Closing the gap:

a review of the evidence of social reintegration after obstetric fistula repair

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Abstract

Background. Obstetric fistula is the product of prolonged, obstructed and unattended labour, resulting in an abnormal connection between the vagina and rectum or between the vagina and bladder.[1] This morbidity, concentrated in developing countries,[1] leaves women with incontinence, shame, and social isolation, exacerbated by social, political, and economic contexts.[2] With the erosion of social cohesion, women often face embarrassment, divorce, begging for livelihood and long-term negative sequelae.[3]

Objectives. This structured review examines the following research question: to what extent are treatment interventions effective at improving the social reintegration of women with obstetric fistulas living in developing countries?

Methods. A search strategy was developed in collaboration with a research librarian. Keywords included: “obstetric fistula”; “social reintegration”; “developing country”; “treatment” and their conjugates. Peer-reviewed and grey literature sources were examined using databases accessible by the University of Ottawa, including Medline and Popline, as well as reputable websites such as MSF and WHO. A modified Critical Appraisal Skills Programme (CASP)[21] checklist was used to evaluate the strength of their evidence and recommendations

Results. A total of 154 articles were retrieved; 10 articles were sought for content review. The results included: 2 qualitative articles, 1 meta-analysis, 1 systematic review, 5 mixed-methods and 1 cross-sectional study.

Conclusions. Although biomedical interventions can repair the physical manifestations of obstetric fistulas, simultaneous treatment of psychosocial symptoms is warranted. The results of this review highlight the lack of effectiveness of obstetric fistula treatment in ensuring social reintegration.

Introduction

Obstetric fistula (OF) is a birth complication caused by obstructed labour.[1] Following prolonged pressure of the fetal skull on the maternal pubic symphysis, the tissue becomes necrotic and devitalized secondary to ischemia. A fistula can form between the vagina and bladder (vesicovaginal), between the vagina and rectum (rectovaginal), or both.[1] The condition leads to urinary or fecal incontinence and repugnant odour. These symptoms potentiate the segregation of women, and lead to detrimental consequences beyond the physical manifestations.[5]

Globally, the prevalence of OF is 3 million, with an additional 75,000 women per annum sustaining an OF;[6] however, these approximations are underestimated.[1] OF is heavily concentrated in low-income countries, thereby highlighting the violation of human rights surrounding access to health services.[1]

The success of OF interventions is defined by surgical parameters, without considering the psychological sequelae.[4] It has been widely assumed that the physical treatment of OF will lead to spontaneous reintegration of women, by allowing women to return to married life, and resume previous activities.[8] reintegration of women, by allowing women to return to married life, and resume previous activities.[8]

Research Question

To what extent are treatment interventions effective at improving the social reintegration of women with obstetric fistulas living in developing countries?

Methods

The search methodology was divided into two streams: electronic and website. **Database Search Stream:** Medline, Embase, PsychInfo, POPLINE, Global Health, CINAHL, Cochrane Library and ProQuest Dissertations and Theses Global. Using Boolean operators, databases were searched using terms “obstetric fistula” or “vesicovaginal fistula” or “rectovaginal fistula” and “social reintegration” or “quality of life” and “treatment” or “repair” and “developing countries” or “LMIC” and their conjugates. The World Bank definition of low-income was used. **Website Search Stream:** Médecins Sans Frontières, United Nations, World Health Organization and EngenderHealth. By searching these websites, resources published from professional/ community organizations are accessed in addition to peer-reviewed results generated from a database search. Database search terms were also used in the web search.

Appraisal Strategy: Articles were evaluated using a modified version of the Critical Appraisal Skills Programme (CASP)[21]. Using measures of 0, 1 or 2 for each question, an answer of “yes” was weighed 2 points, “sometimes” 1 point and “no” 0 points; each study was given a score out of 20. TA and KB independently rated the studies, with a kappa score of $\kappa = 0.88$, indicating an almost perfect agreement.

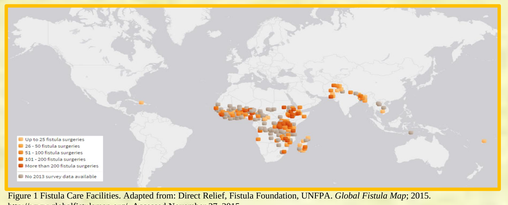

Figure 1 Fistula Care Facilities. Adapted from: Direct Relief, Fistula Foundation, UNFPA. *Global Fistula Map*; 2015. http://www.globalfistulamap.org/. Accessed November 27, 2015.

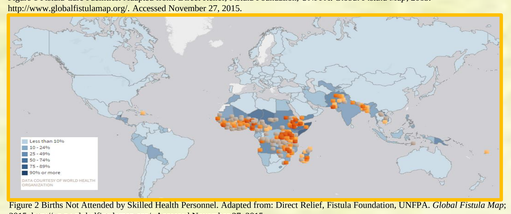

Figure 2 Births Not Attended by Skilled Health Personnel. Adapted from: Direct Relief, Fistula Foundation, UNFPA. *Global Fistula Map*; 2015. http://www.globalfistulamap.org/. Accessed November 27, 2015.

Search and Screening Strategy

Figure 3. Search and screening methodology flowchart

Table 1. Inclusion and exclusion criteria

Inclusion Criteria	Exclusion Criteria
Disease Examined	
Obstetric fistula, vesicovaginal fistula, rectovaginal fistula	Labour complications, urogenital fistula
Population and Geography	
Women with OFs living in sub-Saharan Africa or Asia	Women with OFs living elsewhere
Study design	
Peer-reviewed and non-peer reviewed literature	Case series, case reports, expert opinions
Language and year of publication	
English, French All years of publication	Languages other than English and French
Outcome measures	
Measures of social reintegration after OF repair (i.e., marital status)	No measures of social reintegration; participants were given an intervention (ex. counselling) before treatment
Accessibility	
Abstracts and full texts accessible through the University of Ottawa library	Abstracts and full texts not accessible through the University of Ottawa library

Results

(Above) Figure 4. Campaign to End Fistula. Adapted from: Axelrod, N. for UNFPA. *Obstetric fistula: The road to recovery - and respect;* 2015. http://www.endfistula.org/news/obstetric-fistula-road-recovery-%E2%80%93-and-respect. Accessed November 28, 2015.

Table 2. Results and Primary Findings

Author	Study Design	Population	Primary Findings	Quality Score (/20)
Ahmed & Holtz[17]	Meta-analysis	N = 19 studies	**Marital status and social support:** 53% perceived themselves as societally rejected **Economic sequelae:** 39% were dependent on relatives for food; 22% begged or lived on donations	10
Browning & Menber[10]	Mixed-methods	N = 240 (119 cured at discharge & continence maintenance at follow-up)	**Marital status and social support**: 44.8% still divorced/ separated, compared to 62.7% of women with symptoms at follow-up; 78.8% of women attended gatherings post-operatively, compared to 15% preoperatively **Economic sequelae:** 68.3% of women were employed	14
Donnelly et al. [9]	Mixed-methods	N = 51 (82% with closed fistulas)	**Marital status:** divorce rates were 5x higher among sample compared to population; most felt capable of participating in social gatherings **Economic sequelae:** agriculture-based economy difficult to return to (lack of stamina, strength); infrequently returning post repair	16
Khisa & Nyamongo[11]	Qualitative (interview, FG)	N = 8 interviewed; N = 7 survivors (FG1); N = 12 community members (FG2)	**Marital status and social support**: marriages jeopardized as husbands take condition as bad omen; women found themselves with little value after repair **Economic sequelae**: women unable to participate economically (lack of capital, physical weakness and labelling)	15
Lombard et al. [14]	Systematic review	N = 18 studies	**Marital status and social support:** most important rehabilitating factor was fulfilment of social roles **Economic sequelae:** long-term emotional, economic, physical consequences were most commonly reported negative aspects of rehabilitation	16
Mselle et al. [12]	Mixed-methods	N = 151 completed questionnaire (8 interviews; 1 followed long-term)	**Marital status and social support:** concerns - uncertainty of being accepted as a wife, the need to have children; living with fistula for a shorter duration associated with acceptance by husband (p = 0.002)	15
Muleta et al. [16]	Cross-sectional	N = 13 treated - in-depth interviews	**Marital status and social support:** repair improved in family social status; supportive husbands discouraged by family/ community to remain married	16
Nielson et al. [19]	Mixed-methods	N = 37 treated women with OF (P = 0.1); 71% remained married	**Marital status and social support:** repair increased QOL (i.e. (visiting friends) (P = 0.001), compared to time **Economic sequelae:** 6/8 women who stopped working went back to work following repair	16
Pope et al. [13]	Mixed-methods	N = 71 divided into 3 groups: 1. fistula repaired, 2. without fistula, 3. currently in hospital	**Marital status and social support:** 56% in group 1 divorced; 4.3% group 2; 16% group 3; length of time since repair statistically significant correlate for increased QOL (pQoL = 0.530, $p < 0.01$ and RNLI = 0.339, $p < 0.05$) **Economic sequelae:** for 60%, work was most important factor to societal reintegration	18
Yeakey et al. [18]	Qualitative (interview)	N = 45 with OF at first interviews;N = 18 with repair at follow-up were interviewed	**Marital status and social support:** 61% married; 33% single/divorced; improved control translated to improved QOL with few reporting barriers **Stigma:** felt empowered with immediate sense of relief, overcame pressure, better able to withstand challenges	18

OF = Obstetric Fistula; FG = focus group; QOL = quality of life; RNLI = Reintegration to normal living index

Discussion

Implications: Marital Status: Frequency of separation and divorce limits women’s ability to ascertain their place in society (as defined by their ability to have children), further seen in study by Wall et al.[15] Social support is key to the reintegration process[9,14,16] **Stigma:** Prevents complete recovery of OF through the disintegration of social supports[11,17] **Economic Sequelae**: Challenge of returning to work post-repair deepens poverty cycle by decreasing social/economic capital, as demonstrated by Wall et al.[3]

Limitations:

- Many participants in the studies were not followed longitudinally, thus limiting rigour of findings and degrading transferability/generalizability
- Marital status may not be an appropriate outcome measure, as some cultures allow polygyny (men do not need to divorce their wives prior to remarriage)[5,11,18]
- Small sample sizes reduces influence of findings on driving policy change

Conclusions

Findings: Treatment interventions alone are not sufficient in ameliorating reintegration process succeeding fistula repair; social parameters must also be considered since OF is a multidimensional pathology[7]

Future Research Recommendations: Reintegration of women with partial/incomplete OF repairs, Study of marginalized groups for a longer duration; Experimental study designs with participants randomized into various interventions (i.e. counselling, skills training or both) to determine the most efficacious mechanism

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