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Research Article

The Relationship between Self-fulfillingProphecies and Social Reintegration among Obstetric Fistula Patients in Different Repair Categories at St. Joseph Kitovu Hospital, Uganda

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ABSTRACT

Background: Obstetric fistula is a debilitating childbirth injury. Patients live in despair and self-stigmatize. Studies highlight beliefs and perceptions about the cause of the disease and how it can be cured. Experiences among both treated and untreated patients are also discussed vastly but there is limited information on negative perceptions and beliefs among obstetric fistula patients towards their spouses, families, and communities and how these affect social reintegration. This study determined the relationship between self-fulfilling prophecies and social reintegration among obstetric fistula patients in different repair categories.

Methods: A cross-sectional mixed-methods survey was done among the obstetric fistula patients (n=398) at St. Joseph Kitovu Hospital in Uganda. Also, 12 key informants participated. A semi-structured questionnaire and an in-depth interview were used to get data from the patients. The interviews covered patients' expectations and beliefs on reacceptance, interaction, self-satisfaction and comfort with others. The hypothesis: "there was a significant relationship between self-fulfilling prophecies and social reintegration among obstetric fistula patients in different repair categories" was tested by Pearson chi-square at a 95% confidence interval.

Results: Accordingly, 51.5%, 14.4% and 9.0% of the 398 participants felt that their spouses, communities, and parents respectively would not reaccept them. Again, 33.6% were not satisfied with their lives and 47.7% felt uncomfortable around others. A major difference was observed in the relationship between their self-perceived stigma, sense of loss, self-worth, achievement, the expectation of reacceptance, perception of others' attitudes towards them, labeling, moods, self-satisfaction, comfort with others and social reintegration. A relationship with the patients' repair category was noted across all variables: p-values less than 0.001 at a 95% confidence interval.

Conclusion: A relationship was found between the patient's negative beliefs, perceptions, and social reintegration. Negative beliefs and expectations could be transformed into positive ones through the promotion of personal hygiene and comprehensive counseling.

Keywords: Beliefs; Expectations; Obstetric fistula; Perceptions; Reintegration; Self-fulfilling prophecies

INTRODUCTION

Childbirth should be a time of joy and celebration, but more than a half-million women die in the course of giving birth while others sustain distressing complications including obstetric fistula [1]. Obstetric fistula is an abnormal communication or a hole between the bladder and/or rectum and vagina that allows uncontrolled leakage of urine and/or feces which results from prolonged or neglected obstructed labor [2]. In Uganda,

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obstetric fistula remains one of the most debilitating maternal morbidities considering the physical, economic, emotional and social challenges associated. However, the efforts by the government of the Republic of Uganda and stakeholders cannot go unrecognized. The decline in prevalence from 3% in 2006 to 2% in 2011 has been observed. There has also been an increase in health-seeking behavior among obstetric fistula patients [3]. Fistula Care Plus and other organizations have been actively engaged in case identification and linking them to care units including St. Joseph Kitovu Hospital for surgical repair [4].

Surgical repair is the only remedy for obstetric fistula and indeed it greatly improves the quality of patient's lives [5,6] but continence is not often attained immediately after surgery. Residual incontinence and stress incontinence are common among women who have had repair of the fistula. They are unable to carry out their duties and roles effectively, continue to live shameful lives, to suffer rejection and isolation [7].

Studies have identified patients' beliefs and perceptions mostly about the occurrence of disease and how it can be cured. They believe it is by witchcraft, God's punishment or ancestral curse and are influenced by others to seek traditional or spiritual healing [8,9]. They think that they are the most unfortunate people, live in despair, and self-stigmatize [10]. Such beliefs, thoughts, expectations, and perceptions affect social interaction and can be reciprocated. This kind of consistency in behavior resulting from formally held erroneous beliefs is referred to as self-fulfilling prophecies.

The concept of self-fulfilling prophecy was initiated in 1948 by Merton R. K who defined it as a scenario between two persons: a perceiver and a target involving three stages. First, the perceiver defines a scenario falsely from the beginning and attributes it to the target [11]. In the case of obstetric fistula patients, they anticipate stigma and have self-hate [10]. Second, the perceiver treats the target in a way that is consistent with the false belief [11]. In this case, behaviors of self-stigma, isolation, avoiding public places whatsoever have been reported [12]. Third, a new pattern of behaviors that confirm the originally held beliefs by the perceiver is evoked and portrayed in the target person [11]. The issues of separation, ostracism, and abandonment are described by a multitude of studies [12-16] and could be attributed to self-fulfilling prophecies. Self-fulfilling prophecies are part and parcel of intrafamily dynamics [17] and stigma is its primacy [18]. They are based on perceptions which may be characterized as social interaction, closeness, and competition and maybe self-imposed or others-imposed, but no matter the source, negative expectation that is followed by actions and demonstrated in behaviors and communication, resulting in a negative outcome and the reverse is also true [19].

Self and social stigma are common even after repair especially among patients with inadequate social support [13]. According to Bellhouse L et al. [5], follow up after hospital discharge has also been inadequate yet, patients need to be socially reintegrated. Social reintegration is vital in ensuring patients are accepted and assimilated in communities that had abandoned them [20]. Limited literature exists on the relationship of self-fulfilling prophecies with social reintegration among obstetric fistula patients at St. Joseph Kitovu Hospital in Uganda which motivated this research. The study was guided by the hypothesis (Ha_1) which stated that "there was a significant relationship between self-fulfilling prophecies held by obstetric fistula patients in different repair categories and their social reintegration". The findings of the study could be utilized in social reintegration and rehabilitation of obstetric fistula patients to provide a window of opportunity for a normal life index.

METHODS

Study design, setting, and population

This descriptive survey was conducted at St. Joseph Kitovu Hospital in the central region of Uganda which is one of the renowned obstetric fistula referrals in the East African region with the highest repair rates per annum [21]. The study was performed in 2019 during the three camp sessions held at the study site among the obstetric fistula patients, and key informants who were the program director, the surgeons, the nurses, the desk officer, the counselor, and the patients' partners. The patients responded to a semi-structured questionnaire, and a subset of them was taken through face to face in-depth interviews whereas the key informants also had face to face interviews using a key informant interviewguide.

Sample size

Two groups of patients were considered for quantitative methodology. They included those who had had vaginal fistula repair (successfully or unsuccessfully) and those who had not been repaired. Their sample size was determined by sample size calculation for comparison of proportions as illustrated below [22].

$n=K\{p_1(1-p_1)+p_2(1-p_2)\}/(P_1-P_2)^2$

$K=(ZB+ZA/2)^2$

$Z_{A/2}=1.96$ at $\alpha=5\%$;

$Z_\beta=0.84$ at $\beta=0.2$ (80% power)

P_1=50% (Assumed percentage of higher self-efficacy among patients whose fistulahas been repaired)

P_2=35% (Assumed percentage of higher self-efficacy among patients whose fistula has not been repaired)

n=Sample size

$K=(0.84+1.96)^2=7.84$

$n=7.84\{50(100-50)+35(100-35)\}/(50-35)^2$

n=166

Adjusting for 15% non-responses=166/0.85=195

Final sample size for the two groups=195 × 2=390.

This was sample size for quantitative study while the sample size for the qualitative method was 22 (10 participants for in-depth interviews and 12 participants for key informant interviews). This was arrived at by the law of saturation [23].

Ethical approval of the study protocol was obtained before data collection from the College of Public Health, Higher Degrees, Research and Ethics Committee, Makerere University under protocol review number 639 and the National Council of Science and Technology, protocol number HS361ES. Permission was also sought from Kitovu Hospital administration and the Department of Urogynecology to assess patients' data from which the sampling frame was drawn and the participants for quantitative methods selected by a simple random sampling technique. The participants for the qualitative method were selected purposively and included having consented.

Data collection tools

Qualitative data collection was guided by questions about the perceived expectations from partners, families, communities, the effect of the expected behavior on reacceptance, their degree of interaction, self-satisfaction with life and general comfort with others. The interview guides were developed in English but later translated to Luganda and Kiswahili which were the most accessible languages in the area where the study was done. Therefore, the interviews were conducted in any of these three languages depending on the choice of the participants. Field notes and recordings of the interviews were done.

Qualitative data management and analysis

The audio recording was listened to several times to get familiar with the data and later transcribed. For the interviews that were conducted in Luganda and Kiswahili, they were translated back to English. Thematic analysis was done with ATLAS ti version 7.5. The emergent themes were systematically identified and the key details of each original transcript were reflected. Relevant quotations were also presented to have the voices of the participants represented. Consistency was maintained throughout the analytical process to minimize bias.

Quantitative data management and analysis

The hypothesis (Ha_1) which stated that "there was a significant relationship between self-fulfilling prophecies held by obstetric fistula patients to different repair categories and their social reintegration" guided quantitative data collection. Self-fulfilling prophecie an independent variable in the Ha_1 was measured by a modified five option Likert scale by Carpenter J et al. [24] whereby "Very highly" was rated at 5, "Highly" at 4, "Moderately" at 3, "Low" at 2 while "Not at all" at 1. The attributes of self-fulfilling prophecy under consideration were: whether they perceived themselves as stigmatized, losers, whether they socialized or socially interacted, their perceived self-worth, whether they considered themselves as achievers, expected reacceptance or disregarded it, whether they felt detached, had friends, perceived that their families or communities had negative attitude towards them, having been labeled and their mood. Social reintegration, a dependent variable was measured by a four option Likert scale by Schwarzer ER et al. [25] which was modified to answer the questions . The responses included: "Exactly true" rated at 4, "Moderately true" at 3, "Hardly true" at 2, "Not at all true rated at 1. Thevariables included the perceived expectations from partners, families, communities, effect of the expected behavior on reacceptance, their degree of interaction, self-satisfaction with life and general comfort with others. Data were analyzed using SPSS version 25.0 where descriptive statistics mainly frequencies and percentages were generated and Pearson chi-square was used to test the hypothesis at 95% confidence interval.

RESULTS

Quantitative results

Social reintegration: About Table 1, a total of 359 responded to whether their partners would reaccept them, of these 185 (51.5%) said not at all true, 53 (14.8%) hardly true, 44 (12.3%) moderately true, and 77 (21.4%) said exactly true. Also, a total of 389 responded to whether their parents would reaccept them, of these 35 (9.0%) said not at all true, 91 (23.4%) said hardly true, 104 (26.7%) said moderately true, and 159 (40.9%) said exactly true. A greater proportion of the participants anticipated reacceptance by their parents. A total of 390 responded to whether their communities would reaccept them, of these 56 (14.4%) said not at all true, 107 (27.4%) said hardly true, 117 (30.0%) said moderately true, and 110 (28.2%) said exactly true. Therefore, a greater proportion of the patients expected reacceptance by their communities.

A total of 390 respondents reported their satisfaction with life. Of these, 131 (33.6%) said they had not been satisfied at all, 133 (34.1%) were hardly satisfied, 95 (24.4%) were moderately satisfied with life, while 31 (7.9) were truly satisfied with life. This indicated that more of the patients were not satisfied with their life at all. Similarly, in response to whether they were comfortable with others, 390 responded. Of these, 186 (47.7%) were not comfortable at all, 103 (26.4%) were hardly comfortable, 69 (17.7%) were moderately comfortable, whereas 32 (8.2%) were truly comfortable. This implied that a greater number of obstetric fistula patients were not comfortable with others.

Relationship between self-fulfilling prophecies and social reintegration among obstetric fistula patients in different repair categories

In an attempt to answer Ha_1, a bivariate analysis was done. The findings of the relationship between self-fulfilling prophecies and social reintegration among the patients in different repair categories arerepresented in Table 2. About the "I am stigmatized" inquiry; 31 (91.2%) of the 34 respondents who said that they had not at all been stigmatize had their fistula repaired while 3 (8.8%) had not had the fistula repaired. Again, 44 of the patients responded that they had been stigmatized but at a low level, of these, 31 (70.5%) had had the fistula repaired while 13 (29.5%) were yet to have their fistula repaired had not unrepaired. This indicates that most of the patients whose fistula had been repaired perceived themselves as less stigmatized compared to those whose fistula had not been repaired. On the other hand, 71 (63.4%) of the 112 who felt highly stigmatized had not had the fistula repaired, compared to 41 (36.6%) whose fistula had been repaired. A significant relationship is found

between the patient's perceived self-stigma and their social reintegration with X^2 of 70.404, and p-value of <0.001.

In consideration of the "I am perceived as a loser" question; 44 (86.3%) of the 51 respondents who did not at all perceive themselves as losers had had the fistula repaired while 7 (13.7%) had not had their fistula repaired. Again, among the 57 respondents who perceived themselves as losers at a low level, 46 (80.7%) had had the fistula repaired compared to 11 (19.3%) whose fistula had not been repaired. On the other hand, 76 (73.8%) of the 103 who perceived themselves as losers at a high level had not had the fistula repaired, compared to 27 (26.2%) whose fistula had been repaired. A significant relationship was found as regards to whether patients in different repair categories perceived themselves as losers and the social reintegration with X^2 of 96.735, and p-value of <0.001.

Concerning whether they could socialize, a larger proportion; 134 (70.9%) of 189 who did not at all socialize had not had the fistula repaired compared to 55 (29.1%) whose fistula had been repaired. On the other hand, 14 (82.4%) of the 17 respondents who could highly socialize had had the fistula repaired compared to 3 (17.6%) whose fistula had not been repaired yet. This shows a significant relationship between the level of socialization and social reintegration abilities among obstetric fistula patients in different repair categories with X^2 of 65.973, and p-value of <0.001.

The "I am worthy" question indicated that a larger proportion; 59 (71.1%) of 83 respondents who consider themselves not worthy at all, had not had the fistula repaired compared to 24 (28.9%) whose fistula had been repaired. Likewise, 47 (88.7%) of the 53 respondents who perceived themselves highly worthy had had the fistula repaired compared to 6 (11.3%) whose fistula had not been repaired. This indicated that a greater number of patients whose fistula had been repaired considered themselves worthy compared to those whose fistula had not been repaired. Statistically, a significant relationship between the patient's self-worth perception and their social reintegration was found, X^2 of 120.97, and p-value of <0.001.

Looking at whether patients perceived themselves as achievers, findings indicate that a larger proportion; 74 (71.2%) of the 104 respondents who did not at all consider themselves achievers had not had the fistula repaired compared to 30 (28.8%) whose fistula had been repaired. On the other hand, 55 (94.8%) of the 58 respondents who expressed that they were high achievers had the fistula repaired compared to 3 (5.2%) whose fistula had not been repaired. This equally reported a significant relationship between the obstetric fistula patients in different repair categories' perception of achievement and their social reintegration with X^2 of 132.064, and p-value of <0.001. This also indicated a major difference between the two groups as far as their self-perception as achievers and their social reintegration were concerned.

As far as the patient's expectation of reacceptance was concerned, findings show that a larger proportion; 46 (71.9%) of 64 respondents who did not expect reacceptance at all, had not had the fistula repaired compared to 18(28.1%) whose fistula had been repaired. About 65 (63.7%) of the 102 who highly expected reacceptance had had the fistula repaired compared to 37 (36.3%) whose fistula had not been repaired. This indicates that more of the repaired patients expected reacceptance or reintegration compared to the patients whose fistula had not been repaired with X^2 of 54.817, and p-value of <0.001.

Again, about whether the patients felt detached; 50 (73.5%) of the 68 respondents who did not feel detached at all had had the fistula repaired while 18 (26.5%) had not had the fistula repaired. On the other hand, 57 (74.0%) of the 77 who felt highly detached had not had the fistula repaired, compared to 20 (26.0%) whose fistula had been repaired. An indication that more of the respondents whose fistula had not been repaired felt detached compared to the patients whose fistula had been repaired. In this regard, a statistically significant relationship was found among obstetric fistula patients in different repair categories and their social reintegration with X^2 of 54.062, and P-value of <0.001.

A similar trend was noted about whether they had friends or not. About 62 (75.6%) of the 82 respondents who reported having no friends at all had not had the fistula repaired compared to 20 (24.4%) whose fistula had been repaired. Among the 40 patients who expressed that they highly had friends, 31 (77.5%) had been repaired compared to 9 (22.5%) whose fistula had been repaired. A statistically significant relationship with X^2 of 43.487, and a p-value of <0.001 was found.

The findings about whether the obstetric fistula patients in perceived their families to have had negative attitude towards them or not revealed that 59 (79.6%) of 77 respondents who responded that their families did not at all have negative attitude had had their fistula repaired compared to 18 (23.4%) whose fistula had not been repaired. Likewise, 65 (63.7%) of the 120 respondents who perceived their families to have highly shown negative attitudes had not had the fistula repaired compared to 37 (36.3%) whose fistula had been repaired. This indicated that a greater number of patients whose fistula had not been repaired perceived their families to have a negative attitude towards them unlike a fewer of those whose fistula had been repaired. In this regard a significant relationship was found, X^2 of 49.101, and p-value of <0.001.

The findings of community attitude towards the obstetric fistula patients revealed that 39 (76.5%) of 51 patients who noted that the community did not have a negative attitude towards them had had their fistula repaired compared to 12 (23.5%) whose fistula had not been repaired. Likewise, 64 (65.3%) of the 98 respondents who perceived their communities to have highly shown negative attitudes towards them had not had the fistula repaired compared to 34 (34.7%) whose fistula had been repaired. Thus a greater number of patients whose fistula had not been repaired perceived their communities to have a negative attitude towards them unlike a few of those whose fistula had been repaired. A statistically significant relationship was found with X^2 of 66.531, and a p-value of <0.001.

About labeling, 60 (69.8%) of the 86 respondents who said they had not at all been labeled had had the fistula repaired

compared to 26 (30.2%) whose fistula had not been repaired. Again, 58 (62.4%) of the 93 respondents who perceived themselves to have been highly labeled had not had the fistula repaired compared to 35 (37.6%) whose fistula had been repaired. Generally, a greater number of patients whose fistula had not been repaired perceived themselves to have been labeled compared to those whose fistula had been repaired. A statistically significant relationship was found with X^2 of 41.995, and a p-value of <0.001.

Regarding moods, none of the patient's whose fistula had not been repaired indicated that they had not at all been moody. However, 20 (100%) of those who selected they were not moody at all had had the fistula repaired. Of those who reported being highly moody, 78 (83.0%) had not had their fistula repaired compared to 16 (17.0%) whose fistula had been repaired. In this regard, a significant relationship between the patient's perception of their mood swings and their social reintegration was found, X^2 of 89.725, and p-value of <0.001.

About 185 respondents felt that their sexual partners would not accept them. Among them, 111 (60.0%) had not had the fistula repaired compared to 74 (40.0%) whose fistula had been repaired. Again, 77 respondents were very optimistic about their partner's reception and selected exactly true for their response. Among these, 46 (59.7%) had had the fistula repaired compared to 31 (40.3%) whose fistula had not been repaired. This showed a significant relationship between the patient's perceptions about reacceptance by the partners and social reintegration with X^2 of 18.731, and p-value of <0.001.

Similarly, 35 respondents felt that their parents would not accept them. Among them, 27 (77.1%) had not had the fistula repaired compared to 8 (22.9%) whose fistula had been repaired. Again, 159 respondents answered exactly true to the patients' reception. Among these, 114 (71.7%) had had the fistula repaired compared to 45 (28.3%) whose fistula had not been repaired. In this regard, a significant relationship between the patients' perceived reacceptance by patient and social reintegration was found with X^2 of 56.302, and a p-value of <0.001.

About patient's perception of their community's reacceptance, 56 respondents felt that the communities would not accept them. Of these, 45 (80.4%) had not had the fistula repaired, 11(19.6%) were patients whose fistula had been repaired. Those who answered exactly true were 110 patients, 87 (79.1%) had had fistula repair and 23 (20.9%) had not had fistula repair. These findings indicated a significant relationship with X^2 of 77.423, and a p-value of <0.001.

Table 1: Frequency table of attributes of community reintegration.

Variable	Frequency	Percent
My partner will accept me		
Not at all true	185	51.5
Hardly true	53	14.8
Moderately true	44	12.3
Exactly true	77	21.4
Total	359	100
My parents will accept me		
Not at all true	35	9
Hardly true	91	23.4
Moderately true	104	26.7
Exactly true	159	40.9
Total	389	100
My community will reaccept me		
Not at all true	56	14.4
Hardly true	107	27.4
Moderately true	117	30

Exactly true	110	28.2
Total	390	100
I am satisfied with my life		
Not at all true	131	33.6
Hardly true	133	34.1
Moderately true	95	24.4
Exactly true	31	7.9
Total	390	100
I am comfortable with others		
Not at all true	186	47.7
Hardly true	103	26.4
Moderately true	69	17.7
Exactly true	32	8.2
Total	390	100

All the same, 131 respondents were not at all satisfied with their lives; 102 (77.9%) of whom had not had the fistula repaired compared to 29 (22.1%) whose fistula had been repaired. However, 31 of the patients answered that they were truly satisfied with life, 28 (90.3%) of whom had had fistula repair compared to 3 (9.7%) whose fistula had not been repaired. These findings indicated a significant relationship with X^2 of 128, and a p-value of <0.001. About whether they felt comfortable with others, 186 respondents were not at all comfortable with others among whom 147 (79.0%) had not had the fistula repaired compared to 39 (21.0%) who had had the fistula repaired. However, 32 of the patients answered that they were truly comfortable with others, among these 30 (93.7%) had had fistula repair compared to 2 (6.3%) whose fistula had not been repaired. This indicated a significant relationship with X^2 of 128.179, and a p-value of <0.001.

Table 2: Bivariate analysis of the relationship of self-fulfilling prophecies and social reintegration among obstetric fistula patients in different repair categories.

	Obstetric Fistula Repair Categories		**Total**	**X^2**	**p-value**
	Repaired	**Unrepaired**			
I am stigmatized					
Not at all	31 (91.2)	3 (8.8)	34	70.404	<0.001
Low level	31 (70.5)	13 (29.5)	44		
Moderately	52 (69.3)	23 (30.7)	75		
Highly	41 (36.6)	71 (63.4)	112		
Very highly	37 (29.6)	88 (70.4)	125		
Total	192 (49.2)	198 (50.8)	390		
I am perceived as a loser					

Not at all	44 (86.3)	7 (13.7)	51	96.735	<0.001
Low	46 (80.7)	11 (19.3)	57		
Moderately	49 (60.5)	32 (39.5)	81		
Highly	27 (26.2)	76 (73.8)	103		
Very highly	26 (26.5)	72 (73.5)	98		
Total	192 (49.2)	198 (50.8)	390		
I socialize					
Not at all	55 (29.1)	134 (70.9)	189	65.973	<0.001
Low level	73 (60.8)	47 (39.2)	120		
Moderately	38 (77.6)	11 (22.4)	49		
Highly	14 (82.4)	3 (17.6)	17		
Very highly	12 (80.0)	3 (20.0)	15		
Total	192 (49.2)	198 (50.8)	390		
I am worthy					
Not at all	24 (28.9)	59 (71.1)	83	120.971	<0.001
Low level	39 (25.7)	113 (74.3)	152		
Moderately	70 (78.7)	19 (21.3)	89		
Highly	47 (88.7)	6 (11.3)	53		
Very highly	12 (92.3)	1 (7.7)	13		
Total	192 (49.2)	198 (50.8)	390		
I am an achiever					
Not at all	30 (28.8)	74 (71.2)	104	132.067	<0.001
Low level	37 (26.2)	104 (73.8)	141		
Moderately	55 (76.4)	17 (23.6)	72		
Highly	55 (94.8)	3 (5.2)	58		
Very highly	15 (100.0)	0 (0.0)	15		
Total	192 (49.2)	198 (50.8)	390		
I expect reacceptance					
Not at all	18 (28.1)	46 (71.9)	64	54.817	<0.001
Low level	29 (31.2)	64 (68.8)	93		
Moderately	48(50.5)	47 (49.5)	95		

Highly	65 (63.7)	37 (36.3)	102		
Very highly	32 (88.9)	4 (11.1)	36		
Total	192 (49.2)	198 (50.8)	390		
I feel detached					
Not at all	50 (73.5)	18 (26.5)	68	54.062	<0.001
Low level	48 (63.2)	28 (36.8)	76		
Moderately	50 (57.5)	37 (42.5)	87		
Highly	20 (26.0)	57 (74.0)	77		
Very highly	24 (29.3)	58 (70.7)	82		
Total	192 (49.2)	198 (50.8)	390		
I have friends					
Not at all	20 (24.4)	62(75.6)	82	43.487	<0.001
Low level	73 (45.6)	87(54.4)	160		
Moderately	55 (60.4)	36(39.6)	91		
Highly	31 (77.5)	9 (22.5)	40		
Very highly	13 (76.5)	4 (23.5)	17		
Total	192 (49.2)	198 (50.8)	390		
My family has negative attitude towards me					
Not at all	59 (76.6)	18 (23.4)	77	49.101	<0.001
Low level	39 (58.2)	28 (41.8)	67		
Moderately	49 (49.0)	51 (51.0)	100		
Highly	37 (36.3)	65 (63.7)	102		
Very highly	8 (18.2)	36 (81.8)	44		
Total	192 (49.2)	198 (50.8)	390		
The community has negative attitude towards me					
Not at all	39 (76.5)	12 (23.5)	51	66.531	<0.001
Low level	52 (72.2)	20 (27.8)	72		
Moderately	50 (56.8)	38 (43.2)	88		
Highly	34 (34.7)	64 (65.3)	98		
Very highly	17 (21.0)	64 (79.0)	81		
Total	192 (49.2)	198 (50.8)	390		

I am labelled names					
Not at all	60 (69.8)	26 (30.2)	86	41.995	<0.001
Low level	46 (66.7)	23 (33.3)	69		
Moderately	35 (43.2)	46 (56.8)	81		
Highly	35 (37.6)	58 (62.4)	93		
Very highly	16 (26.2)	45 (73.8)	61		
Total	192 (49.2)	198 (50.8)	390		
I get moody					
Not at all	20 (100.0)	0 (0.0)	20	89.725	<0.001
Low level	42 (84.0)	8 (16.0)	50		
Moderately	64 (58.7)	45 (41.3)	109		
Highly	50 (42.7)	67 (57.3)	117		
Very highly	16 (17.0)	78 (83.0)	94		
Total	192 (49.2)	198 (50.8)	390		
My partner will accept me					
Not at all true	74 (40.0)	111 (60.0)	185	18.731	<0.001
Hardly true	37 (69.8)	16 (30.2)	53		
Moderately true	23 (52.3)	21 (47.7)	44		
Exactly true	46 (59.7)	31 (40.3)	77		
Total	180 (50.1)	179 (49.9)	359		
My parents will accept me					
Not at all true	8 (22.9)	27 (77.1)	35	56.302	<0.001
Hardly true	30 (33.0)	61 (67.0)	91		
Moderately true	40 (38.5)	64 (61.5)	104		
Exactly true	114 (71.7)	45 (28.3)	159		
Total	192 (49.4)	197 (50.6)	389		
My community will reaccept me					
Not at all true	11 (19.6)	45 (80.4)	56	77.423	<0.001
Hardly true	31 (29.0)	76 (71.0)	107		
Moderately true	63 (53.8)	54 (46.2)	117		
Exactly true	87 (79.1)	23 (20.9)	110		

Total	192 (49.2)	198 (50.8)	390		
I am satisfied with my life					
Not at all	29 (22.1)	102 (77.9)	131	128.976	<0.001
Hardly true	50 (37.6)	83 (62.4)	133		
Moderately true	85 (89.5)	10 (10.5)	95		
Exactly true	28 (90.3)	3 (9.7)	31		
Total	192 (49.2)	198 (50.8)	390		
I am comfortable with others					
Not at all	39 (21.0)	147 (79.0)	186	128.179	<0.001
Hardly true	64 (62.1)	39 (37.9)	103		
Moderately true	59 (85.5)	10 (14.5)	69		
Exactly true	30 (93.7)	2 (6.3)	32		
Total	192 (49.2)	198 (50.8)	390		

Qualitative results

Concerning family and community reacceptance, during in-depth interviews, patients were asked what they expected from their families and communities. The patients expected them to understand their situation, cooperate, be empathetic, support them, pray for them, visit them and comfort them. Some patients were bitter and indicated that they did not expect anything. They said:

"I expect them to understand my situation and do not isolate me. I expect physical help, love, and care by providing materials that can enable me to improve my hygiene such as soap, diapers and sanitary towels. I expect them to employ me. My challenge has been work, wherever I find a job, “I am chased out within three days" P 1: Case 1-1:9.

“I expect unconditional love. I feel they betrayed me when I needed them the most but I forgave them”. P 9: Case 9-9:9.

"They have been caring by taking me for treatment, buying diapers and offering every kind of support. I expect them to continue". P10: Case 10-10:9.

Concerning the question on the expected behavior, patients were also asked, "How do you think this kind of expected behavior will affect your reacceptance into the community?" They reported that it enables them to heal faster, feel loved and have a sense of belonging, build self-confidence, and avoid undue stigma. They said:

"It will affect my reacceptance because once they are understanding, they will aid me to improve my hygiene and they will take me to the hospital to have treatment". P 1: Case 1-1:29.

"I will have to belong and I will be emotionally stable. I will at least have access to basic materials to improve my hygiene". P 2: Case 2-2:29.

“Once we cooperate, we shall be able to work together for the common good of the family”. P 4: Case 4-4:29.

“It will keep me emotionally and physically stable. I will not hide away from people when I meet them on my way to the garden”. P 5: Case 5-5:29.

"I need their continuous support to keep me going or else I will break down. They should also have a conversation to listen to me and know how I feel more than just a morning greeting". P10: Case 10-10:29.

The patient’s interaction with family and the community was also explored qualitatively. They reported that the level of interaction with family affects them so much. Some keep in hiding and not able to get the assistance they need.

"We do not interact at all. They should be the people to take me to the hospital, to keep me company but they isolated me. I do not see myself getting better unless I have their support". P 1: Case 1-1:25.

“Yes, it does. We have not been able to fully reunite and this is because they abandoned me when I needed them most. Besides, they behave as if everything is fine and yet they owe me an apology”. P 4: Case 4-4:25.

“Yes, a great deal. If my husband had abandoned me as everyone else has done, my situation would be worse. I pray that I recover soon before he gets irritated with the condition”. P 5: Case 5-5:25.

“The level of interaction has a great impact. They are highly stigmatizing and this makes me miserable and have suicidal tendencies”. P 6: Case 6-6:25.

“Yes it does, I am in the hospital for treatment because my family has been supportive but if they had thrown me out because of early pregnancy, or having fistula, I would be somewhere very miserable”. P 7: Case 7-7:25.

"Yes, the level of our family interaction helped me get the treatment I needed. They have been there and counseled me. If these not the case, I guess the story would be different". P 8: Case 8-8:25.

“Yes, my level of interaction with family and community has a great impact. My family has not been helpful but my church as a community took the initiative to take me to the hospital”. P 9: Case 9-9:25.

"Yes, our level of family interaction keeps me going even though my husband and his family abandoned me. My family has been my support system". P10: Case 10-10:25.

The key informants stressed that most often the unrepaired patients considered themselves as losers, live in despair and are dissatisfied. However, when they have a successful repair, they celebrate success and live normally like any other people. However, a few of them may retain consciousness of being maltreated and fail to reintegrate fully due to the experiences they underwent. These were the key informant expressions when asked: "How do they perceive themselves?"

“Patients whose continence has fully been restored perceive themselves as healthy unlike those who not have been not been repaired who think of themselves as a curse because that’s what communities tell them”. P 1: K1-1:3.

“The repaired perceive themselves victorious while the unrepaired is hopeless. They feel unfit”. P 4: K4-4:3.

“They feel worthless and often develop suicidal tendencies” P 5: K5-5:3.

"Before repair patients become hopeless but after the repair, their hope and dignity are restored" P 6: K6-6:3.

The partners also had these to say about their wives’ self-perceptions:

“She thinks that her world has come to an end and that she is not fit to go anywhere” P 8: K8-8:3.

"She used to feel worthless but she got treatment and now the incontinence has reduced, she feels jovial". P 9: K9-9:3.

"Before repair, she felt she had lost it. She often told me, "I hope you are not going to leave me for other women, I would comfort her and tell her she was going to get better. I took her for treatment and now she is happy and feels like she is on top of the world" P12: K12-12:3.

The key informant interviewees also were probed about how obstetric fistula patients socialized and related to others. The patients whose fistula had not been repaired were reported to find socialization a challenge. This is so because they would not want to embarrass themselves if they wetted clothing and if people made expressions of being offended by the odors. The key informants stated that:

"Patients who attain full continence relate and reintegrate easily. They also encourage other patients to come for surgery”. P 1: K1-1:2.

“Before repair, they keep alone to avoid direct contact with people who may stress them through comments or actions. I have received reports of patients who say when they sit among other people, they leave one by one until they are left all alone. After a successful repair, the majority find it easy to reintegrate in new environments while former environments continue to stigmatize them”. P 3: K3-3:2.

"Before repair patients shun public gatherings and prefer to be alone but after the repair, this feeling may diminish with time depending on whether communities are friendly or continue to stigmatize them". P 4: K4-4:2.

“They do not relate. They are stigmatized and hence they are often alone indoors or in the backyard. This behavior has been observed even among those successfully repaired. However, some are happy and reintegrate easily”. P 5: K5-5:2.

Also, when the partners were interviewed, they expressed different views. While some socialized even with the unrepaired fistula, others preferred to be alone.

“My wife relates with others very well but is ever worried that she may never recover from the condition. She is always engrossed in deep thoughts, she is quarrelsome and when I go out, she complains that I have been with other women which means losing marriage is her major worry”. P 7: K7-7:2.

"Before repair, they prefer being alone than around others. After the repair, they socialize normally but some people continue to stigmatize them". P10: K10-10:2.

She relates easily but some people stigmatize her. She ignores them because she feels she cannot change anything. She is very assertive and confident”. P11: K11-11:2.

“Previously she was not going anywhere; she would not even like people coming to check up on her. She would say, ‘Those are mockers’, but now she attends every event”. P12: K12-12:2.

DISCUSSION

Obstetric fistula is a condition considered beyond repair given the psychosocial challenges presenting with it [14]. Several studies highlight high levels of self and public stigma among patients who are living with fistula [6,8,20] but also cases of patients who would not want to go back home after repair and those contemplating relocation have been mentioned by various studies [12,15-16]. Successfully repaired patients may opt to relocate to new environments to start life afresh because they anticipate social stigma in environments where they are very well known. Such feelings and beliefs may be false and yet have the potential to influence consistent beliefs, thoughts, and perceptions from the target persons or groups [26]. Therefore, a study about the relationship between erroneous patient’s perceptions and social reintegration among patients in different repair categories ought to have been done.

This study found that 51.5% of the 390 participants felt that their spouses would not at all reaccept them, 14.4% felt that their community members would not at all accept them and 9.0% felt their parents would not reaccept them. Again, 33.6% were not at all satisfied with their lives and 47.7% felt uncomfortable around others. According to Merton et al. [11], expectations stimulate behaviors among target people that confirm the initial expectation [11]. Therefore, such feelings and attitudes among the patients could be based on previous experiences, fear or anticipated stigma [9,12]. Nonetheless, such beliefs do not validate accuracy because not every difference between people is based on a self-fulfilling prophecy [27]. Therefore, an empirical study is necessary to show that such beliefs resulted from self-fulfilling prophecies.

This study indicated a major difference in the relationship between self-perceived stigma, perception of loss, self-worth, achievement, expectation of reacceptance, perception of family and community members to have negative attitude towards them, a belief of being labeled, moods swings, feelings of self-satisfaction and comfort with others and social reintegration among the obstetric fistula patients in different repair category. All the variables were found to have a relationship with the patients' repair category, with all of the attributes under investigation having p-values less than 0.001 at a 95% confidence interval. This meant acceptance of the alternative hypothesis.

Obstetric fistula is associated with loss of dignity, self-esteem, hope, and stigma that may be self-initiated or from others [3,10,15,28]. Studies also note cases that self-stigmatize due to anticipated stigma from the public. They hide and keep in the backyard, that only loneliness and silence know the degree of their shame [8,12]. According to Kasamba N et al. [8], huts are specially built for them far off the main house. Changole J et al. [12] also pointed out how the patients shun public places due to anticipated stigma. Thediscussed studies leave out social experiences and beliefs among the patients whose fistula were successfully repaired fistula. On the other hand, the repair of obstetric fistula improves the patients' quality of life, and stress, anxiety, and depression are observed to reduce over time [3,6].

Again, a study in North Ethiopia noted that the challenges among the obstetric fistula patients were far beyond incontinence. Meaning repair alone is not sufficient though it is necessary. They highlighted rejection, inability to fulfill their marital duties, being unemployable, inadequate income, separation, and divorce as complementary challenges [10]. Consistent with these findings on self-stigma, and beliefs about partners, parents, and communities are those of a study in Tanzania which reported on self-stigma and public stigma as factors impending health-seeking behavior [9]. They result in low self-esteem, self-efficacy, and fear among the patients. Patients suffer mistreatment in the form of abusive utterances and isolation by loved ones, in-laws and neighbors. In some instances, the in-laws advise their sons to separate or take on another wife. According to Bashah TD et al. [10], patients mentioned relocation and or staying with their natal relatives such as sisters, brothers or their parents as the only choice they had because that was where they were likely to find comfort [10].

These findings are closely linked to those of this study whereby only 9.0% felt their parents would reject them and the majority (90%) felt they would be accepted, though to varying degrees. However, this study did not show the relationship between such feelings, and thoughts with social reintegration.

Patients are labeled and feel they are disabled [10]. Self-fulfilling prophecy has been reported to be a potential asset in labeling. Negative and positive labels result in counteracting behavior. When people are labeled, they internalize the labels which eventually evokes certain behaviors consistent with the labels [29]. Labeling and the associated sense of loss, then loss of dignity and hope are common among obstetric fistula patients. A study in Ethiopia narrated how a husband mistreated the wife and labeled her all sorts of names [30]. Studies associate such treatment to offensive odors and the various perceptions about the condition [12,31]. Improvement in personal hygiene, economic support, life skills training and comprehensive counseling could regulate negative beliefs and perceptions and permit patients to develop a sense of self-worth being appreciated, develop a positive attitude and indeed be reaccepted and assimilated into their families and communities [3,30,31].

CONCLUSION

In conclusion, larger proportions of obstetric fistula patients with unrepaired fistula held negative perceptions, and beliefs towards their spouses, families, and communities. They felt worthless, and as non-achievers. A relationship was found between these beliefs and perceptions with social reintegration. Programs intended to transform such negative beliefs and expectations to positive ones such as the promotion of personal hygiene and comprehensive counseling would result in positive outcomes.

SUPPLEMENTARY MATERIALS

Supplementary materials are attached.

CONFLICT OF INTERESTS

There are no conflicts of interest to declare.

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AUTHORS' CONTRIBUTIONS

Conceptualization, literature review, development of methodology,data collection, writing and manuscript preparation, were by AS, AAO, FJM and OAO supervised all the stages and edited the manuscript.

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