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ANALYSIS OF PSYCHOSOCIAL AND ECONOMIC CONSEQUENCES OF VESICOVAGINAL FISTULA AMONG WOMEN IN KEBBI STATE, NIGERIA

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ABSTRACT

Vesicovaginal Fistula (VVF) is a debilitating medical condition resulting from unrelieved obstructed labour and early marriage, causing severe social, economic, and psychological effects on the health and wellbeing of women. This study analyses the psychosocial and economic consequences of VVF on women in Kebbi State. Using a purposive sampling technique, a total of 50 questionnaires were administered to women aged 15 years and older. Data were analysed using descriptive and inferential statistics. Pearson correlation analysis was employed to assess the degree of association between the variables. The results indicate that the psychosocial consequences of VVF, with r-calculated for stigmatization at .287* at a 0.002 alpha level, revealed significant effects across all variables on the demographic characteristics of the respondents. Similarly, the economic consequences of VVF, with r-calculated for insolvency at .200 at a 0.002 alpha level, also demonstrated substantial effects across all variables on the demographic characteristics of the respondents. Furthermore, the study established that the economic effects of VVF have more severe impacts on the demographic characteristics of the respondents than the psychosocial effects. It is recommended that the government, non-governmental organizations, and communities should provide more support, such as microcredit and social reintegration programs for VVF sufferers.

Keywords: Vesicovaginal fistula, VVF, Kebbi, Psychosocial, Economic consequences, Maternal health

INTRODUCTION

Historical perspectives indicate that Vesicovaginal Fistula (VVF) is an age-old condition that has existed since antiquity (Ozge, Adamu, Evelyn, Stanton, 2013). This ailment represents a widespread issue globally (Wall, Karshima, Kirschner, Habib & Arrowsmith, 2010). Continuous, irresistible, and persistent leakage of urine can lead to life-changing circumstances for women, especially in resource-poor countries. Women and girls continue to endure a miserable and incredible life of shame and embarrassment (Wall, 1996). VVF is a gender-based misfortune associated with women and girls during childbirth, particularly when it results from unrelieved obstructed labor and early marriage (Wall et al., 2010).

Nigeria is one of the West African countries with a high backlog of VVF cases, contributing approximately 0.14% to the global backlog. The annual VVF prevalence in the country is currently estimated at 2.11 per 1000 births (Umoiyoho and Inyang-Etoh, 2012). Estimates reveal that approximately 33,000 new cases of VVF occur yearly in Sub-Saharan Africa. Nigeria has over 20,000 new cases added annually to the vulnerable population of unrepaired cases (Zipporah, Ogutu, Kibe, 2014). VVF is a complex maternal health issue causing devastating health problems for women. The continuous and uncontrollable leakage of urine from a woman's private parts can cause life-changing circumstances in many societies—a problem eliminated in the developed world in the last century (Karen M. Roush et al., 2009).

This study broadly examines the psychosocial consequences of VVF, covering the emotional and social experiences of VVF patients, ranging from stigmatization and rejection to societal isolation. These women often face depression, frustration, divorce, or separation from their husbands or sexual partners, grief from the loss of their babies, and total despair due to offensive odors and loss of sexual libido and orgasm (Kees, 1995). Other psychosocial consequences associated with the menace include feelings of shame and lack of sexual pleasure or satisfaction (Shittu, Ojengbede, Wara, 2017). Psychological effects observed include lack of self-esteem, anxiety, and suicidal thoughts, which profoundly demoralize their marital stability (Pope, Bangser, & Requejo, 2011).

The economic consequences of VVF refer to the fiscal impact on women, measured in terms of decline in wealth, income, loss of occupation, insolvency, and dependence on relatives (Samaila, 2013). VVF patients are often economically unable to work because they cannot stay in public like other employees. They may lose their jobs due to their inability to perform economic tasks. Similarly, the inability to engage in gainful activities can push women further into poverty, affecting their economic performance (Fasakin, 2007).

According to the NDHS (2008), the total fertility rate in Kebbi State is 8, which is above the national average. The age at first marriage in the State is 13 years, and most girls become pregnant by 14 years. The existence of Gesse VVF Centre in Birnin Kebbi, Kebbi State, supports the assertion that there are many VVF cases in the State, but the precise figure is unknown for the state, and only a comprehensive survey can reveal the exact extent of the ailment. However, estimates indicate that since its operation from 2005 to date, approximately 1,090 women state-wide are living with VVF according to the centre, with about 15-50 new cases occurring each year (Gesse VVF Centre report 2019). This figure is debated because the condition is far from being completely studied due to the shame that discourages women from reporting the incidence. The high incidence indicates that vaginal fistula is a substantial health issue that the government has failed to address (Samaila, 2013). In 2018, more than 250 maternal deaths were reported per 100,000 live births, and women who survive complications associated with childbirth often suffer from long-term disabilities, with VVF being a prominent issue. Patients not only grieve from frequent and persistent physical discomfort, but the condition also negatively impacts their emotional and economic well-being.

Many VVF victims suffer from shame, embarrassment, and humiliation in communities where a woman's social status depends on her role in childbearing. The economic hardships that may follow include income decline, job loss, insolvency, and dependence on relatives.

In view of this, the United Nations has set aside May 23 each year to mark Fistula Day, a critical step towards addressing this health problem and highlighting the importance of women's health in the transformation of human society. Therefore, it is crucial to study the various causes and consequences of VVF as planned by the Nigerian Ministry of Health, which aims to eliminate VVF by the year 2023.

This study focuses on the VVF center at Gesse in Kebbi State, where the data were collected. However, the literature reviewed shows that research on the analysis of the psychosocial and economic consequences of VVF among women in Kebbi State is lacking, with only limited studies available on the causes, risk factors, knowledge, attitude, and awareness of VVF in the State. Muhammed (2011) and Samaila (2013) are the only scholars who attempted to quantify the psychosocial and medical consequences of VVF in Kano and Bauchi State. None of the reviewed literature conducted in the study area attempted to analyze the psychosocial and economic consequences of VVF in Kebbi State, which is the knowledge gap this research intends to fill.

This study aims to analyze the psychosocial and economic effects of VVF on women in Kebbi State. Specifically, the research seeks to analyze psychosocial consequences such as stigmatization, isolation, depression, anxiety, and divorce among women. Regarding economic consequences, the study examines variables such as job loss, income decline, loss of dignity, and dependence on relatives among respondents.

Scope

This research investigates the psychosocial and economic consequences of Vesicovaginal Fistula (VVF) among women treated at Gesse VVF Centre in Birnin Kebbi and Shukura Clinics. The study aims to understand both the immediate consequences experienced by women within a three-month period and the long-term impact based on data from 2011 to 2020.

MATERIALS AND METHODS

Study Design and Sampling

This is a descriptive cross-sectional study intended to analyze the psychosocial and economic consequences of Vesicovaginal Fistula (VVF) on women in Kebbi State. The study population consists of VVF patients currently in treatment and those who have recovered after surgery at Gesse VVF Centre in Kebbi State. Purposive and snowball sampling techniques were used to select respondents. Data collection instruments included a questionnaire and in-depth interviews (IDIs) developed by the researchers. The questionnaire was self-administered, while two trained female research assistants conducted interviews for non-literate respondents.

VVF patients who were in beds and those who had recovered after surgery were carefully chosen for interviews. The sample size was drawn from the combined records of repaired VVF, RVF, and Gishiri cut cases at Gesse VVF Centre from 2011 to 2020. Due to time constraints and the stigma associated with the condition, it was challenging to obtain the required sample size. Consequently, snowball sampling was employed to reach the necessary number of respondents. Therefore, purposive and snowball sampling techniques were used to interview patients, making the available number of respondents sufficient for the research.

Study Participants

Fifty women with Vesicovaginal Fistula (VVF), including those who had been repaired, were unrepaired, and those recovering from surgery, participated in the study. Both repaired individuals and those awaiting surgery experience different psychosocial and economic situations related to VVF. Approximately seven patients refused to participate in the data collection, resulting in a total of 57 participants. The majority of respondents were purposefully selected, while the remaining were recruited through the snowball sampling method. Women who had recovered from Gesse VVF Centre were traced through a network of friends, including their sisters experiencing the condition at home, and were requested to participate in the study. These women had previously been diagnosed with VVF but had not yet become economically active, irrespective of their age and the duration of living with the condition.

In addition to questionnaires, data was collected through in-depth interviews (IDIs) and focus group discussions (FGDs). IDIs were conducted with seven key informants per participant, who were selected based on their knowledge of the participant's condition and involvement in her care. FGDs, comprising 6 participants each, were conducted with 4 groups of women who shared similar experiences with VVF.

Data analysis

Quantitative and qualitative data analysis was carried out following the data collection procedures. All interview data were transcribed and translated from Hausa to English by the researcher and two translators. Two transcripts were reviewed by an English teacher to ensure the meanings were not changed during translation, and no significant differences were observed. The researcher edited and checked all transcripts against audio recordings to ensure accurate transcription and translation. The process was guided by a thematic analysis approach that was deductive in nature. Previous studies and literature provided information on how VVF patients perceived the psychosocial and economic consequences of VVF, allowing themes to emerge directly from the data using inductive coding. Spearman and Pearson correlation analyses were used for quantitative inferences.

RESULTS AND DISCUSSION

Socio- economic Characteristics of the Respondents

The socio-economic characteristics of the respondents are presented in Table 1. The majority (32) of respondents acquired VVF through home delivery, particularly within the age range of 15-19. The highest frequencies were observed among married women, indicating that a significant proportion entered marital union early, potentially contributing to the high incidence of VVF due to early marriage. This finding aligns with Samaila's (2013) research on the "psychosocial and medical consequences of VVF," which reported that 45% of VVF patients were young girls with early marriage and prolonged labour. The National Taskforce on VVF (2015) also supports this observation, noting that about 83% of girls in Nigeria acquire VVF due to early marriage between the ages of 14 and 19.

Regarding parity, approximately 26.6% of respondents reported acquiring VVF through home delivery, primarily within the age bracket of 15-19. Across all age groups, home delivery emerged as the leading factor in the causes of VVF, followed by caesarean section. This pattern may be attributed to the negligence of women in utilizing Antenatal Care (ANC) services, particularly within the age group of 15-19, where poor attitudes towards ANC contribute to a high percentage of maternal complications, including VVF.

In contrast, women aged 40 and above exhibited the least percentage (1.6), irrespective of home delivery or caesarean section. This suggests that the prevalence of VVF cases among the age group 15-30 could be linked to early marriage and home delivery, whereas the age group 40 and above, characterized by delayed or postponed marital unions until maturity, showed a lower incidence. Therefore, it implies that age at marriage and home delivery are the two leading causes of VVF compared to caesarean section.

Table 1: Socio-economic Characteristics of the Respondents

Age at Marriage	Parity Freq. %	Age at Pregnancy Freq. %	Birth order of VVF	ANC at least attended once	Type of delivery	Number of days in labour	Years/month (m) with fistula
15–19	17 (26.6)	16 (32)	41	NO	Home	4	12M
20–24	15 (25.0)	14 (28)	1	NO	Home	2	12M
25–29	13 (21.6)	11 (22)	1	Yes	CS	1	10M
30–34	12 (20.0)	6 (12)	2	Yes	Home	1	1M
35–39	1 (1.6)	3 (6)	1	Yes	CS	1	1M
40–44	1 (1.6)	0 (0)	1	Yes	Home	1	1Year
45–49	1 (1.6)	0 (0)	1	Yes	Home	1	1Year

Source: Field survey 2023

Different participants buttress this during data collection. An in-depth interview (IDI) with one household at Gesse VVF Centre in Birnin Kebbi LGA stated that:

"Pregnancy is biologically related to those who are matured and physiologically competent enough to conceive, if I did not get married at age 13, I would not engage in sex, and I would not be pregnant, look at me I still look like a girl who should not think about getting marriage until the next 10 years. Marriage at early age is not a good practice". (Woman from Zuru LG, on 11th Oct. 2021).

Similar finding was observed in a study carried in Niger, where despite majority of women suitably identify home delivery as the leading cause of VVF, some women relate the condition to caesarean section and preferred not to undergo further operation in their subsequent pregnancies.

Table 2: Summary of correlation matrix on variables associated with psychosocial consequences of VVF

Variables	R-cal.	R- tab	Significant level
Stigmatization	.287*	0.001	Significant
Anxiety	.-220	0.005	Significant
Depression	.231*	0.001	Significant
Loss of dignity	.-213	0.001	Significant
Divorce	.217*	0.000	Significant

Source: Field survey 2023

Table 2 shows the r-calculated values for the psychosocial consequences of VVF, with significant results for stigmatization (-.287*), anxiety (-.220), depression (.231*), loss of dignity (-.213*), and divorce (.217*) at a 0.001 alpha level. This implies a strong relationship between these variables and the demographic characteristics of the respondents.

The r-value of -.287* for stigmatization suggests a strong negative correlation between stigmatization and the demographic characteristics of the respondents. This indicates that higher levels of stigmatization are associated with lower levels of education and other demographic factors. Stigmatized individuals often experience significant social and psychological distress, which can severely impact their quality of life. This finding is consistent with Samaila's (2013) study, which reported that 71% of respondents experienced stigmatization from their husbands and relatives.

Anxiety, with an r-value of -.220*, shows a strong positive relationship with the demographic characteristics of respondents. This suggests that higher levels of anxiety correlate with changes in socio-economic well-being. Women with VVF often experience anxiety due to their condition, leading to social and economic challenges. This aligns with Lita's (2008) findings, which highlight the severe psychological impact of VVF on women.

The r-value of .231* for depression indicates a strong positive association between depression and the demographic characteristics of respondents. This suggests that as depression increases, the socio-economic characteristics of respondents are adversely affected. Women with VVF often experience significant emotional distress, as highlighted by UNFPA (2005) and Hamlin & Nicholson (1966), who reported that VVF patients often suffer from severe depression and social isolation.

Loss of dignity and divorce, with r-values of -.213* and .217* respectively, both show strong correlations with the demographic characteristics of respondents. Women with VVF often face rejection and humiliation from their families and communities, leading to social isolation and divorce. Roush (2009) reported divorce rates as high as 89% among women with VVF, highlighting the severe social consequences of this condition.

Offensive odor, with an r-value of .321*, has a significant positive correlation with the demographic characteristics of respondents. This indicates that the physical symptoms of VVF, such as offensive odor, can lead to severe social and psychological consequences, including rejection by family and community members. Zeinab (2010) found similar results in her study, noting that women with VVF were often denied the ability to perform household chores due to their condition.

In general, across all variables under psychosocial and economic consequences of VVF, strong positive relationships exist on the demographic characteristics of respondents.

Table 3: Summary of correlation matrix on variables associated with economic consequences of VVF

Variables	R-cal	R- tab	Significant level
Insolvency	.200*	0.000	Significant
Decline in income	.108*	0.002	Significant
Dependent on relative	.561*	0.000	Significant
Social exclusion	.571*	.0.002	Significant
Loss of job	.551*	0.001	Significant

Source: Field Survey, 2023

Table 3 shows the r-calculated values: .200*, .108*, .561*, .571*, .551* across insolvency, income decline, dependence on relatives, loss of dignity, and loss of jobs at the 0.002 alpha level. These values reveal strong positive relationships across all variables under the economic effects of VVF on the demographic characteristics of respondents. Thus, increases in the intensity and severity of the economic consequences of VVF bring about changes in the demographic characteristics of respondents. This may translate to their custom of early marriage before observing their first menstruation period. Conclusively, the ravaging economic consequences of VVF among patients are more severe and devastating than the psychosocial consequences of VVF. This is similar to the work of Changole et al. (2017) on "I am a person; experience of women living with obstetric fistula in the central region of Malawi," where 68% of VVF patients reported that after losing their jobs, their economic conditions worsened and the ability to even access VVF-related care became challenging.

The correlation matrix displayed in Table 3 shows that insolvency, as an economic consequence of VVF, revealed strong positive relationships with r = .200* at the 0.000 level of significance. This implies that women with VVF became indebted due to the cost of treatment, which invariably affects their socio-economic and demographic status. This led to the inference that increases in the severity of VVF due to insolvency among sufferers would directly cause changes in the socio-economic well-being of the respondents. The inability to pay debts is considered painstaking and the most felt economic consequence since it is through occupation that one can raise money and pay debts incurred during VVF treatment. This is observed in light of the source of income of women and the debts one acquires due to economic hardship caused by VVF. Correspondingly, many women were left struggling, assuming that they have no role to play in the family or community. The feeling of being useless seemed pervasive, with many writhing in self-contempt due to the unhygienic nature of the morbidity, and hence their income deteriorates. The malodorous nature of VVF makes affected women plunge into extreme poverty and liquidation. Insolvency directly reduces women's capacity and prospects for a better standard of living. The inability to work is a great obstacle to progress for almost all VVF patients. Consequently, because they could not farm, they survive by taking credit or borrowing money to overcome their condition, which greatly contributes to the women's insolvency. This is in line with the findings of Ahmed and Holtz (2007) in a paper "Social and Economic Consequences of Obstetric Fistula, Life Changes," where 56% of VVF respondents reported insolvency as the most felt economic consequence of VVF, causing untold hardship and abject poverty.

Dependence on relatives under the economic consequences of VVF, with r = .561* at the 0.000 level of significance, shows a strong positive correlation. Correspondingly, income decline under the economic consequences of VVF, with r = .108* at the 0.002 level of significance, indicates a very strong positive correlation. This suggests that as the income of women declines due to VVF, their demographic characteristics would adversely change. This led to the conclusion that a decline in income among VVF victims is directly proportional to changes in their socio-economic and demographic characteristics. Financial independence brings not only freedom but also joy and self-esteem. The inability of VVF patients to carry out domestic chores or earn a living through employment alters their lives and makes them dependent on relatives for survival. Family members support them with guidance and counselling as well as assisting in household chores. Since women living with VVF cannot involve themselves in other economic activities, they become more dependent on relatives. Women who used to earn money on their own failed solely, relying on their husbands or relatives. Furthermore, the majority of the respondents are financially disadvantaged, living below the poverty line of one dollar per day. They end up being dependent on relatives and therefore live at the mercy of their relatives to provide for their daily needs. This finding corresponds with the World Health Organization's assertion that pervasive poverty is an important underlying cause of vesicovaginal fistula. This is also similar to the work of Ajuwon (2004) on "Vesicovaginal Fistula in Nigeria: Extent of the Problem and Strategies for Prevention and Control," where 61% of VVF patients were found dependent on relatives for survival, with family members assisting in medication and other domestic chores.

Furthermore, loss of jobs under the economic consequences of VVF, with r = .551* at the 0.001 level of significance, also shows a very strong positive correlation with the socio-economic and demographic characteristics of the respondents. This suggests that as women lose their jobs due to VVF, their demographic characteristics adversely change. Job loss is considered the most impactful economic consequence because it is through employment that women can raise money. This is evident in the light of the employment or occupation of women. Women with VVF are likely to be detected and sent away from their jobs because the odour emanating from them will affect other employees. Even if they are self-employed as traders and artisans, people may not patronize them. Given the previously high level of poverty, job loss will painfully reduce the capacity of VVF patients to earn money, hence affecting their economic position at household and societal levels. This is in conformity with the work of Changole et al. (2017) on "I am a person but not a person: Experience of women with obstetric fistula in the central region of Malawi," where 68% of VVF patients reported that after losing their jobs, their economic conditions worsened and the ability to even access VVF-related care became challenging.

Similarly, social exclusion under the economic consequences of VVF, with r = .571* at the 0.002 level of significance, shows a very strong positive correlation. This led to the conclusion that the majority of the respondents isolate themselves from gainful activities due to the ravaging economic consequences of VVF.

CONCLUSION

The study revealed that 32% of the respondents are within the age range of 15-19. Married women have the highest frequencies among the respondents, suggesting that most respondents embrace marital union early, and prior to maturity. It also implies that a large percentage of respondents acquired VVF due to early marriage, followed by the custom of home delivery due to teenage pregnancy.

The Pearson correlation analysis, with r = .712* at the p=0.001 level of significance across all variables under psychosocial effects of VVF, revealed a strong positive effect on the demographic characteristics of respondents. It implies that an increase in the intensity and severity of the psychosocial effects of VVF brings about changes in the socio-economic well-being of VVF patients. This leads to the conclusion that psychosocial consequences of VVF, such as stigmatization, depression, anxiety, divorce, and loss of dignity, have more devastating effects on the demographic characteristics of the respondents.

Similarly, Pearson correlation analysis with r = .766* at the p=0.001 level of significance for economic consequences of VVF also indicates a strong positive effect on the demographic characteristics of the respondents. This leads to the conclusion that the ravaging economic effects of VVF, such as loss of jobs, income decline, insolvency, dependence on relatives, and social exclusion, significantly bring about changes in the economic well-being of the respondents. In comparison, the economic effects of VVF have more severe penalties on the victim compared to psychosocial effects. This leads to the conclusion that the majority of the respondents endured several forms of economic hardship more than social isolation, anxiety, or depression as psychosocial consequences of VVF. Although other respondents grieved with anticipated stigmatization due to disgusting urine leakage and hence being humiliated or embarrassed, they cope with the condition by living in isolation and trying to shun social gatherings and marketplaces, which in turn devalued their economic status.

RECOMMENDATIONS

The condition of VVF is complex, and a single-handed method is insufficient. A combination of methods and procedures is required to prevent its occurrence. There should be a well-structured, collective, and harmonized approach involving government, non-governmental organizations (NGOs), community service organizations, and the private sector. These entities should mobilize massive awareness campaigns on radio, television, and in newspapers to educate the public about the causes, effects, treatment facilities, and personnel available for VVF patients.

The government should promote micro-credit schemes to empower women economically. This initiative will enable them to access medical care and minimize the economic consequences of VVF, which often lead to high levels of poverty and the dependency of women on their husbands and other relatives.

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