East African Medical Journal Vol. 92 No. 8 August 2015
ANALYSIS OF 137 OBSTETRIC FISTULA CASES SEEN AT THREE FISTULA CENTRES IN NORTHWEST NIGERIA
I. Tukur, MBBS, MPH, Center for Population Health, Department of Social & Preventive Medicine, Faculty of Medicine, University of Malaya, 50603 Kuala Lumpur, Malaysia, M. A. Ijaiya, MBBS, FWACS, DRH, Department of Obstetrics and Gynaecology, University of Ilorin / University of Ilorin Teaching Hospital, Ilorin, Kwara State, T. Tin Su, MBBS, MSc, DMed, Department of Social and Preventive Medicine, Faculty of Medicine, University of Malaya, 50603 Kuala Lumpur, Malaysia, C. K. Chan, ScD, Center for Population Health, Department of Social and Preventive Medicine, Faculty of Medicine, University of Malaya , 50603 Kuala Lumpur, Malaysia, T. A. Muhammed-Baba, PhD, Department of Sociology / Centre for Peace Studies, Usmanu Danfodiyo University, P.M.B. 2346, Sokoto, Nigeria and C. Karuthan, MSc, PhD, University of Malaya, 50603 Kuala Lumpur, Malaysia.

Request for reprints to: Dr I. Tukur, MBBS, MPH, Center for Population Health, Department of Social and Preventive Medicine, Faculty of Medicine, University of Malaya, 50603 Kuala Lumpur, Malaysia, Email : ismailtukur@yahoo.com

ANALYSIS OF 137 OBSTETRIC FISTULA CASES SEEN AT THREE FISTULA CENTRES IN NORTHWEST NIGERIA

I. TUKUR, M. A. IJAIYA, T. TIN SU, C. K. CHAN, T. A. MUHAMMED-BABA and C. KARUTHAN

ABSTRACT

***Objectives*: To determine the contributory factors to development of obstetric fistula and to determine the knowledge and practice of modern contraception among fistula patients.**
***Design*: Descriptive hospital cross-sectional study.**
***Setting*: Three fistula centres in north west Nigeria.**
***Subjects*: All obstetric fistula patients that met the inclusion criteria.**
***Results*: Of 137 cases of obstetric fistula patients that satisfied the inclusion criteria, 88% had only Vesico-vaginal fistula, while 10% and 2% had recto-vaginal fistula, and combined vesico-vaginal fistula and recto-vaginal fistula respectively. All the patients had early marriage (before age 20 years) with median ages at first marriage of 15 years and at presentation in hospital of 16 years. Majority (93.4%) of the patients developed fistula during the first delivery. Approximately two-third of the patients had no form of education. Only 42.3% of the patients received antenatal care and 86% delivered at home. Only 28% of the patients was aware of modern contraception and 2% had used modern contraceptive before developing fistula. All the patients expressed willingness to use modern contraception after fistula repair.**
***Conclusion*: This study shows that child marriage, low education, unskilled birth attendance and low contraceptive uptake are common among the obstetric fistula patients in north west Nigeria. Public advocacy and formulation of laws and policies to protect girls from early marriage, girl child education to secondary school level be encouraged, public education on the importance of and utilisation of maternity and modern family planning services.**

INTRODUCTION

Every day nearly 800 women die from complications of pregnancy and delivery, and for every woman who dies, 20 or more are injured or disabled (1). Obstetric fistula is one of the pregnancy related disabilities that have been overlooked and ignored for several years. Obstetric fistula is communication between the vagina and bladder / and rectum following prolonged obstructed labor that leads to urine / and fecal leakage per vaginam. This is aftermath of a near miss obstetric event and is considered as the most dehumanising condition to afflict women (2,3). Other obstetric causes include uterine rupture, forceps delivery, destructive operation and Gishiri cut practice by Hausa traditional health practitioner.

According to World health organization, over two million women globally have obstetric fistula and 50,000-100,0000 new cases occur each year (4). However, these figures are underestimation of the prevalence and incidence of the condition. Most of the cases are in sub-Saharan Africa and south Asia(5,6). Currently, there is no reliable prevalence of obstetric fistula in Nigeria and the few figures available are hospital based. Therefore the estimated incidence of fistula for Nigeria is 12,000 cases per year (7) with a rate of 2.11 per 1000 deliveries in all reproductive-age women (5). Obstetric fistula is very rare in developed

countries. Data from regional health authority in England and Wales reported 120-150 cases of urogenital fistula per year and fistula complicating hysterectomy was the most common cause (8).

Efforts are being made to eradicate Obstetric fistula by many national and international organizations both governmental and non-governmental organizations such as United Nations Population Fund (UNFPA), United State Agency for International Development (USAID) and international obstetric fistula working group, who are members of the campaign to end fistula. UNFPA led campaign to end fistula is active primarily in Africa and south Asia where obstetric fistula is a major public health challenge. In Nigeria, campaign to end fistula has helped to develop national plan, treatment of fistula and re-integration services and unlocking potentials of some university teaching hospitals where fistula surgeons are concentrated but with few fistula cases (7).

The objectives of this study are to determine the contributory factors to development of obstetric fistula, and also to determine the knowledge and practice of modern contraception among fistula patients in three fistula centers in north west Nigeria.

MATERIALS AND METHODS

Design setting: This study was a descriptive, cross-sectional, hospital-based study involving 137 obstetric fistula patients awaiting fistula repair at Farida vesicovaginal fistula hospital, Gusau, Zamfara state, Maryam Abacha vesicovaginal fistula hospital, Sokoto, Sokoto state and Babbar Ruga vesicovaginal fistula hospital, Katsina, Katsina state. All the three fistula centers are located in the north west Nigeria. The study was carried out between 1st April and 31st October 2013.

A modular semi-structured interviewer administered questionnaire and patient case records review were employed. Information obtained were patients age at presentation and first marriage, occupation, level of education of the couple, parity and history of last delivery. Others were knowledge of contraceptive, contraceptive usage, method used and future use of contraception. Contraceptive use or ever use of contraception refers to use of a method of contraception at any time before development of fistula, while future use of contraception refers to patients wish or willingness to use a method of contraception after successful fistula repair.

Participants: All fistula cases in the three fistula centers that were of obstetric origin, less than three years duration and has not undergone any surgical repair were included in the study, while cases of more than three years duration, from non-obstetric causes such as malignancy, trauma etc or that had undergone previous repair were excluded.

Statistical analysis: The data were analysed using SPSS version 18 Statistical software. Frequencies, percentages, median and graph were used for analysis.

Ethical consideration: Ethical approval was obtained from Zamfara state health research ethical committee, Zamfara state ministry of health, registration number NHREC/10/11/201b. All the participants in the study gave an informed consent before participation.

RESULTS

From 1st April to 31st October 2013, a total of 137 cases of obstetric fistula that satisfied the inclusion criteria were recruited at three fistula centers in northwest Nigeria. Patients with Vesicovaginal fistula alone accounted for 88% of cases, while patients with rectovaginal fistula, and patients with both vesicovaginal fistula and rectovaginal fistula accounted for 10% and 2% of cases respectively. Majority of the patients (91.5%) were Hausa / Fulani while 3% were of Igbo extraction and 5.5% were from Republic of Niger. Most of the patients (97.0%) were Muslims.

Table 1 shows the socio-demographic parameters of the patients. All the 137 patients had their first marriage before the age of 20years and the median age at first marriage was 15years. About two-third of them were less than 20years of age at the time of presentation at the hospital and median age at presentation was 16 years.

Only half of the patients remained married at presentation, while 38 (27.7%) were divorced. One hundred and twenty eight patients (93.4%) were primiparas. Patients with high parity were very few.

Ninety two patients (67.2%) had no form of education and six patients (4.3%) had primary/ secondary education. About one third of their spouses had no form of education and 19 (13.9%) had primary / secondary education.

Table 1
Socio-demographic parameters

Age range (years)	No of cases	%
i, Age at presentation		
11-14	19	13.9
15-19	68	49.6
20-24	41	29.9
25-29	9	6.6
Total	137	100
ii, Age at first marriage (years)		
Age range	no	%
11-14	43	31.4
15-19	94	68.6
Total	137	100
iii, marital status		
status	no	%
married	72	52.6
widow	27	19.7
Divorce	38	27.7
Total	137	100
iv, Parity distribution		
parity	no	%
1	128	93.4
2	6	4.4
≥3	3	2.2
Total	137	100
v, Respondents level of education		
Educational level	no	%
None	92	67.2
Quranic education	39	28.5
Primary / secondary education	6	4.3
Total	137	100
vi, Husbands level of occupation		
Educational level	no	%
None	47	34.3
Quranic education	71	51.8
Primary / secondary education	19	13.9
Total	137	100

Fifty eight patients (42.3%) received antenatal care during pregnancy and most of the obstetric fistula patients (84.7%) had stillbirth (detail in Table 2).

Table 2
Antenatal clinic attendance and perinatal outcome

ANC attendance	no	%
i,Antenatalclinic(ANC)attendance		
Yes	58	42.3
No	79	57.7
Total	137	100
ii, Perinatal outcome		
outcome	no	%
Alive	21	15.3
dead	116	84.7
Total	137	100

Majority of the obstetric fistula patients delivered at home (86%). Only 2% had hospital delivery as illustrated in Figure 1.

Figure 1
Place of delivery among obstetric fistula patients

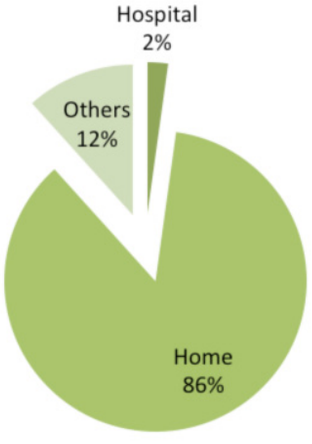

Table 3 reveals contraceptive characteristics of obstetric fistula patients. Only 28% of the patients was aware of modern contraceptive and two percent of the patients had used modern contraceptive before developing fistula. Pills and injectables were the only modern contraceptive used. All the patients wish to use contraceptive in future.

Table 3
Contraceptive characteristics of obstetric fistula patients

i, Knowledge of modern contraception		
knowledge	no	%
Yes	38	27.7
No	99	72.3
Total	137	100
ii, Pre-morbid Modern contraceptive usage		
	no	%
Yes	3	2.2
No	134	97.8
Total	137	100
iii, Types of contraceptive used		
Type	no	%
Pills	2	1.5
Injectables	1	0.7
Total	3	2.2
iv, Future use of contraceptive		
	no	%
Yes	137	100
No	0	0
Total	137	100

DISCUSSION

Confinement suppose to be a pleasant and joyful experience but in some circumstances it is a difficult time, when it is accompanied by either or both maternal and perinatal morbidity and mortality. The actual prevalence/incidence of obstetric fistula is unknown especially in developing countries because of the associated shame and poor epidemiological data collection.

All the patients in this series had early marriage and pregnancy, which is similar to findings from other parts of sub-Saharan Africa, where most of the fistula patients were married before the age of 20 years (9 -11). Nigeria demographic and health survey 2008 shows that northwest Nigeria had the least age at first marriage in Nigeria(12). Women that marry earlier are more likely to have their first child earlier that is why obstetric fistula is most common among primiparous women in areas where early marriage is prevalent as in this study centers and many other communities in developing countries (10,13). This practice may be due to cultural and religious belief. In some cases, the girls are given out in marriage before attaining menarche. In child pregnancy, the pelvis has not reached its full development for save passage of a term fetus, hence the young girl is prone to developing cephalopelvic disproportion and ultimately prolong obstructed labor. If the obstruction is not relieved early it leads to pressure necrosis and vesicovaginal fistula. On the contrary, most of the obstetric fistula patients from the southern Nigeria married between the age of 25 and 30 years bracket (2,14-17) this may explain why obstetric fistula is more prevalent in northwest Nigeria. Also, majority of fistula patients in Asia are in the age bracket 20 and 35 years. In contrast to north western Nigeria experience, obstetric fistula is more common among the multiparas in PortHarcourt, South south Nigeria (2) and Pakistan (5).

Low level of education, socioeconomic status, and ignorance among the patients and their husbands may contribute to the low rate of skilled birth attendance and consequently high prevalence of obstetric fistula recorded in this study, which is comparable to findings from many parts of Nigeria (14), Niger republic (5), Kenya and Ethiopia (10). The low rate of education among the obstetric fistula patients is corroborated by UNFPA report that only 2% of 15-19 year old married Nigerian girls are in schools, compared to 69% of unmarried girls (18). The more education a girl receives the less she is to be married as a child. A girl of less than 18 years cannot make a fully informed choice whether to marry or not to marry

therefore child marriage is regarded as a form of forced marriage and violation of girls rights. This practice is seldom in developed countries but rampant in rural and impoverished areas of sub Saharan Africa and Asia (4,-7,18,19), where opportunities and prospect for girl child are limited. It hinders the achievement of Millennium development goals 3 (improve gender equality and empower women), MDG 4 (reduce child mortality) and MDG 5 (improve maternal health). Studies have shown that child marriage increases the likelihood of HIV infection and of domestic violence (19). The contributory factors to the development of obstetric fistula and its consequences are intrinsical, as demonstrated in this series and other studies, such as low level of education, poverty, non-availability / poor health facility utilisation and low socio-economic status (4,5,13,14).

There is low knowledge of modern contraceptive among the obstetric fistula patients in this series (27.7%), which is lower than 43.1% recorded among general women population in north west Nigeria (20). North west Nigeria had least proportion of women that had knowledge of modern contraception in Nigeria (20).

Also, contraceptive usage before development of fistula is low among fistula patients as observed in this study (2%) and 26.1% among Kenyan fistula patients.10 Hence there is high unmet need for family planning especially among the young girls that require contraception. But interestingly all the patients in this study expressed a willingness to use modern contraception after repair of fistula which may help them delay pregnancy till they are mature for further pregnancy and delivery. The high future contraceptive usage in this study is similar to Kisha *et al*'s finding in Kenya (21), which is encouraging.

In conclusion, obstetric fistula remains a public health issue of concern in northwest Nigeria, where child marriage, low education, poverty, low skilled birth attendance rate and low contraceptive uptake are prevalent. The recommendations include public advocacy and formulation of laws and policies to protect girls from early marriage, encouraging girl child education to secondary school level, provision of accessible and affordable maternity services to improve skilled birth attendance rate and public education on and provision of family planning services.

ACKNOWLEDGMENTS

The authors acknowledge PRRINN-MNCH for their support. We acknowledge the doctors working in the three hospitals.

Conflict of interest: There is no conflicts of interest.

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