



Are Primary and Secondary Healthcare Workers in Rural Parts of Ebonyi State of Nigeria Aware of Obstetric Fistula?

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Background: Obstetric fistula remains a public health concern in Nigeria. New cases continue to occur despite massive campaigns to end it, so one begins to wonder if the workers in Primary Health Centers in rural parts of the state are aware of this menace. This study aimed to survey the level of awareness of PHC workers in the rural part of Ebonyi State.

Methods: This was a cross-sectional descriptive study. Ethical approval was obtained from Ebonyi State Research and Ethic Committee. An interviewer-administered, semi-structured questionnaire was used to collect data from the Officers-in-Charge of the facilities. Frequencies and proportions were calculated for categorical variables while means and standard deviations were calculated for numerical variables. Data was analyzed using the Statistical Software for Social Sciences version 21. Tests of significance were done. A p-value ≤ 0.05 was considered to be statistically significant.

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Results: A total of 60 health care workers were studied, 44(73.3%) in primary and 16(26.7%) in secondary facilities. Twenty (33.3%) of them were between age group 40-48 years with mean age 39.6±9.8 while 52(86.7%) were females. Majority (86.7%) had tertiary education and 70% of them were qualified Community Health Extension Workers. Almost all (57; 95%) were aware of obstetric fistula. The major source of information was conferences (52.6%) and electronic media (52.6%). Health workers with more years of experience were more aware of obstetric fistula (93.3%) compared with those with less experience. This was statistically significant, (P= 0.05).

Conclusion: Awareness of obstetric fistula is very high among health workers, main sources being conferences/workshops and electronic media. Longer years of work experience improved awareness. Policies for continuous awareness creation, capacity building and retention of health workers in the rural areas are recommended to sustain this awareness level and eradicate obstetric fistula in the state.

Keywords: Obstetric fistula; awareness; healthcare workers; Ebonyi state.

1. INTRODUCTION

Obstetric fistula (OF) is an opening between a woman's bladder (and/or rectum) and the vagina which leads to urine leakage (vesico-vaginal fistula) and/or faeces (recto-vaginal fistula) [1]. Obstetric fistula occurs due to obstructed labour, iatrogenic injury during vaginal delivery or caesarean section. Risk factors include early marriage, poor nutrition, patronage of unskilled birth attendants, poor utilization of family planning methods, low socioeconomic status, among others [2]. Obstetric fistula is a source of public health concern to the United Nations and its member states because as much as 2 to 3.5 million women have this condition especially in developing countries including Nigeria with over 1 million women affected [3].

Information gotten from the fistula centre in Ebonyi State, Nigeria shows that there have been on-going sensitizations of the communities to eradicate obstetric fistula in the State. The 2018 National Demographic Health survey (NDHS) reported a low level (31%) of awareness of obstetric fistula among women and prevalence rate of less than 1% of which majority are from the rural areas of Nigeria [4]. However, the task of completely eradicating this condition remains daunting. Similarly, other parts of Africa have low level of awareness for instance a study done in Burkina Faso among young women reported awareness level of obstetric fistula (OF) as 36.4% and its complications as 10.7% , the most common source of information being the media and words of mouth [5]. Majority of the studies on awareness have focused on women only but one begins to wonder if the Community Health extension Workers (CHEWs) in charge of Primary Health Centers (PHC) in rural parts of Nigeria are aware of obstetric fistula, its

complications and treatments. Hence, this study aimed to survey the current awareness level of PHC workers in the rural part of South-East Nigeria as well as to identify their source of information in order to channel interventions toward the right path in eradicating obstetric fistula in the state.

2. METHODS

2.1 Study Area

This study was conducted in rural areas of Ebonyi State, South-East Nigeria. Ebonyi State has thirteen local government areas (LGA) with 115 functional Primary Health Care facilities (PHCs) and 13 general hospitals, one per LGA.

2.2 Study Population

Officers-in-Charge (OIC) of general hospitals and primary health care centers in Ebonyi State.

2.3 Study Design

This was a cross-sectional descriptive study.

2.4 Sample Size and Sampling Technique

A minimum sample size of 60 health workers was calculated using the Cochran formula for calculating sample size for a population less than 10,000 [6]. A multi-stage sampling technique was used. First stage was done by selecting 2 local government areas (LGA) from each senatorial zone. The general hospitals in the selected LGA were included in the study. The second stage was done by selecting 4 PHCs per LGA using a list of all functional PHCs in the selected LGA as

a sampling frame. This gave us a total of 30 Health facilities (6 General Hospitals and 24 PHCs). Two officers were selected from each facility – the Officer-in-Charge (OIC) and assistant, giving a total of 60 health workers.

2.5 Data Collection Method

An interviewer-administered, semi-structured questionnaire was used to collect data from the healthcare workers. Quantitative data collection method was used to collect data on sociodemographic characteristics, awareness of obstetric fistula, sources of information and associated factors influencing awareness of obstetric fistula.

2.6 Data Management

The dependent/outcome variables were awareness and source of information of obstetric fistula among delivery attendants in primary and secondary health care facilities in rural areas of the state. Frequencies and proportions were calculated for categorical variables, while the means and standard deviations were calculated for numerical variables. These were presented in tables. Cross tabulation of independent and dependent variables was done to identify factors associated with awareness of obstetric fistula in the State.

2.7 Statistical Analyses

All the questionnaires were reviewed by the investigator for completeness. Incomplete or wrongly filled questionnaires were identified and corrected. Data was cleaned and analyzed using the IBM Statistical Software for Social Sciences (SPSS) version 25. The questionnaire comprised

of questions on if the respondent had ever heard of obstetric fistula and the sources of this information. Binary logistic regression was done to determine factors influencing awareness of obstetric fistula. The level of significance was set at $p \leq 0.05$ for all statistical associations.

3. RESULTS

A total of 60 health care workers were included in this survey, 44(73.3%) were in-charge of primary health facilities while 16(26.7%) were in-charge of secondary health facilities. Twenty (33.3%) of the health workers in-charge of the centers were in the age bracket 40-48 years with mean age 39.6 ± 9.8 and 52(86.7%) were females. Majority (86.7%) had tertiary education and 70% of them were qualified CHEWs. The number with <5 and >20 years' experience were 25% respectively. The cadres of doctors in-charge of some of facility were 75% medical officer and 25% resident doctors. See Table 1.

About 57(95%) had heard of obstetric fistula. The major source of information was conferences (52.6%) and electronic media (52.6%) followed by friends and colleagues (29.8%) only 22.8% heard about obstetric fistula while in school. As shown in Table 2.

There was no significant difference in awareness of obstetric fistula and age, type of facility, educational status and profession among the officers in charge of the health facilities. However, awareness of obstetric fistula increased with years of practice. Health workers with more experience in the practice were more aware of obstetric fistula, this finding was statistically significant, $P = 0.05$. See Table 3.

Table 1. Socio-demographic Characteristics

Variables	Frequency N= 60	Percentage (%)
LGA		
Ebonyi	10	16.7
Ezza South	10	16.7
Ohaukwu	12	20.0
Ezza North	10	16.7
Onicha	10	16.7
Ohaozara	8	13.3
Type of facility		
Secondary Health facility	16	26.7
Primary Health Facility	44	73.3
Age of respondents		
20-29	10	16.7
30-39	19	31.7

Variables	Frequency N= 60	Percentage (%)
40-49	20	33.3
50-59	11	18.3
Mean Age= 39.6±9.8		
Gender		
Male	8	13.3
Female	52	86.7
Educational status		
Secondary	8	13.3
Tertiary	52	86.7
Profession		
Nurse/Midwife	8	13.3
Doctor	4	6.7
CHEW	42	70.0
Health Attendants	3	5.0
CHO	3	5.0
Years of Experience		
<5 years	15	25.0
5-10 years	8	13.3
11-15 years	8	13.3
16 -20 years	14	23.3
>20 years	15	25.0
Cadres of Doctors	N = 4	
Medical officers	3	75.0
Residents	1	25.0

Table 2. Awareness of Obstetric Fistula

Variables	Frequency	Percentage (%)
Ever heard of Obstetric fistula		
Yes	57	95
No	3	5.0
Source of information	N=57	
Conferences/workshops	30	52.6
Electronic Media	30	52.6
Friends and colleagues	17	29.8
School	13	22.8
Experience working in the hospital	2	3.5
Paper media	1	1.8

Table 3. Relationship between awareness and Socio-demographic Characteristics

		Awareness of Obstetric fistula n=57		X ² (P-value)
		Yes (%)	No (%)	
Age	20-29	9(90.0)	1(10.0)	2.86(0.37)*
	30-39	19(100.0)	-	
	40-49	18(90.0)	2(10.0)	
	50-59	11(100.0)	-	
Type of health facility				0.72(1.00)*
Secondary Health facility		15(93.8)	1(6.2)	
Primary Health facility		42(95.5)	2(4.5)	
Educational Status				1.09(0.35)*
Secondary		7(87.5)	1(12.5)	
Tertiary		50(96.2)	2(3.8)	
Profession(occupation)				6.00(0.21)
Nurses/midwife		7(87.5)	1(12.5)	

Awareness of Obstetric fistula n=57			
Doctor	3(75.0)	1(25.0)	
CHEW	41(97.6)	1(2.4)	
Health attendant	3(100.0)	-	
Others	3 (100.0)	-	
Years of practice			
<5years	13(86.7)	2(13.3)	5.35(0.05)
5-10 years	8(100.0)	-	
11-15years	8(100.0)	-	
16-20years	14(100.0)	-	
>20years	14(93.3)	1(6.7)	

*Fisher's exact tes

4. DISCUSSION

This study examined the awareness of obstetric fistula among health workers in primary and secondary facilities in Ebonyi State. Awareness creation, advocacy, social mobilization and behavioural change communication are all components of strategic communication which is one of the priority areas for the elimination of obstetric fistula in Nigeria [7]. Assessing the awareness of health workers is therefore vital in the campaign to end fistula.

Almost all the health workers (95%) interviewed were aware of obstetric fistula. This shows that health workers across the state are very much aware of the condition. This level of awareness is good for the prevention and early management in an area with a documented high prevalence of obstetric fistula [8]. It will also ensure that women who require further management will get prompt referral to facilities providing higher levels of care. The finding agrees with that from a study in Zamfara State, North-West Nigeria which showed that the awareness of vesico-vaginal fistula among health workers was very high (98%) [9]. It contracts however with another study in Ibadan, South-West Nigeria which showed only 13.5% of the healthcare workers studied had a good knowledge of obstetric fistula prevention [3]. In a Nepal study, only 42.5% of nurses had adequate knowledge of genitourinary fistula [10].

The major sources of information were conferences/workshops and electronic media. This was expected because of massive campaigns on obstetric fistula in the State in the form of radio and television jingles, rallies, community sensitizations and training of health workers. Scientific presentations during conferences and workshops have also proved effective in improving the awareness of obstetric fistula among health workers. This underscores

the importance of capacity building for health workers. Working in the hospital created awareness for only 3.5% of the respondents. This can be explained by the fact that fistula patients are not managed in most facilities but in designated centres. There are about 19 of such designated centres across the country with only one in Ebonyi State. Fistula campaigns in the form of mass repairs in popularly called 'pooled efforts' are also used to create awareness of obstetric fistula, in addition to clearing part of the backlog of fistula cases and improving the skills of fistula surgeons [11,12]. This is a common practice in areas with a high burden of obstetric fistula.

Officers-in-charge who have over 20 years of work experience were more aware of obstetric fistula compared to those with less work experience. It is expected that awareness about the condition will increase with years of work experience. However, in the study in Ibadan, acquisition of additional educational qualifications rather than years of practice had a significant effect on health workers' knowledge of prevention of obstetric fistula [11]. There was no significant difference in awareness of obstetric fistula and age, type of facility, educational status and profession among the officers-in-charge of the health facilities. Since awareness will naturally increase with length of exposure to the cases, there is need for the state government to adopt a policy that will enhance of retention of health workers in the rural areas to improve awareness and also build the needed experience in tackling obstetric fistula.

5. CONCLUSION

Awareness of obstetric fistula was very high among the healthcare workers. Major sources of awareness were conferences/workshops and electronic media. Officers who had longer years of work experience were more aware of obstetric

fistula. Awareness creation must continue to be a priority among efforts to eradicate obstetric fistula in Nigeria. Policies of capacity building and retention of healthcare workers in the rural areas are recommended to increase the awareness needed to eradicate this menace.

DISCLAIMER

The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

CONSENT AND ETHICAL APPROVAL

Ethical approval and permission was obtained from Ebonyi State Ministry of Health. Informed consent was obtained from the OICs before the data collection tools will be administered. They were re-assured that the information collected was solely for research purposes and would not be used to indict them in any form.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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