

Mental Health Impact of Obstetric Fistulas in Sudanese Women: Sudan's very first study

Bahga Hamed ^{1,2}, Abdelghani Elsheikh Abdelghani ³, Hassan I. Osman ²

1 = Department of Psychiatry, Faculty of Medicine, Omdurman Islamic University, Omdurman, Khartoum, Sudan

2 = Department of Psychiatry, Medicine & Surgery Program, Napata College, Khartoum North, Khartoum, Sudan

3 = Department of Psychiatry, Faculty of Medicine, The National Ribat University, Khartoum, Khartoum, Sudan

Abstract

Introduction: An Obstetric fistula is an abnormal connection between the vagina and bladder (vesicovaginal fistula) and/or the rectum (rectovaginal fistula). In this study, we assessed the mental health effects (anxious, depressive, and psychotic symptoms) of this phenomenon. **Results:** In total, 50 participants, aged 14-57 years old, were enrolled in the study. Statistically significant associations were found between obstetric fistulas and depressive and anxious symptoms, but no association with psychosis was found. Other variables were not found to be associated. **Conclusion:** This study, which was the first in Sudan, addressing the psychological impact on females with obstetric fistula revealed an association between vaginal fistula and depression and anxiety, but no association with psychotic symptoms. **Recommendations:** 1. Further elaboration in this issue and the field of obstetric fistula in general by promoting conduction of more researches using different study designs. 2. To support Fistula centers in Sudan with psychiatry liaison services because of the real need for specialist assessment in a collaborative way. 3. To raise the community awareness about obstetric fistula and to enhance positive attitudes towards avoiding the causative factors leading to fistula. 4. Encouraging, education and especially increase awareness about the problems associated with early age marriage. 5. Fighting stigma associated with obstetric fistula. 6. To improve the quality and availability of obstetric and antenatal care facilities in all parts of the country.

Keywords: Obstetric Fistula; OF; Mental Health Effects of obstetric fistula; Depression; Anxiety; Sudan

Introduction:

An obstetric fistula (OF) is a connection between the vagina and the bladder (vesicovaginal fistula) and/or the rectum (rectovaginal fistula), this results in urinary and/or fecal incontinence (1).

An OF is the result of obstructed labor (2). Prolonged compression by the fetal head, followed by the resulting necrosis, leads to the formation of a fistula between organs (3).

Despite its devastating impact on the lives of girls and women, OF is still largely neglected in the developing world. It has remained a 'hidden condition', because it affects some of the most marginalized members of the population— poor, young, often illiterate girls and women in remote regions of the world.

Causes of Obstetric Fistula:

5 causes have been associated with OF. These are: 1. Prolonged or obstructed labor, 2. Lack of access to maternity care, 3. Lack of knowledge about, or facilities for, fistula repair, 4. Underlying Social Causes, 5. Early Marriage and Childbirth (4)

Epidemiology:

A review by Stanton and colleagues (5) demonstrated that our knowledge of the incidence and prevalence of obstetric fistula is based on quality data. The most commonly quoted number was two million cases of obstetric fistula worldwide, with 50,000 to 100,000 new cases each year. In Sub-Saharan Africa, the incidence of OF has been estimated to be about 124 cases per 100,000 deliveries in rural areas, compared to little to no cases in major cities (6).

Each month, Dr. Abbo Center in the Sudanese capital, Khartoum, receives 60–80 patients referred from all over Sudan, and from neighboring countries (7). Khalil summarized the studies published about the situation in Sudan (8).

Psychological Consequences:

A review by Ahmed and Holtz (9) reported that 36% of women afflicted with fistulas were divorced or separated and fetal loss occurred in 85% of cases in which a fistula developed.

Low self-esteem, feelings of rejection, depression, stress, anxiety, loss of libido and loss of sexual pleasure were commonly reported by these women.

It also appears that the rates of separation or divorce increases the longer a woman lives with a fistula, particularly if she remains childless (10). Successful fistula repair reduces the prevalence of these psychosocial pathologies.

As a result of their condition, women with OF who were previously employed may suddenly find themselves unemployed. That may result in these women being dependent on their husbands and family members which may lead to a sense of uselessness (11).

Complications of Obstetric Fistula:

It is frequently reported in literature that the antecedent delivery usually ends in a stillbirth (10).

Treatment:

Spontaneous closure of 15–20% of simple or small fistulas can be achieved by conservative means; provided the condition is immediately addressed. The best chance for successful fistula closure is at the first operation and closure rates tend to diminish with each subsequent attempt at operative procedure (12).

Depression and Anxiety:

Depression is a mood disorder marked especially by sadness, inactivity, difficulty with thinking and

concentration, a significant increase or decrease in appetite and time spent sleeping, feelings of dejection and hopelessness, and sometimes suicidal ideation or an attempt to commit suicide (13).

Anxiety is an abnormal and overwhelming sense of apprehension and fear often marked by physiological signs (as sweating, tension, and increase in heart rate) (13).

A study conducted in Ethiopia (14) about depression among women with obstetric fistula and pelvic organ prolapse reported that around 90% of their population had advanced pelvic organ prolapse (stages 3 and 4), and the remainder had an OF. All those women reported both fecal and urinary incontinence, 97% of those with urinary incontinence were caused by obstetric fistulas.

In the same study, 67.7% of those with advanced pelvic organ prolapse (stages 3 and 4) had symptoms of depression. Depression was significantly associated with age (50 years or older), marital status, history of divorce, self-perception of severe problem, and having stage 3 pelvic organ prolapse.

Another study reported that, in the perspectives of women affected by obstetric fistula, four themes emerged related to experiences of loss: Loss of body control, loss of social role as a woman, loss of integration in social life, and loss of dignity and self-worth (15).

A study reported that women with obstetric fistula faced the following psychological challenges as a result of their condition- helplessness, sadness, suicidal thoughts, stigma and blame, feelings of worthlessness, fear, shame and social withdrawal (11).

A qualitative case study examined psychological effects of VVF from northern Nigeria (12), most reported a loss of self-esteem and experienced stress and anxiety.

A study in Uganda about living with obstetric fistula reported that 10% of the participants had suffered constant anxiety and depression (16).

A study in Tanzania reported high rates of physical and psychosocial morbidity. Over half of the patients said they would not have been able to access treatment without the transport costs being covered (17).

Research Methodology:

Study Design: This study was a quantitative, descriptive, cross-sectional, hospital-based study conducted at Dr. Abbo National Fistula and Urogynecological Center Referral outpatient Clinic in Khartoum Teaching Hospital in the period between 10/2014 and 2/2015.

All Sudanese women between the age of 14 and 55 years presenting to Dr. Abbo National Fistula and Urogynecological Center Referral outpatient Clinic in Khartoum during the period of the study were included in the study.

Instruments and Study Tools: Socio-demographic data questionnaire, Hospital Anxiety and Depression Scale, and Brief Psychiatric scale (18).

Data collection: Each participant in the study, who gave verbal consent to participate in the study, was directly interviewed by the researcher.

Data Analysis: All collected data was finally entered into the computer using the statistical packages for social sciences (SPSS) to analyze the data using simple descriptive statistics.

Ethical clearance:

1. Permission and a written consent from Dr. Abbo National Fistula and Uro- gynecological Center director were obtained before the beginning of the study.
2. Verbal consent was obtained from all participants in the study.

Results:

50 participants were enrolled in the study. 19 (38%) were between 14 and 24 years of age, 14 (28%) were between 25 and 35 years, 8 (16%) were between 36 and 46 years, 9 (18%) were between the age of 47 and 57 years old (Figure.1).

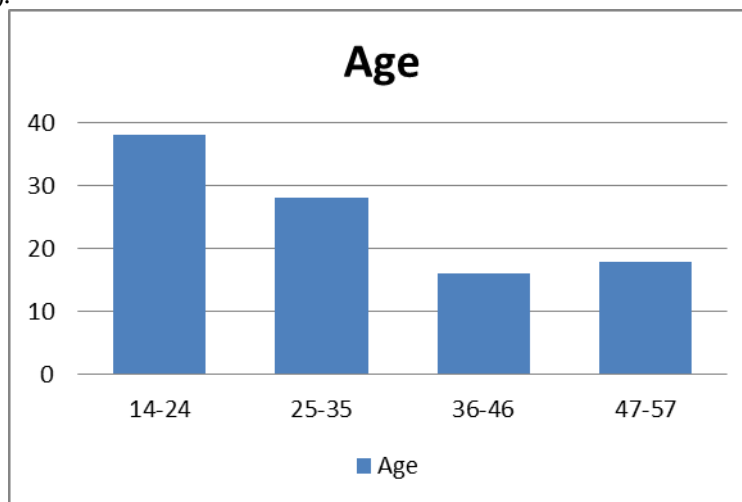


Figure 1: Distribution of the sample by age

In respect to the social status; 48 (96%) were married.

Following delivery, 35 (70%) of our participants, the newborn was dead, and in 15 (30%) , the newborn was still alive.

Educational attainment was as follows: 27 (54%) were completely illiterate, 6 (12%) did not complete their primary school, 12 (24%) completed their secondary school, 2 (4%) were university graduates, and 3 (1.8%) were postgraduate students (Figure 2).

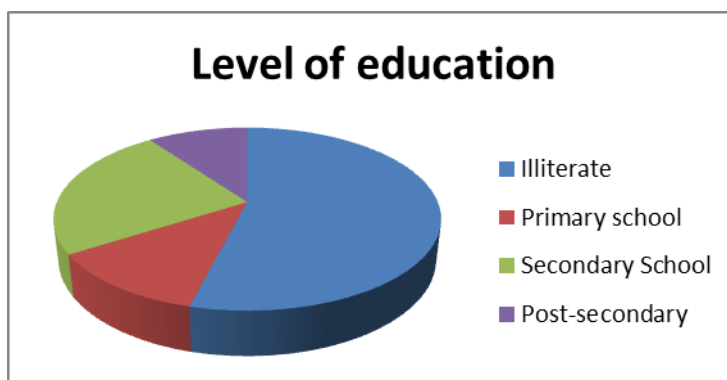


Figure 2: Distribution by educational attainment

15 (30%) of our participants had an obstetric fistula for less than a year, 13 (26%) had it for 1-3 years, 5 (10%) had it for 3-5 years, & 17 (34%) had it for more than 5 years (Figure 3).

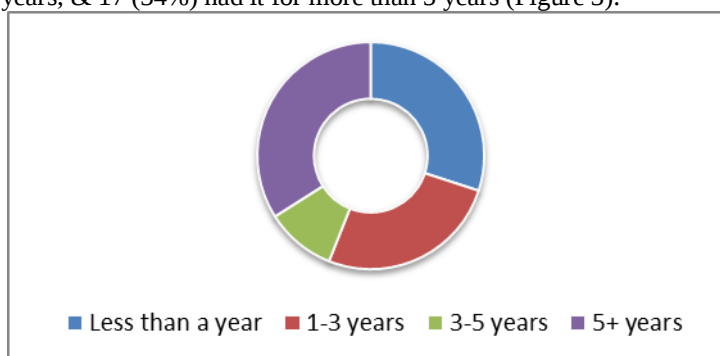


Figure 3: Distribution by duration of fistula

26 (52%) of our participants had surgical treatment of their fistulas.

We asked our participants if they have a past history of psychiatric illness prior to the fistula, all (100%) of them replied negatively (i.e. clear psychiatric history). When we asked about familial history of psychiatric illness, however, 6 (12%) replied positively (Table 1).

Table 1: Distribution according to family history of psychiatric illness

Family hx of psychiatric illness	Frequency	Percent %
Valid		
Yes	6	12.0
No	44	88.0
Total	50	100.0

Following this, we inquired about suicidal ideation following the fistula, 48 (96%) of them denied having

suicidal ideations, the remainder 2 (4%) reported a history of suicidal ideation following the fistula (Table 2).

Table 2: Distribution according to the presence of suicidal ideation

Suicidal Ideation	Frequency	Percent %
Valid		
Negative	48	96.0
Positive	2	4.0
Total	50	100.0

Anxiety symptoms were not present in 26 (52%) of our participants, 20 (40%) of them had mild anxiety and 4 (8%) of them had moderate anxiety (Figure 4).

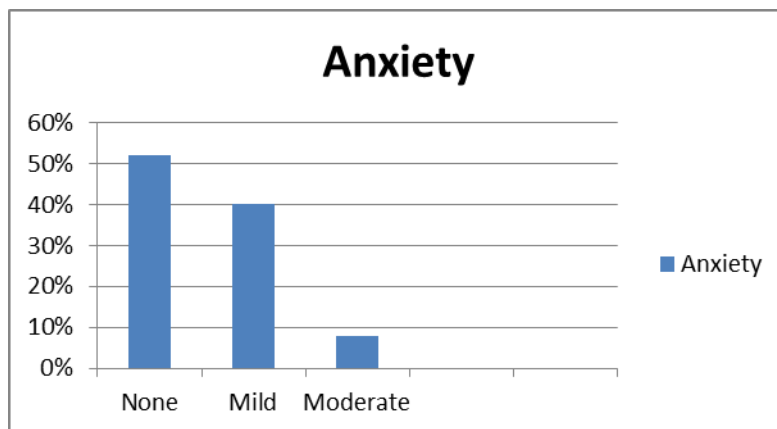


Figure 4: Distribution of anxiety amongst participants according to the HAD scale

In regards to depressive symptoms, 7 (14%) patients had none, 35 (70%) patients had mild depression, 6 (12%) had moderate depression, and 2 (4%) had severe depression (Figure 5).

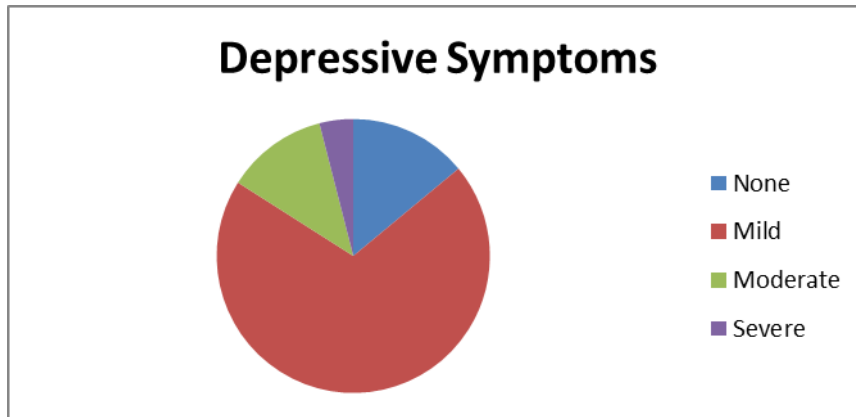


Figure 5: Distribution of participants by presence of depressive symptoms
 Age was not found to be statistically correlated with anxious, depressive, or psychotic symptoms (Table 3).

Table 3: Analysis of variance test for age

Age		Sum of Squares	df	Mean Square	F	Sig.	significance
Anxiety	Between Groups	56.252	3	18.751	1.265	.297	Not Significant
	Within Groups	681.768	46	14.821			
	Total	738.020	49				
Depression	Between Groups	17.829	3	5.943	.396	.756	Not Significant
	Within Groups	690.191	46	15.004			
	Total	708.020	49				
Psychosis	Between Groups	25.053	3	8.351	.769	.517	Not Significant
	Within Groups	499.527	46	10.859			
	Total	524.580	49				

Death of the newborn was also not found to be statistically associated with anxious, depressive, or psychotic

symptoms (Table 4).

Table 4: T- test, death of child

Death		N	Mean	Std. Deviation	T	df	Sig	significance
anxiety	yes	35	5.0571	3.66977	-.228	48	.820	Not Significant
	No	15	5.3333	4.46681				
Depression	yes	35	8.8571	4.15963	-.008	48	.994	Not Significant
	No	15	8.8667	2.92445				
Psychosis	yes	35	2.9714	2.94544	-.818	48	.418	Not Significant
	No	15	3.8000	3.98569				

Table 5 below illustrates our finding of educational levels not being associated with presence of psychiatric symptoms.

Table 5: Level of education

		Sum of Squares	df	Mean Square	F	Sig.
Anxiety	Between Groups	133.057	4	33.264	2.474	.058
	Within Groups	604.963	45	13.444		

	Total	738.020	49			
Depression	Between Groups	9.335	4	2.334	.150	.962
	Within Groups	698.685	45	15.526		
	Total	708.020	49			
Psychosis	Between Groups	67.497	4	16.874	1.661	.176
	Within Groups	457.083	45	10.157		
	Total	524.580	49			

A peculiar finding was duration of fistula not being associated with psychiatric symptoms (Table 6).

Table 6: Showing the result of analysis of variance test duration of disease

		Sum of Squares	df	Mean Square	F	Sig.
Anxiety	Between Groups	48.681	3	16.227	1.083	.366
	Within Groups	689.339	46	14.986		
	Total	738.020	49			
Depression	Between Groups	35.222	3	11.741	.803	.499
	Within Groups	672.798	46	14.626		
	Total	708.020	49			
Psychosis	Between Groups	37.632	3	12.544	1.185	.326
	Within Groups	486.948	46	10.586		
	Total	524.580	49			

Discussion:

The participants were from different age groups. 38% were from the younger groups (14 -24 years). This is

similar to data reported from Uganda (16).

Death of the new-born was not found to be associated with psychiatric symptoms, which is not consistent with a report Zimbabwe (11).

4% of our participants reported suicidal ideations, this is consistent with data reported from Zimbabwe (11).

Conclusion:

This study which was the first in Sudan addressing the psychological impact on females with obstetric fistula. The study revealed an association between vaginal fistula and depression ranging from mild, moderate to severe form. It also showed an association with mild to moderate anxiety, but no association with psychotic symptoms.

This study did not find statistically significant association between other variables including, age, educational level, duration of the obstetric fistula, death of new born child and surgical treatment of the obstetric fistula with anxiety, depression and psychotic symptoms.

Recommendations:

1. Further elaboration in this issue and the field of obstetric fistula in general by promoting conduction of more researches using different study designs.
2. To support fistula centers in Sudan with psychiatry liaison services because of the real need for specialist assessment in a collaborative way.
3. To raise the community awareness about obstetric fistula and to enhance positive attitudes towards avoiding the causative factors leading to fistula.
4. Encouraging, education and especially increase awareness about the problems associated with early age marriage.
5. Fighting stigma associated with obstetric fistula.
6. To improve the quality and availability of obstetric and antenatal care facilities in all parts of the country.

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