

Genital Fistula: Successes, Challenges, and Way Forward in a Facility Specialization in Fistula Management in Bangladesh

Nrinmoy Biswas¹, Iftikher Mahmood¹, Sathyanarayan Doraiswamy², Animesh Biswas²

¹Hope Hospital, Ramu, Cox's Bazar

²United Nations Population Fund (UNFPA), Bangladesh

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ABSTRACT

Aim: To explore the prevalence, types of genital fistulas as well as their success, challenges, and way forward on genital fistula in Bangladesh.

Methods: Between October 2017 and September 2018, Hope Hospital identified a total number of 101 genital fistula cases through a community network system in Cox's Bazar. For each of the patients, detailed case histories and clinical management reports documented, and the data were interpreted using descriptive analysis.

Results: Out of 101 genital fistula cases admitted to the facility, 95.3% (n=96) of cases were obstetric; three cases iatrogenic, and one each traumatic and congenital. The median age of the women was 28 years (range: 18 -73) and the median duration of two years (range: 1 month-53 years). Most of the cases had urinary incontinence (86.1 %, n=85) and 12 and two cases were fecal and mixed type respectively. Vesicovaginal fistula (VVF) repair was performed in most of the cases (78.2%, n=79) while 21.8% (n=22) received recto vaginal fistula (RVF) repair. 90% (n=91) were discharged without complication. The median duration of hospital stay was 16 days (range: 4 -29). The success rate was 86.1% (n=85), and 16 cases advised for repeat surgery. Pre-and post-surgery counselling was provided without rehabilitation or reintegration support.

Conclusions: Facility data in a particular geographic location represents high prevalence of obstetric fistula and lacks rehabilitation and social reintegration support. Further study is essential to draw a complete geographical map for genital fistula in Bangladesh.

Key words: genital fistula, management, rehabilitation, Bangladesh

INTRODUCTION

Genital fistula is an abnormal opening between the birth canal and either the bladder or rectum, which results in continuous leaking of urine and/or faeces.¹ Most often it is caused by prolonged obstructed labour, termed an obstetric fistula. Despite being the most severe form of obstructed labour injury complex², it is entirely preventable and in maximum cases, treatable.³ Women with fistula suffer from multiple losses as it negatively impacts a woman's identity as well as the quality of life.⁴

A huge inequity in terms of quality health service accessibility observed among fistula affected patients throughout different parts of the world.⁵ Though genital fistula was eliminated in developed countries over hundred years ago and no longer seen in affluent

nations, yet it is a devastating and prevalent maternal morbidity in low-income and lower-middle-income countries in Africa, South Asia and Latin America.^{3,6-8} It continues to cause suffering among millions of women there where around 2–3 million women are estimated to have a genital fistula worldwide with an annual incidence of 50,000–100,000 women.⁴ However, the Millennium Development Goals (MDG, 1990-2015) targets were successful in reducing maternal mortality, but the improvements not equally distributed across different regions of the world and the MGD maternal health target and neglected causes of maternal morbidity, including genital fistula.^{9,10}

Similar to other developing countries, genital fistula, especially vaginal fistula, is highly prevalent in Bangladesh.¹¹ The national prevalence for Obstetric Fistula (OF) was found 0.42 per1,000 women

CORRESPONDENCE

Dr Animesh Biswas

Technical Officer (Fistula and MPDSR)

UNFPA Bangladesh

E/8-A, Begum Rokeya Sharani, Sher-e-Bangla Nagar, Dhaka 1206

Email: abiswas@unfpa.org

with at least one birth, and the current burden of OF is roughly 20,000.¹² As the current surgery rate is around 300 cases annually, so almost 60 years would be needed to treat the women who are already living with OF. Moreover, surgery and rehabilitation services are not widely available due to the shortage of skilled surgeons in Bangladesh. Besides, women are discouraged from seeking care as surgery needs to be followed by an extended stay at a health facility.¹²

Despite this enormous burden of OF, limited data is available about its facility prevalence, the average duration of hospitalization, operation, outcome, etc. Also, there is a gap in evidence regarding rehabilitation of these patients after surgery. Hope hospital is a health facility located in the Ramu sub-district of Cox's Bazar district, Bangladesh which is providing OF repair treatment. The services included not only surgical repair but also post-surgery rehabilitation services through physical therapy and nutrition programs. This study examines the epidemiology of genital fistula for one year in this specialized private facility as well as their success, challenges, and way forward on genital fistula in Bangladesh.

METHODS

A retrospective cross-sectional study of one-year from October 2017 to September 2018 conducted at Hope Hospital. A structured quantitative pre-tested checklist was used to collect the information from the obstetric fistula patients through face-to-face interviews after taking informed written consent. Detailed case histories and clinical management reports were also gathered using a structured checklist. Ethical approval obtained from the own review board of Centre for Injury Prevention and Research, Bangladesh (CIPRB).

The study sample was all women treated with a fistula at Hope Hospital during this one year. A total number of 101 genital fistula cases were repaired and used as a sample for this study. After receiving the filled-in checklist from the patients, they entered in the schedule register, with an identification number for each list. Data entered into a program developed with MS Access, and data entry error kept within the limit of 1%. SPSS used for descriptive analysis.

RESULTS

The mean age of the 101 women included in this

study was 28 years (range: 18-73), where the highest prevalence of fistula found in the age group between 21-30 years; 95.3% of cases (n=96) were obstetric, 3% (n=3) iatrogenic, 1% traumatic (n=1) and the remaining 1% were congenital (n=1) [Table-1].

The mean duration of the fistula was found to be six years (range: 0.1-53). However, the majority of women's period of the genital fistula was less than five years (67.3%, n=68) while 10.9% (n=11) of women suffered from fistula for 16 to 53 years [Table-1]. The average length of hospital stays was 17 days (4-29 days), where the majority (56.7%, n=57) stayed in the hospital for 11-20 days which is about 56.7% (n=57) and 25.8% (n=26) cases remain in the hospital for 21 to 29 days [Table-1]

Table-1: Demographic distribution of genital fistula patients (n=101)

Categories	Number	Percentages (%)
Age of the Women Affected with Fistula		
<20 years	9	8.9
21-30 years	58	57.4
31-40 years	16	15.8
>40 years	18	17.9
Types of Fistula		
Obstetric	96	95
Iatrogenic	3	3
Traumatic	1	1
Congenital	1	1
Duration of Fistula		
<1 year	32	31.7
1-5 years	36	35.6
6-15 years	22	21.8
16-53 years	11	10.9
Duration of Hospital Stay		
4-10 days	18	17.5
11-20 days	57	56.7
21-29 days	26	25.8

Incontinence in Genital Fistula

Most of the genital fistula cases were associated with urinary incontinence (86.2%, n=87) while 11.9% (n=12) were faecal incontinence. The remaining 1.9% (n=2) were associated with both urinary and faecal incontinence [Fig-1].

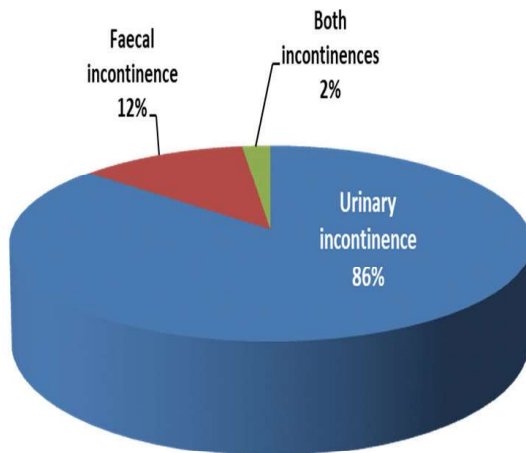


Fig-1: Types of incontinence

Fistula Operation Outcomes

VVF repair performed in most of the cases (78.2%, n=79) and RVF repair done in the remaining 21.8% of cases (n=22). Only 9.9% (n=10) of them raised complications while the rest remained discharged without complication. The success rate was 86.1% (n=85), and the 13.9% (n=16) of patients whose fistula not closed advised for future surgery. The main complication was urinary retention after catheter removal (60.4%, n=61). Other complications included wound infection (9.9%, n=10), blood transfusion (19.8%, n=20) and catheter block (9.9%, n=10) [Fig-2].

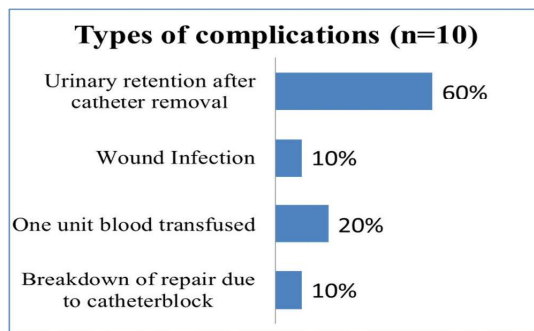


Fig-2: Complication following fistula surgery

Support of Fistula Patients

Hope employs a Social Worker to develop, implement, and monitor the reintegration program in coordination with Hope's fistula surgeon. The fistula surgeon refers patients to the Social Worker, and they will coordinate to provide comprehensive care to the patients. An orientation program was also established

to train the fistula survivors in necessary job skills for positions within the hospital related to cleaning, cooking, washing laundry, gardening, or providing care to fistula patients.

The women in this study were provided with individual counselling and participated in monthly fistula peer group meetings through Hope Hospital's reintegration. In addition to their regular position, the fistula survivors serve as Fistula Ambassadors for Hope. At the hospital, the survivors help support patients awaiting fistula repair surgery and raise awareness of the condition in their communities.

Fistula patients received general personal finance education to learn how to budget for their expenses and set financial goals. They advised on saving and how to best utilize their financial resources to become economically independent. During the year, they are counselled on job placement to help them in securing employment after completing the reintegration program.

DISCUSSIONS

Obstetric fistula characterized by total urinary incontinence, persistent perineal wetness, perineal excoriations, and urinary stench, is the most severe type of genitourinary fistula which occurs due to prolonged obstructed labour and concentrated mainly to developing countries due to inadequate utilization of maternity services.¹³ Though it eliminated in wealthier countries over a century ago, yet the rate of women and girls suffering from genital fistula living in low- and lower-middle-income countries like Bangladesh is alarming.

In this study, most of the genital fistula occurred due to the obstetric complication, but the rate (95%) is a bit higher in comparison to other countries where the rate varies between 70 to 80%.¹⁴ However, it entirely aligned to another study conducted in India on vesicovaginal fistula by Stamatakos M et al¹⁵ where they found that 90% of fistulas are of obstetric causes. It reflects the lack of adequate and skilled obstetric care. May be difficult to access care due to cost, cultural expectations to give birth at home without assistance, lack of transportation, desire to try traditional treatments, unawareness of available services, or distance from health care facilities are also responsible behind this extremely high rate of fistula.

The obstetric fistula may be found both in younger and older females.¹⁶ Here more than half (57%) of fistula identified among the middle-aged group which is 21-30 years and it is slightly higher than a study conducted in South-South Nigeria by Umoiyoho AJ et al¹⁷ where 41% obstetric fistulas occurred in women 21-30 years of age. Maybe this is due to a high rate of early marriage. The USAID in 2015 reported that 65% of women worldwide are the victim of forced to do early marriage.¹⁸

The average duration of suffering from obstetric fistula in this study was six years. In Uganda, a report on fistula treatment and reintegration found that women suffer from obstetric fistula on an average of 10 years.¹⁹ Goh JT, Krause H²⁰ found that 57% of fistulas occurred due to pure urodynamic stress incontinence (USI) and 37% with mixed incontinence. A report in 2017 by USAID stated that iatrogenic fistula occurs due to health care providers' unintentional errors during obstetric surgeries, such as caesarean section, hysterectomy, or repair of the ruptured uterus and a woman can suffer from both obstetric and iatrogenic fistulas.²¹ However, it is found rare here, which is only 3%.

The mean duration of hospital stay was 17 days; 86.1% of cases in this study cured after treatment, reflecting the utmost level of care provided. Boulanger RW, Idriss IM²² also supported this finding as genital fistula is preventable and curable; nevertheless, until very recently, global maternal health goals and targets have been centered for maternal mortality reduction. More than 89% of the cases did not develop postoperative

complications. Postoperative counselling discovered as an essential component of treatment here which also depicted in another study performed in Uganda by Khaliah JA et al²³ It also emphasized the role of counselling in comprehensive fistula care.

Fistula can lead to a person, not only physical but also psychosocial injuries requiring reintegration.^{24,25} Therefore, the social and economic consequences of the condition addressed in a yearlong reintegration programme developed in Hope hospital. The package focused on helping the women to engage socially and develop their skills for self-earning. Once the patients discharged, they enrolled in a 30-day rehabilitation program. Enrolled patients received food and lodging, along with training and psychosocial support.

As facility-based fistula data is very limited in Bangladesh, so undoubtedly, this study will help to explore a new era of research in fistula sector. Qualitative study is also needed to visualize the social and cultural factor. Elimination of fistula is one of the essential targets of the Sustainable Development Goals (SDGs, 2016-2030) in Bangladesh.^{1,26,27}

CONCLUSIONS

The country needs enormous effort to eradicate obstetric fistula by 2030. Building awareness and prevention of fistula through quality antenatal care, detection of early complications and timely referral can play a pivotal role. The facility data reflects that the community network is an essential tool to identify women with fistula and their rehabilitation.

REFERENCES

1. UNFPA. Obstetric Fistula. 2017. Available from: <https://www.unfpa.org/obstetric-fistula>
2. Cowgill KD, Bishop J, Norgaard AK, Rubens CE, Gravett MG. Obstetric fistula in low-resource countries: an undervalued and under-studied problem – systematic review of its incidence, prevalence, and association with stillbirth. *BMC Pregnancy and Childbirth*. 2015;15:193.
3. Anastasi E, Romanzi L, Ahmed S, Knutson AT, Ojengbede O, Grant K. Comment Ending fistula within a generation: making the dream a reality. *The Lancet Global Health*. 2017;10:1016/S2214-109X(17)30226-7.
4. Barageine JK, Kashesya JB, Byamugisha JK, Tumwesigye NM, Almroth L, Faxelid E. "I am alone and isolated": a qualitative study of experiences of women living with genital fistula in Uganda. *BMC Women's Health*. 2015;15:73.
5. Anastasi E, Romanzi L, Ahmed S, Knutson AT, Ojengbede O, Grant K. Ending fistula within a generation: making the dream a reality. *Lancet*. 2017;5(8): E747-E748.
6. Wall LL. Obstetric vesicovaginal fistula as an international public-health problem. *Lancet*. 2006;368(9542):1201-9.
7. Wall LL. Obstetric Fistula Is a "Neglected Tropical Disease." *PLoS Negl Trop Dis*. 2012;6(8):8-10.
8. Widmer M, Tunçalp, Torloni MR, Oladapo OT, Bucagu M, Gülmezoglu AM. Improving care for women with obstetric fistula: new WHO recommendation on duration of bladder catheterisation after the surgical repair of a simple obstetric urinary fistula. *BJOG*. 2018;125(12):1502-3.
9. Yamin AE, Boulanger VM. Why Global Goals and Indicators Matter: The Experience of Sexual and Reproductive Health and Rights in the Millennium Development Goals. *J Hum Dev Capab*. 2014;15(2-3):218-31. Available from: <http://dx.doi.org/10.1080/19452829.2014.896322>

10. Cetin KO, Seed RB, Kayen RE, Moss RES, Bilge HT, Ilgac M, et al. Summary of SPT based field case history data of Cetin database. 2016;(August 2016):1–703. Available from: http://users.metu.edu.tr/ocetin/Database_Report_2016.pdf
11. Dagleish T, Williams JMG., Golden A-MJ, Perkins N, Barrett LF, Barnard PJ, et al. Situation Analysis of Obstetric Fistula in Bangladesh. *J Exp Psychol Gen.* 2007;136(1):23–42.
12. MEASURE Evaluation, icddr,b, the Maternal & Child Health Integrated Program, Fistula Care Plus, and Johns Hopkins University. Prevalence of Obstetric Fistula and Pelvic Organ Prolapse in Bangladesh: Summary of the 2016 National Estimates. MEASURE Evaluation. 2018. Available from: <https://www.measureevaluation.org/resources/publications/fs-18-290>
13. Umoyoho AJ, Inyang-Etoh EC, Etukumana EA. Obstetric Fistula Repair: Experience with Hospital-Based Outreach Approach in Nigeria. *Glob J Health Sci.* 2012;4(5).
14. Murray C, Goh JT, Fynes M, Carey MP. Urinary and faecal incontinence following delayed primary repair of obstetric genital fistula. *Int J Gynecol Obstet.* 2002;109: 828–32.
15. Stamatakos M, Sargedí C, Stasinou T, Kontzoglou K. Vesicovaginal Fistula: Diagnosis and Management. *Indian J Surg.* 2014;76(2):131–6.
16. Tunçalp Ö, Tripathi V, Landry E, Stantonc CK, Ahmed S. Measuring the incidence and prevalence of obstetric fistula: approaches, needs and recommendations. *Bull World Health Organ.* 2015;93:60–2
17. Umoyoho AJ, Abasiattai AM, Akaiso OA. Review of obstetric fistulas in a rural hospital in South-South Nigeria. *Urogynaecol Int J.* 2011;25(1):7–10.
18. Glinski AM, Sexton M, Meyers L. Child, early, and forced marriage resource guide. USAID. 2015. Available from: <https://www.usaid.gov/documents/1865/child-early-and-forced-marriage-resource-guide>
19. Uganda Bureau of Statistics (UBOS) and ICF International Inc. TERREWODE Fistula Treatment and Re-Integration Center Project Proposal Brief. 2013. Available from: https://worldwidefistulafund.org/docs/stats/2013-program-proposal_terrewode-land-application-f.aspx
20. Goh JT, Krause H. Urinary incontinence following obstetric fistula repair. *World J Obstet Gynecol.* 2016;5(2):182.
21. USAID. Fistula Care Plus. EngenderHealth. Surgery: A Cure for Fistula, But Also a Cause. 2017. Available from: <https://fistulacare.org/blog/2017/>
22. Boulanger RW, Idriss IM. CPT and SPT Based Liquefaction Triggering Procedure. Centre for Geotechnical Modelling. 2014. Available from: https://faculty.engineering.ucdavis.edu/boulanger/wp-content/uploads/sites/71/2014/09/Boulanger_Idriss_CPT_and_SPT_Liq_triggering_CGM-14-01_20141.pdf
23. Khaliah JA, Janet TM, Letu H, Elsa M, Dirk J, Mary LP. The role of counseling for obstetric fistula patients: Lessons learned from Eritrea. *Patient Educ Couns.* 2010;80(2):262–5.
24. Cowgill KD, Bishop J, Norgaard AK, Rubens CE, Gravett MG. Obstetric fistula in low-resource countries: an undervalued and under-studied problem – systematic review of its incidence, prevalence, and association with stillbirth. *BMC Pregnancy and Childbirth.* 2015;15:19.
25. Holme A, BreenM, MacArthura C. Obstetric fistulae: a study of women managed at the Monze Mission Hospital, Zambia. *BJOG.* 2007;114:1010–7.
26. El Ayadi AM, Barageine J, Korn A, Kakaire O, Turan J, Obore S, et al. Trajectories of women’s physical and psychosocial health following obstetric fistula repair in Uganda: a longitudinal study. *Trop Med Int Health.* 2019;24(1):53–64.
27. Doubova SV, Perez-Cuevas R. Going further to measure improvements in health-care access and quality. *Lancet.* 2018;391(10136):2190–2.