimate with her after her failed fistula surgeries.

In this study, I investigated the factors that have positively or negatively impacted spousal support for VVF victims in southeastern Nigeria to establish the importance of spousal support for women in this geographical area. I understood spousal support to encompass the emotions, time, and resources (financial and otherwise) a spousal partner put at the disposal of a woman suffering from VVF (Amodu et al., 2017; Dennis et al., 2016).

Research Questions

The following four research questions (RQs) guided this study:

RQ1: How would you describe relationship with your spouse before the onset of your condition?

RQ2: How would you describe relationship with your spouse after the onset of your condition?

RQ3: What kind of support do you expect from your spouse?

RQ4: How do you cope with your condition daily?

Conceptual Framework

Researchers have attempted to create a framework by which to understand VVF. One framework, generated by Wilson et al. (2015), is used to address four critical areas: the severity of the illness, the susceptibility to that illness, the benefits of taking preventive action, and the barriers preventing an individual from acting. Based on the Transactional Model of Stress and Coping (TMSC), the increasing significance of a stressor (as stressful, positive, controllable, challenging, or irrelevant) increases the perception of risk. TMSC proposes that stress is experienced based on an evaluation of the situation a person finds themselves in. Specifically, the model suggests that people go through two stages of appraisal before feeling and responding to stress. In the primary appraisal, they evaluate the situation to decide if it is relevant to themselves. In particular, they evaluate whether it will bring about the possibility of gain or harm. If it does not, they do not worry about it (decide it is irrelevant). If it is relevant, they decide if it is positive or dangerous. If they feel it is dangerous, they then move into making a secondary appraisal. In these appraisals, they decide if they have the ability to cope with the situation, usually by examining the balance of situational demands. These include risk, uncertainty, difficulty, and perceived resources, including aspects like social support that is problem-focused and emotion-focused coping styles to confront a health challenge (Changole et al., 2019; Davis et al., 2016). TMSC is a useful framework for understanding the range of factors that influence health and wellbeing (Davis et al., 2016). This model can be used to gain perspective regarding the factors that affect specific health behaviors, including the social determinants of health. In general, TMSC can be used to integrate components of other theories and models, thus ensuring the design of a comprehensive approach.

I used TMSC to identify a comprehensive list of factors needed to increase spousal support for women with VVF. Two key concepts of the models include emotion-focused coping and problem-focused coping (Changole et al., 2019). I identified problem-based coping strategies to include restricting fluid intake, avoiding sexual intercourse, using homemade pads, cloth wraps, and herbs, and I identified emotion-based coping strategies as including support from spouses, families, children, and through faith in God (Changole et al., 2019).

VVF can affect women in several ways. In a recent qualitative study conducted in Malawi and focused on the consequences of obstetric fistula, Changole et al. (2019) reported that this condition causes physical, socioeconomical, and psychological problems in the lives of the affected women. For example, from being in constant contact with urine or feces, the sufferer may develop genital sores, which make movement difficult due to pain. The constant wetness and the smell of urine bring humiliation, isolation, stigmatization, and possibly depression (Chagole et al., 2019; Sullivan et al., 2016).

As a result, urine and fecal leakage may interfere with sexual relationships, which can cause strains in relationships, in extreme cases leading to abandonment or separation (Changole et al., 2019). Furthermore, because of self and social isolation, VVF sufferers may not be able to support themselves, thereby leading to poverty and hardship.

The emotion-focused approach involves changing a person’s relationship to the situation in a way that reduces the stress it causes. This can involve denying or cognitively re-framing the meaning of the event. While this does not change the nature of the problem itself, it does change the effects it has on the individual. Lazarus and Folkman **(year)** suggested that this strategy includes disclaiming (denial), escape-avoidance, accepting responsibility or blame, exercising self-control (of thoughts and behaviors related to the situation), and engaging in positive reappraisals (finding a positive spin on the situation). Emotion-based coping may be particularly suitable to situations that a person cannot influence in a meaningful way (Chagole et al., 2019).

Previous qualitative studies on obstetric fistula in low-income countries such as Nigeria, Uganda, and Malawi focused primarily on prevalence, surgical repair, experiences, and outcomes, with no attention to strategies to cope with the condition (Chagole et al., 2019). Some of the strategies Malawian women with obstetric fistula adopted help them cope with fistula incontinence and its associated stress, hardship, and social consequences. The insights gleaned from exploring these strategies may inform or improve the development of new or existing programs to improve women's wellbeing and restore their hope and identity (Chagole et al., 2019).

Understanding the transactional model can help women with VVF take the space to reflect on how they are feeling and why, as the power and practice of self-affirmation is embedded in understanding and managing stress. A person's health behavior depends on their perception of four critical areas: recognizing the stress caused by a situation and the response to it, examining the cause of the stress, identifying the illness and susceptibility to that illness, and the benefits of taking a preventive action, i.e., engaging in problem- or emotion-based coping strategies and considering the barriers preventing an individual from taking action (Biggs et al., 2017; Ryan, 2019). Understanding how these potential factors impact women with VVF may improve interventions.

In this study, I addressed the experiences and perceptions of women with VVF with regard to having a fistula and receiving spousal support. I used the participant responses to build themes. I compared the perceptions of women awaiting surgery at a VVF center with those of women who had already undergone surgery at the VVF center or who had been discharged home but still visited the center for follow-up care. I limited this study to the investigation of obstetric indication, a surgical operation performed for women with VVF. I focused on three groups of women: those diagnosed with VVF at home, those waiting to receive surgical repair, and those who had already received surgical repair.

The results of this study may be used to better understand the effects of vaginal fistula on the lives of women in southeastern Nigeria, and to shed light on what these affected women know about their condition, how they cope with the condition, and the impact of the perceived support they receive from their spouses.

Nature of the Study

Qualitative studies use specific research designs, such as a case study, grounded theory, phenomenology, narrative, or ethnography (Grant & Osanloo, 2016). I used a narrative inquiry approach to explore the experiences of women in southeastern Nigeria regarding VVF. I used narrative inquiry because it centers on individuals talking about themselves (Creswell, 2017; Creswell et al., 2016). I conducted this qualitative study at the National Fistula Center, formerly known as the Southeast VVF center located in Abakaliki Ebonyi State. I collected data through open-ended individual in-depth interviews and administered questionnaires to the participants to generate descriptive data that explored how women with VVF in southeastern Nigeria perceived support from their partners (Degge et al., 2020; Njoku, 2018). The purpose of the data collection process was to gather, analyze and interpret the stories people tell about their lives (Marshall & Rossman, 2015).

The sample included homogenous groups of women, and I collected data over a two-month period. The samples included: (a) women who were home from surgery but receiving comprehensive counseling and care, (b) women with VVF who were awaiting repair at the VVF center, and (c) women with VVF who had undergone repair and who were waiting to be discharged from the center. The selection criteria for these women included living with VVF for many years, with no regard to age, ethnic background, region of origin, socioeconomic background, or previous surgeries. I selected the participants to use their personal experiences and perceptions for up-to-date information about their current situation, constraints they had faced, and what was needed to change the perception and attitude of their spouses to better support VVF sufferers.

I conducted the interviews in Pidgin English, known as broken English, and in a private place, using specially developed questionnaires. I transcribed the data into English and analyzed it using Nvivo, 12th edition, to interpret and organize by emergent themes that added to the rich description of the phenomenon, based on the participants' experiences.

Definitions

Marital ties: Can be defined as a legal union or agreement made by a man and woman to live as husband and wife (Amodu et al., 2016).

Spouse: A partner or a companion. A spouse is a significant other in a marriage, civil union, or common-law marriage (Dennis & Sullivan, 2016).

Spousal support: Spouses are regarded as key sources within the patients' support network during health challenge or even during childbirth (Sullivan et al., 2016).

Vesico-vaginal fistula (VVF): A serious disability that causes the vagina to burst open because of the continuous pressure of a baby's head during prolonged labor (Ghosh et al., 2016).

VVF sufferer/or victim: Women suffering from VVF.

Assumptions

The assumption was that participants would respond to all questions with sincerity, depending on how much they knew. Understanding the effects of VVF is crucial for women in southeastern Nigeria, as women go through severe psychological challenges due to the immediate or long-term consequences of obstetric fistula, and these include stigma and isolation, reduced social support, and disrupted marital relationships. Therefore, I also assumed that, even after several years, these women would not have forgotten their painful experiences and might be able to relive their feelings and give detailed information about the events and their perceptions of living with VVF.

Scope and Delimitations

The scope of this study was limited to women living with VVF. I conducted the study with women between the ages of 18 and 60 at National Fistula Centre, located in the Abakilika community in Ebonyi State, Nigeria. I chose this age group to enable me to assess information on relevant subgroups that were of interests, such as women of reproductive age and women of advanced age who were awaiting surgery at the center or who had already received surgery and were waiting to be discharged. Specifically, the reproductive age group and advanced age group were important as scholars have consistently recognized the women of these subgroups to be the most vulnerable, either because they are still married/single or because they have never married due to the challenges of living with fistula. I limited the scope further to afflicted women who had been on admission awaiting repairs at the center or seeking maternal care services.

Limitations

I conducted this study within a limited timeframe when I spent between several months in southeastern Nigeria to collect data. It is possible that perceptions and support would have been different in remote and rural communities, so it is difficult to transfer the findings for use in other areas. Another limitation included the use of self-reported data, which can introduce recall bias (Galdas, 2017). Also, this study was limited to women 18 years and older because women under the age of 18 are considered minors and would have needed adult consent to participate in this study. Similarly, I used face-to-face interviews because of the ability to ensure feedback and completion of the questionnaires and to assist participants who had questions.

An evident limitation of this study, which is common in qualitative studies, was the use of a small sample size. With a sample size of 20 participants with VVF (including in-patients and out-patients) coming to seek VVF treatment at the center, the generalizability and transferability of the results might be limited. Another limitation stemmed from the nature of collecting interview data. Language issues were likely to be a factor, as translations across languages are not fully accurate, and the subtext is sometimes lost in the process of translating to English. Thus, I employed care to ensure the reliability of the translations to and from English, to reflect the actual meaning that was intended. Above all, researcher bias could play an additional part in the limitations of this study, as the process of analyzing the qualitative data required my interpretation and value judgments. I used reflexivity and bracketing measures to reduce interviewer and interpretation bias.

Significance

The results of this study may become the basis for educational programs in health centers in Ebonyi State, which could increase knowledge and awareness of the need to have open discussions regarding coping strategies for women with VVF and the experiences they find to be most significant. The social change implications from this study were that it could potentially provide much-needed insight into the alarming rates of maternal morbidity and mortality in southeastern Nigeria, as well as the slow progress of improving spousal support and maternal health outcomes in the region.

This study is important because it addressed an under-researched area regarding the effects of VVF on marital relationships and family ties. From past studies, scholars found no sufficient evidence of men’s involvement in supporting women with VVF. However, the lack of spousal support for women with VVF is an important shortcoming that has been overlooked for decades. This research is in its infancy but could be crucial to better tailor spousal support interventions that could impact women’s physical health outcomes. Research shows that giving to others can lead to personal growth and lasting happiness, and that makes social change rewarding for everyone involved (Allan et al., 2018; Santi, 2015).

Therefore, this study had the potential to bring about social change by identifying appropriate interventions that may improve spousal support with a positive outcome. The importance of spousal support in coping with a devastating condition like VVF cannot be overemphasized. Thus, familial, spousal, and social support can be a source of strength and self-confidence for VVF sufferers (Changole et al., 2019). Health officials and policymakers are likely to benefit from this study by gaining a better understanding of the basic barriers that influence men’s lack of support for their partners battling with VVF and how this affects their daily lives and wellbeing. Attempts to reintegrate women with VVF should pay special attention to the importance of spousal support in such interventions (Abdullah et al., 2016; Swain et al., 2020).

Summary

In this chapter, I described the problem of VVF in developing nations such as those in sub-Saharan Africa. Nigeria is experiencing an epidemic of this stigmatizing condition among its women, and particularly those living in poverty (Abdullah et al., 2016; Emelonye & Sullivan, 2017). Women who develop this condition are frequently seen as abnormal and experience a variety of problems, including shame, depression, and other health complications, such as urinary tract infections (Beardmore-Gray et al., 2017; Shephard et al., 2017; Sullivan et al., 2016). VVF is preventable with proper maternal care during delivery and treatable with timely surgeries to close the fistula and repair the damage (Emelonye et al., 2017; Phillips et al., 2016; Taşhan et al., 2018).

The information I gathered in this study on how women suffering from VVF cope is important as it can inform the design and delivery of programs and interventions to address the challenges women with VVF face. Further, this can help practitioners make informed recommendations to raising awareness about VVF through health education programs for both men and women. The key significance of this study is that it might help public health advocates provide direction to policymakers on how to create initiatives to include men in maternal health issues, as women’s health is challenged by various social norms and traditions. This includes constraints to health-seeking for women in labor. In the next chapter, I review the literature on VVF, focusing on women in southeastern Nigeria.

Chapter 2: Literature Review

Introduction

The purpose of this study was to understand the impact of spousal support for women with VVF. Gaining spousal support influences treatment-seeking for women during their deliveries and for those with birth-related complications (Dennis & Sullivan, 2016). The problem is that VVF causes significant health problems and impacts vulnerable and poor women, in most cases living in low-income countries (Maheu-Giroux et al., 2015; Sullivan et al., 2016). Nigeria has the highest rate of VVF in the world. Thus this study provided insight into the amount of spousal support women with VVF in southeastern Nigeria receive, recognizing that medical interventions alone do not cure VVF. It is necessary to examine other areas, such as the effects of VVF on the lives of women, how these women's experiences affect their intimacy with their partners, and the social impacts of VVF on women's relationships with their partners. Having quality data on the critical role of spousal support is important for the preservation of marriage in Nigeria (Maheu-Giroux et al., 2015; Sullivan et al., 2016). This problem is especially significant for the southeast, which is one of the poorest regions in Nigeria (Shephard et al., 2019; Sullivan et al., 2016).

VVF is a severe maternal morbidity that can have devastating consequences for a woman's life and is generally associated with poor obstetric services that lead to prolonged obstructed labor (Mengistu et al., 2018; Sullivan et al., 2016). The consequences of VVF differ from country to country and community to community. In Nigeria, VVF is considered a public health and social problem. It is not only considered a common public health problem but a critical medical condition with far-reaching social implications for its sufferers, their households, and communities (Amodu et al., 2018; De Brouwere et al., 2016).

In the next sections, I discuss the literature search strategy and describe the conceptual framework. In the end, I summarize the results of this literature review's major themes and offer a brief description of how my study bridges the knowledge gap.

Literature Search Strategy

I conducted a literature search using online academic databases of current scholarly journals. The keywords I searched included: *abandonment*, *divorce*, *husbands*, *families*, *maternal health*, *maternal morbidity*, *obstructed labor*, *rectovaginal fistula*, *social implications*, *sub-Saharan Africa*, and *vesico-vaginal fistula*. In addition to reviewing the papers identified by this search, some significant themes I found included societal roles, marital status, sources of support, impacts of the condition (i.e., VVF), and coping strategies (Emma-Echiegu et al., 2016; Shephard et al., 2019).

I conducted further search through EBSCO, Thoreau, and Google Scholar for the selection of peer-reviewed journals. I also used governmental sources, such as those from the WHO, UNICEF, Engender Health, and Fistula Network, a well as four academic databases: CINAHL, Global Health, MEDLINE, and PubMed. I presented a detailed summary, which revealed many articles published on this topic within the past 5 years. I reviewed qualitative and mixed-methods studies published between January 1, 2016 and February 2, 2019 on women who experienced obstetric fistula due to obstructed labor complications and with findings reporting the consequences/impacts of obstetric fistula.

I used three health sciences research databases in the iterative search process: the ProQuest health and medical collection, Embase, and PubMed. Other terms I used in the search included *obstetric fistula* or *vesico-vaginal fistula* or *cystovaginal fistula*, which yielded about 5,000 articles. Additionally, the search terms I used for CINAHL, EBSCO, Thoreau, and the Global Health databases included *cervicovaginal fistula*, *vesicovaginal* or *cystovaginal* or *urovaginal fistula*, and *Nigeria*. This search yielded 199 articles, of which two were published in 2019. PubMed covers what is in MEDLINE, which contains conference papers and government materials. The search criteria included *obstetric fistula* or *vesico-vaginal fistula* or *vesicovaginal* or *cystovaginal* or *urovaginal* or *cervicovaginal fistula*.

Theoretical Foundation

I adopted the Transactional Model of Stress and Coping (TMSC) propounded by Lazarus et al. (2019). This is a framework for evaluating the process of coping with stressful life events (Biggs et al., 2017). According to Biggs et al. (2017), stressors are demands made by the human environment, which tend to upset a person's balance, thus affecting their physical and psychological well-being and requiring action to restore balance. Firstly, this is mediated by the individual's assessment of the stressor and by the social and cultural resources at the individual's disposal. Further, a secondary assessment shows what the individual can do about the circumstance. In order words, the theory states that coping efforts should be aimed at managing the problem, thereby yielding outcomes (Biggs et al., 2017; Ryan, 2019).

I chose TMSC to form the theoretical framework because of its focus on health behavior, distinguished by its multi-level nature (Biggs & Kisha, 2017). TMSC is a valuable framework for understanding the intrapersonal psychosocial environment as influenced by interpersonal and community-level factors. TMSC shows the processes by which people cope with various medical conditions, which is one of the emergent themes I investigated in this study. Women's poor knowledge about the future may adversely influence their health status (Amodu, 2017). In addition, as some studies indicate, such women may be fearful about the future and show a lack of interest in sex, marriage, or establishing a family and bearing children (Sullivan et al., 2016). Fear about the future extends to women's experience trying to reintegrate into their local communities. These challenges also include poor access to health facilities, a lack of social acceptance, and a lack of spousal support suited to their health situation (Amodu, 2017; Dennis, 2016). In this regard, even if treatments for VVF were helpful, it was difficult for women to fully enjoy their family and community life (Amodu, 2017; Dennis, 2016).

The findings presented by Bashah et al. (2018) and Nsemo et al. (2014) showed that, despite the extremity of this health condition, most studies on VVF focused on treatment and repair, therefore limiting knowledge on VVF's vast psychosocial consequences and their influence on the coping strategies of the women affected. In this study, I examined the lay constructions of what the women affected knew about their condition, how they coped with the condition, how their lives were affected as a result of the condition, and the impact of the perceived support they received from their spouses. The past studies of women with VVF I reviewed showed that most women living with VVF faced various psychological and social consequences. They often had to cope with pain, loneliness, and stigma from both their communities and loved ones (Biggs et al., 2017; Dennis et al., 2016).

Scholars have identified active and passive coping strategies for women in such life circumstances. In active coping, VVF sufferers engage in close associations with people with whom they share the same problems. These close association tends to bring great relief and gives them a high sense of belonging that enables them to live with their condition (Biggs et al., 2017). In passive coping, VVF sufferers isolate themselves from the public due to fear of rejection and humiliation (Biggs et al., 2017). Some of these women prefer to isolate themselves until they can find treatment. This might lead them into deep physical and emotional decline, and they may resort to suicide. The condition afflicts the poorest in society and causes its victims to live in isolation and possibly with insufficient resources (Dennis & Sullivan, 2016).

Literature Review

Past studies in the VVF literature have attempted to understand the burden of VVF, but no known research has tested the effects of VVF on women’s marital relationships (Sullivan et al., 2016). Most research conducted in this area has been concerned with reconstructive surgeries in developing countries (Ghosh et al., 2016). Past studies of women with VVF have been concerned with anatomical closure, with the success or failure of the care dependent on the closure of the VVF rather than on holistic care (Bashah et al., 2017; Ghosh et al., 2016; Kopp et al., 2017). Qualitative and quantitative studies of women with VVF have contributed a considerable amount of knowledge on the leading techniques utilized to treat VVF surgically and have shown the need for adequate healthcare facilities and trained professionals to treat and prevent this condition (Chagole et al., 2019; Loposso & Ghosh, 2016). However, limitations in the methodology of these previous studies demand further investigation of the effects of VVF and the sources of support for women with VVF.

While surgery most often cures the physical symptoms of VVF (Dennis et al., 2016; Shephard et al., 2019), understanding and addressing the need for women to gain spousal support while facing VVF can improve their quality of life and facilitate their social reintegration after VVF (Bashah et al., 2017; Dennis et al., 2016; Ghosh et al., 2016). With regards to VVF, there is a need to explore shortcomings such as a lack of male involvement in women's health issues in order to advocate for women and possibly shape policy that would increase male participation in issues relating to family planning. For this reason, adding to the data from existing qualitative studies, the present study was focused on the social causes, consequences, and treatment or prevention of VVF. Furthermore, it examined the lack of spousal support and the social consequences of this condition.

A major gap in the research in this area is that the true magnitude of this problem in poor countries is still unknown. Officials from the WHO and the United Nations Population Fund (UNFPA) have acknowledged this gap. It exists because women delay reporting their injuries due to multiple factors, such as lack of education and knowledge that it is a treatable condition, complete dependence on their husbands and families, a lack of healthcare facilities, and cultural disrespect toward discuss issues relating to sexual intercourse and childbirth (Amodu et al., 2015; Kesha et al., 2016; Shepard et al., 2019; Sullivan et al., 2016).

The findings of past qualitative studies revealed that there is need to increase spousal support for women with VVF, including treatment in developing countries. WHO and the UNFPA have estimated that more than two million women in developing countries are living with fistula. The social causes and determinants of VVF from the perspective of the women directly impacted by this condition are important to consider in order to create initiatives to gain spousal support. In the following sections, I review the literature according to the social determinants, consequences, and treatment/prevention of VVF. I begin with the findings derived from quantitative studies, although the majority of research on social determinants, consequences, and treatment of VVF stem from qualitative studies.

The purpose of this literature review is to focus on research that speaks to the social causes, consequences, and recommendations for gaining spousal support for women with VVF in order to understand the problem from the perspective of the women impacted by the condition. The existing literature on the condition of VVF from the medical standpoint is extensive. However, within the last several years there has been a paradigm shift towards prevention work due to the realization that socioeconomic factors play an important role in the high incidence and prevalence rates of VVF. Findings from several studies have examined VVF with an emphasis on its social causes and consequences to raise awareness about the importance of gaining spousal support for these women (Kesha et al., 2016; Sullivan et al., 2016).

Quantitative Studies

Wall (2006) used case studies to document the plight of women with VVF in their own voices, offering insight into the nature of this demoralizing problem and calling for policymakers concerned with reproductive health to discuss the complex issues that propagate this preventable condition. Wall (2006) concluded that “Western medical literature on obstetric fistulas is old and relatively uncritical by current scientific criteria” (p. 1200). Wall’s (2006) research consisted mainly of case studies of women’s place in society as related to the need to fulfill their marital responsibilities, which involved procreation and satisfying their husbands. Wall (2006) revealed that, despite the substantial amount of quantitative case studies conducted by medical experts, “the precise extent of fistula and the lack of spousal support as a problem in developing countries is, therefore, unknown, but review of the available evidence suggests that this problem is both enormous and neglected” (p. 1201).

Despite these findings, research is still being conducted on technological advances in the techniques utilized in surgical repairs. For instance, Gosh and Goh (2016) traveled to Addis Ababa Hospital in Nigeria to evaluate the incidence of and demographic characteristics associated with VVF. They concluded that it is possible for a team of specialized surgeons to successfully accomplish surgical procedures and repairs of complex fistulas in a resource-poor country. Dennis et al. (2016) and Lo et al. (2019) found similar results.

There has, however, been a paradigm shift to stress the importance of utilizing a holistic approach that appreciates both the medical and social aspects of this condition. Thus, researchers within the medical profession are now conducting quantitative studies to measure the social causes, consequences, and treatment of fistula. Ghosh et al. (2016) defined a classification system for VVF based on a prospective study that included 119 patients who were selected based on the location of their fistula. These patients had undergone surgical repair, and a follow-up was required in order to collect data based on their surgical outcome. Ghosh et al. (2016) concluded that, based on their classification system, the more extensive types of fistula required skill to repair. Ghosh et al.’s (2016) study of risk factors made enormous contributions to surgical outcomes, defined as complication stratification and post-surgical incontinence at the Addis Ababa Hospital in Nigeria and the Bahirdar Hamlin Fistula Unit in Ethiopia. Interestingly, 987 women were assessed using Ghosh et al. (2016) and Goh's (2014) classification system, with a closure and urinary residual study conducted for each patient. Nine hundred and sixty (97.3%) had successful closure and, of those, 22% reported persistent urinary incontinence. The authors concluded that women with fistulas closest to the external urinary meatus, extensive scarring, and circumferential fistula had higher rates of failure. They also concluded that the classification system could accurately be used to predict failed outcomes in these circumstances.

Lo et al. (2019) called for an evidence-based approach to a classification system for VVF after examining the flaws in previous classification proposals, including that of Goh and Loposso (2016). Lo et al. (2019) claimed that while anatomical descriptions are useful for comparing fistulas, they do not allow for recommendations regarding the potential difficulty of the procedure or the surgical outcome. Lo et al. (2019) stated that, to propose such a classification, complete and reliable data needed to be acquired. They also examined the outcomes of primary repairs of VVF in Niger to evaluate the success rates of surgical fistula repair based on the size, degree of scarring, and location. In their study, they included 90 patients with VVF between the ages of 14 and 51 and with no history of previous repair. Of these, 87% of patients had suffered obstetric trauma. Lo et al. (2019) found that their prima gravidas represented 41% of patients while multiparous women made up 50% of cases (9% of cases had unrecorded parities). Further, they stated that 43% of the 33 women who reported their labor history had been in labor for three to four days, 27% had labored for one or two days, and 3% had labored for five days.

However, 22% had undergone cesarean sections, while 55% of patients reported stillborn infants, and 38% did not report the status of the infant. Only 7% of women in this study reported live births. Of the total, 56% of the patients had a successful primary repair, 13 patients had persistent fistulas, and 19 were lost to follow-up and their outcomes were unknown (Lo et al., 2019; Loposso et al., 2016). The authors concluded that primary closure offered the highest success rates and that overall success was highly dependent on the size, location, and degree of scarring of the fistula. They also found that, without a classification system for VVF, the surgical outcomes could not be compared and that the science of VVF could not be advanced.

Further, Lo et al. (2019) reviewed seven of the most current and cited VVF classification systems and discussed their differences. The authors called for an updated classification and data reporting system, expressing that they are urgently needed, especially in areas of the world where obstructed labor and the formation of VVF is prevalent. The limitation of these articles included a need for a classification system that is universal and a larger study size. As fistula repair improves, the need for larger studies that include more patients will be crucial to navigate all the potential possibilities of repair needed. In the case of Lo et al. (2019), 9% of patients were never recorded, which is an important part of fistula prevention and treatment.

In 2014, Ghosh et al. assessed closure and conducted a urinary residual study on 987 women. Of these, 960 (97.3%) had successful closure and, of those, 22% reported persistent urinary incontinence. Ghosh et al. (2014) concluded that women with circumferential fistulas with extensive scarring had higher rates of failure. They stated that failure outcome in these situations could be predicted accurately using their classification system. Further, Lo et al. (**year**) made a call for an evidence-based approach to a classification system for VVF in a review article in which they examined the flaws in previous classification proposals, including that of Goh and Loposso (2016). Lo et al. (**year**) claimed that anatomical descriptions are useful for comparing fistulas but are not recommended for surgical outcome. Lo et al. (**year**) stated that reliable data are required in order to propose such a classification and that examination of the outcomes of primary repairs of VVF in Africa is needed in order to evaluate the success rates of surgical fistula repair based on the size, degree of scarring, and location.

In another prospective study in Nigeria, 90 patients with VVF and no history of previous repair participated in the study. A total of 87% of the patients within the 14–51 age range had suffered obstetric trauma, and the majority of these women were in their early twenties. Lo et al. (**year**) found that 41% of patients represented women who were pregnant for the first time, while women who had experienced one or more previous childbirths made up 50% of cases (9% of cases had unrecorded history). Further, Lo et al. (**year**) stated that 43% of the 33 women who reported their labor history had been in labor for three to four days, 27% had labored for one to two days, and 3% had labored for five days. However, 22% of these women had undergone cesarean sections, while 55% of patients reported stillborn infants, and in 38% the status of the infant was not recorded. Significantly, only 7% of the women in this study reported live births. Fifty-six percent of the patients had had a successful repair, 13 patients had persistent fistulas, and 19 were lost to follow-up and their outcomes were unknown (Lo et al., 2019; Loposso et al., 2016). These researchers concluded that the highest success rates for closure were dependent on size of the fistula, the location, and the scarring degree. In conclusion, they pointed out that, without a classification system for VVF, surgical outcomes cannot be compared or advanced.

Unfortunately, there are no universal classification systems for VVF, and the classification systems that have been proposed in the past are ineffective. As such, fistula surgeons are left to make difficult surgical decisions to accommodate their patients. As described, VVF repair is not simple and, to maximize surgical outcomes and truly allow a woman to heal from VVF and improve her quality of life, a standard of care must be established and followed (Lo et al., 2019; Loposso & Ghosh, 2016). Research studies must be compared and analyzed for VVF repair to be advanced (Lo et al., 2019; Loposso & Ghosh, 2016). Most importantly, patients should be offered the best possible outcome from surgical repair, using evidence-based and reputable data (Lo et al., 2019). Therefore, a universally accepted classification system is essential, “one that correlates to surgical outcomes and prognosis for repair” (Ghosh et al., 2016, p. 526).

A significant limitation of past studies is their inability to provide insight into the experiences of women who are directly impacted by VVF (Delamou & Gosh, 2016). However, there are studies comparing the psychological distress of VVF patients to that of hospital patients at a genealogical clinic (Mselle & Kohi, 2015). Although women with VVF or awaiting surgery report more psychological distress than the healthy controls (Bohio et al., 2015; Lo et al., 2019), it is unclear whether elevations in general health dysfunction are attributable to VVF-specific experience or to general health-related distress (Mselle & Kohi, 2015; Wilson et al., 2015). Due to this relationship between physical health and psychological distress, it is reasonable to surmise that, for VVF patients, some distress could be accounted for by poor health (Delamou & Gosh, 2016).

Another methodological limitation of previous VVF research involves the measurement of change over time. There have been few studies to date that assess changes in psychological distress following surgical repair (Lo et al., 2019; Mselle & Kohi, 2015). Mselle and Kohi (2015) concluded that several features may increase the likelihood of developing psychological disorders such as depression. These range from fistula risk factors to traumatic birth experiences, social isolation, and post-delivery experiences (Mselle & Kohi, 2015). Despite the direct effects of VVF development, the underlying demographic characteristics of those with VVF may put them at risk for depression (Mselle & Kohi, 2015; Wilson et al., 2015). Evidence from Western populations has shown that negative childbirth experience is a robust predictor of depressive symptoms following delivery (Lo et al., 2019; Mselle & Kohi, 2015; Wilson et al., 2015). A study conducted with 21 women at the DIMOL Reproductive Health Center in Niamey, Niger and 144 gynecology patients at the Kilimanjaro Christian Medical Center in Moshi, Tanzania recruited from the Fistula Ward (n = 54) and gynecology outpatient clinics (n = 90) sought to quantify the psychological symptoms and social support of VVF patients compared with a patient population of women without VVF (Delamou & Gosh, 2016; Lo et al., 2019; Mselle & Kohi, 2015). At the time of the study, multiple comparisons of gynecology outpatients and VVF patients reported significantly higher symptoms of depression, significantly lower social support, somatic complaints, and maladaptive coping (Delamou & Gosh, 2016; Lo et al., 2019; Mselle & Kohi, 2015).

Across all studies of VVF and depression, 85% of women awaiting surgery reported more psychological distress compared to the healthy controls (Delamou & Gosh, 2016). Therefore, it is unclear whether elevations in general health dysfunction are attributable to VVF-specific experiences or to general health-related distress (Bohio et al., 2015; Delamou & Gosh, 2016; Mselle & Kohi, 2015). Taken together, the findings from the study revealed that the process of developing VVF during obstructed labor increases a woman's risk for depression. In a mixed-methods study in India and Tanzania following the development of VVF, scholars used the Hamilton rating scale for depression (HAM-D) to assess the change in psychological distress to screen patients for depression and the impairment of social and occupational functioning (Bohio et al., 2015; Wilson et al., 2015). Findings from the study revealed that, among women suffering with VVF, many forms of mental health issues, including depression and anxiety, are prevalent. Considering the factors that may have contributed to the participants' depression, Bohio et al. (2015) revealed that VVF is a stigma with damaging effect on the sufferer. Bohio et al. (2015) stated that a stigmatized individual is unable to live a happy and successful life; therefore, delays in treatment due to lack of awareness further exacerbate psychological problems, which medical practitioners often fail to notice during treatment. Thus, providing emotional support and education about this problem can motivate women with VVF and restore their general health (Bohio et al., 2015; Gebresilase et al., 2017; Mselle, 2015).

Overall, the majority of the evidence supports the need to address psychological distress following VVF repair surgery. However, given the methodological limitations, no study to date has investigated the role of supportive relationships between husband and wife for women living with VVF. As stated, the few studies that have investigated psychological symptoms in women with VVF suggest that they do suffer from increased psychological distress following gynecological complications (Bohio et al., 2015). In this regard, many of these studies did not provide insight into how men could support their partners with VVF (Bohio et al., 2015; Ghosh et al., 2016; Loposso et al., 2017).

Qualitative Studies

VVF is a hole that develops between the bladder and vagina after failed childbirth. It occurs when adequate medical care is not available and is found in countries where health resources are scarce (Mwini-Nyaledzigbor & Sullivan, 2016). Little scientific research has been published about the impact of spousal support on women battling VVF and the meaning partners provide for their lives. The existing research consists largely of personal case series and a few epidemiological studies.

Dennis and Sullivan (2016) conducted extensive work at the leading fistula clinic in Tanzania and in rural Ghana and concluded that the women who have these injuries are usually illiterate, of a lower socioeconomic background, and that about half of women with VVF are divorced as a direct result of their incontinence. This was further supported by Emma-Echiegu et al. (2014), who conducted a qualitative study on the key roles that midwives can play in the prevention and treatment of VVF and found that, in addition to the socioeconomic status and likelihood of being divorced, other social etiologies of women with VVF included marriage at a young age and fetal malposition (i.e., the abnormal presentation of a fetus in the womb). In keeping with findings that traditional cultural practices (i.e., early marriage) play a role in predisposing women to VVF, Amodu (2017) highlighted the need to understand how VVF is viewed culturally. Amodu (2017) noted that fistula is “viewed as incurable in the context of the traditional local culture and these women are usually divorced or abandoned by their husbands and are often cast out by their families" (p. 260). Amodu (2017) further stated that

> the cause of fistula is not readily apparent to the surrounding community, who may view these injuries as a punishment from God for sexual misbehavior, in essence blaming the victim for their situation and further adding to the social stigma they encounter. (p. 261)

This was further elaborated by Sullivan (2016), who noted that these women's rejection, isolation, loss of status, and loss of social support worsened their situation of poverty and that they often turned to prostitution (exposing themselves to abuse and illness), as well as begging and selling for survival.

Similar qualitative studies on sub-Saharan Africa found that a woman's value or place in society is tied directly to her ability to fulfill her marital responsibilities, including bearing children for her husband and doing chores at home (Sullivan & Mwini-Nyaledzigbor, 2016). The effect of VVF on women's position in society in sub-Saharan Africa, particularly as wives, is a significant theme (Sullivan, 2016). Evidence from research studies supports the notion that most women who develop VVF are divorced or separated from their spouse due to having VVF (Sullivan, 2016). In a recent integrative review, divorce was reported to be a common social consequence for most women with VVF. The review included seven studies: two quantitative, four qualitative, and one that was a mixed-methods study. Descriptive data from all seven studies provided evidence that women with VVF often lose their marital status (Dennis & Sullivan, 2016).

Despite this support in the literature, Sullivan et al. (2016) used quantitative data to assess the qualitative aspect of the problem. They focused on several sub-Saharan

African countries, such as Ghana, Tanzania, Zimbabwe, and Ethiopia, comparing the quality of life for women living with and without VVF. Quality-of-life measures included items such as family and partner support. Sullivan et al. (2016) administered a questionnaire (PQoL Tool) to compare quality of life for two groups of women (n = 71): those affected by VVF and those not affected. The women affected by VVF had a lower quality of life than those who were not affected (P = 0.001). Furthermore, 56% of the women with VVF were divorced, while only 4.3% of women who did not have VVF were divorced. Of the women waiting to have VVF repair, only 16% were divorced. This finding was similar to prior research done in Ethiopia, where, as the average time women lived with the fistula increased, the more likely they were to be divorced (Amodu et al., 2017; Dennis & Sullivan, 2016; Dillion et al., 2015; Gatwiri & Fraser, 2018).

In a similar mixed-methods study conducted in Tanzania, scholars reported a significant association between living alone and the duration of time women lived with VVF (P = 0.111) (Fraser, 2018; Tunçalp et al., 2014). It is clear that after a prolonged period living with VVF, women's partners turn away, especially when there is no more intimacy and the woman may not be able to have children. These factors create tension in the relationship and may influence the man's decision to separate from his partner.

Although the evidence supports the claim that most women who develop VVF are abandoned by their partners, there is some evidence that this is not always the case. Two recent studies, one in East Africa and the other in sub-Saharan Africa, suggested that for women with VVF "divorce is not inescapable" (Sullivan et al., 2016, p. 184). In northwestern Nigeria, scholars assessed the urinary and reproductive health and the quality of life of women following surgical repair of VVF. A follow-up study consisted of structured, community-based interviews conducted 14 to 28 months after the repair (Raji et al., 2017; Teherani et al., 2015). The participants in the study were asked to evaluate three time periods: before they developed VVF, the time they lived with VVF, and the time after surgery (Raji et al., 2017; Sullivan, 2016). The results revealed that only 5% of women were divorced after developing VVF. This finding differs from the previous descriptive data on the prevalence of divorce.

In comparison, another study conducted in seven regions of rural Ethiopia found that 69.2% of women were divorced after developing VVF (Gebresilase, 2014). It is possible that the discrepancies in Sullivan (2016) and Gebresilase's (2014) finding may be attributed to the fact that the incidence of divorce increases as the number of years living with VVF increases. The average number of years the women lived with VVF in Sullivan (2016) and Gebresilase's (2014) sample was 3 years, which is relatively less than that reported in most other studies (Maheu-Giroux et al., 2015; Sullivan et al., 2016; Wilson, 2016).

In another study conducted in Zimbabwe, researchers found that women who had suffered from VVF (n=4) were married. All four women who had experienced VVF remained married even after they had developed the condition. However, the findings revealed that although these women were married, they typically did not feel that their husbands treated them like wives. Mwini-Nyaledzigbor et al. (2015) and Sullivan et al. (2016) stated that women with VVF lived separately and did not have sexual relationships with their husbands. Nonetheless, Sullivan et al. (2016), Mselle et al. (2015), and Mwini-Nyaledzigbor et al. (2015) noted that the divorce of women with VVF is neither universal nor inevitable.

Accounts of supportive relationships between husbands and wives living with VVF were reported in all studies included in this review (Delamou et al., 2016; Maheu-Giroux, **year;** Mselle et al., 2015). In another national mixed-methods study in Ethiopia, researchers found that some women who remained married after having VVF reported that their husbands were supportive (Sullivan et al., 2016). Men who chose to stay with their wives often provided economic support to ensure that the woman's basic needs were met. Hence, supportive husbands continued to live with their wives in the same house and provide emotional support. In some cases, it was reported that men who chose to stay with their wives also provided financial support for the women to receive VVF treatment (Lopposo et al., 2016; Maheu-Giroux et al., 2015; Mselle et al., 2015; Shephard et al., 2019). Some women reported that their partners were supportive after they had developed VVF and explained that they made decisions regarding obstetric care largely in conjunction with their husbands (Delamou et al., 2016; Dennis et al., 2016; Mwini-Nyaledzigbor et al., 2015; Sullivan et al., 2016). Similarly, the analysis of a social mapping exercise conducted with Tanzanian women who had accessed surgical repair treatment revealed that women identified their husbands as some of the key individuals who helped them access VVF treatment (Wilson et al., 2016). Receiving appropriate maternity care significantly decreases the risk of prolonged labor, thus decreasing the risk of VVF (WHO, 2016). These findings reveal that men can play a significant role in supporting their wives by encouraging both education and prenatal care to prevent VVF from reoccurring.

Consequently, with increased VVF awareness initiatives, effort can be focused on changing attitudes to increase male involvement in supporting women with VVF and to increase their access to VVF treatment and care (Adakwu et al., 2015; Engender Health, 2016). However, making maternal health information available through campaigns is important for male involvement in maternal health issues. According to Davis et al. (2016), men can positively influence maternal health in a variety of ways. Male involvement includes men making informed decisions with their wives about childbirth-related complications such as VVF and seeking and sharing information about appropriate health behaviors and care (Sullivan et al., 2016).

Summary

The literature review showed some key gaps which I identified in this study. For example, the lack of fistula knowledge and lack of community involvement give rise to the continued stigmatization and condemnation of women once they have received surgery for VVF. Stigmatization has been shown to reduce the quality of life of women even after fistula surgery, thus impacting their physical and mental health (Kisha et al., 2017). Women with VVF believe that they do not belong in their local communities. However, belonging is a multi-dimensional social construct and is fundamental to an individual's social wellbeing (Kisha et al., 2017). Therefore, failure to belong creates social isolation. To tackle the problems experienced by women with VVF, especially in southeastern Nigeria, intervention is required to show support for these women. Without such intervention, this can lead women with VVF to live in misery.

As indicated by previous research studies, VVF takes a personal toll on the lives of women and can lead to a range of other physical ailments, such as painful sores, divorce, suffering, physical injury, and social isolation (Dennis & Mselle, 2016; Mwini-Nyaledzigbor et al., 2016; Sullivan et al., 2016). Unfortunately, health communication campaigns have not included men as key partners and thus have limited the success of maternal health and VVF prevention and treatment. Therefore, the present study could enrich our understanding of the impact of spousal support prior to and after surgery for women with VVF. By conducting this study and giving women an opportunity to describe their experiences in their own voice, these findings can serve as a call for action aimed at increasing spousal support for women with VVF. Maternal health is a priority and global health concern. In the next chapter, I describe the study methodology.

Chapter 3: Research Method

Introduction

In Nigeria, vesico-vaginal fistula (VVF) is considered a common public health and social problem. VVF is not only considered a common public health problem but a critical medical condition with far-reaching social implications for its sufferers, their households, and communities (Amodu et al., 2018; Sullivan et al., 2016). Exploring VVF as a condition for women in southeastern Nigeria will provide the opportunity to gain a greater understanding of the type of support women receive when making decisions regarding their reproductive health, including gaining an understanding of the impact of VVF on marital responsibility, spousal relationships, and social functioning among women with VVF. I designed the study to serve as a platform for advancing spousal support for women seeking other ways to cope with the condition. This dissertation was a qualitative study of women with VVF that provides in-depth information about the problem using semi-structured personal interviews. In this chapter, I describe the research design, the research questions, the role of the researcher, the research tools, instruments of this study, details regarding the participants, as well as ethical concerns and the trustworthiness of the study.

Role of the Researcher

As the principal investigator in this study, I took the responsibility to fully plan and execute all aspects of data collection, including recruiting participants, identifying and securing the study site, conducting interviews, and securing and analyzing the data. My principal purpose for the interviews remained to collect verbal responses from participants during interview sessions, while also observing their nonverbal body language. With this, my role required in-depth interviews, note-taking, observation of body language, and audio-recording of participant responses to interview questions. As a researcher, I was responsible for data analysis. I took control of all spheres of data analysis, including the process, final interpretations, and the presentation of the final results.

I was not familiar with my research site. Thus, I worked to build rapport with the participants to inspire sufficient trust and acceptance through multiple visits to the center (Creswell, 2017; Creswell & Poth, 2016). With improved confidence and understanding of the population, I started the data collection process by retrieving the participant questionnaires designed to answer the research questions.

There are several ways I managed bias in the context of this study. I set aside my own biases and managed my personal agenda in a way that did not overshadow the data I collected from the participants. One way of dealing with my own reactions included being honest with myself and remaining self-reflective regarding the processes and the influence of my own reactions. I avoided being judgmental by tracking my reactions, thoughts, and acknowledging them throughout this study with the goal of preventing my own biases from negatively impacting my data collection and analysis. I used the process of bracketing during data collection and analysis to track my reactions and biases. As Creswell (2017) observed, bracketing is the suspension of one’s own judgments and biases by setting them aside in order to limit the influence of the researcher on the participants. I used a journal to document reactions as a source of reference during data analysis. Journaling was a helpful tool to distinguish between issues that could arise that constituted my own biases and positions in the analysis. When researchers suspend what they know, they can remain conscious of the manners in which they may influence the participants. Avoiding biases and judgmental questions was crucial to this process.

I provided small incentives in the form of gift bags for participants as a sign of gratitude for their time. I handled the issue of conflict of interest professionally because I worked independently at the center, so there was no personal connection between me and participants. This study offered insight into the support provided to women living with VVF or who have had VVF in the past. This study did not pose any significant risk to the study participants or lead to the degradation of the participants. I abided by ethical practices by adhering to the principles of integrity that require a researcher to be straightforward and honest in all interactions with research participants. Not allowing bias, conflict of interest, or the undue influence of my personal reflections or perceptions to override my professional judgment as a researcher was critical in eliminating all threats to ethical practices. The strict observance of principles of confidentiality were also instrumental in eliminating the threat to ethical practices. This entailed working to respect the confidentiality of the study participants and not disclosing their information to third parties without their consent or for my personal advantage. Finally, I complied with relevant research protocols, such as gaining approval from the research board or institution where the research was conducted and avoiding any action that might discredit the whole exercise.

Research Questions

The following four research questions guided this study:

RQ1: How would you describe relationship with your spouse before the onset of your condition?

RQ2: How would you describe relationship with your spouse after the onset of your condition?

RQ3: What kind of support do you expect from your spouse?

RQ4: How do you cope with your condition daily?

Research Design and Rationale

I used in-depth face-to-face interviews to explore the lived experiences of the effects of VVF on the lives of women in southeastern Nigeria. The sample size for this study was 20 participants. The age bracket for these women with VVF was 18–45 years of age. I collected data for this study from participants outside the VVF Centre and from patients admitted at the National Fistula Centre located in Abakaliki, the capital of Ebonyi State, Nigeria for a specific period of two months. I used convenience sample to gather participants who were: a) at the VVF center to receive surgery, b) willing to participate in the study after I had explained its purpose and procedures to them, and c) willing to respond to questions about their circumstances. I set no exclusions criteria based on the participants' age, social background, economic circumstances, or other demographic factors.

I determined the final sample size at the point when the data were saturated. I repeated the interviews questions to ensure that the participants had understood them. I collected sufficient data to establish consistency of themes and the generalization and transferability of the results to similar findings. I used the face-to-face interview to obtain information about the perception, attitudes, knowledge, and feelings of the participants and their lived experiences. The interviews included open-ended and follow-up questions to enable the women to narrate their experiences with VVF or to tell their stories in their own words. I transcribed the interview questions for this study from Pidgin English or the Igbo language to English and used member checking to detect and correct errors that may have occurred during transcription. I collected the data for this study until I had interviewed all available participants. I used NVivo version 12 software (QSR International) to store the data imported from audio transcripts, to manage the data to identify nodes and themes, and to bring out rich and insightful descriptions of the participants’ views (Rudestam & Newton, 2016).

Methodology

I conducted this qualitative study at the National Fistula Centre located in Abakaliki, the capital of Ebonyi State, Nigeria. The rationale for selecting this community was based on it being the only healthcare and maternity facility that was easily available and that addressed the needs of fistula victims before and after repair. The population of Ebonyi State is estimated at about two million people, with women and girls aged 13 and over forming 52% of the population (NPC, 2017). The 2016 National Demographic and Health Survey indicated that many of the women of Ebonyi State delivered their children at home and that their lives were characterized by high poverty, low socio-economic status, and low levels of education.

The target population included women between the ages of 18 and 45 at the time of the study who had obstetric fistula and who lived in Abakiliki at the time of data collection. The inclusion criteria were: female, aged 18–45, a history of treatment for obstetric fistula, urban dwelling for a minimum of 1 year, a history of untreated fistula for at least 2 years, and willingness to participate in the study. I used purposive and snowball sampling strategies to gather participants. I used purposive sampling to identify the initial participants, followed by snowball sampling, i.e., seeking referrals from the initial participant to identify additional participants. I did this until I had reached data saturation. I used purposive selections to select the participants on the basis that they met both the inclusionary and exclusionary criteria and could provide rich information to make meaningful contributions to the main topic at the center of the study.

Sample Size

The sample size for this study was 20 participants. Participation was voluntary and flexible, and the participants were allowed to remove themselves from the study at any point in the process (Rudestam & Newton, 2016). I interviewed every participant and repeated the interviews until saturation was reached. This study accommodated a diverse and representative sample of young women who had experienced VVF and who fell in the age bracket from 18 to 45.

Research-Developed Instrumentation

As Creswell (2017) noted, for qualitative research a smaller sample size is typically appropriate, “to study a few individuals or a few cases” (p. 209). A smaller sample size was necessary for this study to hit the point of diminishing return. Analyzing a large sample is often time-consuming, as Guetterman (2015) observed. Therefore, I used saturation as my guiding principle during data collection.

The interview guide was the instrument for data collection (see Appendix B). I framed the questions to reflect the experiences of the participants regarding their relationships, coping strategies, and self-care practices. For example, I asked the participants to describe their lived experiences with VVF and after surgery, what these experiences meant for them, and how these experiences had affected them. Informed consent was designed as an instrument for this study (see Appendix C). I used informed consent for the VVF patients receiving treatment at the National Obstetric Fistula Center at Abakaliki in Nigeria. I collected socio-demographic information for patients with VVF, including their age, marital status, level of school education, number of living children, experiences of stillbirth, when they developed VVF, employment, religious denomination, household income, and number of years living with VVF.

These questions gave context for a better understanding of the patients' level of spousal support, such as how they described their emotional and psychological challenges related to their VVF and their plans for dealing with VVF. I also asked the participants about their coping strategies and the kind of support they expected to receive from their spouses. I conducted the in-depth interviews in Igbo or Pidgin English. I also translated all of the instruments into English. The interviews lasted approximately 45–60 minutes.

A semi-structured interview guide was of advantage to the study, as it brought forth a meaningful experience wherein the researcher and participants interacted freely (Gatwiri, 2017). As such, this created a comfortable and conducive atmosphere that encouraged participants to respond to interview questions, and in the language that was most convenient to them (Bashah et al., 2018). I conducted each in-depth interview in a private room outside the ward. The semi-structured interview was helpful as it allowed me to obtain adequate data based on the interview guide (Gatwiri, 2017). I maintained effective control over the direction of the interview, while the participants maintained control over the information provided.

Frequent visits and in-depth participant activity is crucial for relationship-building between researchers and respondents for the free flow of information (Gatwiri, 2017). I used tape/audio recorders as an important data collection instrument to adequately capture data, with the participants' permission. As the study progressed, I excluded those participants who declined to be taped or recorded and used another interview technique to collect data, such as note-taking. In this study, I used narrative design to explore "how the everyday, intersubjective world is constituted" (Gunbayi & Sorm, 2018, p. 65) from the participants' perspectives. I completed one set of interviews per weekday. I compared the information gathered in Igbo language or Pidgin English from each participant individually after transcribing it into English.

Procedures for Pilot Studies

To ensure that the interview questions were relevant, valid, and culturally acceptable, I conducted a pilot study by selecting three key participants. These were the first three participants who I recruited as volunteer participants from the center in Abakaliki. The pilot study helped me identify potential practical problems in following the research procedure and to devise precautionary safety nets. As such, I designed the pilot instrument to invite comments about the perceived relevance of each question to the stated intent of the research. I also provided the participants the opportunity to suggest additional questions that were not included. I recorded the time to complete the interview questions, which was helpful in determining whether it was reasonable. I reported the findings of the pilot study in detail and explained any actual improvement to the study.

Procedures for Recruitment and Participation

I conducted this study in the obstetrics and gynecology department within the center, where patients pay little money for fistula repairs. Patients admitted at this center for surgery generally underwent reparative surgery within two to three weeks and stayed in the VVF ward for up to one month after surgical repair. Qualification criteria for VVF patients to participate in this study at the center was based on at least a 1-year history living with VVF. I excluded those VVF patients admitted to the center with serious medical conditions from participation in this study, as they were not relevant to the study.

Approximately one month before my arrival in Abakiliki for data collection, I distributed flyers that indicated the research process and eligibility criteria for participation, as well as my contact information, written in Igbo and Pidgin English. I distributed the flyers at the center and outside it. Through community mobilization efforts, a community heads representative announced this study in the town hall meetings held every Tuesday to encourage women with VVF and their spouses to support them to participate. I presented the consent form to the volunteers at the first meeting and explained it thoroughly, and the volunteers signed it in my presence.

The information about inclusion I specified in the flyers helped participants to determine their eligibility and facilitate their recruitment. Although these flyers were helpful in the recruitment process, I made extra screening questions available to confirm the participants' eligibility. I used the screening questions to ensure that I interviewed the right and eligible participants. Open-ended questions allowed participants to tell their story without restrictions. The participants' level of openness during the in-depth interviews varied, as some were free, open, and relaxed, while a few were withdrawn in narrating their experiences (Rudestam, 2016). Therefore, it was important to clarify the expectation of the study to the participants before the onset of the study. Oral informed consent was crucial before participating in the study. With the permission of participants, I tape-recorded the interviews.

I chose the National Obstetric Fistula Centre Abakaliki for this study because it is in the southeastern part of Nigeria. The state is composed of 13 local government areas, so identifying patients with VVF could pose a challenge. Thus, I used the snowball sampling technique. Using this technique, I contacted patients with VVF at the Abakiliki VVF Centre and outside the Centre who were willing to participate in this study by distributing flyers. This snowball technique created room for willing participants to suggest other patients they knew who could take part in the study. I conducted the interviews in a private room inside the center, which had a door that could be closed to guarantee the participants' privacy.

I did not include or exclude participants based on social background, economic circumstance, demographics, or age. Being a patient with VVF receiving treatment at the center at the time of data collection qualified individuals for participation if they were willing to participate in the study. With Institutional Review Board (IRB) approval, I obtained permission to conduct interviews from the National Obstetric Fistula Centre in Abakaliki, Ebonyi State, Nigeria. I obtained written and verbal informed consent from each participant. I gave participants the option to exit the study at any time. I informed them of the confidentiality of their responses as well as the research interests behind using these methods of data sampling and analysis. Since this study was a one-time study that gathered the evidence necessary within a predetermined and allocated setting, there were no follow-up interviews for these individuals. I recorded the data in the Igbo dialect and Pidgin English using audiotapes and note-taking. This recording process also created a set of first-hand accounts in the language of the individual participants. The follow-up plan for these procedures, if I found very few participants, was to extend the length of the study in the care setting until I had acquired an appropriate number of responses.

Data Collection

I was granted approval to conduct this research by the Medical Director of the National Fistula Centre Abakiliki (see Appendix A) before I began data collection. Based on the turnout of willing volunteers, I conducted interviews and asked each participant to sign an informed consent form (Appendix D). The informed consent was an important aspect of the ethical considerations for this study. It explained my affiliation with Walden University, the purpose of the research and duration of the subject's participation, a description of the interview procedures, the voluntary nature of participation, and a statement of how the data would remain confidential secure. Additionally, I provided a contact number in case they had any concerns or questions about the study. Those who I did not select received a thank you letter.

I collected qualitative data through semi-structured interviews. The interviews were largely participant-driven. I used the interview questions as a starting point, but the participants were free to discuss the elements of their coping strategies with the conditions and experiences they found to be most significant.

As Rudestam (2016) urged, I took care to ensure that the context of the language and choice of words the participants used to explain certain circumstances, feelings, and situations was not lost (Appendix D). The interview protocol helped make interviewing across several different participants more systematic and comprehensible by defining the issue to be explored in advance (Patton, 2016). I framed the open-ended questions in such a way that participants could present their views and perspectives in their own words and terms, and take the questions in any direction they chose (Patton, 2016). The open-ended questions helped not only structure the interview, but also allowed me to explore, probe, and ask additional questions to expand on a particular topic. The interview helped shed light on these women's perceptions and how they coped with their situation. I scheduled the interviews at a mutually convenient time and place for the participant to feel comfortable and free to give honest answers. Before the interview, I assigned each respondent a number for identification purposes. I asked the participants sked to talk about their experiences with VVF. I took field notes and/or used a recording device, only after the participant had given permission, for the accuracy of the data.

I took field notes during each interview. Field notes provide an opportunity to record what is seen and heard outside the immediate context of the interview. As Ritchie and O'Connor (2017) observed, field notes can include thoughts about the dynamics of the encounter, ideas for later clarification, and issues that may be relevant during the analysis. At the end of each interview, there was a debriefing during which the participant spoke about their feelings to allow me to clarify and better understand their perceptions. This gave the participants a chance to change or elaborate upon their responses. I reviewed the transcriptions for modifications or elaborations.

Data Analysis

The primary data collection of this study was comprised of the participants' qualitative responses. In creating a comprehensive assessment of these results, I was able to gather certain evidence regarding each research question. I began data analysis after I had concluded all of the in-depth interviews. As Creswell **(year)** proposed, narrative analysis of interview data, which are interpreted and organized through the identification of emerging themes that add to rich descriptions of a phenomenon, is based on the participants' experiences and perceptions (Creswell, 2017; Creswell & Poth, 2016). I started by transcribing the audiotapes, with strict observance of the rules of transcription. The second crucial step was coding or identification of participants' words or phrases with great attention to responses that were essential to the study. The coding procedures required for this study involved translation of interview materials from Igbo/Pidgin to English. I performed all of the translation and coding. I transcribed the data into English and categorized the identified information. I clustered statements that were crucial to the study into themes, which formed the basis of the study (Creswell, 2017; Creswell & Poth, 2016).

Validity and Trustworthiness

Validity in qualitative study is the responsibility of the researcher to prove that the results of a study are based on critical investigation and that the study is trustworthy and credible. One way to ensure validity is to prove the study's credibility, transferability, dependability, and confirmability (Rudestam & Newton, 2015). To justify the claims of this study, I ensured that the methods and conclusions could be trusted, and that the phenomenon under study was meaningful to further research. There were no serious threats to the validity of the findings in the process of planning, data collection, analysis, or interpretation. I repeated interviews to guide against inadequate data that could result in a lack of saturation or inconsistency (Rudestam & Newton, 2016). To forestall any issues relating to the validity or trustworthiness of this study, I collected enough data to establish a consistency of themes, an understanding of the raw data by other researchers, and the generalizability and transferability of the results to similar contexts. I meticulously recorded the entire process of the study so that future researchers can use it to recreate the steps and reach new conclusions (Rudestam & Newton, 2016).

I demonstrated the confirmability of this study in terms of reflexivity. By checking the data continuously and allowing another research associate to be involved in the analysis, I enhanced the confirmability of the results. A data audit was conducted at the end of the study to ensure the judgments and procedures within this trial had confirmable results. To test for the logic of validity, I avoided discrepant data by establishing a simple standard operating procedure that was easy for the participants to follow. I checked every step of the process at least twice to ensure each participant's level of understanding. At the completion of each interview, I offered participants an opportunity to validate the accuracy of their words and carefully examined unusual or contradictory results. Finally, I double-checked each participant's information. Wherever I identified discrepant data, I reported it and gave an opportunity to the readers to draw their own conclusions.

A qualitative study is said to have met the criteria of transferability if the results are meaningful to other persons not involved in the study and can be applied to their own experiences. A qualitative study is said to have met the criteria of authenticity the researcher can demonstrate the ability to express the feelings and emotions of the participants' experiences in a dedicated manner (Cope, 2016). As the researcher, I expressed the experiences of the participants faithfully to ensure the authenticity of this study.

In summary, qualitative research can be achieved by demonstrating prolonged engagement with participants, observing persistently, using triangulation or ensuring study credibility (not manipulating data), establishing peer debriefing, thick description, audit trails, negative case analysis, and referential adequacy (Walden University, n.d.).

Ethical Procedures

It is imperative that researchers act ethically when conducting a study. Any research involving human participants and vulnerable populations requires strict compliance with established ethical procedures. These entail having an independent review committee to scrutinize the study to make sure that the ethical standards of the institution are strictly adhered to. The institutionalized procedures involved obtaining informed consent before starting all research (Rudestam, 2015). I compiled the necessary documentation before data collection and obtained clearance from the (IRB) and from the site of the research before conducting the study (see Appendix A). The study must conform to the norms and values of research (Sieber & Tolich, 2015) and show the validity and competency of the researcher (Rudestam, 2016).

As the researcher, I made sure to get informed consent from participants and ensured that they emerged from the study unharmed. I anticipated that this study might carry some risks for the participants, such as distress and trauma due to reliving unpleasant memories of experiences with VVF. Kisha et al. (2015) highlighted that women with VVF or survivors begrudge the lack of counseling services as one of the factors that hamper their reintegration. Women with VVF can utilize and benefit from counseling after reparative surgery and discharge. In this regard, I provided a list of counselor names to women in my study in advance, in case they experienced trauma or stress during or after the study.

Summary

I conducted this qualitative study in Abakiliki, in Ebonyi State, Nigeria. This community experienced poor maternal outcomes due to VVF. The aim of the study was to increase spousal support for women with VVF in southeastern Nigeria. These women's experiences might pose barriers to access to maternity care, along with subsequent negative maternal health outcomes. I used in-depth interviews as instruments of data collection to gather information from women aged 18 to 45 who had experienced VVF. In Chapter 4, I present the results.

Chapter 4: Results

Introduction

The purpose of this study was to examine the extent of spousal support women in southeastern Nigeria receive when contending with vagina fistula. Recent findings show little or no spousal support for VVF victims, and about half of women from several studies described having strained relationships with their partners and reported challenges finding social support (Amodu & Dennis, 2017; Heller, 2015). I conducted interviews with women with VVF at the VVF Centre in Abakiliki, Ebonyi State, Nigeria over the span of eight weeks. In this chapter, I include a description of the study findings. The following overarching research questions informed this study:

RQ1: How would you describe your relationship with your spouse before/after the onset of your VVF?

RQ2: What kind of support do you expect from your spouse?

RQ3: What kind of support do you receive from your spouse?

RQ4: How do you cope with your condition daily?

In this chapter, I offer an overview of the pilot study, discuss the study results, and provide detailed analysis using information collected from all the standard open-ended interviews with the participants (see Appendix F). I captured the general ideas expressed by the participants in the data, which I organized into categories and emerging themes. I also present details of the research setting and evidence of the study’s trustworthiness, as well as a summary of the results.

Pilot Study

Prior to the main data collection, I obtained approval from Walden University’s IRB. I pre-tested the study tools with three women in the town hall meeting place in the space of three weeks to ensure that the interview questions were relevant, valid, and culturally acceptable. Two of the women were Muslim (ages 18 and 23) who had previously received treatment and care from the VVF Centre at Abakiliki. The third was a 32-year-old Christian woman with no formal education who had experience in caring and assisting her fellow fistula patients at the VVF Centre. These women answered the interview questions designed for this study at the VVF Centre. I used these face-to-face interviews to assess their validity by comparing the responses to the interview questions with the participants’ own words as they recalled their experiences relating to the disease, irrespective of their challenges. I asked some of the questions in more than one way to assess internal consistency. I determined their acceptability by asking participants if they were comfortable answering the interview questions during the validity testing. This process was essential in helping me identify the main issues and to form the basis for the questions to be used in the final study for these women. Even though I made no changes to the data collection tools after the pilot study, it nonetheless prepared me to be calm, attentive to details, and to adjust my time-management style.

Study Setting

I conducted this study behind closed doors in a private room. The center provided almost free of charge fistula repairs for women injured in childbirth. It was a 100-bed capacity hospital that hosted both a maternity ward and a fistula ward. The center had a 75-bed obstetric fistula special ward established in 2008, and generally received patients from all over Nigeria because it was the only recognized fistula repair center in southeastern Nigeria. Patients admitted at this center generally underwent reparative surgery within two to three weeks of their arrival from the rural areas and stayed in the VVF ward for up to one month after surgical repair. The center was staffed by a combination of medical and administrative personnel that included visiting physicians/medical officers, community health officers (nurses and midwives), and community health educators. Since its inception in 2008, the center had reported an increasing number of fistula cases (up to 400 each year). At the time of the study, the center had conducted surgical repair for approximately 28 patients at a given period. Ten more patients were brought in from various provinces by the center's screening team on the last day of the study. I approached the women who were admitted for repair of VVF and who had lived with the condition for 1 year or more and invited them to participate in the study.

Demographics

Sociodemographic Characteristics of Participants

In total, 20 patients between the ages of 17 and 54 participated in the face-to-face semi-structured interviews. The median age of patient participants in this study was 17, with one participant failing to state her age due to lack of knowledge of the year of her birth. Some of the women had lived with VVF for six months, and others for over 2 years. All of the patients reported being married before developing fistula. Apart from 12 who were still married and two who were widowed, the rest reported being separated temporarily. They all had a fistula following a stillbirth. The face-to-face interviews took place in an isolated location within the VVF Centre. The sociodemographic data of the patients who participated in interviews in this study are shown in Table 1.

Table 1

Participant Demographics

Participant	Age	Months with VVF	Religion	Number of Children	Marital Status	Finished School
Fatima	23	24	Muslim	3	Married	Yes
Nwafor	51	16	Christian	3	Married	Yes
Nanya	21	10	Muslim	1	Married	Yes
Zanatu	24	11	Muslim	4	Separated	No
Uzoma	17	15	Christian	2	Married	Yes
Sambo	19	07	Muslim	1	Married	Yes
Osinachi	22	10	Christian	2	Married	Yes
Aisha	26	06	Muslim	3	Married	Yes
Adiza	17	08	Muslim	1	Married/Polygamy	No
Ifeoma	19	24	Christian	2	Separated/Divorced	No
Sarah	27	23	Christian	0	Separated/Divorced	No
Halima	30	07	Muslim	2	Married/Polygamy	Yes
Patricia	52	09	Christian	1	Married	Yes
Habima	27	23	Muslim	5	Widowed	No
Stella	18	24	Christian	3	Widowed	No
Kabiru	54	11	Muslim	2	Separated/Divorced	No
Patience	25	26	Christian	2	Married	Yes
Ada	19	06	Christian	0	Separated/Divorced	No
Funke	23	35	Christian	2	Married	Yes
Sade	27	12	Muslim	1	Separated	No

Note. The participants in this study were from various regions in the community and their real names are not reflected in the study.

Data Collection

A month before my arrival in Abakiliki for data collection, I made flyers that indicated the research process and eligibility criteria for participation as well as contact information available in the hospital (see Appendix B). The townhall meeting place at the village was helpful in distributing flyers to potential participants who requested information about the study. The consent forms were also made available to potential participants at the Obstetric Fistula Centre and were marked to indicate that they were for fistula patients. Information about inclusion, as specified in the flyers, helped participants determine their eligibility and facilitated their recruitment. Although these documents were helpful in the recruitment process, I made extra screening questions available to confirm the participants' eligibility (see Appendix C). I obtained written and verbal informed consent from each participant.

I drew a purposeful sample of 20 fistula patients, including eight women from outside the Obstetric Fistula Centre and 12 from inside the Centre. Inclusion criteria for patients were: VVF patients admitted at the Obstetric Fistula Centre during the study who had lived with the health condition for 1 year or more, who were 17 years of age and older, and who were willing to participate by giving their consent. Exclusion criteria were VVF patients admitted at the Obstetric Fistula Centre who were seriously sick, deaf, or mentally disoriented and not capable of providing informed consent or information relevant to the study. The criteria for women from outside the Centre were living with VVF for 1 or 2 years, with no other excluded medical conditions.

In addition to note-taking, I used audio recorders, with the participants' permission, as important data collection instruments to adequately capture data. I completed one set of interviews per weekday. I recorded the data in Igbo using audiotapes, and note-taking in English. This recording process created a set of first-hand accounts in the language of the individual participants. I compared and contrasted the information gathered in Igbo from everyone after transcribing it into English.

There was, however, a variation to the data collection using audio-recordings of the interviews, as they were not effective or possible, as I had anticipated in Chapter 3. This variation occurred because of technical constraints with the software recording application. The interview process was never hindered by this variation simply because I performed the interviews and transcriptions simultaneously. Even though I asked probing questions, as specified in the interview questionnaire, I made all efforts to avoid leading the women in their responses and to ensure that explanations were solicited as deemed necessary. Each interview lasted between 45 and 60 minutes. I was careful to employ probing questions identified on the interview questionnaire to avoid leading the participants in their responses.

Data Analysis

I imported the data collected from the interview questions into Nvivo 10 software, which revealed its characteristics and variables. This software allows data to be organized according to themes using a process called coding. I created a hierarchy of seven themes through the coding process. These included: (a) many women with VVF felt abandoned and ignored; (b) VVF can lead women to emotional distress/depression; (c) disrupted marital relationships, immediate separation, and starting all over; (d) a marital and sexual life that was no longer joyful; I coping strategies; (f) financial survival seemed difficult during and after treatment; and (g) positive attitude and affection from spouses. I further refined, organized, and analyzed the themes using Hycner's (1985) phenomenological analysis of interview data. Using matrices and queries I created with Nvivo 10 software tools, I explored patterns and made comparisons among themes. To enhance their easy understanding and communication, I converted selected results into tables, which I have included in this report. It is worth noting that the Nvivo database containing the data sources, coded data, coding scheme, analysis, and graphics is an interactive tool that can continue to be manipulated to provide additional configurations of data for ongoing exploration and analysis.

Evidence of Validation

My role as a researcher in this study was to explore the effect of VV from the perspective of women in southeastern Nigeria. To ensure study validation, I gave much attention to the expert judgment of my committee members. The instruments I used in this study were affirmed through constant discussions with my committee members. I made appropriate adjustments to improve the quality and relevance of the data collected.

As a way of establishing credibility, I obtained IRB approval and permission to conduct interviews from Walden University and from the National Obstetric Fistula Centre in Abakaliki, Nigeria. I utilized a screening questionnaire to confirm the participants' eligibility (see Appendix C) and to ensure that I was interviewing the right and eligible participants. I also utilized interview questionnaire to get the perspectives of the participants.

To maintain reliability, I piloted the interview schedule prior to using it in the actual study. I carried out pre-tests of the instrument using three key participants, two of whom were from the maternity ward in the National Obstetric Fistula Centre, Abakaliki, and one from the townhall meeting place in the community. They had no formal education and articulated their experiences as they related to the phenomena being investigated: the effects of VVF in the lives of women in southeastern Nigeria. Information obtained from the study showed that the participants: (a) understood the research questions, (b) were able to answer the questions, (c) did not suggest any changes to the questions because the questions were very direct, d) appreciated the opportunity to share their experience with VVF, and e) were willing to take part in the study. For data to be adequately collected, recorded, and filed, the availability of required tools such as interview questions and an audio recorder were crucial. All these measures determined whether the data collected were of acceptable standards in terms of relevance, validity, and reliability.

Through triangulation, saturation, and reflexivity, I ensured the study's internal validity through these trials. For example, a prolonged engagement with participants in their environment allowed for a variegated collection of information. In terms of generalizability, due to a small sample size, the results cannot be generalized to all southern Nigerian women or to women of other ethnicities.

Results

I present the results of the study below considering women's perceived experiences living with VVF and what they understood to be the cause of their VVF. I present each of the participant's perceived experiences and cause of VVF according to the seven themes that emerged. The themes throughout this chapter are supported by direct quotes from the participants that I identified as similar in nature. Although similar, each participant's perspective was unique and important in its own way. However, themes allow a researcher to organize the data and make similarities more explicit. These patterns of similarities help reveal meaning in the results.

Participant Interviews

In the analysis of how the participants describe their relationship and experiences with their spouses, seven themes emerged consistently. These were: (a) many women with VVF felt abandoned and ignored; (b) VVF can lead women to emotional distress/depression; (c) disrupted marital relationships, immediate separation, and starting all over; (d) a marital and sexual life that was no longer joyful; (e) coping strategies; (f) financial survival seemed difficult during and after treatment; and (g) positive attitude and affection from spouse. From the description of their experiences living with VVF, the participants' responses indicated a great deal of interrelatedness and occasional overlapping of all seven themes. The participants' experiences were generally alarming due to their untold suffering, characterized by distress, shame, social stigmatization, and coping strategies. Some women expressed being loved by their spouses before the onset of VVF, while others expressed being ignored by their spouses and avoided as their VVF emerged. All these elements were expressed in their responses that cut across all seven themes and as presented separately.

Research Question 1

The participants in this study described their relationships with their spouses before the onset of their condition. They generally reported happy relationships before the onset of VVF and described their interpersonal relationships as positive and full of affection. For example, some of the women said that their relationship with their partners was a memory they would never forget; they slept in the same bed, ate together, showered together, had heart-to-heart discussions without extended family interference, and their spouses were generally reliable. Other women who thought their husbands were unreliable before the onset of VVF reported that their husbands' behavior were not totally positive. One participants said: "Before the fistula, he used to support me and do everything for me… though my husband does not have much money, but he took care of me and all our family needs." Another participant stated. "Well, relationship is a two-way thing, and I must be content with it, but he always does its job and doesn't care about anything." Another participant stated, "both my husband and I hate sex, so we have always lived happy in our marriage even without much sex." Another participant stated, "in the early course of our marriage, things were good. We talked a lot, we did not have issue, and the love was very strong." One of the women in the study said, "I married my soulmate because we understand each other, and we did everything together and some of his family members were jealous because of our closeness, as we did not hide anything from each other." Another said, "to be honest, my husband treated me like a queen. He showed me love and supported me even when we lost our first baby."

Research Question 2

All of the participants in this study acknowledged that their relationship with their spouse changed after the onset of their VVF. All of the women interviewed complained that they suffered continuous stigma, distress, and isolation as an effect of urine incontinence and the odor. The degree of emotional distress and abandonment differed among the women. For instance, Halima, a 30-year old woman with VVF, experienced her husband bringing in a second wife because her urine was uncontrollable. She stated:

> My husband left me when I got this problem. He started ignoring me in the house as if I do not exist… My husband would keep silent when I try to talk to him. I gradually started to feel sad every day and sometimes I will hide myself inside the

> house for days without coming outside and I will stay for days without eating because of my condition. I used to stay inside the house like a paralyzed person because I cannot go to the community meetings to avoid people from calling me a name that is not my own.

Another of the participants stated:

> When our neighbors see me, they say “the urinator is coming,” and they ask their friends, “can you smell urine? What is smelling? Where is it coming from?” I feel bad and I talk to my self mumbling and say, “yes, they are talking about you.” Sometimes, some of them turn their lips up. Yes I hear. I never feel good. I don’t have interest in people to seeing me.

Another participant said:

> My husband said, “I can’t stay with a woman urinating every minute,” and he decided to marry second wife because his family advised him to seek a new life. Yes, the new situation I find myself caused me to be depressed, and I started to ask myself if I was the cause of my situation because he was not happy to live with me… Even me, I was feeling ashamed and sad to face my husband. I can’t carry out my daily duties like before.

Another participant in the study mentioned that she was dismissed from her job as a clothes washer due to the neighboring family’s intolerance of her constant bad odor. She stated that she was a domestic worker:

> I used to wash clothes of the neighboring families. Some of the families heard that I’m a urinating woman and they chased me. Yes, they said, “we don’t want you;

> you are not clean (you are dirty).” I was really stigmatized by the neighboring families. You lose your job because of this condition.

These women clearly developed fear due to their negative experiences stemming from the abnormality of their bodily functions (i.e., uncontrollable leaking of urine or feces, inability to have sex like before, and offensive smell). They therefore worked tirelessly to hide their condition from their spouses and others. The women adapted to new routines to conceal their condition, such as frequent washing and changing of their cloth pads, and frequent bathing, which became part of their daily routines.

In terms of describing their relationship with their spouses after the onset of their condition, about half of the participants discussed how their spouses changed after the onset of their condition. Understandably, the participants became stressed, and often so depressed as to consider that being dead was better than staying alive. Some became malnourished because of not eating and drinking adequately in order to avoid being wet. The participants were haunted by the memories of their stillbirth, with a deep sense of guilt for not doing more to prevent the unfortunate event. Many felt like they were walking in their own shadows, with deep emotional problems. Some felt they were in an unending crisis and traced this back to their experiences.

One of the participants stated the following: “When I developed the fistula, my husband distance me because they believe that I developed the fistula due to my stubbornness” (Uzoma). Another participant recounted, “at first, I had no knowledge about fistula, and I started crying… I fear living in the community due to leakage of urine and the odor it produced… I became depressed as I suffered isolation” (Nwafor). Another stated, “I became always sad due to my belief that there was no cure for fistula… To some point, I preferred my death to living… From then on, I did nothing rather than sitting in one place and crying" (Fatima & Ifeoma).

Many of the participants with VVF felt abandoned and ignored. This is captured in Theme 1, which highlights how many women with VVF felt they were isolated from and abandoned by their spouses and communities. They felt a lack of association with any other human beings, as they were shunned by those whom they had known their whole lives. The participants felt dejected because they had been rejected and ignored by those they trusted and loved. Their lives before were very social; they went on outings with their spouses and participated in religious practices that were performed as a group in the community, but they were now prevented from participating. Some of the women in the community were simply indifferent to their suffering, but others were actively hostile, accusing the participants of being the cause of their own predicament. Some of the participants experienced varied forms of stigmatization, which manifested in the form of shame, social and self-isolation, low self-esteem, ridicule, abandonment, depression, and feelings of worthlessness. About half of the participants described having strained relationships with their partners and reported challenges finding social support. The reasons for their strained relationships varied. Some participants were discouraged from attending follow-up visits; four participants relayed their husbands' obstinacy due to prior failed fistula surgeries.

These women stated:

- "He did not like me going for treatment follow-up. He counted all areas where I had gone before with no success."
- He said, "I don't want you to go again to Abakiliki. You just leave it."

> - "You have gone there and coming back with the same problem. You have gone to Abakiliki and now you want to go again. What is so special to go at this time?" (Nwafor, Patricia, Osinachi, & Nnaya).

These women, however, seemed to advocate for themselves, and returned for their follow-up appointment without their husband's blessing: "So I prepared myself to go to Abakiliki without my husband knowing that I have traveled to Abakiliki the same day when he refused me to come" (Osinachi & Patricia). "Nobody will think of your body, you have to take care of yourself" (Osinachi & Nwafor). Others stated, "he wants me to go to the farm to cultivate, but I have to give myself permission to come" (Osinachi & Patricia). Health problems like VVF are difficult to handle under the best of circumstances. Presumably, had the participants been given hope for improvement in the future and/or been treated better by their spouses and communities, the incidence of emotional distress would have been considerably smaller.

Research Question 3

In terms of the support the participants in this study expected from their spouses, the respondents indicated that their marital and sexual life was no longer joyful after sustaining VFF, which defines Theme 4. Although some of the participants were still living with their spouses and kept their marriages, their relationships with their husbands were limited. Only four participants reported that they were still the only wife of their husband and got support from him. The majority of the participants with VVF were either divorced/separated or their husbands had turned away from them and married a second wife. One of the participants stated, "since I developed this problem, my husband limited his coming to my bedroom because he has married another woman" (Adiza). Another remarked,

> Although I'm ok with it, he shouldn't have abandoned me. I live with my three children and am always confined to the house. Yes, he doesn't visit me or his children. Yes, me and the children are not hearing his voice for up to six months. (Fatima, 24 years old, lived with fistula for 1 year).

In the analysis of disrupted marital relationships for the participants, and the need to start over (Theme 3), three themes emerged: living a physically changed and challenging life; living in social deprivation and isolation; living a marital and sexual life that is no longer joyful. The three themes were inter-related and occasionally overlapped in the way the participants described their experiences. The participants' lives generally changed the moment they realized they were leaking urine uncontrollably. They were wet all the time, a challenge they had to cope with by devising ways of passing less urine and avoiding being noticed by those around them. In response to the leakage, the participants in the study stated that they decided to drink less water to reduce being wet. However, drinking less water made them produce more concentrated and smelly urine, which then caused burns and sores on their genitals and thighs. All of the participants padded themselves using locally devised pads that eventually burned them. The participants were constantly preoccupied with how to reduce being noticed when they were wet, which was physically challenging, as demonstrated in the following quote:

> Waking up from sleep, you find urine has spread all over the bed up to the top, to the extent of wetting the hair. Then you feel the burden of changing the beddings to place the dry ones… you fear to drink so that urine does not come much. Then

> again, the urine that comes when you have not taken anything has a very bad smell. (Patricia & Chinyere)

The stress of starting all over because of VVF was compounded by worries that there might be no cure for the condition. Furthermore, the participants' confirmed these fears by saying the condition was for life. As a result, some contemplated ending their lives. Most of the participants had felt that their life was not worthwhile and had thought about ending it:

> People were saying that the condition could never be treated, so I will have to die with it. I started fearing to live with the problem the rest of my life. They said that I would never be OK. So, if am wise, I should pray for death. I started praying to God to take my life, but my husband stopped me from such prayers. My husband encouraged me all the time, saying, "let the will of God be done." (Osinachi)

A marital and sexual life that was no longer joyful characterized Theme 4; most of the participants in the study felt that they had lost their marital and sexual rights altogether. They felt that their bodies had changed and that they were no longer like other women because they missed the happiness they had formerly enjoyed, and their sex lives had changed. Many described their sex lives as having been negatively impacted because of the excess fluid, which was detestable to both the participants and their partners. All of the participants agreed that sex was a major challenge. It was no longer as it used to be, and there were many difficulties to overcome when having sex.

The participants stated,

> When it reaches time to play sex, he tells you "do this," and you have to first put there the cloth to dry urine, then you lay a polythene cover and by the time you

> start, urine is much again. This makes him lose the erection and a feeling comes that may be its urine that made him lose the erection. He just forces himself to do it but deep inside, he is not enjoying and even myself, I do not enjoy due to fear that when you increase on the speed, urine will come in large quantity, so you do it slowly. In fact, you do not make him happy like how you used to do before the problem. (Fatima & Nwafor)

The participants described the feeling of a changed vagina. Some participants reported that their partners felt that sex was different now compared to before the development of the fistula. In addition, some partners told their wives that sex with them was different from sex with women without a fistula. Furthermore, the participants felt physically widened, and thus their appetite for sex had decreased.

Research Question 4

The research questions, themes, and interview questions illustrate the experiences of women living with VVF as they emerged from the analysis of individual in-depth interviews. The participants throughout the study described their challenges living with the condition to include “wounds around genitalia, bad odor, incontinences of urine and feces, stigma, isolation, separation, divorce, unable to make my own decision, dependency, financial constraints, and loss of healthy years.” They also described their coping mechanisms, which included “withdrawal from the community and improved personal hygiene.” The participants with VVF experienced serious health and social consequences, which prevented them from fulfilling their socials and personal responsibilities.

Concerning the actions that can be taken to prevent VVF, many participants in this study discussed timely access to obstetric care, delaying the age of their first pregnancy, and ending harmful traditional practices. Nonetheless, many participants experienced VVF as the inability to fulfil their social expectations as women and wives. The participants identified fertility and continued childbearing as central concerns. When I asked the participants how they coped with their condition (see Table 2), the majority said they coped by: hiding from the public; maintaining strict hygiene, i.e., washing all the time; padding with heavy, old, soft clothes; drinking a lot of water to reduce the smell and sores due to the urine; ignoring people's comments; and resorting to prayer. Others coped by seeking refuge with pastors in churches, using waterproof (polythene) materials on their mattresses, and keeping busy making handcrafts. All of the participants said they changed clothes frequently and used lotions to reduce the bad odors resulting from sores and urine.

Table 2

Coping Among Women with VVF

Category	# of Women with VVF (n=20)	Percent of Women
Hiding	17	70
Strict hygiene	20	100
Drinking lots of water	20	100
Ignore people's comments	20	100
Prayers	18	80
Sought refuge with religious leaders	19	90
Use polythene material on top of clothes	20	100

The participants in this study revealed different efforts to normalize and cope with the emotions that resulted from VVF by isolating themselves, hiding their stories, and always keeping good physical hygiene, which provided relief and helped them calm their stress and anxiety. For instance, one participant, a 54-year-old woman who had lived with VVF for 11 months, stated that:

> It is not easy to live with this problem, vaginal fistula. My concern was people not to know that I cannot control urine. I don't want them to know my problem. I always wash my clothes especially the sanitary pads, clean my body to prevent the odor of the urine and use baby powder to smell good. I was trying to keep my cleanness. (Kabiru)

Another participant explained how she coped after living with VVF for 9 years, noting:

> You cannot go to the public places during community gatherings with this problem. The people will know that you urinate too much. You feel ashamed and humiliated when people are looking at you. I have to hide myself and stay at home because people in this community see me as if my body is rotten. (Patience, lived with VVF for 26 months).

Another participant explained, "I frequently change my clothes and mostly use heavy robes, 'long hijab outfits,' to avoid the embarrassing odor. When I am going outside, I wear three wrappers with sanitary towel to reduce and control the dribbling of the urine" (Fatima, Stella, Sarah).

Withdrawal from the community and improved personal hygiene, captured in Theme 5, were the two strategies that the participants used to cope with their condition. As the above statements describe, women living with VVF must frequently change their clothes to avoid the bad odor and wetness resulting from their condition. These women face lots of challenges sustaining themselves economically after being out of economic activity for a while they are treated and in recovery. Since most of the participants were from rural areas, where petite trade and farmwork are the normal methods of income generation, medical advice not to engage in strenuous activities after surgery is usually ignored, as it would limit their financial activities. At the VVF Centre, there were programs to teach women income-generation activities like soap and shoemaking, the weaving of mats, plaiting of hair, and clothes dying.

Financial survival is difficult during and after treatment, as captured in Theme 6. Some of the participants were introduced to microfinancing through VVF partners, allowing some of the women with good collaterals to borrow money to start up their own petite trade when they returned to their communities after surgery. In particular, Fistula Care Plus partners with the Ministry of Health, a faith-based and nongovernmental organization, and other local authorities provided an overview of ways that different groups could be of support to these women in starting small businesses. However, there were not enough other programs at the community level to help survivors manage on their own and support themselves. The participants shared the following:

- “I was engaged in small farming and carried the harvest to the daily market and gave it to the market women for wholesale… If I stay too long my urine will leak and I will smell” (Aisha).
- “Since I had a stillbirth, I decided to sell the baby dressings and other materials I bought when I was pregnant so that I can pay my way to my mother” (Sarah).
- “I was desperately anxious to get well. I stole few of my father’s fowl to sell to get transport to travel to Abakaliki from my community” (Sambo).

- "I was discharged from the hospital, and I went to the bush where we were rearing goats...to continue taking care of goats" (Sambo).
- "I started taking bread from the bakery on credit to sell and return their money on daily basis. The profit was used to buy medicine and clothes to make pads to cover the urine spills" (Kabiru).

Given their challenges, the participants had increased needs for supplies but had to make money in any way they could in order to provide for their needs.

Summary

I derived the data analyzed in this study from interviews with 20 female participants who had experienced vaginal fistula. All the participants in this sample were women who had been in labor at home for at least three days prior to going to the hospital and who had a stillborn child prior to developing a fistula. They had then all had surgery, and were either discharged from the VVF Centre or awaiting surgery at the VVF Centre. All of the participants in the study had VVF due to prolonged labor. None of the participants knew beforehand that this condition existed and that there was no cure. Many of the participants were discharged and sent home after labor. The result of this misinformation was that many of the participants had sought out traditional healers for their delivery. They acknowledged that, with the support of their spouses, there was hope for recovery.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

Despite the efforts of many charitable organizations, the rates of maternal mortality remain unacceptably high. Nigeria has the worst record for maternal mortality, at 1,100 deaths per 100,000 live births (WHO, 2016). In addition, a common complication is prolonged labor (up to several days) due to obstruction, which can cause obstetric fistula (Meyer et al., 2017; WHO, 2018). This is more likely with home births, although competent midwives or birth assistants can lower this risk (Wall, 2017; Warren & Mwangi, 2018). An estimated 3.5 million women worldwide suffer from obstetric fistula, most in sub-Saharan Africa and South Asia (Rai, 2018).

Obstetric fistula results in the leakage of urine and/or feces. This condition, in turn, often results in depression, ostracism, loss of family and work opportunities, and post-traumatic stress disorder (Wall, 2017). Other possible medical complications include urinary tract infections, nerve damage, and kidney failure (Wall et al., 2017). In rural communities where the cause and prospects for repair may be unknown, women are blamed and even tagged as witches (Adler et al., 2017).

Nature and Purpose of the Study

The rate of vaginal fistula can be greatly diminished with proper care during childbirth. Where necessary, obstetric fistula can also be treated with surgical repair (Wall, 2017). Surgery, postoperative care, and rehabilitation only cost about $300 per person (UNPF, 2017). However, inadequate access to skilled care is common where there are high levels of poverty, illiteracy, early pregnancies, and where women lack decision-making power over their own health (Zheng & Anderson, 2018). To better advocate for women in these countries, more data is needed to define the extent of the problem (UNPF, 2017). This qualitative study on the effects of vaginal fistula in the lives of women in southeastern Nigeria provided positive information that gaining spousal support encouraged women to participate in treatment-seeking. The study data suggested that, while some women endure negative social experiences following VVF and require additional resources and services, many women report high levels of support from their partners, which may be harnessed to improve the holistic care for women in southeastern Nigeria.

In this study, I addressed four research questions:

RQ1: How would you describe relationship with your spouse before the onset of your condition?

RQ2: How would you describe relationship with your spouse after the onset of your condition?

RQ3: What kind of support do you expect from your spouse?

RQ4: How do you cope with your condition daily?

This study was based on and supported the Transactional Model of Stress and Coping (TMSC). The model provides a complete perspective of the factors that affect specific health behaviors, including the social determinants of health (Davis et al., 2016). Two key concepts of TMSC frame coping efforts along two dimensions, i.e., emotion-focused coping and problem-focused coping. The model thus helps identify coping strategies to deal with VVF, which were encapsulated by Theme 4. The problem-based coping strategies included: hiding from the public; maintaining strict hygiene, i.e., washing all the time; padding with heavy torn old soft clothes; drinking lots of water to reduce the smell and sores due to the urine; ignoring people's comments; and resorting to prayer. The emotional-based coping strategies involved: support from spouses, and seeking refuge with pastors in churches through faith in God (Changole et al., 2019).

According to the TMSC model, delays in individual decision-making, the need to identify and reach a health facility, and the ability to obtain adequate care after arriving to a facility are closely interwoven barriers to care and influence subsequent decision-making regarding seeking further care (Echoka et al., 2015). This model provides further insight into the factors that result in the failure of healthcare decision-making related to access to emergency obstetric care. Receiving care and support while contending with VVF has been demonstrated to positively impact a woman's life through improvements in her physical condition and her interpersonal relationships (Dennis et al., 2016).

Summary of the Findings

The data I analyzed in this study derived from interviews with 20 patients who had experienced vagina fistula. All of the participants in this study were women who were in labor for at least three days at home prior to going to the hospital and who had a stillborn child prior to developing a fistula. All of the participants in the study had VVF that resulted in urine leakage. None of them had been informed prior to developing VVF that this condition existed, and many of the women had been informed by VVF Centre nurses that there was no cure for VVF and were discharged and sent home. The result of this misinformation was that many of the women sought out traditional healers for their VVF, who performed herb-smoking and other traditional healing methods that were unsuccessful and that resulted in the participants losing hope.

The key findings included a hierarchy of themes and categories as determined from the participants' responses, which I entered in the NVivo program. The participants were between 17 and 57 years old and had lived with an obstetric fistula for 1 year or more. All of them had been married. Some were now widows, separated, or divorced.

Some of the setbacks the participants described included financial constraints, men's responsibility for decision-making, the preference for local traditional healers, and the pressure for sex from their spouses. The effects of obstetric fistula included a fear of abandonment, depression, emotional distress, disrupted marital relationships, immediate separation, the need to start all over, a marital/sexual life that was no longer joyful, a search for coping strategies, and difficulties in financial survival during and after treatment.

During the interviews, some of the women listed the obstacles they had to overcome to seek treatment, such as distance from health facilities, a lack of support from their spouses, a lack of awareness of VVF, financial and transportation constraints, embarrassment, belief in traditional healers, and pressure from men to have sex. They also listed the consequences of divorce/separation, including isolation, the need to start all over, being ignored, and difficulty re-entering society. The participants felt that VVF was likely to remain a problem, although, since they had seen an increased awareness and education of birth assistants, they hoped there would soon be some helpful changes.

Comparing Findings and Themes to the Literature

The findings in this study showed that the lives of women with VVF are full of challenges and adjustments. The participants felt physically challenged, and they felt rejected, isolated, and stated that their marital and sexual desires had been greatly affected. Based on social stigma theory, both enacted and perceived stigma were woven into the lived experiences of women with VVF, making them feel alone and isolated. To maintain emotional wellbeing, the participants devised ways to cope with the challenge of leaking urine, but some of the coping strategies eventually turned into stressors that led to greater stigma. The participants' lives revolved around ways to prevent others from noticing the leaking of urine, to reduce the smell, and to maintain their relationships with their husbands and families. Despite all the life adjustments they made to cope with this challenging condition, the participants still found themselves lonely and isolated.

The seven themes that emerged from this study related to the support expected and support received from spouses. The findings indicated that the participants perceived leaking urine to be a disheartening situation and considered themselves to be different from other women; thus, they separated themselves from the rest of society. The findings highlighted what scholars found previously in other low-income settings in Africa and Asia, with the general agreement that VVF has negative social and psychological implications that result from its physical symptoms (Barageine et al., 2015; Wall, 2016).

Drawing from experiences of women with incontinence. Irrespective of the cause, the findings in this study showed that urinary incontinence following VVF impacts several aspects of the affected woman's life, including her physical, psychosocial, and economic wellbeing (Barageine et al., 2015; Wall, 2016). In addition, the study findings showed that the worst suffering may not be from the physical aspects of their VVF, but rather from the social, psychological, and sexual impacts.

Some of the women in this study also experienced some stigma in the form of abandonment or being ignored by their spouses. The main reason for these types of stigmas was sexual dissatisfaction due to the disruptiveness of urine leakage during sexual intercourse. This finding was similar to that reached in a study on the experiences of women living with fistula in the southern region of Malawi, where the researchers found high rates of divorce and remarrying among women due to VVF (Barageine et al., 2015; Changole et al., 2017). In contrast, only two women had been divorced at the time of the present study, and only three had ever been divorced/separated. The majority of the participants in this study were still married and living with their husbands.

This finding is similar to that reached in a study done in Uganda on the experiences of men living with wives suffering from vaginal fistula, where the researchers found that the men continued their marriages. The reasons given for their choosing to continue in the marriage with a woman suffering from VVF included love for their wives, marriage being a norm that includes a man’s responsibility for his wife and children, the feeling they shared in the process that led to VVF, and the lack of money to marry another wife (Changole & Ryan, 2019). Apart from what the participants in this study reported about their husbands’ blaming themselves for playing a role in their development of VVF, it was beyond the scope of this study to learn more about why the husbands chose to continue their marriages, as few participants suggested their husband as a family member to be interviewed. Compared to the findings reported in a previous study, the participants in this study did not report any verbal abuse. This could be explained by their ability to hide their condition or to isolate themselves from others.

Differences in Existing Literature

The findings from the study participants showed that these women sought alternative measures to treat their condition, such as going to a healthcare center or clinic.

However, their efforts to seek out treatment were in vain due to the long wait times or unavailability of doctors to perform surgical repairs. These findings are contrary to those reported in studies done in Ethiopia and Nigeria where researchers found that women first sought help from traditional healers before seeking medical care for their condition. The reasons given in the two studies included a lack of knowledge about a cure and cultural and religious beliefs (Changole et al., 2017). However, the findings in the present study are in line with the findings from a UNFPA (2017) study on obstetric fistula needs assessment in nine countries, including Malawi. In this study, the authors highlighted the lack of skilled surgeons as one of the major challenges in the management of obstetric fistula. Specific to Malawi, the researchers also reported high workloads of complicated cases and limited theater space, rendering fistula repair a lesser priority (Changole et al., 2017; Wall, 2016). The study in question predated the opening of the current Fistula Care Centre. This might also explain why most women who developed fistula before the establishment of the Fistula Care Centre lived with the condition for many years without repair. This may point to a larger issue regarding the need for trained professionals. There is a critical need to emphasize the need for effective monitoring of women in labor in medical training so that women are provided with the appropriate emergency obstetric care to prevent vaginal fistula from developing.

Other Findings

The findings from this study further showed that having VVF is stressful and a challenging condition and that the women affected try everything they can to cope with the condition. Drawing on the work of Lazarus and Folkman (2016), the participants with VVF exhibited both problem- and emotion-focused coping. In particular, the participants who adopted problem-focused coping were proactive about their condition and future. They cleaned themselves regularly, for example. However, some of the women chose simply to keep quiet, hoping the condition would go away.

In comparing these findings to those of other qualitative and quantitative studies, it is apparent that women with VVF choose coping strategies depending on their local setting. For example, in Nigeria, women choose what will improve their social outlook, and this can include bathing regularly, using old wrappers to form pads, or using perfumes and powder to cope with the urine smell.

Other studies on the coping responses of women with a fistula have also found that the women tended to maintain hygiene and cleanliness and were constantly padded (Changole & Ryan, 2017). Similar to what Ryan (2017) reported, the present findings showed that women with VVF drink and eat less, use various herbal remedies, and tend to be isolated. Further, the present study showed that women who adopted emotion-focused coping strategies felt shame and tended to avoid others, hid from the public, and maintained strict hygiene. The women lived in a state of self-enacted stigma, isolation, and rejection. They preferred isolation, did not attend social and religious functions, and felt it was not worth continuing to have sexual relations with their spouses. These findings are similar to what researchers have reported in other studies on other places in Africa, especially Ethiopia, Tanzania, and Nigeria (Changole, 2017; Wall, 2016). Women who are stigmatized live on the margins of society because of their isolation, smell, and embarrassment.

The experiences of the participants in this study supported the findings of UNPF (2017) regarding the series of events that take place in the lives of women with obstetric fistula. These findings apply in the Ugandan setting and in other countries in Africa where the experiences of women with a fistula have been studied (Muleta et al., 2015). For instance, in Tanzania, Mselle et al. **(year)** found that women living with VVF experienced a deep loss of bodily control, a loss of the social role of being a woman and wife, a loss of integration in social life, and a loss of dignity and self-worth. Similarly, a study from Ebonyi State, Nigeria found that women with VVF endured physical problems, including sores and blisters, due to constant wetness and friction, and that this affected their ability to participate in daily chores as women. Engender Health and the Women's Dignity Project in Tanzania also found that women with VVF experienced social, psychological, and economic problems following the physical symptoms of VVF.

Limitations of the Findings

Generalizability

A small sample size and the use of a convenience sample limited the ability of the study findings to be generalized and transferred to a larger population. This study had other limitations worth noting. The experiences reported here may not reflect the experiences of women who never reached the obstetric Fistula Care Centre in Abakaliki. Additionally, the findings may not reflect the experiences of women living with obstetric fistula in other countries where cultural contexts and gender norms may differ. Although there are significant gender disparities in Nigeria based on education and literacy rates, these disparities are not as pronounced as in other countries where obstetric fistula is prevalent. Furthermore, in this study I did not attempt to provide conclusions regarding the prevalence of VVF, but rather the phenomenological experience of those who suffered from this condition. Other studies have delineated the prevalence of the phenomenon, such as those conducted by the WHO (2016).

Face-to-Face Interviews and Social Desirability

Another limitation emerged while collecting the interview data. Participants tend to want to appear socially appropriate to researchers. This tendency may be addressed in part by instruments like computer-based surveys, where no face-to face interaction is required. Until more information is available from which to derive such surveys, however, computers are unlikely to be helpful in data collection, especially in rural areas. In the present study, I made every attempt to put the interviewees at ease and to provide unconditional acceptance that allowed the participants to open up to me.

Translation Between Igbo and English

Another limitation was in challenges with translation to and from English; context and subtext can be lost in translation. I am fluent in the Igbo language and conducted most of the interviews in the Igbo language. I made every attempt to confirm the reliability of the translations to and from English and to ensure that they reflected the actual meaning intended by all participants. Among other confirmatory strategies, I reconnected with the women to verify their statements after I had transcribed them.

Researcher Bias

A final limitation was the possibility of researcher bias. Analysis of the qualitative interview data required interpretation that may have entailed value judgments on my part as the researcher. While organizing the material, I made every effort to allow the participants to speak for themselves. Mitigation attempts included checking that the analyses were accurate and consistent with the intent of the participants. I also used reflexivity and bracketing to help reduce interviewer and interpretation bias. I therefore believe that I did everything to ensure this study's trustworthiness.

Recommendations for Future Research

I recommend larger studies on the effects of vaginal fistula in the lives of women in southeastern Nigeria to confirm these findings. The experiences of women in their own words have an emotional impact that statistics cannot. I hope that this and future studies will make policymakers more aware of the extent and severity of this problem and respond accordingly. As interventions are implemented, there is a role for further research to determine which interventions are most effective to increase spousal support for women battling vaginal fistula.

The literature review included several topics that have not been adequately addressed by other studies and that were beyond the scope of the present study as well. These topics included ways to transform the norm of men not supporting their wives with VVF, ensuring spousal support, and enlisting men. Another particular concern is that surgical techniques and postoperative care for obstetric fistula have not been extensively studied. Few clinical studies have ecamined this topic (Delamou et al., 2016), and the best practices have not been defined. This open doors for further research.

The Need to Encourage Spousal Support for Women with Vaginal Fistula

The importance of spousal support in coping with a devastating condition like VVF cannot be overemphasized. Spousal support can be a source of strength and self-confidence for women. In Malawi, Yeakey et al. (2016) reported high spousal and family support which encouraged the healthcare seeking and reintegration of affected women in their communities. Similarly, in Tanzania, Pope et al. (2017) reported an easy transition into their homes and acceptance in their communities after surgery for women with spousal and family support, as opposed to those with no support. Interventions to incorporate spousal support can also have considerable effects on a woman's mood and self-image. It is also notable that studies revealed that having spousal support is associated with having a plan to discuss obstetric fistula in the future. This suggests that women who feel supported by their spouses, families, and community may experience less stigma regarding fistula and an increased willingness to acknowledge this childbirth injury. For women receiving surgery for obstetric fistula, interventions to improve their health and social functioning may be highly beneficial.

Keeping Men Informed

Providing men with adequate information on the effects of VVF, self-management, and the availability of treatment and support for fistula can help ensure physical and emotional comfort for women with VVF (Dennis et al., 2016). Encouraging support from the husband is vital. The findings indicated that the experiences of women in this study were more varied than anticipated. It was beyond the scope of this study to confirm or refute what the participants reported about their spouses' reactions to their obstetric fistula, including their reasons for remaining in the marriage, abandoning it, or the source of stigma (Dennis et al., 2016). The anticipation of stigma by the participants in this study limited their social lives. The fear of stigma might have arisen from the participants' previous knowledge of social norms concerning bowel and bladder control, without considering an illness like fistula. This disregard might have also arisen from a lack of knowledge about the causes of fistula by both the women affected and their spouses. There is therefore a need to create awareness and to educate men, women, and their communities about the causes of obstetric fistula, its prevention, and treatment. This may help reduce all dimensions of stigma and consequently increase spousal support, bringing dignity and quality of life for women with VVF (Kirk et al., 2021).

A Commitment to Maternal Health Improvement

As vaginal fistula continues to be a neglected disease affecting a vulnerable and stigmatized population in southeastern Nigeria, a political commitment to making maternal health a priority with sustained resource allocation is crucial. This effort should include increased educational opportunities for men, women, and the community at large to increase awareness of VVF.

Recommendations

I recommend larger studies on the effects of vaginal fistula in the lives of women in southeastern Nigeria to confirm my findings. I hope that policymakers will be made more aware of the extent and severity of this problem and respond accordingly. As interventions are implemented, there is a need for further research to determine which interventions are most effective at increasing spousal support for women battling VVF.

Social Change Implications

Vaginal fistula leaves a woman physically, emotionally, financially, and socially traumatized (Sullivan et al., 2016). The lack of support not only from the husbands of women with VVF, but also their families and society, is the hardest consequence to bear psychosocially (Kirk et al., 2021). It is critical that women with VVF not be stigmatized and be allowed to participate in public affairs. Also, women with VVF should not be made to feel guilty about their condition. They must be given adequate support, and members of the public should be sensitized to the need to improve their interpersonal relationships with women with VVF.

The present study was the first to explore the effects of VVF in the lives of women in southeastern Nigeria. As such, this study added substantially to the pool of knowledge on this issue, which has received little public awareness or intervention. The study shed light on the need to gain spousal support for women with VVF. Without such information, it is difficult to set the stage to gain spousal support. Hopefully, these results will create much-needed awareness about the condition. This in turn will stimulate policymakers to rise to the challenge of enlisting men in maternal health issues, especially in matters of vaginal fistula.

Through this study, the potential for positive change in the lives of women with VVF and their families and communities is underscored by the importance of understanding community perspectives and intervening at the community level to increase community awareness and understanding of VVF in order to mitigate the social stigma. While community perceptions indicate an expectation that women with VVF feel stigmatized, the normative attitudes towards women with VVF were far more supportive than stigmatizing (Kirk et al., 2021). Men and women are becoming increasingly aware of and open to supporting women living with VVF.

Conclusion

The sample of obstetric fistula patients in Tanzania reported widely varying levels of social support from their partners and immediate and extended family members. My analysis indicated that although there were some prominent lapses in the support and empowerment of the participants in this study, the majority were generally supported by their partners and demonstrated remarkable resilience. The study findings demonstrate the challenges that women with VVF experience. These include physical challenges, such as wounds around the genitalia, bad smell, and incontinences of urine and feces. They also include psychosocial challenges like stigma and isolation, disrupted marital relationships, separation, divorce, loss of a baby. Finally, they included socioeconomic challenges like powerlessness, dependency, limited social support, financial constraints, profound poverty, and a loss of healthy years.

The findings of this study highlighted how poverty, illiteracy, women's dependency on their husbands, low status, traditional beliefs/practices, and limited prenatal care utilization combined to produce the problem of VVF in southeastern Nigeria. Women living with VVF cannot fulfill their social, familial, and personal responsibilities due to obstetric fistula challenges. The basic healthcare system in Nigeria is weak and insufficient to meet the essential obstetric care needs of women.

The key message in this study was that women with VVF reported varying levels of spousal support from their partners. As reported by Sullivan et al. (2016), spousal support is important for women's reintegration. Supportive partners are the last line of defense for women with VVF, and it is only the support of spouses and family members that can help women with VVF recover their lives and dignity. This study, therefore, recommends the need to enlist men into maternal health discussions to end the misconceptions that have arisen from a lack of knowledge about the causes of the condition itself.

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Appendix A: Demographic Information of Women

1. Initial or Number--------------------------

2. Age _____

3. Town and region of residence _________________

4. Marital status______________________________

5. Primary school education_____________________

6. Number of living childbirths____________________

7. Did your baby die when fistula was developed______

8. Occupation____________________________

9. Religious denomination_____________________________

10. Household income_________________________________

11. Number of years living with fistula______________________________.

12. Are you currently being treated for your fistula? ----------------------------

Thank you for participating in this research. If you have any questions or concerns about this interview, Kindly reach out to me and I will do my best to assist you. All information will be used to help understand the effect of vaginal fistula in the lives of women better.

Appendix B: Interview Questions for Women

Questions on experience and perception:

1. Please tell me how your fistula developed.

2. How did you find out that it was fistula?

3. What did you do about it?

4. Please describe your experience living with this condition.

5. Have your spouse been supportive since your VVF? If not, can you explain? If yes, can you explain?

6. What kind of support do you expect from your spouse?

7. Are there challenges you face from day to day after VVF repair? If yes: Probe: what kind of challenges?

Questions relating to participants' awareness:

8. Do you think that vaginal fistula is getting more common in your area? (if yes) why?

9. What would you say are the causes of vagina fistula?

10. Are you aware of things that can be done to prevent the condition?

11. Would you pass on this knowledge to other women to help them avoid having the same issues as you have?

12. What are the consequences of vagina fistula for women in southeastern Nigeria?

Specific question relating to the effect of fistula:

13. What are the effect of vaginal fistula for women in southeastern Nigeria?

Specific questions relating to the participants perceptions of barriers to care:

14. Tell me about your experience in seeking care for your fistula.

15. Was there anything that may have prevented you from seeking care? Did that change when you began leaking?

16. Is there anything that would have made you more likely to seek medical treatment before you experienced your fistula, for example receiving more information about the risk of fistula, hearing stories from other women that have given birth?

Questions about social support:

17. Tell me about people who are most important in your life.

18. How has the relationship with your spouse changed since you started leaking?

Questions about coping:

19. Tell me how you deal with your fistula.

20. After you have experienced vagina fistula, is there anything you would advise other women about childbirth and ensuring that they seek medical care?

21. Is there anything else you would like to tell me that has not been mentioned?

Thank you for participating in this research. If you have any questions or concerns about the way that your answers will be used, or any other problems, kindly call my attention and I will do my best to assist you. All information will be used to help understand the effect of vaginal fistula in the lives of women better.

Appendix C: Flyer -English Version

STUDY ADVERTISEMENT

Patients with obstetric fistula Needed!!!

I am looking for women with obstetric fistula to participate in 45 minutes to 1 hour taped interview concerning their experiences of living with the condition.

Confidentiality is my priority.

I am a PhD student in Public Health at Walden University in Minneapolis, Minnesota, USA conducting graduate research on the effect of vaginal fistula in the lives of women in southeastern Nigeria.

Who can Participate?

Patients of obstetric fistula who have lived with the condition for at least a year and are currently receiving treatment at the Fistula Women Hospital at Abakiliki, who can participate in 45 minutes to 1-hour audio recorded private interview.

Every patient who participates will receive a snack for participating in the study. Private interview location is secured.

Private interview location is secured

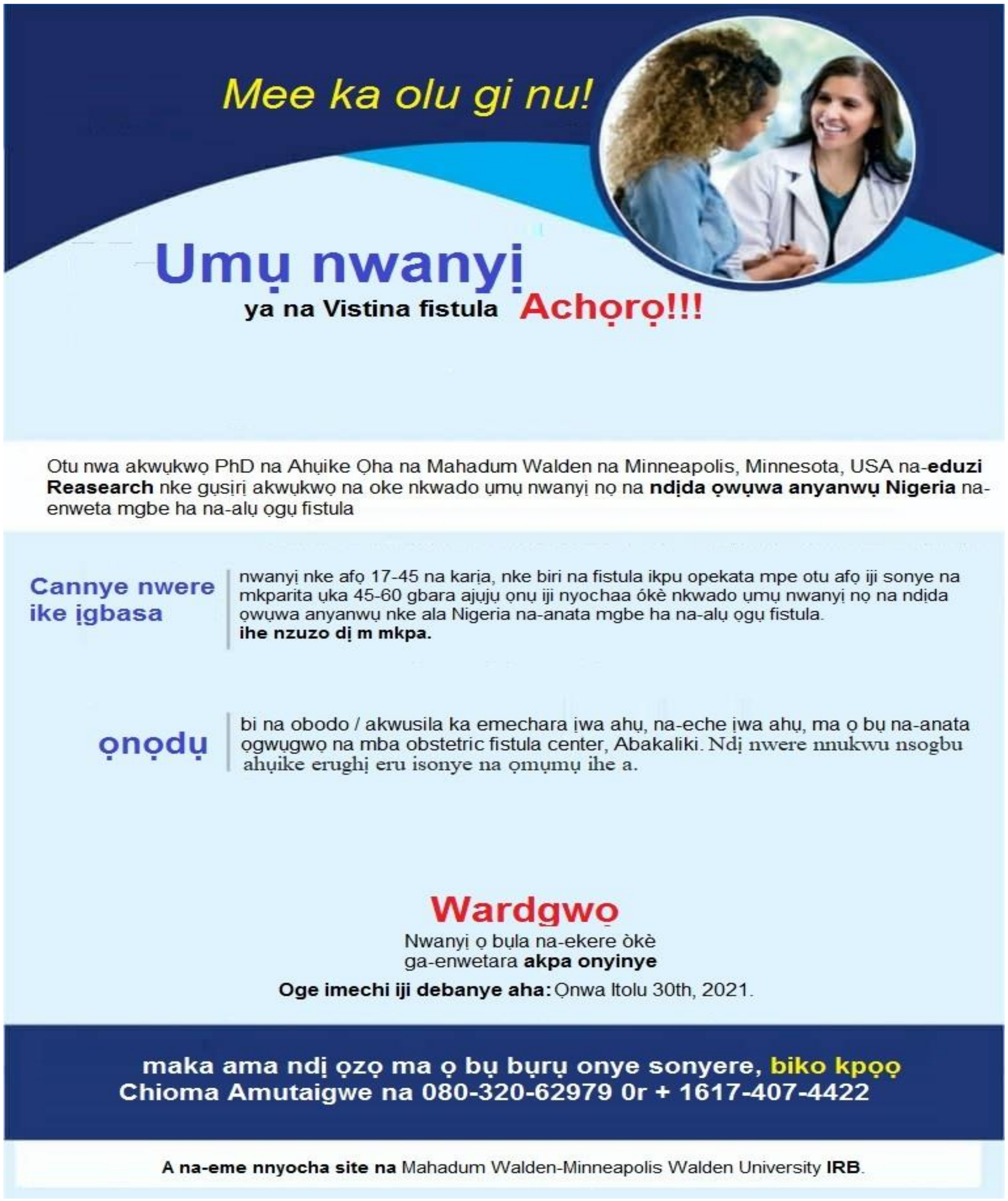
For more information or to become a participant, please visit the health Centre.

Deadline to enroll is August 10, 2021.

Make your voice heard!

Research is conducted through Walden University-Minneapolis Walden University IRB Approval # 07-02-21-0390346. It expires July 1st, 2022.

Appendix D: Flyer-Igbo Version



Mee ka olu gi nu!

Umụ nwanyị

ya na Vistina fistula **Achọrọ!!!**

Otu nwa akwụkwọ PhD na Ahụike Ọha na Mahadum Walden na Minneapolis, Minnesota, USA na-**eduzi Reasearch** nke gụsịrị akwụkwọ na oke nkwado ụmụ nwanyị nọ na **ndịda ọwụwa anyanwụ Nigeria** na-enweta mgbe ha na-alụ ọgụ fistula

Cannye nwere ike ịgbasa

nwanyị nke afọ 17-45 na karịa, nke biri na fistula ikpu opekata mpe otu afọ iji sonye na mkparita ụka 45-60 gbara ajụjụ ọnụ iji nyochaa ókè nkwado ụmụ nwanyị nọ na ndịda ọwụwa anyanwụ nke ala Nigeria na-anata mgbe ha na-alụ ọgụ fistula.
ihe nzuzo dị m mkpa.

ọnọdụ

bi na obodo / akwusila ka emechara ịwa ahụ, na-eche ịwa ahụ, ma ọ bụ na-anata ọgwụgwọ na mba obstetric fistula center, Abakaliki. Ndị nwere nnukwu nsogbu ahụike erughị eru isonye na ọmụmụ ihe a.

Wardgwọ

Nwanyị ọ bụla na-ekere òkè
ga-enwetara **akpa onyinye**

Oge imechi iji debanye aha: Ọnwa Itolu 30th, 2021.

maka ama ndị ọzọ ma ọ bụ bụrụ onye sonyere, biko kpọọ
Chioma Amutaigwe na 080-320-62979 0r + 1617-407-4422

A na-eme nnyocha site na Mahadum Walden-Minneapolis Walden University **IRB**.

Appendix E: Flyer-English Version

Make your voice heard!

Women Needed!!!

with vaginal fistula

A PhD student in Public Health at Walden University in Minneapolis, Minnesota, USA is conducting **Graduate Research** on the extent of spousal support women in **southeast Nigeria** recieve when contending with

Who Can Participate

Woman of 17-45 years and above, that have lived with vagina Fistula for least ONE YEAR to participate in 45-60 minutes taped interview to examine the extent of spousal support women in south eastern Nigeria recieve when contending with Vagina Fistula.

Confidentiality is my priority.

Conditions

Living in the community/ discharged after surgery, awaiting surgery, or receiving treatment at the national obstetric fistula Centre, Abakaliki . Those with serious medical condition are not eligible to participate in this study.

Reward

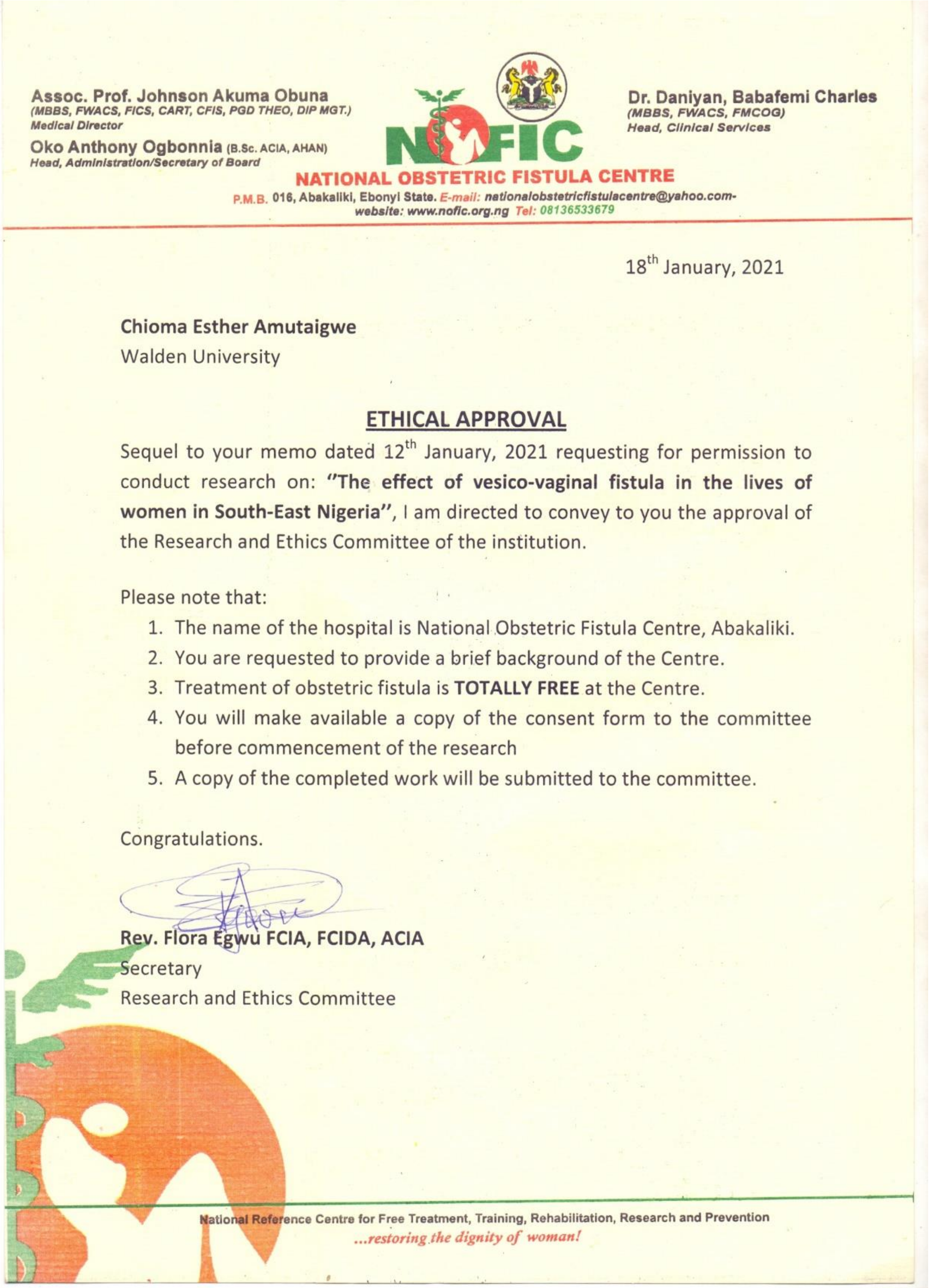
Every woman who participates will receive a Gift Bag

Deadline to enroll: September 30th, 2021.

For more information or to become a participant, Please call Chioma Amutaigwe at 080- 320-62979 or +1617-407-4422

Research is conducted through Walden University-Minneapolis Walden University IRB

Appendix F: Nigeria Ethics and Scientific Review Committee Approval Letter



Assoc. Prof. Johnson Akuma Obuna
(MBBS, FWACS, FICS, CART, CFIS, PGD THEO, DIP MGT.)
Medical Director
Oko Anthony Ogbonnia (B.Sc. ACIA, AHAN)
Head, Administration/Secretary of Board

Dr. Daniyan, Babafemi Charles
(MBBS, FWACS, FMCOG)
Head, Clinical Services

NOFIC
NATIONAL OBSTETRIC FISTULA CENTRE
P.M.B. 016, Abakaliki, Ebonyi State. *E-mail: nationalobstetricfistulacentre@yahoo.com-*
website: www.nofic.org.ng Tel: 08136533679

18th January, 2021

Chioma Esther Amutaigwe
Walden University

ETHICAL APPROVAL

Sequel to your memo dated 12th January, 2021 requesting for permission to conduct research on: **''The effect of vesico-vaginal fistula in the lives of women in South-East Nigeria''**, I am directed to convey to you the approval of the Research and Ethics Committee of the institution.

Please note that:

1. The name of the hospital is National Obstetric Fistula Centre, Abakaliki.
2. You are requested to provide a brief background of the Centre.
3. Treatment of obstetric fistula is **TOTALLY FREE** at the Centre.
4. You will make available a copy of the consent form to the committee before commencement of the research
5. A copy of the completed work will be submitted to the committee.

Congratulations.

Rev. Flora Egwu FCIA, FCIDA, ACIA
Secretary
Research and Ethics Committee

National Reference Centre for Free Treatment, Training, Rehabilitation, Research and Prevention
...restoring the dignity of woman!

Appendix G: Letter of Cooperation from National Obstetric Fistula Centre Abakiliki

Chioma Esther Amutaigwe
Walden University
Academic Offices: 100 Washington Avenue
South, Suite 900, Minneapolis MN 55401 10th August 2021.

Dear Ms. Chioma E. Amutaigwe,

Based on my review of your research proposal, I give permission for you to conduct the study entitled “The effect of vaginal fistula in the lives of women in southeastern Nigeria” within the National Obstetric Fistula Centre Abakiliki. As part of this study, I authorize you to visit the Centre, freely meet with obstetric fistula patients and their healthcare workers, display flyers, recruit participants, conduct interviews, and present the research outcome. Individual participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities include help in displaying flyers, granting access into the Centre, and providing a private room for the conduction of individual interview, and provision of a counselor throughout the research study. We reserve the right to withdraw from the study at any time if our circumstances change. The student will be responsible for complying with our site's research policies.

I confirm that I am authorized to conduct research in this setting and that this plan complies with the organization's policies. I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the student's supervising faculty/staff without permission from the Walden University IRB.

Yours Sincerely,

Johnson A. Obuna.

Senior Medical Director

National Obstetric Fistula Centre,

Abakaliki, Ebonyi State, Nigeria.

+234 813 653 3679.