DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20230775

Original Research Article

Obstetric fistula and related factors: assessing pattern and quality of life among women in Southwest Nigeria

Adebukunola O. Afolabi*, Mary T. Bifarin, Gladys O. Oluwasanmi, Munirat O. Oladokun, Helen F. Fatoke, Abigail A. Abioye, Lauretta S. Daramola

Clinical Nursing Services, Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Nigeria

Received: 23 February 2023 Accepted: 15 March 2023

***Correspondence:** Adebukunola O. Afolabi, E-mail: bukieafolabi@yahoo.com

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ABSTRACT

Background: Obstetric fistula remains major contributor to maternal morbidity in low resource countries. Study examined quality of life and related factors among women with obstetric fistula in Southwest Nigeria.

Methods: A cross-sectional study, involving 159 purposively selected women receiving care at the fistula centre, Wesley Guild Hospital, Ilesa, Southwest Nigeria. An adopted interviewer-administered World Health Organization Quality of Life Scale, WHOQOL-BREF was employed to examine quality of life. Data was processed and analyzed using IBM statistical product and service solutions (SPSS) software version 25. Analysis was done at univariate, bivariate and multivariate levels. Fisher's exact, Analysis of Variance, Independent t-test and Regression analysis examined association and significance, p<0.05.

Results: Findings shows that 64.20% of the women had vesicovaginal fistula, 17.60% had rectovaginal fistula, 10.70% had uterovaginal fistula while 7.5% had ureterovaginal fistula. The mean scores for physical, psychological, social relationship and environmental health domains were 48.92 ± 14.89 , 39.91 ± 17.42 , 68.71 ± 30.85 , 42.75 ± 18.60 respectively. Overall quality of life had mean score of 19.89 ± 26.51 while 82.4% of the women had low quality of life, 2.5% had moderate and 15.1% had high quality of life overall. Regression analysis shows significant association between low quality of life and primipara (p=0.002, RRR=32.55, CI=3.73-284.19), multipara (p<0.001, RRR=23.20, CI=5.12-105.13), middle socio-economic status (p=0.02, RRR=4.62, CI=1.29-16.59).

Conclusions: Significant proportion of the women studied had low quality of life. Parity and socio-economic status were main predictors of quality of life. Holistic management of obstetric fistula should take cognizance of these variables for optimal outcomes.

Keywords: Obstetric fistula, Quality of life, Women, Nigeria

INTRODUCTION

Obstetric fistula remains significant public health challenge and major contributor to high incidence of maternal morbidity especially in low resource countries.^{1,2} Globally, obstetric fistula is one of the serious and distressing maternal morbidities associated with enormous medical and psychological burden.³ This condition is caused by prolonged obsstructed labour due to cephalopelvic disproportion which results in increase pressure on

the pelvic tissues with subsequent ischemia and tissue necrosis leading to fistula formation.^{4,5} This could ultimately results into life-long disabilities and poor quality of life of affected women if appropriate management is not instituted.^{6,7} The incidence of obstetric fistula remain low in developed countries due to advancement and improvement in obstetric and reproductive health care while it remains one of the leading cause of maternal morbidity in middle and low income countries.⁸ Globally, over, 2 million women lived with

obstetric fistula out of which majority are recorded in Sub Sahara Africa and South Asia with an estimated 50,000-100,000 new cases reported yearly where the health system is ineffective, inefficient and inaccessible while Nigeria accounts for about 40% of the global record.^{3,4}

The Nigeria Demographic Health survey, NDHS reported that the prevalence of obstetric fistula is 0.4%.⁹ Higher prevalence was however recorded in Northern Nigeria than in the southern Nigeria; for instance, North-central Nigeria recorded 0.8%, North-east 0.5% and North-west 0.3%. South-south Nigeria recorded 0.5%, South-east 0.3%, South-south Nigeria recorded 0.5%, South-east 0.3%, South-west 0.2%. Recent estimate on obstetric fistula in Nigeria shows that the prevalence of obstetric fistula was 3.2 per 1000 births (0.32%) while about 13,000 new cases has been estimated to occur annually.^{10,11} However, there have not been reliable large scale prospective studies to provide reliable data on the incidence of obstetric fistula in Nigeria.¹¹

Consequently, women with obstetric fistula experience varying degree of stigmatization including physical abuses, social, psychological and economic deprivation, mental breakdown and marital abuses.¹² The commonest clinical presentation among women with obstetric fistula include fecal or urinary incontinence causing serious challenges to self-care and hygiene in addition to physical discomfort leading to the alteration to way of life and general wellbeing.^{13,14} Additionally, varying degree of clinical presentations of obstetric fistula and related factors could explain the different clinical types, treatment outcomes and prognosis prevalent across regions; for instance, a systematic review of data from sub-Saharan Africa and the Middle East reported that rectovaginal fistula accounted for 1-8% of cases of obstetric fistula, vesicovaginal fistula accounted for over 79% while combined vesicovaginal and rectovaginal fistulae accounted for 1-23% of cases.15

The commonest causes of obstetric fistula in low and middle income countries (LMICs) include obstructed labour from cephalopelvic disproportion, inadequate access to timely, skilled and quality intrapartum and postpartum care, radiation therapies, uterine prolapse, cultural practices like female genital mutilation (otherwise known as gishiri cuts) and early girl child marriage, surgical complications from caesarean section and hysterectomies, poverty, inability of a woman to make reproductive health choices and decision and pathophysiology illiteracy.¹⁶ Consequently, the of obstetrics fistula in developing countries is mainly from complications of prolonged/obstructed labour (97%) resulting from pressure exerted by the foetal head against the vaginal wall leading to necrosis of tissues thus leaving abnormal communication between the vagina and the surrounding.17

Existing literature showed negative experience of women living with obstetric fistula such as high rate of divorce, stigma, lack of support, depression, suicidal thoughts and self-isolation, husband abandonment and fear of the future ^{13,14}. In addition, women with fistula may be blamed by their community members and often consider the condition as punishment for sins or curse/spells from the gods.¹⁸ Such women are usually unable to participate in religious and social gatherings because they are considered spiritually unclean.¹⁹ Quality of life is an important concept in nursing and a multi-dimensional construct that takes into account issues related to health, personal characteristics, social relationships and socioeconomic status of an individual as well as family.^{20,21} It has been described as a sense of general wellbeing and satisfaction and individual's perceptions of their position in life in the context of culture and value system in which they live in relation to their goals, standard, expectations and concerns.²² Researchers reported negative impact of quality of life among women living with obstetric fistula Improving the quality of life among this category of women is important for symptom relief, self-care and rehabilitation which have been suggested to improve general wellbeing.^{23,24} In Nigeria however, there are 16 obstetric fistula centres comprising 4 centres in Northeast, 6 centres in Northwest, 2 in North central, 1 centre in Southeast and 3 in the Southwest. The 3 obstetric fistula centres in Southwest Nigeria are situated at Adeooyo hospital, University college Hospital, and Wesley Guild Hospital of Obafemi Awolowo University Teaching Hospital, Ilesa. The obstetric fistula centre of the Wesley Guild Hospital of Obafemi Awolowo University Teaching Hospital, Ilesa was established in the year 2019.¹¹ Most studies done in Nigeria on obstetric fistula focused mainly on the burden and incidence of obstetric fistula.1 Evaluation of the quality of life of women affected by obstetric fistula therefore remain vital towards effective nursing care and general wellbeing of this category of women. This study aimed at identifying pattern of obstetric fistula in women, examining the quality of life of women with obstetric fistula and related factors in Wesley Guild Hospital, Ilesa, Southwest Nigeria.

METHODS

Variables

Primary outcome variable: Quality of life of women with obstetric fistula. Independent variables: selected demographic variables of women with obstetric fistula.

Study design, setting and population

Study was descriptive cross-sectional study conducted between February and May 2022. Study was conducted in Fistula Centre, Wesley Guild Hospital, Ilesa, Osun state, Southwest Nigeria. Wesley Guild Hospital, Ilesa is a unit of the Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Osun state, Southwest Nigeria. The Fistula Centre, Wesley Guild Hospital, Ilesa, established in 2017 is an 18-beded facility, staffed with 3 gynaecologists, 8 nurses and 6 health attendants at its establishment. Since its establishment in 2017, the centre has successfully managed 89 cases in 2017, 54 in 2018, 37 in 2019, 12 cases in 2020 and 47 in 2021 giving a total of 239 case of obstetric fistula. The Centre serve as referral centre for hospitals in south-west Nigeria. Study involved women receiving care for obstetric fistula at the Fistula Centre, Wesley Guild Hospital, Ilesa, Southwest Nigeria.

Sample size estimation for quantitative study

The Taro Yamane method for sample size calculation estimated sample size:

$$n = N / 1 + N (e)^2$$

Where n = estimated sample size, N = sample frame (population under study), e = margin error (given as 0.05). Given that the total number of women with obstetric fistula who enrolled for treatment at the Wesley Guild fistula centre since its establishment between 2017 and 2021 was 239. n= N / [1 + N (e)2], n= 239 / [1 + 239 (0.05) 2], n = 239 / [1 + 39 (0.0025)], n = 239 / 1.598 = 149.6 (minimum estimated sample size). With 10% attrition rate, sample size was 165.

Sampling technique

Participants were purposively selected among women with obstetric fistula who enrolled for treatment in Wesley Guide Hospital, Ilesa. Selection of participants continued until the estimated sample size was attained.

Research instrument

An interviewer-administered questionnaire was used for data collection. The questionnaire contain sections A and B. Section A contains demographic characteristics of women with obstetric fistula, while section B was adopted Word Health Organization Quality of Life Scale, WHOQOL-BREF ²⁵ which examined the quality of life of women with obstetric fistula. The WHOQOL-BREF ²⁵ contains 2 items which assess women's overall quality of life and 24 items which are sub-divided into four domains namely: Physical health with 7 items designated as domain1, psychological health with 6 items (domain2), social relationships with 3 items (domain3) and environmental health with 8 items (domain4). The four domains denote an individual's perception of quality of life.

Validity and Reliability of the instrument

The WHOQOL-BREF is a standardized scale whose validity and reliability have been established.^{7,24,26–29}.

Data analysis

The primary outcome variables in this study was the quality of life of women with obstetric fistula was assessed using section B (Adopted from WHOQOL-BREF, 2012) of the questionnaire. The independent variables include

selected demographic characteristics of women. These are characteristics that were observed in previous studies to influence quality of life of women with obstetric fistula.7,24,29,30 Women's socioeconomic status was evaluated as a composite variable using mother's education level, employment status and average monthly income.31 Women who had no formal education scored 1 point, primary education scored 2 points, secondary education 3 points, while women who had tertiary education scored 4 points; women who were unemployed scored 1 point, while women who were employed (selfemployed, Government or employed in the private sector) scored 2 points. Women who receive less than 30,000 Nigerian Naira (about US\$ 24); the minimum wage in Nigeria at time of this study were scored 1 point while mothers who earned ≥30000 Nigerian Naira scored 2 points. All scores were summed up to a minimum of 3 points and a maximum of 8 points. Mothers who scored a total of 3-4 points were categorized as low socioeconomic status, 5-6 points were categorized as middle socioeconomic status, while 7-8 points were categorized as high socioeconomic status. Women's quality of life was assessed using the WHOQOL-BREF scale. Each item of the WHOQOL-BREF was rated on a 5-point Likert scale and scored 1 to 5 on the response scale. Raw domain scores for the WHOQOL items were transformed to a 4-20 score according to the WHO guidelines.²⁵ The domain scores were scaled in a positive direction with higher scores denoting higher quality of life. The mean scores of items within each domain were then transformed linearly on a scale of 0-100. The transformed scores were used for statistical analyses of the four domains and the overall quality of life. Analysis of Variance and independent t-test statistic were used appropriately to compare differences between score means of different domains of WHOOOL-BREF in respect of selected demographic variables. Data was processed and analyzed using IBM Statistical Product and Service Solutions (SPSS) software version 25. Analysis was done at univariate, bivariate and multivariate levels: univariate analysis was done and findings presented using frequency and percentage distribution. Bivariate analysis was done and fisher's exact statistic was employed to examine relationship between dependent variable (Overall Quality of Life) and independent variables which are selected demographic variables while multinomial regression analysis was employed to examine simultaneous effect of selected demographic variables on the overall quality of life, p value of less than 0.05 was considered significant.

RESULTS

A total of 165 women with obstetric fistula were purposively selected for the study, responses from 159 women were however analyzed giving a response rate of 96.40%. Findings shows that 18.2% of the women studied were aged 15-24 years, 24.6% were aged 25-34 years, 31.4% were aged 35-44 years and 25.8% were aged 45-54 years old.

Table 1: Demographic characteristics of women with
obstetric fistula (n=159).

| Age at last birthday (years), Mean=35.99±10 SD15-242918.225-343924.635-445031.445-544125.8Place of residenceRural9358.5Urban6641.5Marital statusMarried10767.3Single1610.1Divorced/Separated3622.6Family type |
|---|
| 15-242918.225-343924.635-445031.445-544125.8Place of residenceRural9358.5Urban6641.5Marital status9358.5Married10767.3Single1610.1Divorced/Separated3622.6Family type107107 |
| 25-34 39 24.6 35-44 50 31.4 45-54 41 25.8 Place of residence |
| 35-44 50 31.4 45-54 41 25.8 Place of residence |
| 45-54 41 25.8 Place of residence 25.8 Rural 93 58.5 Urban 66 41.5 Marital status 25.8 Married 107 67.3 Single 16 10.1 Divorced/Separated 36 22.6 Family type 56 56 |
| Place of residence Rural 93 58.5 Urban 66 41.5 Marital status |
| Rural 93 58.5 Urban 66 41.5 Marital status |
| Urban 66 41.5 Marital status 67.3 Married 107 67.3 Single 16 10.1 Divorced/Separated 36 22.6 Family type Urban Urban |
| Marital statusMarried10767.3Single1610.1Divorced/Separated3622.6Family typeImage: State S |
| Married 107 67.3 Single 16 10.1 Divorced/Separated 36 22.6 Family type Units Units |
| Single1610.1Divorced/Separated3622.6Family typeImage: Constraint of the second s |
| Divorced/Separated 36 22.6 Family type |
| Family type |
| |
| Monogamous 70 44.0 |
| Polygamous 37 23.3 |
| Single 16 10.1 |
| Divorced/Separated 36 22.6 |
| Ethnicity |
| Yoruba 96 60.4 |
| Hausa 12 7.5 |
| Igbo 29 18.2 |
| Others (Itsekiri/Urhobo) 22 13.8 |
| Religion |
| Christianity 95 59.7 |
| Islam 64 40.3 |
| Highest level of education |
| No formal education 17 10.7 |
| Primary 26 16.4 |
| Secondary 75 47.2 |
| Tertiary 41 25.8 |
| Employment status |
| Unemployed 25 15.7 |
| Self employed 100 62.9 |
| Employed by Government 17 10.7 |
| Employed by private sector 17 10.7 |
| Parity |
| Primipara 31 19.5 |
| Multipara 103 64.8 |
| Grandmultipara 25 15.7 |
| *Average monthly income |
| < 30,000 naira 106 66.7 |
| \geq 30,000 naira 53 33.3 |
| **Socio-economic status |
| Low 18 11.3 |
| Middle 83 52.2 |
| High 58 36.5 |

* 30,000 naira is the minimum wage payable in Nigeria at the time of this study **Socio-economic status is a composite variable comprising of women's level of education, employment status and average monthly income.

The mean age for the women was 35.99 ± 10 . In addition, 58.5% of the women reside in rural areas, 41.5% reside in urban areas, 19.5% were primipara, 64.8% were multipara, 15.7% were grand multipara (Table1). Finding also

showed that 11.3% were categorized into low socioeconomic status, 52.2% were categorized into middle socio-economic status while 36.5% were categorized into high socio-economic status (Table 1).



Figure 1: Pattern of obstetric fistula.

| Table 2: | Quality | of life of | women | with | obstetric | | | |
|----------|---------|------------|-------|------|-----------|--|--|--|
| fistula. | | | | | | | | |

| Pattern of quality of life | | | | | | | | |
|--------------------------------------|--------------|-------------------|---------------|--|--|--|--|--|
| Quality of life domains | Low N (%) | Moderate N (%) | High N (%) | | | | | |
| Domain1 - Physical health | 104 (65.4) | 24 (15.1) | 31 (19.5) | | | | | |
| Domain 2- Psychological health | 113 (71.1) | 19 (11.9) | 27 (17.0) | | | | | |
| Domain 3- Social relationships | 38 (23.9) | 18 (11.3) | 103 (64.8) | | | | | |
| Domain 4- Environmental health | 110 (69.2) | 10 (6.3) | 39 (24.5) | | | | | |
| Overall Quality of life | 131 (82.4) | 4 (2.5) | 24 (15.1) | | | | | |

Result also shows that 64.20% of the women had vesicovaginal fistula, 17.60% had rectovaginal fistula, 10.70% had uterovaginal fistula while 7.5% had ureterovaginal fistula (Figure1). Regarding the quality of life domains, the mean score for women's physical health (domain1) was 48.92±14.89 while 65.4% of the women had low quality of life with respect to physical health (domain1), 15.1% had moderate quality of life and 19.5% had high quality of life (Table 2). Additionally, in respect of psychological health (domain 2), the mean score was 39.91±17.42 while 71.1% of the women had low quality of life, 11.9% had moderate quality of life and 17.0% had high quality of life. On account of social relationship (domain3) the mean score was 68.71±30.85 while 23.9% had low quality of life, 11.3% had moderate quality of life while 68.4% had high quality of life. Furthermore, for environmental health (domain 4), the mean score was 42.75±18.60 while 69.2% of the women had low quality

of life, 6.3% had moderate quality of life and 24.5% had high quality of life.

Table 3: Mean scores for quality of life domains by selected demographic variables (n=159).

| Quality of life Domains | | | | | |
|--------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|---|
| Demographic variables | Domain 1 Mean±SD 48.92±14.89 | Domain 2 Mean±SD 39.91±17.42 | Domain 3 Mean±SD 68.71±30.85 | Domain 4 Mean±SD 42.75±18.60 | Overall quality of life Mean±SD 19.89±26.51 |
| Age group at last birthday (ye | ars) | | | | |
| 15-24 | 46.31±10.69 | 35.63±11.28 | 71.55 ± 32.08 | 36.42±11.82 | 14.66±23.16 |
| 25-34 | 49.36±16.69 | 40.71±16.84 | 67.95 ± 30.92 | 44.63±20.03 | 20.19±27.00 |
| 35-44 | 50.21±15.02 | 42.42 ± 18.95 | 64.83±31.19 | 43.50±19.95 | 22.00±24.82 |
| 45-54 | 48.78 ± 15.72 | 39.13±19.43 | 72.15 ± 30.02 | 44.51±19.04 | 20.73±30.44 |
| P value (ANOVA) | 0.73 | 0.40 | 0.67 | 0.24 | 0.69 |
| Place of residence | | | | | |
| Rural | 47.47±12.59 | 38.22±16.10 | 69.71±31.15 | 40.96±16.94 | 17.61±25.02 |
| Urban | 50.97 ± 17.52 | 42.30 ± 18.99 | 67.30 ± 30.60 | 45.27±20.57 | 23.11±28.36 |
| P value (t-test) | < 0.001 | 0.05 | 0.65 | 0.01 | 0.14 |
| Parity | | | | | |
| Primipara | 45.85 ± 12.98 | 37.23 ± 9.86 | 72.58 ± 25.11 | 40.83±13.90 | 11.69±22.58 |
| Multipara | 48.13±14.77 | 38.92 ± 17.86 | 70.63±32.29 | 41.69±18.54 | 16.75±23.26 |
| Grandmultipara | 56.00±15.96 | 47.33±21.21 | 56.00 ± 29.02 | 49.50±22.73 | 43.00±31.68 |
| P value (ANOVA) | 0.03 | 0.06 | 0.08 | 0.14 | < 0.001 |
| Socio-economic status | | | | | |
| Low | 47.42 ± 14.06 | $42.84{\pm}15.31$ | 69.91±33.35 | 42.36±13.90 | 24.31±29.54 |
| Middle | 45.44 ± 12.21 | 35.74±15.19 | 65.66±33.01 | 37.35±16.85 | 15.81±22.61 |
| High | 54.37±17.10 | 44.97 ± 19.62 | 72.70 ± 26.62 | 50.59±19.68 | 24.35±30.02 |
| P value (ANOVA) | 0.002 | 0.01 | 0.41 | < 0.001 | 0.13 |

Table 4: Bivariate analysis of association between selected demographic variables and overall quality of life (n=159).

| Overall quality of life | | | | | | |
|------------------------------|-----------|----------|-----------|-------------|-----------------------|---------|
| Variables | Low | Moderate | High | Total | Statistic | |
| variables | N (%) | N (%) | N (%) | N (%) | Fisher's Exact | P value |
| Age at last birthday (years) | | | | | | |
| 15-24 | 26 (89.7) | 0 (0.0) | 3 (10.3) | 29 (100.0) | | 0.93 |
| 25-34 | 32 (82.1) | 1 (2.6) | 6 (15.4) | 39 (100.0) | 2.39 | |
| 35-44 | 41 (82.0) | 2 (4.0) | 7 (14.0) | 50 (100.0) | | |
| 45-54 | 32 (24.4) | 1 (25.0) | 8 (33.3) | 41 (25.8) | | |
| Place of residence | | | | | | |
| Rural | 79 (84.9) | 4 (4.3) | 10 (10.8) | 93 (100.0) | 5.41 | 0.07 |
| Urban | 52 (78.8) | 0 (0.0) | 14 (21.2) | 66 (100.0) | | |
| Parity | | | | | | |
| Primipara | 28 (90.3) | 0 (0.0) | 3 (9.7) | 31 (100.0) | 1677 | 0.001 |
| Multipara | 90 (87.4) | 3 (2.9) | 10 (9.7) | 103 (100.0) | 10.77 | |
| Grandmultipara | 13 (52.0) | 1 (4.0) | 11 (44.0) | 25 (100.0) | | |
| Socio-economic status | | | | | | |
| Low | 14 (77.8) | 0 (0.0) | 4 (22.2) | 18 (100.0) | 6.62 | 0.12 |
| Middle | 73 (88.0) | 3 (3.6) | 7 (8.4) | 83 (100.0) | 0.02 | |
| High | 44 (75.9) | 1 (1.7) | 13 (22.4) | 58 (100.0) | | |

Analysis of the overall quality of life however shows that the mean score was 19.89 ± 26.51 while 82.4% of the women had low quality of life, 2.5% had moderate quality

of life while 15.1% had high quality of life (Table 2). Study also observed significant differences in the mean scores for women's physical health (p<0.001) and environmental health (p=0.01) in respect of place of residence (Table 3).

| Domographic nonichles | Low quality of life | | | Moderate quality of life | | |
|-----------------------------|---------------------|-------|-------------|--------------------------|---------|-------------|
| Demographic variables | P value | RRR | CI | P value | RRR | CI |
| Age at last birthday (year) | | | | | | |
| 15-24 | 0.24 | 0.28 | 0.03-2.30 | 1.00 | 1.59E-8 | |
| 25-34 | 0.12 | 0.27 | 0.05-1.40 | 0.42 | 0.25 | 0.01-7.30 |
| 35-44 | 0.87 | 0.88 | 0.22-3.64 | 0.58 | 2.20 | 0.13-37.16 |
| 45-54 | RC | 1 | | RC | 1 | |
| Place of residence | | | | | | |
| Rural | 0.23 | 1.93 | 0.66-5.64 | | 2.10E-8 | 2.10E-8 |
| Urban | RC | 1 | | RC | 1 | |
| Parity | | | | | | |
| Primipara | 0.002 | 32.55 | 3.73-284.19 | 1.00 | 1.46E-6 | |
| Multipara | < 0.001 | 23.20 | 5.12-105.13 | 0.05 | 19.54 | 1.02-374.89 |
| Grandmultipara | RC | 1 | | | | |
| Socio-economic status | | | | | | |
| Low | 0.99 | 1.01 | 0.19-5.30 | 1.00 | 5.61E-8 | |
| Middle | 0.02 | 4.62 | 1.29-16.59 | 0.16 | 7.01 | 0.45-108.13 |
| High | RC | 1 | | RC | 1 | |

| Table 5: Multinomial regressio | n analysis of associatio | n between selected | demographic | variables and | overall quality |
|--------------------------------|--------------------------|--------------------|-------------|---------------|-----------------|
| | of l | ife (n=159). | | | |

Model statistics: n=159, p=0.001, R square =38.46, Base outcome = High Quality of Life, RRR=Relative risk ratio, CI=Confidence interval at 95%

There were also significant differences in the mean scores for women's parity in respect of women's physical health (p=0.03) and overall quality of life (p<0.001). The mean scores for socioeconomic status was significantly different across women's physical health (p=0.002), psychological health (p=0.01) and environmental health (p<0.001). Bivariate analysis of the association between Overall Quality of Life and selected demographic variables shows significant association between overall quality of life and women's parity (p=0.001) (Table 4). Regression analysis of the association between Overall Quality of Life and selected demographic variables shows significant association between primipara (p=0.002), multipara (p<0.001), middle socio-economic status (p=0.02) and low quality of life (Table 5). The relative risk ratio (RRR) for primipara with obstetric fistula having low quality of life was 32.55 relative to high quality of life. Similarly, the relative risk ratio for multipara with obstetric fistula having low quality of life was 23.20 relative to high quality of life while the relative risk ratio for women with obstetric fistula in the middle socio-economic status having low quality of life was 4.62 relative to high quality of life.

DISCUSSION

Pattern of obstetric fistula among the women studied showed that majority of the women had vesicovaginal fistula, less than one-fifth had rectovaginal fistula, while about a tenth had uterovaginal fistula and ureterovaginal fistula respectively. The above finding is comparable with the report from a review of data in sub-Saharan Africa which observed that rectovaginal fistula accounted for 1-8% of cases of obstetric fistula, vesicovaginal fistula accounted for over 79% while combined vesicovaginal and rectovaginal fistula accounted for 1-23% of cases.¹⁵ Similarly, a two-period review of obstetric fistula cases in southeastern Nigeria revealed that the incidence of vesicouterine fistula increased from 5.2% to 5.7% while rectovaginal fistula increased from 3.1% to 6.1% over the review period.³⁰ A systematic review of data from sub-Saharan Africa and the middle East reported that rectovaginal fistula accounted for 1-8% of cases of obstetric fistula, vesicovaginal fistula accounted for over 79% while combined vesicovaginal and rectovaginal fistulae accounted for 1-23% of cases.¹⁵ This study also found that the mean scores for women's physical health, psychological, social relationship and environmental health were 48.92, 39.91, 68.71 and 42.75 respectively while the mean score for overall quality of life was 19.89. A study on the quality of life and related factors among women with obstetric fistula in Ethiopia found that physical health domain has mean quality of life score of 40.78, psychological domain has mean quality of life score of 39.96, social relationship and environmental health domains each has mean quality of life scores of 32.9 and 36.45 respectively.⁷ A similar study conducted in Ethiopia on quality of life and its predictive factors among women with obstetric fistula observed that the mean quality of life in respect of physical, psychological, social and environmental health domains were 40.59, 38.10, 29.59 and 34.21 respectively while overall quality of live recorded 44.61.29 Analysis of the overall quality of life however shows that significant proportion of the women had low quality of life, while less than one-fifth had high quality of life. Regression analysis of the association between overall quality of life and selected demographic variables shows significant association between primipara, multipara, middle socio-economic status. This finding is consistent with observation by Hurisa et al who concluded that the quality of life of women with obstetric fistula in the Ethiopian study was low while repair outcomes, selfesteem, attitudes, rural residence, and timing of care-

seeking were predictors of quality of life among the women studied.²⁹ Findings above are also incongruence with findings by Kakembo et al who observed that majority of the women studied were reported to have poor quality of life while education, employment status, loneliness, negative feelings and self-confidence were significantly associated with good quality of life.²⁴ The above submissions are in consistence with the assertion that high incidence of obstetric fistula in low and middle income countries have been identified as one of the indicators of the health system failure to provide quality, timely, accessible, appropriate obstetric and maternal health services.¹¹ Quality of life is an important concept in health care delivery and specifically in nursing services that takes into account issues relating to health, personal characteristics, social relationships and socioeconomic status of an individuals and families ^{20,21}. Improving the quality of life of women with obstetric fistula is important for symptom relief, self-care and rehabilitation which have been suggested to improve general wellbeing.^{23,24}

Implication of study findings for nursing, midwifery, obstetric and gynaecological practices

Quality of life is an important concept in Nursing, Midwifery and public health practices; a multidimensional construct that takes into account all issues related to health, personal characteristics, social relationships and socioeconomic status of individuals and family. Holistic care approach aimed at improving the overall quality of life remain the core function of nurses and midwives. These approaches have been suggested to be critical in the management and rehabilitation of women with obstetric fistula.

CONCLUSION

Significant proportion of the women studied had low quality of life. Women's parity and socio-economic status were main predictors of quality of life. Holistic management of obstetric fistula should take cognizance of these variables towards effective prevention and improved quality of life.

ACKNOWLEDGMENTS

Authors wish to acknowledge authorities of the Fistula Centre, Wesley Guild Hospital, Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Southwest Nigeria.

Funding: No funding sources Conflict of interest: None declared Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Afolabi AO, Bifarin MT, Oluwasanmi GO, Oladokun MO, Fatoke HF, Abioye AA, et al. Obstetric fistula and related factors: assessing pattern and quality of life among women in Southwest Nigeria. Int J Reprod Contracept Obstet Gynecol 2023;12:812-9.