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Predictors of late presentation for obstetric fistula repair in Abakaliki, South-East Nigeria

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Abstract

Late presentation is a challenge to reducing the backlog of obstetric fistulas. We aimed to identify characteristics of women presenting late for repair in order to improve patient recruitment. It was a cross-sectional comparative study. Data was collected from the women and the hospital notes using proforma and analysed using SPSS. Associations between categorical variables were determined using Chi-square. Predictors of late presentation were determined using logistic regression. A P-value of <0.05 was statistically significant. The mean time of presentation was 42.3 months. Late presentation was significantly associated with age ≥35 years, parity < 3, not having a spouse, and trauma. On logistic regression, women aged 35 years and above were five times more likely to present late compared with younger ones (AOR= 5.192, 95%CI 1.839-14.660, P=0.002), while women with parity ≥3 were five times less likely to present late compared with those <3 (AOR= 0.208, 95%CI 0.073-0.587, P=0.003). In conclusion, most patients presented late. Although age, parity, having a spouse, and aetiology were associated with time of presentation, age ≥35 years and parity < 3 were the significant predictors of late presentation. Recruitment for early repair should be a priority area of the national policy for the elimination of obstetric fistula. *(Afr J Reprod Health 2021; 25[4]: 76-81).*

Keywords: Predictors, late presentation, obstetric fistula, Nigeria

Résumé

La présentation tardive est un défi pour réduire l'arriéré des fistules obstétricales. Nous avons cherché à identifier caractéristiques des femmes se présentant tardivement pour réparation afin d'améliorer le recrutement des patientes. Il s'agissait d'une étude comparative transversale. Les données ont été recueillies auprès des femmes et des notes d'hôpital à l'aide de formulaires proforma. et analysés à l'aide de SPSS. Les associations entre les variables catégorielles ont été déterminées à l'aide du Chi carré. Les prédicteurs de présentation tardive ont été déterminés à l'aide de la régression logistique. Une valeur p de <0,05 était statistiquement significatif. Le délai moyen de présentation était de 42,3 mois. La présentation tardive était significativement associé à l'âge > 35 ans, la parité < 3, l'absence de conjoint et un traumatisme. En régression logistique, les femmes âgés de 35 ans et plus étaient cinq fois plus susceptibles de se présenter tardivement que les plus jeunes (AOR = 5,192, IC à 95 % 1,839-14,660, P=0,002), tandis que les femmes avec une parité >3 étaient cinq fois moins susceptibles de présenter en retard par rapport à ceux <3 (AOR = 0,208, IC à 95 % 0,073-0,587, P = 0,003). En conclusion, la plupart des patients présenté tardivement. Bien que l'âge, la parité, le fait d'avoir un conjoint et l'étiologie soient associés au temps de la présentation, l'âge > 35 ans et la parité < 3 étaient les prédicteurs significatifs de la présentation tardive. Recrutement la réparation précoce devrait être un domaine prioritaire de la politique nationale d'élimination de la fistule obstétricale. *(Afr J Reprod Health 2021; 2543]: 76-81).*

Mots-clés: Prédicteurs, présentation tardive, fistule obstétricale, Nigéria

Introduction

The scourge of obstetric fistula remains a serious reproductive health problem in low- and middle-income countries[1]. It is seen largely among poor, uneducated, rural women who lack access to quality maternity care[2,3]. It is a significant medico-social and psycho-sexual problem characterized by profound emotional distress, economic hardship, and discrimination occasioned by persistent odour from continuous leakage of urine and/or faeces. It is a consequence of injuries sustained in the genital tract usually as a result of prolonged obstructed labour[3,4].

Although the exact burden is unknown, there are an estimated 2 million women with

obstetric fistula across the globe with 50,000 to 100,000 new cases every year mainly in South-East Asia and sub-Saharan Africa[5]. In Nigeria, there are about 150,000 women living with this condition with about 12,000 new cases occurring annually[5]. A prevalence of 43.6 per 1000 deliveries was reported in South-East Nigeria[4].

Obstetric fistula is a distressing condition characterized by extreme social restrictions, psychological distress, marital disharmony, divorce, perpetual economic dependency, loss of dignity, shame, hopelessness, depression, and suicidal ideation[6,7]. These problems are in addition to other medical complications of prolonged obstructed labour such as urine dermatitis, urinary tract infection, nerve injury, urethral stricture, bladder stone, cervical retraction, cervical stenosis, menstrual abnormality, and infertility[8].

In order to reduce the harrowing experiences of these women, there is a need to encourage early presentation and repair. Early repair of obstetric fistula will reduce the stigma and other psychosocial problems these patients suffer as well as reduce the occurrence of associated medical problems. It will restore early the quality of life of these women and also facilitate re-integration into their families and communities. In the long term, it will reduce the backlog of women awaiting repair.

The Federal Government of Nigeria has prioritized efforts to reduce the prevalence of untreated obstetric fistula by ensuring that women affected have access to timely treatment[5]. Key strategies in this direction include strengthening the health system capacity to provide appropriate fistula treatment, identifying and supporting women with obstetric fistula to access treatment centres, media campaigns, community awareness, sensitization, and client mobilization[5].

Late presentation is a problem because it increases the period of anguish from incontinence as well as increases the backlog of women that need repair. The factors that predispose obstetric fistula patients to late presentation in Abakaliki, South-East Nigeria are not clearly documented. This study was carried out to determine which categories of women are more likely to present late for treatment after developing obstetric fistula. The knowledge obtained from this study will help improve our efforts and strategies towards advocacy and sensitization for early presentation and treatment in line with the national framework.

Methods

The study was carried out at the National Obstetric Fistula Centre (NOFIC), Abakaliki, Ebonyi State, South-East Nigeria. The Centre is the first National Fistula Hospital in Nigeria. It is the National Reference Centre for the management of obstetric fistula in the southern part of Nigeria established to take care of obstetric fistula patients from the South-East, South-South, South-West, and parts of the North-Central geo-political zones of the country. The Centre is located at 86km, Enugu-Abakaliki Expressway, and receives referrals from about 20 states of Nigeria and the Federal Capital Territory. The centre has carried about 3,000 free fistula repairs since its inception.

This was a cross-sectional comparative study carried out among successive 112 women who had obstetric fistula repair at the Centre from January to October 2019. Ethical approval was obtained from the Research and Ethics Committee of the institution. A consecutive sampling method was used. Data were collected from all consenting patients seen at the General Out-Patient Department, examination room, wards, and operating theatre. Additional data were obtained from hospital records and operation notes of these women. Information on socio-demographic characteristics, obstetric history, and examination findings were obtained and entered into a pre-designed and validated structured proforma. The time of presentation at the hospital after developing the fistula was determined for every patient. For the purpose of this study, an early presentation was defined as a presentation at 6 months or less following the onset of leakage of urine or faeces while a late presentation was defined as a presentation after 6 months of leakage. Since there is no universal definition for early or late presentation, a cut-off of 6 months was used in this study because women with obstetric fistula are usually not operated on until after 3 months to allow correction of anaemia, healing, sloughing off of devitalised tissues, and growth of healthy tissues. An allowance of 3 more months was given arbitrarily after which the woman was deemed to have presented late.

Data were analysed using SPSS Version 20. Results were presented in tables. Frequency and proportions were used to describe categorical variables while mean and standard deviation were used to describe continuous variables. Association

between categorical variables and time of presentation was determined using the Chi-square test. Predictors of late presentation were determined using logistic regression. A P-value of <0.05 was considered statistically significant

Results

A total of 112 women were studied. The mean age of the women was 33.9±8.4 years with a range of 15-60 years. The median parity was 3 while the median number of living children was 1. The mean time of presentation was 42.3 months. Forty-eight women (42.9%) presented early while 64 women (57.1%) presented late. Thirty-one women (27.7%) delivered live neonates while 81 delivered stillbirths (72.3%). The details of the socio-demographic and obstetric characteristics are shown in Table 1.

The relationships between the age of the women, parity, having a spouse, aetiology of fistula, and time of presentation are all shown in Table 2. A higher proportion of women aged 35 years and above presented late compared with those who were under 35 years (X^2 = 7.781, P=0.005). A higher proportion of women with parity less than 3 presented late compared with those who had parity 3 and above (X^2 = 6.593, P=0.010). A higher proportion of women who were separated, divorced, or widowed presented late compared with those who had a spouse (X^2 = 6.846, P=0.009).A higher proportion of women whose fistula resulted from trauma (iatrogenic injuries, automobile accident, and female genital mutilation) presented late compared with those whose fistula resulted from prolonged obstructed labour (X^2 =4.200, P=0.040). There was no statistically significant association between the number of living children, location/residence, education, occupation, husband's occupation, fetal outcome, and time of presentation.

Logistic regression output of late presentation on selected independent variables is shown in Table 3. Adjusted odds ratio (AOR) showed that age and parity were the significant predictors of late presentation in this study. Women aged 35 years and above were five times more likely to present late compared with those under 35 years (AOR= 5.192, 95%CI 1.839-14.660, P=0.002). Also, women parity3 and above were five times less likely to present late compared with those parity less than 3 (AOR= 0.208, 95%CI 0.073-0.587, P=0.003). Not having a spouse however did not show any significance as a predictor of late presentation on logistic regression (AOR= 0.13, 95%CI 0.03-0.59, P=0.008). Also, the cause of fistula did not show any significance as a predictor of late presentation on logistic regression (AOR= 1.484, 95%CI 0.546-4.033, P=0.439).

Table 1: Socio-demographic and obstetric characteristics of the subjects

Characteristics	Frequency (%)
Age (years)	
15-24	15 (13.4)
25-34	45 (40.2)
35-44	37 (33.0)
45 & above	15 (13.4)
Parity	
0-1	32 (28.6)
2	21 (18.8)
3	29 (25.9)
4	10 (8.9)
5 & above	20 (17.9)
No. of children alive	
0	30 (26.8)
1-2	55 (49.1)
3-4	17 (15.2)
5 & above	10 (8.9)
Spouse	
With a spouse	93 (83.0)
Without a spouse	19 (17.0)
Location/Residence	
Ebonyi State	27 (24.1)
Outside Ebonyi State	85 (75.9)
Education	
None	17 (15.2)
Primary	40 (35.7)
Secondary	44 (39.3)
Tertiary	11 (9.8)
Occupation	
Unemployed	11 (9.8)
Farmer	19 (17.0)
Trader	46 (41.1)
Artisan	28 (25.0)
Others	8 (7.1)

Discussion

The study examined the factors that predispose obstetric fistula patients seen in Southern Nigeria to late presentation for surgical repair despite the profound physical and mental distress suffered by these women. The mean age of the women was 33.9 years (SD 8.4, Range 15-60), and close to half of the subjects were aged between 25 and 34 years. This means the condition is predominantly a problem of young women.

Table 2: Patients' characteristics and time of presentation

Characteristics	Early	Late	Total	
Age				
<35 years	33	27	60	$X^2 = 7.781$
35 years & above	15	37	52	P = 0.005
Total	48	64	112	
Parity				
≤2	16	37	53	$X^2 = 6.593$
3&above	32	27	59	P = 0.010
Total	48	64	112	
Spouse				
Without a spouse	3	16	19	X^2= 6.846
With a spouse	45	48	93	P = 0.009
Total	48	64	112	
Aetiology				
POL	36	36	72	$X^2 = 4.200$
Iatrogenic/Trauma	12	28	40	P = 0.009
Total	48	64	112	
Location				
Ebonyi	13	14	27	$X^2 = 0.407$
Outside Ebonyi	50	35	85	P = 0.524
Total	63	49	112	
Education				
None/Primary	23	34	57	$X^2 = 0.298$
Secondary/Tertiary	25	30	55	P = 0.585
Total	48	64	112	
Occupation				
Unemployed	6	5	11	$X^2 = 0.680$
Employed	42	59	101	P = 0.409
Total	48	64	112	
Husband's Occupation	2	10	12	$X^2 = 3.764$
Unemployed	46	54	100	P = 0.052
Employed	48	64	112	
Total				

Table 3: Logistic regression analysis of the time of presentation on selected variables

Selected variables	Df	P-value	AOR (95% CI)
Age	1	0.002	5.192 (1.839-14.660)
Parity	1	0.003	0.208 (0.073-0.587)
Having a spouse	1	0.058	0.258 (0.064-1.045)
Cause of fistula	1	0.439	1.484 (0.546-4.033)
Fetal outcome	1	0.273	0.554 (0.193-1.592)
Husband's occupation	1	0.087	0.204 (0.033-1.263)
Constant	1	0.004	27.055

*AOR Adjusted Odds Ratio, *CI Confidence Interval

It is largely associated with pregnancy and delivery with prolonged obstructed labour being the major cause. The cases of women developing fistula after the reproductive age can be attributed to iatrogenic causes. The implication of the age distribution of the condition is that it provides a reachable target group for intensive sensitization as a panacea for this scourge. Several other studies have demonstrated that it is a problem of young women of low parity[3,4,9,10,11].

Over two-thirds of the women presented at the hospital for repair more than six months after the development of the fistula. This implies these women had endured prolonged physical, psycho-social, and mental hardship before coming for repair. Studies have shown that over half of fistula patients had waited for over a year before presenting for treatment[12,13]. Clinicians taking care of these women will need deep insight into the harrowing experiences of the women as well as their mental state while trying to solve the problem of leakage.[14] Stigmatization, divorce, a feeling of loss, shame, social exclusion, and depression have been reported among these women[8,9,12]. A lot of behavioural and personality changes are also to be expected from women who have been ostracized for so long. Management of these women should therefore incorporate mental health interventions and other efforts to address these mental and psycho-social problems[14,15]. Further researches such as qualitative studies are also needed to ascertain the exact reasons the women do not present early for care.

Age was significantly associated with late presentation. A higher proportion of women aged 35 years and above presented late for treatment compared with younger ones. This finding implies that the older women presented late while the younger ones presented earlier. The older women may delay presenting for treatment because they can endure hardship more than the younger ones. This could also be so because the younger women are likely to be more disturbed by leakage of urine or faeces after delivery and thus want a solution as early as possible. Since the younger women are also more prone to post-partum mental problems, the inconvenience of leakage may increase their restlessness. This finding implies that older women may just constitute a huge proportion of the backlog of cases the country is currently battling to clear. Personnel involved in sensitization and mobilization efforts will need to take cognizance of this. The finding is at variance with another which showed that older subjects had better health seeking behavior compared to the younger ones[16]. However, another study showed that socio-economic factors were the single most important determinant of health-seeking behavior over and above age[17].

Parity was also significantly associated with late presentation. Women with parity 3 and above were about five times less likely to present late for repair. This may be due to experience. The women who have delivered multiple times previously will readily recognize leaking of urine after a particular delivery as abnormal and seek remedy. Efforts at sensitization and mobilization should therefore seek out women of lower parity who may be yet to come to terms with the new development for proper medical screening. Such women may need to be actively recruited into the fistula repair programme so that they do not add to the existing backlog. Women of low parity typically constitute the majority of obstetric fistula patients[3,9,10,13,18]. The cause of the delay between the onset of leakage and presentation at the hospital is unclear. This is a subject of further research. Suggested reasons include limited availability of centres for repair, lack of access, poverty, lack of awareness, stigma, unacceptability of modern healthcare, or poor family and social support[2,13].

Not having a spouse was associated with the late presentation but was not significant on logistic regression. A higher proportion of women who were separated, divorced, or widowed presented late compared with those who had a spouse. Women who are not with a spouse may lack the financial strength, emotional support, information, reassurance, and encouragement to seek medical care. Social support, especially spousal understanding and cooperation is extremely vital in every phase of the management of obstetric fistula[19]. This is because obstetric fistula on its own puts a lot of strain on existing relationships. The women without a spouse will require additional attention by caregivers when identified in the hospital. Support by partners and family members helps the patients cope better with the physical, emotional, and psychological distress from the loss of bladder or bowel control. Women who are accompanied by their partners had a better sense of self-esteem, feel happier, and are better able to cope with the stress of fistula, the treatment process, and subsequent re-integration into the society[15,20].

The cause of the fistula was associated with the late presentation but was not also significant on logistic regression. A higher proportion of women whose fistula resulted from iatrogenic injuries/trauma, presented late compared with those whose fistula resulted from prolonged obstructed labour. A possible explanation for this is that the patients who developed a fistula from surgical procedures may need sufficient time to recuperate fully before seeking a solution to the fistula. Also, some may erroneously believe the incontinence being experienced is part of the recovery process and will cease over time. Some practitioners may however believe that a waiting period is necessary to allow the patient to recover from the first surgery before referral for another major surgery. A study carried out in Ibadan, South-West Nigeria showed that most of the women managed for iatrogenic ureteric fistula had leaked urine for over six months, with two having leaked for 16 and 18 years respectively[21]. A study in Thailand however showed that all the women who had vesico-vaginal from abdominal hysterectomy presented with leakage of urine within two weeks[22].

This study is limited by the fact that it is cross-sectional and did not elicit from the subjects the exact reasons for late presentation as well as the experiences of the women while waiting to present themselves for repair. A follow-up qualitative study design using key informant interviews and focused group discussions is recommended as this will yielded more information about the circumstances surrounding the delay in presentation and the difficulties encountered during the waiting period. It will also provide more insights into the timing of the presentation and help in formulating policies and interventions to overcome the identified barriers.

Conclusion

In conclusion, over two-thirds of women with obstetric fistula presented late to the hospital for repair. The factors associated with late presentation were age, parity, not having a spouse, and aetiology of the fistula. However, only age 35 years upwards and parity less than 3 were the significant predictors of late presentation in this study. We recommend the inclusion of active and aggressive mobilization of patients for early repair as one of the priority areas of the national policy for the eradication of obstetric fistula.

Conflict of interests

None declared.

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