

# The levels of self-efficacy among obstetric fistula patients in different repair categories at St. Joseph Kitovu Hospital, Uganda. A cross-sectional survey

## Abstract

**Objective:** The repair of obstetric fistula is possible and potentially addresses the physical ordeals, but the psycho-social afflictions with effect on patients' self-efficacy may persist. Meanwhile, inadequate evidence exists regarding the levels of self-efficacy among patients in different repair categories, which incited this study.

**Methods:** Data was collected and analyzed among the 402 participants at St. Joseph Kitovu Hospital Masaka, Uganda. 390 participants were involved in quantitative methods while 22 were involved in qualitative methods. Only obstetric fistula patients were involved in the quantitative study, 10 of them in a qualitative study. The other 12 were key informants who were included purposively. The patients were identified from the Urogynecology department surgical logbook, randomly sampled using SPSS 25.0, invited by phone calls and others identified through snowballing.

**Results:** Among the patients, 192 had had repair of the fistula, of which 82.3% had been successful while 198 had not yet had fistula repair. The largest proportion (47.0%) was aged 19 to 29 years. The levels of self-efficacy among the patients included low, moderate and high. The larger proportion (60.26%) had a moderate level, 20.00% had a high level while 19.74% had a low level of self-efficacy. However, when Pearson correlation was done, the patients whose fistula had been repaired had a higher level of self-efficacy compared to those with unrepaired fistula with all the attributes of self-efficacy having P-values of <0.001 at a significant level of 0.05. Interviewees also reported that patients with repaired fistula generally have higher levels of self-efficacy compared to those whose fistulas are not yet repaired.

**Conclusion:** Obstetric fistula patients may have low, moderate or higher levels of self-efficacy depending on the level of incontinence, repair status, and prior training in life skills. Therefore, targeted strategies aimed to reduce incontinence and promote wellbeing such as the repair of fistula, life skills training and counseling would improve the levels of self-efficacy henceforth enhance social rehabilitation and reintegration.

**Keywords:** obstetric fistula, self-efficacy, social rehabilitation, vesico vaginal fistula, women's health

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## Introduction

In the event of fetal pelvic disproportion or malrotation of the fetus, child labor is prolonged resulting in excessive pressure against birth canal musculature hence decreased blood supply to the surrounding tissues. Over time, these tissues slough off, creating a defect that allows continual leakage, thus an obstetric fistula.<sup>1-3</sup> It is such a burdensome condition presenting with social stigma, and economic deprivation.<sup>4,5</sup>

Uganda has an obstetric fistula prevalence of 200,000 obstetric fistula patients and an incidence rate of 1,900 women of reproductive age per year.<sup>6</sup> The country is committed to ensuring the elimination of the condition through various measures, notable among others are mass campaigns and medical camps during which fistula surgeries are carried out. It also has 13 referral hospitals and 7 mission hospitals with specialized units for obstetric fistula repair. St. Joseph Kitovu Hospital, Masaka in Central Uganda is one of them.<sup>7,8</sup> The repair of obstetric fistula is largely possible and it improves the quality of life but even then, there is evidence of persistent distress. This has a profound effect on self-confidence and anxiety which also affects patients' self-

efficacy generally.<sup>5</sup> A study by Kopp MD et al, in Ethiopia, reported that 27% of patients who had fistula repair had depressive symptoms on discharge with 1% that was severe. Successful repair of anatomic defects may also not necessarily result in total continence.<sup>9</sup> Patients with successful repairs often have stress incontinence and may have low levels of confidence, and hope.<sup>10</sup> A low level of self-confidence greatly affects self-efficacy.<sup>11</sup>

Self-efficacy refers to the ability to believe in oneself to execute certain tasks. It requires high confidence levels, self-motivation, and a supportive social environment. Once one is self-efficacious, their goal-setting ability, and enthusiasm towards goal achievement increase.<sup>12</sup>

Believing in one self matters a lot as it subdues doubts of one's capabilities and they can push to the next level and beyond.<sup>13</sup> In instances when patients are helpless and cannot function normally under certain realms, they rely on others.<sup>14</sup> However, the obstetric fistula patients may not be assured of social support, yet they are helpless especially those that have not had a repair. Yet again, even those who have had a successful repair suffer social challenges.<sup>3-5</sup>

However, inadequate evidence exists regarding the obstetric fistula patients' levels of self-efficacy. This study, therefore, determined the levels of self-efficacy among the obstetric fistula patients in different repair categories, which is necessary for planning targeted strategies to ensure that patients regain their self-confidence, which is an incentive to self-efficacy for social rehabilitation and reintegration in communities.

## Materials and methods

### Study design

A cross-sectional descriptive survey that employed mixed research methods (a semi-structured questionnaire, key informant and, in-depth interviews) to collect and analyze data.

### Study setting

The study was carried out at St. Joseph Kitovu Hospital in Central Uganda. It is a center with the highest fistula repair rates in the country.<sup>8,15,16</sup>

### Study population

Being a hospital-based study, participants included the director of obstetric fistula program, obstetric fistula surgeons, nurses, desk officers, and social workers. They were included in the study based on their central role in the management of obstetric fistula. Obstetric fistula patients were included in the study by default because they had the attributes under investigation. Partners who were caregivers were included.

### Sample size

A total of 390 participants took part in quantitative methodology while 22 took part in qualitative methodology. The sample size for quantitative methods was determined by sample size calculation for comparison of proportions.<sup>17</sup> It was calculated at 80% power, the assumed percentage of higher self-efficacy among patients whose fistula had been repaired was 50% and 35% for those whose fistula had not been repaired. Therefore, the calculated sample size (n) for each group was 166, but after adjusting for 15% non-responses, it became 195. The final sample size for the two groups was 390.

### Inclusion and exclusion criteria

The hospital staff who were directly involved in the management of obstetric fistula were included. Purposive and snowballing sampling techniques were adopted to select participants for the qualitative methodology.

All obstetric fistula patients who had been registered by St. Joseph Kitovu Hospital within two years before the time of data collection despite their repair status had an equal opportunity of being selected through simple random sampling using SPSS 25.0 random sampling command. Only patients who gave written consent and assent participated in the study.

### Data collecting tools and measurements

The use of key informant and in-depth interviews is illustrated in Table 1. A semi-structured questionnaire used a Likert scale which is often used as a measure of self-efficacy.<sup>18</sup> Self-efficacy for goal setting, accomplishment, school resumption, starting up an income-

generating activity, previous job resumption, mobility, family reunion, ability to remarry, engage in sexual activity, bear children, engage in communal events, and meet family needs was measured by the general self-efficacy scale with four scale options.<sup>19</sup> "Exactly true" rated at 4, "Moderately true" at 3, "Hardly true" at 2, and "Not at all true" at 1. Obstetric fistula repair status was measured as repaired or unrepaired.

**Table 1** Use of qualitative methods data collection tools

Type of interview	Who?	Number	Time (Minutes)
Key Informant interview	Specialists, nurses, desk officer, social workers, partners	12	60
In-depth interview	Patients	10	30

### Reliability and validity of the tools

Data collecting tools were pretested in St. Joseph Kitovu Hospital. Research assistants were trained. An in-depth interview guide and the questionnaire were back-translated into Luganda and Kiswahili languages and data collected in a language the participants were fluent in.

### Data management and analysis

Qualitative data was listened to, transcribed and translated back to English. ATLAS.ti version 7.5, computer software for analyzing qualitative data, was used to code and systematically identify related themes. As for quantitative data, the responses to the questionnaire were entered into SPSS version 25.0. It was coded, cleaned and analyzed. Pearson's Chi-square correlation was used to assess the levels of self-efficacy among patients in different repair categories. Besides, a pie chart was generated to represent the levels of self-efficacy among obstetric fistula patients.

### Ethical approval

The study obtained ethical approval from Makerere University School of Public Health Higher Degrees, protocol (639), and the National Council for Science and Technology (NCST); Institutional Review Board (IRB) number HS361ES.

## Results

### Socio-demographic characteristics and obstetric factors among obstetric fistula patients

From Table 2, findings indicate that 58 (14.9%) of the obstetric fistula patients were eighteen years old and below, 183 (47.0%) were between nineteen to twenty-nine years, 69 (17.7%) were thirty to thirty-nine years, 42 (10.8%) were forty to forty-nine years while 37 (9.5%) were fifty years and above with a median age of 27, mean age of 30.27±13.35 standard deviation. A greater number of obstetric fistula patients, 333 (85.4%) had primary level of education and below, these were followed by those with secondary level, 51 (13.1%), and tertiary 6 (1.5%). Also, the majority had separated or divorce 178 (45.6%), followed by those who were married 117 (30%). A large number of patients came from the central region, 205 (52.6%). Of the total participants, 192 (49.2%) had received repair, while 198 (50.8%) had not yet had fistula repair.

**Table 2** Socio demographic characteristics and obstetric factors of obstetric fistula patients

Variable	Frequency	Percent
<b>Age</b>		
Mean±SD	30.27±13.35	
Median	27	
≤18 years old	58	14.9
19-29 years old	183	47
30-39 years old	69	17.7
40-49 years old	42	10.8
50 years and above	37	9.5
Total	389	100
<b>Level of Education</b>		
Primary and Below	333	85.4
Secondary	51	13.1
Tertiary	6	1.5
Total	390	100
<b>Marital Status</b>		
Single	78	20
Married	117	30
Separated/Divorced	178	45.6
Widowed	17	4.4
Total	390	100
<b>Region</b>		
Central	205	52.6
Eastern	85	21.8
Northern	40	10.3
Western	60	15.4
Total	390	100
<b>Obstetric fistula repair status</b>		
Repaired	192	49.2
Unrepaired	198	50.8
Total	390	100
<b>The outcome of a repair if ever repaired</b>		
Successful	158	82.3
Unsuccessful	34	17.7
Total	192	100

### The levels of self-efficacy among obstetric fistula patients in different repair categories

The attributes of self-efficacy included: the ability to set goals, accomplish them, resume school, start up an income-generating

activity, resume previous jobs, mobility around home and communities, reunite with family, remarry, engage in sexual activity, bear children, engagement in communal activities, and meeting family needs. A bivariate analysis was done as represented in Table 3. Accordingly, 67 (75.3%) of the 89 respondents who identified with not at all true as far as goal setting was concerned had not had fistula repair, and 22 (24.7%) had had fistula repair. Again, 78 (81.3%) of the 96 respondents who had identified with exactly true for goal setting had had fistula repair, and 8 (18.8%) had not had fistula repair. The efficacy for goal setting was higher among patients who had been repaired with a P-value of < 0.001 and  $\chi^2$  of 79.214.

Concerning goal accomplishment, 97 (76.4%) of the 127 respondents who identified with not at all true had not had fistula repair, 30 (23.6%) had had a repair. However, 47 (85.5%) of the 55 respondents who selected exactly true had had the fistula repaired compared to 8 (14.5%) who had not had the fistula repaired. The efficacy for goal accomplishment was higher among the obstetric fistula patients whose fistula had been repaired with a P-value of 0.001 and  $\chi^2$  of 81.872.

Regarding school resumption, 157 (59.9%) of the 262 respondents who identified with not at all true had not had fistula repair, 105 (40.1%) had had a repair. However, 20 (74.1%) of the 27 respondents who selected exactly true had had fistula repair, 7 (25.9%) who had not had a repair. The efficacy for school resumption was higher among the obstetric fistula patients whose fistula had been repaired with a P-value of 0.001 and  $\chi^2$  of 29.382.

As for starting up an income-generating activity was concerned, 120 (78.9%) of the 152 respondents who identified with not at all true had not had fistula repair, 32 (21.1%) had had a repair. However, 56 (93.3%) of the 60 respondents who selected exactly true had had fistula repair, whereas 4 (6.7%) had not had repair. The efficacy for starting up an income-generating activity was higher among the obstetric fistula patients whose fistula had been repaired with a P-value of 0.001 and  $\chi^2$  of 123.538.

Concerning job resumption, 149 (74.5%) of the 200 respondents who identified with not at all true had not had fistula repair, 51 (25.5%) had had a repair. However, 50 (87.7%) of the 57 respondents who selected exactly true had had fistula repair unlike 7 (12.3%) who had not had a repair. The efficacy for job resumption was higher among the obstetric fistula patients whose fistula had been repaired with a P-value of 0.001 and  $\chi^2$  of 97.293.

Concerning mobility around households, 3 (75.0%) of the 4 respondents who identified with not at all true had not had fistula repair, only 1 (25.0%) had had a repair. However, 157 (57.7%) of the 273 respondents who selected exactly true had had fistula repair, 115 (42.3%) who had not had a repair. A significant relationship with a P-value of 0.001 and  $\chi^2$  of 26.132 was found. Also, more of the repaired patients expressed a higher self-efficacy for mobility around communities.

With regards to the ability to reunite with families, 42 (76.4%) of the 55 respondents who answered not at all true had not had fistula repair, 13 (23.6%) had had a repair. However, 103 (77.4%) of the 133 respondents who selected exactly true had had fistula repair, 30 (22.6%) who had not had a repair. The efficacy to reunite with families was higher among the obstetric fistula patients whose fistula had been repaired with a P-value of 0.001 and  $\chi^2$  of 69.639.

**Table 3** Bivariate analysis of the levels of self-efficacy among obstetric fistula patients in different repair categories

	Obstetric Fistula Repair Status		Total	$\chi^2$	P-value
	Repaired	Unrepaired			
<b>I have goals</b>					
Not at all true	22(24.7)	67(75.3)	89	79.241	<0.001
Hardly true	37(32.2)	78(67.8)	115		
Moderately true	55(61.1)	35(38.9)	90		
Exactly true	78(81.3)	18(18.8)	96		
Total	192(49.2)	198(50.8)	390		
<b>I can accomplish my goals</b>					
Not at all true	30(23.6)	97(76.4)	127	81.872	<0.001
Hardly true	71(46.7)	81(53.3)	152		
Moderately true	44(78.6)	12(21.4)	56		
Exactly true	47(85.5)	8(14.5)	55		
Total	192(49.2)	198(50.8)	390		
<b>I can go back to school</b>					
Not at all true	105(40.1)	157(59.9)	262	29.382	<0.001
Hardly true	41(61.2)	26(38.8)	67		
Moderately true	26(76.5)	8(23.5)	34		
Exactly true	20(74.1)	7(25.9)	27		
Total	192(49.2)	198(50.8)	390		
<b>I can start up an income-generating activity</b>					
Not at all true	32(21.1)	120(78.9)	152	123.538	<0.001
Hardly true	33(39.3)	51(60.7)	84		
Moderately true	70(75.3)	23(24.7)	93		
Exactly true	56(93.3)	4(6.7)	60		
Total	191(49.1)	198(50.9)	389		
<b>I can resume my job</b>					
Not at all true	51(25.5)	149(74.5)	200	97.293	<0.001
Hardly true	52(62.7)	31(37.3)	83		
Moderately true	34(75.6)	11(24.4)	45		
Exactly true	50(87.7)	7(12.3)	57		
Total	187(48.6)	198(51.4)	385		
<b>I can move around my home</b>					
Not at all true	1(25.0)	3(75.0)	4	26.132	<0.001
Hardly true	10(27.0)	27(73.0)	37		
Moderately true	24(31.2)	53(68.8)	77		
Exactly true	157(57.7)	115(42.3)	272		
Total	192(49.2)	198(50.8)	390		

Table Continued

	Obstetric Fistula Repair Status		Total	$\chi^2$	P-value
	Repaired	Unrepaired			
<b>I can move around my community</b>					
Not at all true	33(23.7)	106(76.3)	139	100.028	<0.001
Hardly true	30(34.9)	56(65.1)	86		
Moderately true	47(72.3)	18(27.7)	65		
Exactly true	82(82.0)	18(18.0)	100		
Total	192(49.2)	198(50.8)	390		
<b>I can reunite with my family</b>					
Not at all true	13(23.6)	42(76.4)	55	69.639	<0.001
Hardly true	33(32.7)	68(67.3)	101		
Moderately true	43(42.6)	58(57.4)	101		
Exactly true	103(77.4)	30(22.6)	133		
Total	192(49.2)	198(50.8)	390		
<b>I can remarry</b>					
Not at all true	31(24.8)	94(75.2)	125	70.231	<0.001
Hardly true	41(44.6)	51(55.4)	92		
Moderately true	26(52.0)	24(48.0)	50		
Exactly true	89(78.8)	24(21.2)	113		
Total	187(49.2)	193(50.8)	380		
<b>I can engage in sexual activity</b>					
Not at all true	38(26.8)	104(73.2)	142	62.918	<0.001
Hardly true	51(48.1)	55(51.9)	106		
Moderately true	35(64.8)	19(35.2)	54		
Exactly true	66(78.6)	18(21.4)	84		
Total	190(49.2)	196(50.8)	386		
<b>I can bear children</b>					
Not at all true	53(34.0)	103(66.0)	156	42.539	<0.001
Hardly true	32(45.7)	38(54.3)	70		
Moderately true	33(50.8)	32(49.2)	65		
Exactly true	73(76.0)	23(24.0)	96		
Total	191(49.4)	196(50.6)	387		
<b>I can easily engage in communal activities</b>					
Not at all true	41(24.8)	124(75.2)	165	92.361	<0.001
Hardly true	56(50.5)	55(49.5)	111		
Moderately true	49(83.1)	10(16.9)	59		
Exactly true	46(83.6)	9(16.4)	55		
Total	192(49.2)	198(50.8)	390		

Table Continued

	Obstetric Fistula Repair Status		Total	$\chi^2$	P-value
	Repaired	Unrepaired			
<b>I can meet family needs</b>					
Not at all true	65(35.7)	117(64.3)	182	30.378	<0.001
Hardly true	90(57.7)	66(42.3)	156		
Moderately true	28(68.3)	13(31.7)	41		
Exactly true	9(90.0)	1(10.0)	10		
Total	192(49.4)	197(50.6)	389		
<b>Level of self-efficacy</b>			<b>Frequency</b>	<b>Percent</b>	
Low			77	19.7	
Moderate			235	60.3	
High			78	20	
Total			390	100	
<b>Patients with low and high self-efficacy</b>					
High self-efficacy			164	42.10%	
Low self-efficacy			226	57.90%	
Total			390	100	

Regarding the ability to remarry, 66 (78.6%) of the 84 respondents who answered exactly true had had fistula repair, 18 (21.4%) had not had a repair. Among the 125 respondents who selected not at all true, 94 (75.2) had not had fistula repair. The efficacy to remarry was higher among the obstetric fistula patients whose fistula had been repaired with a P-value of 0.001 and  $\chi^2$  of 70.231.

Also, concerning the ability to engage in sexual intercourse, 104 (73.2%) of the 142 respondents who answered not at all true had not had fistula repair, 38 (26.8) had had a repair. However, 66 (78.2%) of the 84 respondents who selected exactly true had had fistula repair, 18 (21.4%) had not had a repair. The efficacy to engage in sexual activity was higher among those who had had repair with a P-value of 0.001 and  $\chi^2$  of 62.918. Similarly, the self-efficacy to bear children was greater among the patients whose fistula had been repaired with a value of 0.001 and  $\chi^2$  of 42.539.

Engagement in community activities was higher among the obstetric fistula patients whose fistula had been repaired with a P-value of 0.001 and  $\chi^2$  of 92.361. Of the 165 respondents who answered not at all true, 124 (75.2%) had not had fistula repair, 41 (24.8%) had had a repair. However, 46 (83.6%) of the 55 respondents who selected exactly true had had fistula repair.

Among the 182 patients who reported not at all for the ability to meet their needs, 117 (64.3%) had not had the fistula repaired, 65 (35.7%) had had fistula repair. Among those who selected exactly true for the ability to meet family needs, 90.0% had had fistula repair. The efficacy to meet family needs was higher among the obstetric fistula patients who had had repair with a P-value of 0.001 and  $\chi^2$  of 30.378.

From Table 3, three levels of self-efficacy were identified, 60.26% had a moderate level of self-efficacy, 19.74% had low self-efficacy and 20.00% had high self-efficacy. These were represented in Figure 1.

The key informants were asked to describe how patients think of their capabilities. They said that patients want to live normally and often set goals that would enable them to realize this.

A surgeon stated that,

*“Many think they can start a new life. They bear goals such as bearing children, and being self-reliant”. Another one added, “Although they think they can do anything but are skeptical about ever having children”. A nurse had the same idea and noted “They are capable of anything as long as the fistula is repaired and are physically, socially, and emotionally rehabilitated”. However, “Patients before repair think of themselves as helpless and that they cannot achieve their goals. After repair their confidence and esteem are revived, they are rehabilitated through skills training and can do several things”, another nurse added.*

The desk officer and social worker had relatively similar views. Similarly, partners who were engaged in care giving reported what they thought of their spouses’ abilities. Those whose wives had received repair or had mild incontinence without comorbidities thought they could do farming, hairdressing, and domestic chores. However, some declared that their spouses were not able to do anything especially those that had not yet received repair, and had severe incontinence. They said,

*“She can plait hair but she has not been able since she developed the fistula. She cannot have any more children because her uterus was removed”. P 7:K7-7:9. “She wanted to have more children but now she thinks she cannot have any more children. She said, “ekimala kimala” meaning enough is enough. P 8:K8-8:9. “She can, though not as much as she could before getting the fistula. Her productivity has generally reduced”. P 9:K9-9:9. “After repair, they believe they can do anything they are set to do”. P10:K10-10:9. “She believes she can do anything, but she is hesitant to attend parties and very careful when going to*

public events, she takes a thorough bath, and pads herself well and even packs extra cloth for eventualities". P11:K11-11:9.

Generally, partners had relatively similar views of their spouse's capabilities depending on fistula repair status.

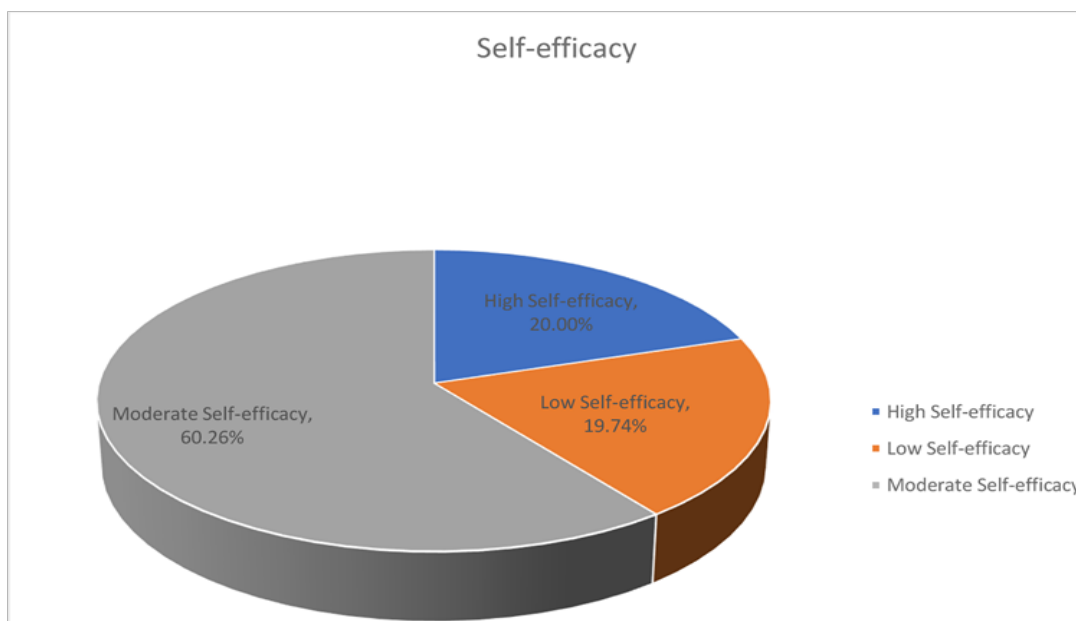


Figure 1 Levels of self-efficacy among obstetric fistula patients.

## Discussion

Generally, the study indicated that the levels of self-efficacy among obstetric fistula patients were low, moderate, and high. The majority of the patients had moderate level of self-efficacy. However, when categorized, a statistically significant difference was observed in the levels of self-efficacy among the patients in different repair categories.

A significant difference was realized in the ability to set and accomplish goals including self-perception of the ability to resume school, starting up an income-generating activity, previous job resumption, mobility, family reunion, ability to remarry, engage in sexual activity, bear children, engage in communal events, and meet family needs among obstetric fistula patients in different repair categories. Self-efficacy is significant in survival and well-being. Its effect is vivid in self-motivation, perseverance, and choice of behaviors as well as in their pursuit. However, their self-efficacy is equally affected by the environment.<sup>11</sup>

Obstetric fistula patients suffer interpersonal loss and receive less social support, which affect their self-esteem.<sup>2</sup> The sense of loss among patients with unrepaired fistula is so deep. They suffer multiple social challenges and their self-worth diminishes.<sup>20,21</sup> However, if repaired, a gradual improvement is noted in their physical and social health as well as in self-esteem and overall quality of life.<sup>22-24</sup> A study carried out among obstetric fistula patients in Uganda in 2019 reported a 64.2% and 72.4% increment in self-efficacy in three and six months respectively. Nevertheless, self-esteem among women who still had physical symptoms was relatively low [24]. Also, some patients continue to have negative perceptions even after a year of repair which may hinder smooth reintegration and rehabilitation.<sup>22-24</sup>

Several studies note very low levels of education if any among obstetric fistula patients.<sup>23,25</sup> A study done in Tanzania in 2019 reported that 15 of the 18 participants had a very low level of education and this greatly affected the level of knowledge about obstetric fistula generally and its treatment which had an impact on seeking timely treatment.<sup>25</sup> Similarly, this study indicated a significant difference in the ability to start up an income-generating activity and to resume previous jobs among patients in different repair categories. Patients may wish to start an income-generating activity or continue with what they had been previously engaged in, however, they are often economically deprived. This kind of abuse is common among women even before they get obstetric fistula but the situation worsens when they get this injury.<sup>4</sup>

Mobility around home and communities differed significantly among patients in different repair categories. A study by Maulet N et al. in Mali and Niger in the year 2013 reported four mobility pathways among obstetric fistula patients. Some patients could be homebound, others itinerant, thus they freely and frequently move about. Others may reside at the health facility while others may opt to keep in the urban centers near health facilities.<sup>26</sup>

The family reunion was equally significantly different among obstetric fistula patients in the different repair categories. Although some patients easily reunite and reintegrate after a successful repair, others continue to live in fear and isolation.<sup>22</sup> Studies also report adverse changes in marital status over time among obstetric fistula patients. Divorce, separation, and polygamy are common practices. Some patients suggest having co-wives as a strategy to keep in marriage.<sup>26</sup>

Again, sexual activity potential was greater among patients whose

obstetric fistula had been repaired. Sexual dysfunction and discomfort after successful repair are also reported by several studies.<sup>27,28</sup> These affect their self-esteem and mental health.<sup>2</sup> Childbearing was also significantly different among obstetric fistula patients in different repair categories in this study. Studies note secondary infertility among obstetric fistula patients including those who have had a successful repair. After repair, patients experience a prolonged delay to conceive and in some instances, they never conceive at all.<sup>22</sup> Findings of Kopp's study reported that 148 of the patients with repaired fistula were considered fertile but 11 of them complained of dyspareunia.<sup>1</sup>

According to this study, engagement in communal events was significantly different among obstetric fistula patients in different repair categories. Community engagement is not easy at all even among patients with repaired fistula due to the persistent stigmatization. Thus, patients prefer to isolate themselves.<sup>22</sup> Also, patients with unsuccessful repairs are known to suffer persistent negative moods.<sup>5</sup> They are often informally employed and engage in shoddy activities which pay them less. Economic insecurity remains a major challenge but could be addressed through cash grants, subsidized loans, vocational skills training and the formation of saving cooperative schemes.<sup>29</sup>

Nonetheless, the discussed studies highlight only aspects of physical, economic and psycho-social challenges but do not explicitly indicate the levels of self-efficacy among the obstetric fistula patients which are peculiar to this study. Even then, there was limited data providing scientific evidence on the goal-setting capabilities, and abilities to perform other activities that this study examined.

## Conclusion

Obstetric fistula patients may have low, moderate or higher levels of self-efficacy depending on the level of incontinence, repair status, and prior training in life skills. Therefore, targeted strategies aimed to reduce incontinence and promote wellbeing such as the repair of fistula, life skills training and counseling would improve the levels of self-efficacy henceforth enhance social rehabilitation and reintegration.

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## Authors' contributions

All authors worked together at every stage of this manuscript development. AS developed the manuscript from conceptualization through data collection, analysis, interpretation to writing and doing revisions under the supervision of AAO, JFM, and OAO. The final article was edited by AAO before it was submitted for publication.

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## Conflicts of interest

The authors have no conflicts of interest to declare.

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