

Self-Esteem and Its Predictive Factors Among Women with Obstetric Fistula in Ethiopia: A Facility-Based Cross-Sectional Study

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ARTICLE INFO	ABSTRACT
Article type: Original article	Background & aim: Women living with obstetric fistulas have been known to have increased depression, anxiety, and other mental health dysfunctions. Evidence shows that due to the obstetric fistula condition, there is a frequent maternal loss of self-esteem. Very few studies have identified sources of diminished self-esteem among women living with obstetric fistulas. Thus, this study aimed to assess self-esteem and its predictive factors among women with obstetric fistula in Ethiopia.
Article History: Received: 25-Jan-2022 Accepted: 13-Jun-2022	Methods: A cross-sectional study was employed on consecutively selected 478 women in five fistula treatment centers in Ethiopia from April 01 to August 01, 2019. Data were collected using an interviewer-administered structured questionnaire and analyzed using SPSS 23 software. Simple and multiple linear regression models were fitted for data analysis.
Key words: Vaginal Fistula Vesicovaginal Fistula Rectovaginal Fistula Female Self-Concept	Results: The mean self-esteem score was 24.53 ± 4.79 . Age ($\beta = -0.05$; 95% CI = -0.10, -0.002), educational status at primary school ($\beta = 1.08$; 95% CI = 0.07, 2.09), overall quality of life ($\beta = 0.19$; 95% CI = 0.09, 0.29), satisfaction with health ($\beta = 0.26$; 95% CI = 0.16, 0.36), and knowledge of fistula risk factors ($\beta = 0.22$; 95% CI = 0.01, 0.43) were significant predictors of the self-esteem of women with obstetric fistula.
	Conclusion: The self-esteem of women with obstetric fistula was low. All concerned bodies dealing with obstetric fistula should emphasize on holistic care for women with obstetric fistulas, work on their awareness, training and counseling in relation to the risk factors of fistulas, and should work in ways that enhance the overall quality of life and health satisfaction of women living with obstetric fistula, which could then improve their self-esteem.

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Introduction

Obstetric fistula is a multifaceted problem that has physiological, economic, and psychosocial consequences on women with fistula. Women living with obstetric fistulas have been known to have increased depression, anxiety, and other mental health dysfunctions (1). In the developing world, many women and girls with obstetric fistulas face many psychological problems: humiliation accounts for 97.2%; abandonment, stigmatization, loneliness 95.8%, separation from their husbands 85%, and despair 95.4%. Some

women even contemplate suicide or express constant worry about their future of not being able to have more children, never being able to marry again, or never being repaired (1-4). Women with fistula also experience anger, sadness, and shame associated with loss of ability to work and lack of acceptance and support by their husbands, family members, relatives, classmates, community members, and other passengers when using public transport (5-9). Evidence shows that due to the obstetric fistula

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condition, there is a frequent maternal loss of self-esteem (10-14).

Self-esteem is an individual's set of thoughts and feelings about his or her worth and importance (the value that people put on themselves), that is, a whole or a holistic positive or negative attitude towards oneself (15). Studies conducted on fecal incontinence and experiences of women living with obstetric fistulas show that shame, isolation, stigma, divorce, stillborn babies, and offensive odors of obstetric fistula are causes of low self-esteem (5, 12, 13). An Integrative Review study conducted to determine the social implications of obstetric fistula in sub-Saharan Africa indicates that an offensive odor that accompanies incontinence related to obstetric fistulas is a source of shame, stigma, isolation, and diminished self-esteem (14). Similarly, studies show that women with obstetric fistula faced severe psychological consequences such as humiliation, abandonment, loneliness, separation, divorce, and despair due to their physical problems such as urinary/fecal incontinence, foul smell, vaginal/urinary tract infections, and pain during sex that finally have a toll on their overall self-esteem (4, 5, 7, 10, 12, 16-18).

Previous studies dealt with the sources or causes of diminished self-esteem. There is no previous study conducted to assess the level of self-esteem and its predicted factors among women with obstetric fistula in Ethiopia. Thus, this study aimed to determine the self-esteem and its predicted factors among women with fistula in Ethiopia. The findings of the study will be an important input of data to develop educational programs and to design behavioral change strategies among women with obstetric fistula to enhance their self-esteem. The results from the current study will also provide baseline data for further research to be conducted on this topic.

Materials and Methods

A cross-sectional study was conducted from April 01 to August 01, 2019, at five fistula treatment centers in Ethiopia: Jimma University Medical Center, Asella Hospital, Harar, Mettu, and Addis Ababa Hamlin fistula centers. Addis Ababa Hamlin Fistula Hospital provides comprehensive care for women who suffer from incontinence because of obstetric fistula. The

hospital has a 120-bed capacity with more than 2,000 women treated per year (19, 20). Jimma University's Hospital is a teaching tertiary hospital that has a gynecology and obstetrics department with a fistula unit. It has an estimated 93 women with obstetric fistula annually (21). Mettu Hamlin Fistula Center is located in the southwest of the country with an annual capacity of treating 199 women (22). Harar Hamlin Fistula Center is capable of giving treatment services to more than 480 women with obstetric fistula annually (23). Asella Hospital is equipped with 15 fistula beds and treated more than 90 women with obstetric fistula annually (20).

The populations included in this study were all women with obstetric fistula (mostly vesicovaginal fistula cases) who were admitted and available in the five study facilities during the data collection period. These included women who were diagnosed with obstetric fistula and waiting for surgery, those after one week of surgery before their discharge, and those who were appointed after surgery for a checkup. Teenagers less than 18 years of age who were able to give their assent and whose family members were available for them to give consent were included in the study. In this study, twenty-one women with fistulas who did not volunteer to participate, those with severe fistulas with complications, and cannot be able to respond to the study were excluded from the study.

The sample size was estimated using a single population proportion formula based on the assumptions (1.2% prevalence of obstetric fistula in the Oromia Region (24), 95% confidence level, 1% precision, and 5% non-response rate). Accordingly, 478 women with obstetric fistula were included in the study. The quotas of women consecutively selected during the study period from each study area were 256 women from Addis Ababa, 54 from Harar, 42 from Asella, 40 from Mettu, and 86 from Jimma medical center.

The data collection tool was adapted from Rosenberg's Self-Esteem Scale with 10 items (adapted, four Likert scales) (25). There were also tools prepared from reviewing different literature and used for assessment of predicting factors such as:- Attitude towards obstetric

fistula recurrence prevention with 34 items (five Likert scales) (26, 27), and the World Health Organization quality of life assessment tool shortened version (WHOQOL-BREF) with 26 items (adapted, five Likert scales). WHOQOL-BREF has a four-domain structure and each domain scores denote an individual's perception of the quality of life in each particular domain. Items for women's overall perception of their quality of life and satisfaction with their health were examined and scored based on the WHOQOL-BREF guideline (28, 29). Tools were translated from the English language to local languages (Afan Oromo and Amharic) and retranslated back to English and pretested on 5% of the sample size of women with obstetric fistula and found reliable with Cronbach's Alpha value as follows (Quality of life =0.83, attitude towards obstetric fistula recurrence prevention=0.86 and self-esteem=0.78). The content and structure validity of the tools was reviewed and verified by experts in the field before the pretest. Data were collected through face-to-face interviews by five MSc Midwifery students and ten midwifery staff and supervised by five senior MSc Midwives. Women with obstetric fistula who met the inclusion criteria were enrolled consecutively during the study period as they came to the obstetric fistula treatment center until the desired sample size was achieved.

Data were entered into Epi data version 3.5.3 (Odense Denmark) using double data entry verification, then coded, cleaned, and exported to International Business Machines Corporation Statistical Product and Service Solutions (IBM SPSS) version 23 for further cleaning and analysis. Initially, exploratory data analysis was made and cleaned for missing values and outliers. Descriptive statistics such as frequency, mean, standard deviation, and percentages were analyzed for socio-demographic and reproductive health-related factors. Some socio-demographic variables such as the age of respondents were categorized based on the data of respondents. Simple and multiple linear regression models were fitted for self-esteem and predicted factors. Assumptions of normality distribution, linearity, multicollinearity, outlier, and homoscedasticity were tested and satisfied. Variables with P-value < 0.05 during simple

linear regression analysis were made eligible for multiple linear regression analysis. Statistical significance was declared at $P < 0.05$. The Findings of the data were presented using tables, figures, and texts.

A letter of support was secured from the Addis Ababa Hamlin Fistula Hospital head office and permissions were obtained from each fistula treatment center. Informed consent was obtained from the study participants after they were adequately informed and understood the objective/purpose of the study, confidentiality of the information, privacy, potential benefits and risks of the study, anonymity of their names, and their full right to refuse, withdraw, or completely reject part or all studies. Verbal consent of participation was obtained from each volunteer study participant, and then they signed the consent form in the space provided within the participant information sheet with the assistance of data collectors. Additionally, the assent of those women below the age of 18 years was obtained from their parents or guardians. All study procedures followed the relevant guidelines and regulations of the Helsinki Declaration. All necessary measures were taken and ensured the dignity, autonomy, interest, well-being, and rights of the study participants throughout the study.

Results

Socio-demographic and reproductive health characteristics

Among the 499 fistula cases contacted for the interview, 478 women with obstetric fistula were included in the study. Close to half (48.10%) of them were in the age group 25-34 (mean 28.90, SD \pm 9.00) years. Three-fourths (75.50%) of the study participants were rural residents, and two-thirds (66.30%) of them could not read and write. More than half (60.00%) of them were married while one-third (34.50%) of them have lived only with their husbands. Most of them (83.70%) had stillbirths from pregnancy for which they developed an obstetric fistula. The overall mean perception of quality of life and satisfaction with health was 44.61 (SD \pm 3.99) and 33 (SD \pm 3.46), respectively (Table 1).

Table 1. Socio-demographic and reproductive health characteristics of women with obstetric fistula in Ethiopia, 2019

Variable	N (%)
Age at interview	
15-24	137 (28.70)
25-34	230 (48.10)
35-44	80 (16.70)
≥45	31 (6.50)
Mean age (±SD)	
28.90 (± 9.00)	
Residence	
Urban	117 (24.50)
Rural	361 (75.50)
Marital status	
Never married	13 (2.70)
Married	291 (60.90)
Divorced/Separated	163 (34.10)
Widowed	11 (2.30)
Obstetric fistula case's educational status	
Can't read and write	317 (66.30)
Read and write	35 (7.30)
Primary schools	91 (19.00)
Secondary and preparatory school	25 (5.20)
College/university	10 (2.10)
Living conditions	
With husband	165 (34.50)
With husband and children	28 (5.90)
With parents	147 (30.80)
Relatives	36 (7.50)
With children	16 (3.30)
Alone	86 (18.00)
Pregnancy at the occurrence of fistula	
Planned	302 (63.20)
Not planned	176 (36.80)
Outcome of labor for which fistula occurred	
Live	78 (16.30)
Stillbirth	400 (83.70)
Overall quality of life mean (±SD)	
44.61 ± 3.99	
Satisfaction with health (±SD)	
33 ± 3.46	
Knowledge of risk factors (±SD)	
8.39 ± 2.10	

The self-esteem of women with obstetric fistula

The overall mean self-esteem of women with fistula was 24.53 ± 4.79 . They scored relatively less on items: "I wish I could have more respect for myself", and "I certainly feel useless at times", and relatively high on the item, "I feel, I am a person of worth on an equal plane with others" (Table 2).

Predictors for the self-esteem of women with obstetric fistula

In a simple linear regression analysis, variables such as the age of respondents, marital status, women's educational status, living conditions, whether the pregnancy was planned or not, length of labor, the outcome of labor, time of care-seeking, overall quality of life, satisfaction with health, intention to prevent fistula, knowledge of risk factors, attitude

towards fistula prevention were found statistically significant predictors of self-esteem of women with obstetric fistula.

Table 2. Self-esteem and its items mean score among women with obstetric fistula in Ethiopia, 2019

Items	Self-esteem score	Mean	Standard deviation
		24.53	± 4.79
I feel I am a person of worth on an equal plane with others		2.74	± 0.97
I feel that I have a number of good questions		2.64	± 0.88
All in all, I am inclined to feel that I am a failure		2.48	± 1.04
I am able to do things as most other people		2.58	± 0.96
I feel I do not have much things/health to be proud of		2.40	± 1.04
I take a positive attitude toward myself		2.77	± 0.91
On the whole, I am satisfied with myself		2.33	± 1.05
I wish I could have more respect for myself		1.98	± 0.84
I certainly feel useless at times		2.33	± 0.99
At times I think I am not good at all		2.28	± 1.02

Outcomes of multiple linear regression analysis revealed that age of patients, women's educational status at primary school, overall

quality of life, satisfaction with health, and knowledge of fistula risk factors were statistically significant predictors of self-esteem of women with obstetric fistula (Table 3).

Table 3. Self-esteem and its predicted factors among women with obstetric fistula in Ethiopia, 2019.

Variables	Self-esteem		Self-esteem	
	R ² =0.26 Crude β (95% CI)	P-value	Adjusted R ² =0.23 Adj unstd β(95% CI)	P-value
Age	-0.05 (-0.09, 0.01)	.049†	-0.05 (-0.10, -0.002)	.040†
Educated to a primary school level	1.01 (0.62, 1.40)	<.001	1.08 (0.07, 2.09)	.036†
overall quality of life	0.38 (0.29, 0.46)	<.001	0.19 (0.09,0.29)	<.001
satisfaction with health	0.37 (0.29, 0.45)	<.001	0.26 (0.16, 0.36)	<.001
knowledge of fistula risk factors	0.30 (0.09, 0.50)	.004	0.22 (0.01, 0.43)	.037†

†=Significant at p<0.05, *=significant at p<.001, and <.01, Adj unstd β =adjusted unstandardized Beta

Discussion

This study found that the mean self-esteem of women with fistula was 24.53 ± 4.79. Age, educational status at primary school, overall quality of life, satisfaction with health, and knowledge of fistula risk factors were significant predictors of self-esteem.

In this study, the self-esteem of women living with obstetric fistula was low. This is consistent with previous studies conducted in African countries, which all report low self-esteem among women living with obstetric fistula (30-37). For a unit increase in age in a year, the self-esteem decreased by 0.05. This is because as the age of women living with fistula increases, they continue experiencing the consequences of fistula more, which have a devastating effect on their emotions and overall health, which in turn diminishes their self-esteem. Previous evidence supports this that as age increases to old age,

self-esteem decreases at an accelerating pace (38, 39).

Women whose educational statuses were at primary school had increased self-esteem by 1.01 than those who were not able to read or write. This may be as women's educational status increases, their self-worth, their level of consciousness, and coping capabilities with

fistula conditions increase. Similarly, for a unit increase in the knowledge score of fistula risk factors, the self-esteem of women had increased by 0.22. This indicates that women who have more knowledge of the risk factors of the obstetric fistula may also know and follow more for early surgical repair and treatment measures and have more confidence, self-esteem, and emotional stability. This is consistent with similar previous studies, which show that as

women's level of education increases, their self-esteem also increases (35, 37, 40).

For a unit increase in overall quality of life and satisfaction with health mean scores, self-esteem had increased by 0.38 and 0.37, respectively. This shows that as the overall quality of life and satisfaction with the health of women with fistula increase, their self-esteem also increases. This is consistent with previous studies, which show that improvement in quality of life and satisfaction with their health status lead fistula survivors to regain self-esteem (36, 41).

One of the strengths of this study is its originality in determining the self-esteem of women with obstetric fistula using the most reliable and validated Rosenberg self-esteem tool in Ethiopia. A relatively large sample of women with obstetric fistula was included in the study. The limitation of this study is, that it was cross-sectional by design, making it difficult to decide whether the factors preceded the outcomes.

Conclusion

The self-esteem of women with obstetric fistula was low. Age, educational status, knowledge of fistula risk factors, overall quality of life, and satisfaction with health were statistically significant predictors of self-esteem. All concerned bodies dealing with obstetric fistula should emphasize on holistic care for women with obstetric fistulas, work on awareness creation, training and counseling on the risk factors of fistula, and should work in ways that enhance the overall quality of life and satisfaction with their health of women living with obstetric fistula, which could then improve their self-esteem. Future research is recommended to investigate the relationship between self-esteem and the four domains of quality of life.

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Conflicts of interest

Authors declared no conflicts of interest.

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