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UTILIZATION AND DETERMINANTS OF FAMILY PLANNING SERVICES AMONG WOMEN POST OBSTETRIC FISTULA REPAIR IN KENYATTA NATIONAL HOSPITAL

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ABSTRACT

Background: **Obstetric Fistula is a significant health problem among women worldwide. Surgical intervention to repair fistula helps in restoring dignity of women. Failure to utilize family planning services after repair exposes women to fistula recurrence.**

Objective: **To determine utilization of and factors associated with family planning services among women post obstetric fistula repair.**

Methods: **This was a cross-sectional study among women who underwent obstetric fistula surgical repair in Kenyatta National Hospital. The study participants were recruited during their follow up clinic visits and interviewed using structured questionnaires. Data was analyzed using SPSS version 23.0. Utilization of family planning services was presented as a proportion and determinants tested using chi-square test and independent t test.**

Results: **Sixty (60) women with a mean age of 32.4 years (SD +/-7.6 years) were interviewed. More than a half (55%) were married and all were literate. Majority (90%) were aware of family planning methods with 25% using FP after fistula repair. Women who were divorced or separated were 8.4 more likely to use FP methods, (95% CI, 1.7-40.9, p=0.004). Fertility desire was significantly higher among those who did not use contraceptives (p=0.007). Those who had still births**

in their last delivery and those who planned to get pregnant within 1 year did not use FP.

Conclusion: **Utilization of family planning services in women after obstetric fistula repair was found to be low despite receiving counseling on the need to use the services in order to delay pregnancy for at least 6 months.**

INTRODUCTION

Obstetric fistula (OF) is a significant health problem with devastating physical, emotional and social consequences among women worldwide. It is often a result of childbirth complications, mainly, prolonged obstructed labour as well as lack of access to maternity services (Adler *et al.,* 2013). According to the United Nation Population Fund (UNFPA), between 3,000 and 5,000 women develop fistula while giving birth every year in East Africa (United Nation Population Fund, 2014). In Kenya, 1 in 1000 women suffer OF annually which could be an underestimation since many more could be suffering in silence due to fear and stigmatization (Bellows *et al.,* 2015). OF is a significant health problem often neglected yet takes a heavy toll on women (Banke-Thomas *et al.,* 2014). Some women are abandoned by their husbands and families due to fistula which condemns them to poverty because of lack of support and source of income (UNFPA,2014). Obstetric Fistula can successfully be repaired surgically but it can easily recur if the woman receives little or no follow-up. Studies have shown that a woman requires at least two years post repair before conceiving to avoid recurrence (Umeora& Emma-Echiegu, 2015).

Women are advised post fistula repair to refrain from sexual activities for about 3-6 months to allow healing (Alayande*et al.,* 2017). Use of FP methods among women who have undergone successful fistula repair is of great importance both physically, economically and socially as it allows the prevention of recurrence and breakdown of fistula (United States Agency for International Development, 2015). Family Planning allows them to resume sexual activity after the abstinence period without fear of conceiving before being completely healed (Alayande *et al.,* 2017). Women are typically counseled to wait at least 12 months after fistula repair to conceive with a scheduled cesarean delivery for all future pregnancies (Kopp et al, 2014). Although there is high awareness of various family planning methods among women worldwide, few are utilizing the FP methods after the repair.

A study in Nigeria reported more than 95% of women were aware of modern FP methods but less than 40% utilized the methods after undergoing OF repair surgically (Alayande*et al.,* 2017). In Kenya, use of modern family planning methods was at 53% in 2014 (KNBS, 2014). There is paucity of data showing utilization of FP in women after OF repair in Kenya. Therefore, this study assessed utilization of family planning services and determining factors among women post obstetric fistula repair.

METHODS

A cross-sectional study was done among women who had undergone obstetric fistula repair. The study was conducted in Kenyatta National Hospital's vesico-vaginal fistula (VVF) clinic. The hospital, located in the capital city in Nairobi which is the capital city

of Kenya, is the largest teaching and referral hospital in the country with a bed capacity of 1800. The urogynaecology clinic, which serves obstetric fistula patients, is housed within the reproductive health unit which caters for family planning services, cervical cancer screening, colposcopy and Loop Electrosurgical Excision Procedures (LEEP) procedures and fertility clinic.

The patients who have undergone surgery are reviewed in the clinic at two weeks, one month, three months and finally at six months post-repair. The women who attended clinic after fistula repair and were between 15 and 49 years were approached for recruitment into the study. Those who were not clinically stable at the time of the visit were excluded for study participation. Informed consent was sought from the eligible participants and those consenting participation were enrolled into the study. A minimum sample size of 59 patients was estimated to be necessary to determine prevalence of use of family planning methods in this population within a 5% margin of error. Non-random sampling technique where every patient who attended clinic was approached and those eligible and willing to participate were recruited consecutively until the required sample size was reached. Recruitment was done after the patient had received all the services that brought them to the hospital.

The researcher interviewed the participants using a structured questionnaire to collect primary data that included socio-demographic characteristics, clinical and family planning history of the obstetric fistula women post-repair. Secondary data on diagnosis of obstetric fistula, surgery performed, and date of operation was abstracted from the patient files.

Statistical analysis: Data was coded, entered and analyzed using SPSS version 23.0. Description of the participants was done by summarizing the patient-related factors into percentages and means/medians for categorical and continuous data respectively. Utilization of family planning was analyzed and presented as a proportion. Factors associated with utilization of FP methods were tested using chi square test and the associated relative risk of FP use estimated using odds ratios. Statistical significance was interpreted at 5% (p value of < 0.05).

Ethical approvals: This study was approved by the Jomo Kenyatta University of Agriculture and Technology (JKUAT) research panel and thereafter ethical approval obtained from the Kenyatta National Hospital/University of Nairobi Ethics and Review Committee.

RESULTS

Table 1

Demographic Characteristics N= 60

Variable	Frequency (%)
Mean age (SD)	32.4 (7.6)
Min-Max	18-46
Marital status	
Single	17 (28.3)
Married	33 (55.0)
Divorced/ separated	10 (16.7)
Education	
Informal	6 (10.0)
Primary level	11 (18.3)
Secondary level	24 (40.0)
College	14 (23.3)
University	5 (8.3)
Religion	
Christianity	54 (90.0)
Islam	6 (10.0)
Residence	
Rural	12 (20.0)
Urban	48 (80.0)
Employment status	
Self employed	21 (35.0)
Employed	17 (28.3)
Casual laborer	5 (8.3)
A farmer	1 (1.7)
Not employed	16 (26.7)
Monthly family income (KES)	
1,000- 10,000	22 (36.7)
11,000- 20,000	9 (15.0)
21,000- 30,000	14 (23.3)
≥30,000	15 (25.0)
Have children	
Yes	52 (86.7)
No	8 (13.3)
Median number of children (IQR)	2 (1-3)
Median number of female children (IQR)	1 (0-1.75)
Median number of male children (IQR)	1 (0-1.75)
Wish to have more children	
Yes	49 (81.7)
No	11 (18.3)
Median number of future children (IQR)	2 (1-2)
Outcome of last delivery	
Alive	45 (75.0)
Dead	12 (20.0)
No response	3 (5.0)

Time plan to get pregnant in years	
<1	14 (23.3)
1-2	16 (26.7)
≥3	19 (31.7)
None	11 (18.3)

Sixty (60) women who sought OF repair were interviewed. As shown in Table 1, the mean age was 32.4 years (SD +/- 7.6 years) and 55% were married. All were literate with 40% having secondary level of education while 23.3% and 8.3% had college and university levels respectively. Majority (90%) were Christians and 80% lived in the urban setting. Unemployment rate was at 26.7% and the highest proportion (36.7%) earned between Ksh 1,000 and Ksh 10,000 in a month.

Majority (86.7%) of the women had children with 40.4% of them having one and 28.8% had two children, median number of 2 children. The distribution of female versus male children was almost uniform in the population with a median of 1 in each category. Those who wished to have more children in the future were 81.7% and the median number of children desired were 2. Three quarters (75%) of the women reported live births in their last delivery and a half (50%) planned to get pregnant within 2 years.

Utilization of FP in women post OF repair: As shown in Table 2, 90% of the women were aware of family planning methods which included injectables (85%), pills 83.3%) and IUCD (76.7%) among others. The source of information for FP methods is mainly friends (58%), health provider (45%), hospital facility (38.3%) and school (31.7%). A quarter (25%) of the women took up FP after repair of obstetric fistula with a third (33.3%) using injectables, 20% IUCD and another 20% implant. Majority (83.3%) of the women reported that they were not counseled on the importance of FP after OF repair. According to the women, the counseling they received was mainly focused on delay of sexual intercourse (46.7%), delay of pregnancy (41.7%) and the need for caesarean section in next delivery (41.7%).

Table 2

Level of utilization of FP post OF repair

Variable	Frequency (%)
Are you aware of family planning methods?	
Yes	54 (90.0)
No	6 (10.0)
Family planning known	
IUCD	46 (76.7)
Pills	50 (83.3)
Injectables	51 (85.0)
Condoms	37 (61.7)
Implant	41 (68.3)
Tubal ligation	30 (50.0)
Herbal	3 (5.0)
Source of information on the FP methods	
Radio	4 (6.7)
Health provider	27 (45.0)
Friends	35 (58.3)
School	19 (31.7)
Hospital facility	23 (38.3)
Chief /Baraza/Church	2 (3.3)
Other	2 (3.3)
Did you commence the FP after the OF repair?	
Yes	15 (25.0)
No	45 (75.0)
Current FP Method	
IUCD	3 (20.0)
Pills	2 (13.3)
Injectables	5 (33.3)
Condoms	2 (13.3)
Implant	3 (20.0)
Were you counseled on the importance of FP after OF repair?	
Yes	10 (16.7)
No	50 (83.3)
What were you counseled on?	
Benefits of family planning	1 (1.7)
Need to delay pregnancy for 6-12 months after repairs	25 (41.7)
Need to attend family planning clinic	4 (6.7)
Delay sexual intercourse for 6 months after repairs	28 (46.7)
Attend ante natal clinic when pregnant	15 (25.0)
Next delivery should be by Cesarean section	25 (41.7)

Facilitators and barriers to utilization of FP services post OF repair: As shown in Table 3, 80% of the women used FP because they had used the methods before. The other important facilitators of FP utilization included counseling after OF repair (53.3%) and having knowledge and awareness on FP services (46.7%). Having support from husbands or spouses offered the least influence on uptake at 20%. Fear of side effects (48.9%) and lack partner support (31.1%) were listed as the main barriers to utilization of FP methods after OF repair.

Table 3

Facilitators and barriers to utilization of FP services post OF repair

Variable	Frequency (%)
Facilitators	
Having knowledge and awareness on FP services	7 (46.7)
Having used FP before	12 (80.0)
Husbands/Spouse support	3 (20.0)
Was counseled on the benefits of using family planning services post OF repair to include child spacing, prevention of the occurrence of OF, prevention of pregnancy, prevention of STIs and HIV/AIDS	8 (53.3)
Barriers	
Lack of knowledge and awareness on FP services	6 (13.3)
Myths and misconceptions	10 (22.2)
Fear of side effects	22 (48.9)
Unfavorable perceptions/ needs for more children	9 (20.0)
Lack of partners' support	14 (31.1)
Culture and religion prohibition	10 (22.2)
Difficulty in accessing health facility, no FP commodities, services and supplies. Non -available health providers	4 (8.9)

Factors Associated with Family Planning Utilization in Women post Obstetric Fistula Repair: As shown in Table 4, 60% of the women who were divorced or separated used FP methods compared to 15.2% among the married, OR 8.4 (95% CI 1.7-40.9), p=0.004. Those who were single used FP 23.5% of the time. In relation to fertility desires, women who used FP desired a median of 1 child in the future compared to a median of 2 children in those who did not use contraceptives (p=0.007). Those who did not have live births in their last delivery had not taken up any FP methods compared to 33.3% among those who had live births (p=0.024). Similarly, women who planned to get pregnant within 1 year did not use FP compared to 27.3% in those who had no plans for pregnancy (p=0.037). All the other factors were not significantly associated FP use (p>0.05).

Table 4

Factors Associated with Family Planning Utilization in Women Post Obstetric Fistula Repair

Variable	FP	No FP	OR (95% CI)	P value
Mean age (SD)	**32.7 (7.8)**	**32.3 (7.7)**	**-**	**0.855**
Education				
Informal	0	6 (100.0)	-	0.114
Primary level	2 (18.2)	9 (81.8)	0.5 (0.1-2.9)	0.424
Secondary level	7 (29.2)	17 (70.8)	0.9 (0.2-3.3)	0.864
College/University	6 (31.6)	13 (68.4)	1.0	
Marital status				
Married	5 (15.2)	28 (84.8)	1.0	
Single	4 (23.5)	13 (76.5)	1.7 (0.4-7.5)	0.465
Divorced/ separated	6 (60.0)	4 (40.0)	8.4 (1.7-40.9)	0.004
Religion				
Christianity	15 (27.8)	39 (72.2)	-	0.321
Islam	0	6 (100.0)		
Residence				
Rural	1 (8.3)	11 (91.7)	0.2 (0-1.9)	0.262
Urban	14 (29.2)	34 (70.8)	1.0	
Employment status				
Self-employed/Employed	10 (26.3)	28 (73.7)	1.2 (0.4-4.2)	0.757
Not employed/Casual laborer/farmer	5 (22.7)	17 (77.3)	1.0	
Monthly family income (KES)				
1,000- 10,000	7 (31.8)	15 (68.2)	3.0 (0.5-17.3)	0.198
11,000- 20,000	1 (11.1)	8 (88.9)	0.8 (0.1-10.5)	0.873
21,000- 30,000	5 (35.7)	9 (64.3)	3.6 (0.6-22.9)	0.159
≥30,000	2 (13.3)	13 (86.7)	1.0	
Have children				
Yes	15 (28.8)	37 (71.2)	-	0.182
No	0	8 (100.0)		
Median number of children (IQR)	2 (1-3)	2 (1-3)	-	0.503
Median number of female children (IQR)	1 (0-1)	1 (0-2)	-	0.159
Median number of male children (IQR)	1 (0-2)	1 (0-1)	-	0.605
Wish to have more children				
Yes	12 (24.5)	37 (75.5)	0.9 (0.2-3.8)	1.000
No	3 (27.3)	8 (72.7)	1.0	
Median number of Future Children (IQR)	1 (1-2)	2 (2-3)	-	0.007
Outcome of last delivery				
Alive	15 (33.3)	30 (66.7)	-	0.024
Dead	0	12 (100.0)		

Time plan to get pregnant in years				
<1	0	14 (100.0)	-	0.037
1-2	3 (18.8)	13 (81.3)	0.6 (0.1-3.8)	0.601
≥3	9 (47.4)	10 (52.6)	2.4 (0.5-11.9)	0.279
None	3 (27.3)	8 (72.7)	1.0	

DISCUSSION

Utilization of family planning services was very low in women after repair of obstetric fistula with only a quarter using contraceptive methods. This was slightly lower that the women studied in Nigeria who reported 37.2% utilization of FP after undergoing OF repair (Alayande *et al*., 2017; Lawani *et al*., 2015). As compared to the general population of women aged between 15 and 49 years, utilization of FP was more than twice as low than the 58% reported in KDHS (KNBS, 2014). Injectables were the most popularly used FP methods which was consistent with findings from other studies (Alayande *et al*.,2017). The divorced or separated women were 8 times more likely to use contraceptives that the married ones. This was contrary to the expectation that those who lived with their husbands would perceive a higher risk of getting pregnant hence the higher chance of utilizing family planning services. Also, the women who did not use FP methods had a desire for significantly higher number of children in their future and those whose babies died in their last delivery were less likely to use family planning.

The low utilization of FP was seen despite the high level of awareness of FP services among the women. These findings revealed that 9 in every 10 women with obstetric fistula were aware of FP methods and mainly injectables, pills and IUCD. It was interesting to note that fewer women received information about family planning from hospitals despite the notion that all women receive counseling on family planning after OF repair. Previous studies have shown that the awareness of the availability of FP services and the various FP methods has a great influence on their uptake (Apanga & Adam, 2015). However, the high level of awareness in this study did not increase uptake of the services in this population. Several studies have reported inconsistent link between awareness and utilization with some findings reporting positive correlation while in other populations the link was not established (Alayande *et al*.,2017,Nasir *et al*., 2017). This indicates the complex relationship between knowledge and uptake of FP methods which may be influenced by other factors independent of the level of awareness among women. Having a history of use of FP methods was identified in this study as the most important facilitator of utilization of FP services after repair of obstetric fistula. Similar findings were reported in a study in Ghana where the reason for using FP services was because of having previously accessed and seen the benefits (Apanga & Adam, 2015). This may mean a combination of knowledge on and experience of FP methods has a synergistic influence on utilization of the methods after OF repair due to the perceived benefits of FP methods and reduced fear of unknown associated with their use. Counseling on the benefits of FP methods after OF repair was also shown to influence uptake in more than a half of the women who utilized FP after the procedure.

Support from the spouse was shown to influence a fifth of the women who took up

FP methods after OF repair. This was unexpectedly lower as several studies have shown that the male partner has a direct influence on increased use of contraceptive methods. A study observed that participation in FP services counseling by sexual partner and financial support to facilitate accessibility of the services enhanced utilization among women (Amo-Adjei *et al.,* 2017). Further, about a third of the population this study identified lack of partner support as one of the barriers to uptake of FP methods.

Fear of side effects came out prominently as a barrier to utilization of family planning methods. Studies in Kenya and Nigeria reported side effects as the main reasons women avoid using FP methods and the most common include changes in weight, excessive bleeding and lack of sexual desire (Ochako *et al.,* 2015, Nasir *et al.,* 2017). This study also identified myths and misconceptions as among the reasons that influenced lack of FP utilization in almost a quarter of the women. These findings were similar to previous report in Kenya that revealed that the fear and concerns about family planning as a barrier to its use were mainly based on myths and misconceptions with some citing that use of FP methods would render them infertile (Ochako*et al.,* 2015). In addition, cultural and religious beliefs have also been cited as among the important factors that influence use of family planning methods in the communities across the world. This study found this to be true in about a quarter of the respondents where culture and religion prohibited the uptake of the methods. Studies in Nigeria reported religion and culture as prohibiting factors that influenced utilization of family planning methods in a fifth of the of the studied population (Lawani *et al.,* 2015, Nasir *et al.,* 2017).

CONCLUSION

Utilization of family planning services in women after obstetric fistula repair was found to be low despite receiving counseling on the need to use the services in order to delay pregnancy for at least 6 months. Though there was a high level of awareness of family planning use and the available methods, there seemed to be several barriers that hinder women from taking up the methods which are unlikely to be undressed during the short time of counseling. Previous experience with family planning was an important factor that facilitated the increased likelihood of use of the methods after OF repair. The barriers were mainly the fear of side effects, the myths and misconceptions associated with family planning methods and prohibition due to cultural and religious beliefs. A very low proportion remembered being counseled on family planning use after OF repair meaning majority may not have understood the information given to them immediately after surgery.

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