Original Article

Obstetric Fistula

Knowledge of Medical Students About Obstetric Fistula in Pakistan - Still A Tragedy

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ABSTRACT

Objective: To assess the knowledge of medical students about obstetric fistula in Pakistan—still a tragedy.
Study design: Cross sectional study.
Place and Duration of Study: This study was conducted at Hamdard University Hospital, Karachi from 01.01.2014 to 15.03.2014.
Materials and Methods: A cross sectional study of knowledge of medical students of Final Year MBBS was conducted using a pretested self-administered questionnaire. Total 100 questionnaires were filled out of which, 87 were filled by medical students and 13 by house officers. The data was evaluated and analysed on SPSS.
Results: The results shows that the overall knowledge of our students and junior doctors regarding obstetric fistula was below average. They are not well aware of the substantial burden of obstetric fistula in our community, its root causes and preventive measures to be taken. This shows the need to giving more weightage to this topic in curriculum and re-structuring their training program.
Conclusion: The presence of trained professional is crucial for the early detection and timely management of such complications. To achieve this within limited resources these students and young doctors are an important cadre of health professionals, therefore the curriculum should lay emphasis on community based clinically oriented teaching.
Key Words: Obstetric Fistula, Vesicovaginal Fistula, Rectovaginal Fistula, Maternal Mortality.

INTRODUCTION

The World Health Organization (WHO) defines an obstetric fistula (OF) as an "abnormal opening between a woman's vagina and bladder and/or rectum through which her urine and/or faeces continually leak".[1] Classifications of fistula vary, but they generally include fistulae from obstetric causes including vesicovaginal fistula (VVF) and rectovaginal fistula (RVF).

OF is a devastating complication of complicated labor, it disables millions of women and girls in developing countries. Several million cases of OF are currently thought to exist in sub-Saharan Africa and south Asia.[2]

Worldwide each year more than half a million healthy young women die from complications of pregnancy and childbirth. The WHO estimates that, globally, over 300 million women currently suffer from short or long-term complications arising from pregnancy or childbirth, with around 20 million new cases arising every year [3]. Worldwide, obstructed labour occurs in an estimated 5% of life births and accounts for 8% of maternal deaths [4]. The United Nations Population Fund (UNFPA) recently launched a global campaign to end fistula, labelling this condition a preventable and treatable tragedy.[1]

The development of OF is directly linked to one of the major causes of maternal mortality and that is obstructed labour. Where mother's pelvis is too small to enable the baby to be delivered without help. Adolescent girls are particularly susceptible to obstructed labour, because their pelvises are not fully developed. The labour can last many days and often results in the death of both the mother and the baby. If the mother will survive, she will probably develop a fistula and her baby will most likely be dead. With access to skilled maternal care, such labour can be predicted, identified and treated.[5]

This problem has been eliminated from developed countries but it is still a major public health problem in third world countries. In Pakistan each year over five million women become pregnant, and of these 700,000 (15%) are likely to experience some obstetrical and medical complications. An estimated 30,000 women die each year from pregnancy-related causes.The obstructed labor is one of the major cause of maternal mortality and the development of obstetric fistula.[6]

The WHO has suggested that over two million women, mostly from sub-Saharan African and Asian countries, have fistula.[7] Given an estimated population of 645 million women of reproductive age in sub-Saharan Africa and South Asia in 2010, suggest that 3 per 1000 women of reproductive age have a fistula, which is considerably higher for low and middle income countries. Overall, it is estimated that over one million women may have a fistula in these regions, and that there are over 6000 new cases per year in these regions. Given the devastating consequences, this represents a very substantial burden.[8, 9]

Because of the complex interactions among medical, social, economic, and environmental factors it is less clear which strategies effectively prevent fistulas. The most effective short-term strategies for obstetric fistula prevention will involve enhanced surveillance of

labour, improved access to emergency obstetric services and competent medical care for women both during and after obstructed labour and the development of specialist fistula centres to treat injured women where fistula prevalence is high. The long-term strategies to eradicate obstetric fistula must include universal access to emergency obstetric care, improved access to family planning services, increased education for girls and women, community economic development, and enhanced gender equity.[7]

This is well known fact that OF, have the highest prevalence where maternal mortality is high.[10] Currently there is a worldwide effort to reduce maternal mortality in line with the Millennium Development Goals (MDGs) to reduce maternal mortality by 75% by 2115 [11]. This was restated and re-emphasized on World Health Day 2005, which was dedicated to maternal and new born health.

In order to achieve this target apart from social, financial, medical and political strategies, we can utilize our medical students young doctors and general physicians who are already practicing in communities, they can play vital role by creating awareness regarding risk factors resulting serious maternal mortality and maternal morbidities like obstetric fistula. They can identify high risk patients and arrange their transfer to tertiary care. They can also sensitize the family towards prenatal, intrapartum and postpartum care of mother as well as baby [9].

The purpose of this study was to assess the knowledge of young graduating medical students and junior doctors, about the burden of this tragic disease in our community, where it is still a major health problem.

MATERIALS AND METHODS

The study was conducted at Hamdard University Hospital. A cross sectional survey of knowledge of medical students of Final Year MBBS was conducted using a pretested self-administered questionnaire. Total 100 questionnaires were filled out of which, 87 were filled by medical students and 13 by house officers. The data was evaluated and analysed on SPSS.

RESULTS

Total 100 questionnaires were filled, out of which 87 were filled by medical students and 13 by house officers.

As table 1 shows that only 28% reported correctly about the definition of Obstetric fistula and 70% gave wrong answer while 2% didn't respond. The correct answer was, that it is a medical condition in which a communication develops between rectum and vagina. The other choices given to answer this question were wrong.

Regarding the prevalence of obstetric fistula 60% knew correctly about its prevalence in sub-Saharan Africa and Asia. 38% were wrong and 2% didn't respond.

The symptoms of obstetric fistula varies widely, in our questionnaire the most common symptom was asked and the answer was faecal and urinary incontinence. Only 45% answered correctly, 54% answered wrong and 1% didn't answer.

Regarding risk factors of obstetric fistula, almost all the risk factors are mainly related to low socio economic status, which was correct answer in our questionnaire. It was an eye opening that only 17% reported correctly, 2% didn't respond and 81% reported wrong answer.

In Pakistan, the most important direct cause is unmonitored labor which is mostly conducted by conventional dais at home. 34% reported correct reason though 63% answered wrong and 3% not responded.

Table No. 1: Statement showing correct, incorrect or no response on the issue

	Correct	Incorrect	No response
What is obstetric fistula?	28%	70%	2%
Is it prevalent in Pakistan?	60%	38%	2%
Commonest symptoms of OF?	45%	54%	1%
Commonest risk factors of OF in Pakistan?	17%	81%	2%
Most important cause of OF in Pakistan?	34%	63%	3%
Commonest belief of our community about OF?	31%	65%	4%
Usual attitude of families toward effected patients in Pakistan?	39%	56%	5%
What are the treatment options available in Pakistan?	65%	32%	3%
Are there any special fistula repair centres in Pakistan?	42%	31%	27%
How can we prevent it?	50%	46%	4%
What is the role of students and young doctors in its prevention and eradication?	68%	32%	0%
Is there any need to give extra weightage to this topic in undergraduate curriculum?	100%	0%	0%

OF is still present in under developed countries because of low socioeconomic status, malnutrition, negligence and difficulty in accessing tertiary care. Those who marked any of these causes were marked correct, 61% answered correct and 36% replied wrong while 3% had no answer.

The commonest belief in community regarding obstetrical fistula is curse or punishment from nature which was correctly answered by 31% though 65% answered incorrect and 4% didn't reply. Usual attitude of community is to abandon such miserable women, it was correctly responded by 39%, incorrectly by 56% and 5% didn't respond.

In our study, 59% knew that it is treatable while 17% didn't know and surprisingly 24% had no idea so not responded. Among treatment choices 50% answered for surgical treatment and 15% for catheterization, 32% answered wrong choices and 3% not responded. For special treatment centers in Pakistan only 42 % answered correct, 31% thought that there are no such centers and 27% didn't respond this question.

To overcome this health issue, the correct step to take is creating awareness, only known by 50% and 46% didn't know while 4% had no answer.

In order to reduce this morbidity, their contribution was asked, in which 33% chose by creating awareness, 16% by developing medical strategies, 26% for early referrals and 16% chose special training of doctors. However 9% responded that they can't play any role. They were also asked about their role in community to prevent it and 68% replied correctly which included counselling for antenatal care and avoiding home deliveries. However 32% gave wrong answers like no harm by Dai delivery.

But most importantly, everyone was in favor of giving extra importance and weightage to this topic in their curriculum, which is the need of time. For this, 100% responders favored it.

DISCUSSION

The study was to assess the knowledge of our junior doctors and final year MBBS students about the prevalence, risk factors, causes, community belief and availability of treatment of OF in Pakistan. It was also to assess their attitude towards its prevention and identification of their role in eradication of this problem.

The results, clearly shows that the overall knowledge of our students and junior doctors regarding OF was below average. Which needs to be noticed and careful strategies to be developed, to obtain our target of prevention of this stigma.

Our survey shows that our young doctors and students were not aware of the definition, as 70% replied incorrect, which is primarily required to understand the pathology. This is an eye opening situation for the trainers at under graduate level. This problem can be rectified by giving more weightage to this topic in curriculum and re-structuring their training program.

OF is still prevalent in developing countries including South Africa and countries of Middle East Asia. According to an estimate, introduced by Waaldijk in1993, an incidence rate is 1 to 2 per 1,000 deliveries. This incidence rate suggested a worldwide incidence of 50,000 to 100,000 new cases annually; and a worldwide prevalence of 2 million cases of obstetric fistulae [12]. In Pakistan where each year over five million women become pregnant, and of these 700,000 (15%) are likely to experience some obstetrical and medical complications. An estimated 30,000 women die each year from pregnancy-related causes. The obstructed labor is one of the major cause of maternal mortality and the development of obstetric fistula.[6] our survey revealed that only 60% of our doctors and students were aware of its prevalence in Pakistan.

The commonest symptoms were only known by 45%, which is again related to lack of understanding of the topic which in return related to weakness in training program. It is suggested that Training program should incorporate the principles of risk management as developed in the spheres of psychology, aviation and high reliability organization, they should be at the core of undergraduates, post graduates and lifelong.[13]

Social factors responsible for OF are mainly related to low socio economic status, 81% of them reported wrong. This was because of the fact that community based education is never included in their curriculum. It is also vital to improve overall literacy rate to improve social condition, which is not an easy target in low income country like Pakistan but still povert is not the only determinant. There are various examples of countries with modest levels of GNP have achieved low maternal mortality by establishing community based maternal health care system, examples are Brazil, China, Malaysia and Bangladesh.[14] This explains that even in Pakistan appropriate strategies would indeed lower down the incidence.

Causes of OF include the place of birth, presence of a skilled birth attendant, the duration of labor, the use of a partograph, the lack of prenatal care, early marriage, young age at delivery, older age, lack of family planning, and a number of other poorly defined additional factors.[15,16] Fifty two percent of the women in Pakistan alone give birth without skilled help, either by a relative or someone else and two percent deliver alone.[17] In Pakistan OF is most often the result of obstructed labor.[18]

In our survey this fact was correctly reported by only 34% where as 63% answered wrong and 3% not responded. WHO guidelines suggest that in countries where the prevalence of OF is high, all curricula for trainee midwives, nurses and doctors should include not only theoretical training and prevention but also

treatment. Midwives and obstetricians should be trained in the clinical prevention of OF.

Living with fistula has a profound effect on women's quality of life, as their families and communities tend to view them as defective. They have to cope with pain, discomfort, shame, depression, isolation, and stigma from the community, as well as from their own spouse. In our survey less than 40% were aware about community belief and their attitude towards these poor women. In India and Pakistan, 70% to 90% of women with fistula had been abandoned or divorced, therefore, that some women can no longer cope with the pain and suffering, and resort to suicide.[19, 20] The other reported consequences are social ostracisation [21, 22] and marginalization, high rates of divorce or separation, absence of sexual intercourse [23, 24], loss of fertility and amenorrhea [25] and depression.[26]

In some developing countries, a few specialized fistula hospitals exist, particularly in parts of Ethiopia, Nigeria, Pakistan, Sudan and Tanzania. Over 90% of women can be cured with one operation. However many women and their families, may not even know that a treatment exists and these services are often too far away or too expensive. But most of the doctors lack training in fistula repair, and most hospitals and clinics are unable to treat fistula successfully. It is evident that simple use of an indwelling urinary catheter can help to prevent fistula formation in between 15% to 20% of cases. [27, 28]

Knowledge of our students regarding availability and options of treatment is found out below average. Only 59% knew that it is treatable. Among treatment choices 50% answered for surgical treatment and only 15% for catheterization. For special treatment centers in Pakistan only 42 % answered correct, 31% thought that there are no such centers and 27% didn't respond this question.

To reduce this morbidity, their contribution was assessed and sadly 9% thought that they have no role, if such survey was conducted on larger scale this percentage could even go higher. Regarding their role in community, 68% replied correctly but 32% gave wrong answers including no harm by Dai delivery.

These trained professionals should be utilized in the community and in rural areas provided they are trained on these lines. If trained health professionals are available at BHU they can give basic first aid and arrange transfer to tertiary care center. All over Pakistan there are 57 Medical colleges both private and public sector producing around 8000 fresh graduates each year. They can help in counseling at the community level regarding health education, utilization of medical facilities and awareness about the female health. They can also perform data collection in these areas. PMDC can make it mandatory to have one month job in rural areas to get M.B.B.S. certificate.

CONCLUSION

Clearly, the presence of trained professional is crucial for the early detection and timely management of such complications. To achieve this within limited resources these students and young doctors are an important cadre of health professionals, therefore the curriculum should lay emphasis on community based clinically oriented teaching as also was the same opinion by 100% of the students. WHO has also suggested that undergraduate, curriculum must include a basic understanding of OF.

Limitation of our study was its small sample size and it is the need of time to conduct such surveys on larger scale, to assess the knowledge and perception of youth about health care situation of their country and progress toward MDG goals.

REFERENCES

1. WHO: Obstetric fistula: Guiding principles for clinical management and programme development. Geneva: World Health Organization; 2006.
2. Tebeu PM, Fomulu JN, Khaddaj S, Bernis L, Delvaux T, Rochat CH. Risk factors for obstetric fistula: A clinical review. Int Urogynecol J 2012; 23: 387-394.
3. Maternal Mortality in 2000: Estimates developed by WHO, UNICEF and UNFPA, Geneva, World Health Organization; 2003.
4. The World Health Report, 2005–Make every mother and child count, 2005, Geneva, World Health Organization.
5. Abou Zahr C. Global burden of maternal death. British Medical Bulletin. Pregnancy: Reducing maternal death and disability. British Council: Oxford University Press; 2003:1-13.
6. Maternal health and survival in Pakistan: issues and options. J Obstet Gynaecol Can 2009; 31(10): 920-9.
7. UNFPA, Health E. Obstetric fistula needs assessment report: Findings from nine African countries. New York: UNFPA; 2003.p.38.
8. Wall LL. Preventing obstetric fistula in low resource countries: insights from a Haddon matrix. Obstet Gynecol Surv 2012; 67(2):111-21.
9. Sadia Jalil, Sidra Nausheen, Asif Zia Akhtar. Knowledge and awareness among medical students about maternal mortality in Pakistan. Pak J Surg 2010; 26(3):232-236.
10. Wall LL, Arrowsmith SD, Briggs ND, Browning A, Lassey A: The obstetric vesicovaginal fistula in the developing world. Obste & Gyne Survey 2005; 60(7):3-51.
11. United Nations Millennium declaration. New York: United Nations; 2000 (United Nations General Assembly resolution 55/2).

12. Waaldijk K. The immediate surgical management of fresh obstetric fistulas with catheter and /or early closure. Int J Gynaecol Obstet 1994; 45(1):11–16.
13. .RCOG Guidelines. Clinical risk management for obstetricians and Gynaecologist, published in January 2001.
14. Bhutta ZA, et al. Countdown to 2015 decade report (2000-10). Lancet 2010;375; 2032-44.
15. Tebeu PM, de Bernis L, Doh AS, Rochat CH, Delvaux T. Risk factors for obstetric fistula in the Far North Province of Cameroon. Int J Gynaecol Obstet 2004; 107(1):12–15.
16. Melah GS, Massa AA, Yahaya UR, Bukar M, Kizaya DD, El Nafaty AU. Risk factors for obstetric fistulae in northeastern Nigeria. J Obstet Gynaecol 2007; 27(8):819–823.
17. Demographic and health surveys, selected countries various years. Macro International, Calverton MD 2005.
18. Khan RM, Raza N, Jehanzaib M, Sultana R. Vesicovaginal fistula: an experience of 30 cases at Ayub Teaching Hospital Abbottabad. J Ayub Med Coll Abbottabad 2005; 17(3):48-50.
19. Wall LL, et al. Urinary incontinence in the developing world: The obstetric fistula. Proceedings of the Second International Consultation on Urinary Incontinence, Paris, July 1-3, 2001. Committee on Urinary Incontinence in the Developing World 2001; 1-67.
20. Cottingham J, Royston E. Obstetric fistula: A review of available information. World Health Organization: Geneva; 1991.
21. Dolea C, AbouZhar C: Global Burden of Obstructed Labour in the Year 2000. Geneva: World Health Organisation; 2003.
22. Karateke A, Cam C, Ozdemir A, Guney B, Vatansever D, Celik C. Characteristics of obstetric fistulas and the need for a prognostic classification system. Archives of Med Sci 2010; 6(2):253-256.
23. Wall LL, Karshima JA, Kirschner C, Arrowsmith SD. The obstetric vesicovaginal fistula: characteristics of 899 patients from Jos, Nigeria. Am J Obstet Gynecol 2004; 190(4):1011-19.
24. Browning A, Fentahun W, Goh JT. The impact of surgical treatment on the mental health of women with obstetric fistula. BJOG 2007;114(11): 1439-41.
25. Hilton P, Ward A. Epidemiological and surgical aspects of urogenital fistulae: a review of 25 years' experience in southeast Nigeria. Int Urogynecol J Pelvic Floor Dysfunct 1998;9(4)**:**189-194.
26. Goh JT, Sloane KM, Krause HG, Browning A, Akhter S. Mental health screening in women with genital tract fistulae. BJOG 2005; 112(9):1328-30.
27. Capes T, Ascher Walsh C, Abdoulaye I, Brodman M. Obstetric fistula in low and middle income countries. Mt Sinai J Med 2011; 78(3):352-61.
28. Naru T, Rizvi JH, Talati J. Surgical repair of genital fistulae. J Obstet and Gynecol Res 2004; 30(4):293-96.

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