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FACTORS ASSOCIATED WITH UPTAKE OF POSTPARTUM FAMILY PLANNING METHODS IN RURAL KENYA

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ABSTRACT

Background: In most developing countries, the level of postpartum family planning uptake has been low which is linked to poor health infrastructure and services; as well as unawareness of the family planning options. Pregnancies within the first 12 months after birth may lead to poor outcomes to the mother and child. The purpose of this study was to determine the factors associated with uptake of postpartum family planning methods.

Methods: A descriptive cross-sectional study was conducted among 210 postpartum women aged between 15 and 50 years. Data was collected using structured questionnaires and focus group discussion. Analysis was done using descriptive and chi square test for comparison while; qualitative data was analyzed using Atlas.ti 6.2 software by a grounded theory approach.

Results: The prevalence of postpartum family planning was 46.8% with the majority of the women aged between 25 and 29 years. The significant factors ($p < 0.05$) were age, education and employment. The most commonly known method of family planning was oral pills but the most used was the implants. Social networks were also a significant factor in the uptake of postpartum family planning.

Conclusions: Most postpartum women were using postpartum contraceptive methods different from their preferred ones, which is a clear reflection of wide gaps in prenatal contraceptive counselling and availability of the methods of family planning.

INTRODUCTION

Postpartum family planning (PPFP) is the introduction of use of methods of contraception within the first 12 months following delivery to prevent closely spaced and unintended pregnancies.¹ Closely spaced births are linked with increased likelihood of chronic undernourishment, stunted growth, and infant mortality.² Because of these serious health risks, spacing pregnancies at least 2 years apart can avert an estimated 10% of infant deaths and 21% of deaths in children ages 1 to 4 globally.³ Uptake of family planning in Africa in 1970 was 8% but there has been an increase to 36% by 2017. Since the early 2000s, the proportion of women reporting unintended pregnancy has been rising in Tanzania and Uganda; declining in Kenya and Ethiopia; and fairly stable in Rwanda. Reporting of unintended pregnancy among women of reproductive age is currently highest in Kenya, Rwanda, and Uganda and lowest in Ethiopia and Tanzania. The relationship between contraceptive prevalence and unintended pregnancy in the sub-region is complex. During the postpartum period, the healthcare providers come into multiple contacts with the women during child immunization and growth monitoring services, yet there is still a high rate of unmet needs.⁴

Eighteen percent of Kenyan children are born less than 24 months after a previous birth with the most common birth interval being at 24-35 months (32%). In Kisumu County, 47.7% of the births occur between 7-35 months with the most common interval being 24-35 months at 31%, the contraceptive uptake level is 62.4%. The county is characterized with high fertility rate, low per capita income and high child mortality rate.⁵ The purpose of PPFP will be to help women to decide on the contraceptive they want to use, to initiate

that contraceptive, and to continue contraceptive use for 2 years or longer, depending on the reproductive intentions of the woman or couple. The objectives of the study were: To determine the proportion of postpartum women taking postpartum family planning, to determine the socio-demographic and socio-economic characteristics of postpartum women associated with uptake of postpartum family planning methods, to determine the contraceptive methods used by postpartum women, to determine the barriers to utilization of postpartum family planning among the postpartum women.

METHODS

The study was conducted at Muhoroni sub-county, Kisumu County, Kenya. A descriptive cross-sectional study was used to collect qualitative and quantitative data from the postpartum women. The study targeted 210 postnatal women between 4 weeks to 24 months. They were identified with the help of the Community health volunteers using the household registers.

Descriptive statistics was used to summarize and organize the data. Association between the variables was estimated using chi square statistics and Odds ratio. Multivariate variables and their relationship thereof were determined by the use of logistic regression analysis. Differences between the parameter of estimate was deemed statistically significant at $P < 0.05$.

Qualitative data: The Key informant interviews and focus groups was recorded, transcribed, and translated into English by the study team. Coding and analysis were done using Atlas.ti 6.2 software, by a grounded theory approach.⁶ This enabled exploration of the barriers from the participants' point of view, that is, what the participants believe rather than testing a

pre-existing theory. Inconsistent results were reviewed by the coders until a consensus was reached.

Ethical clearance was sought from Scientific Steering Committee and Ethical Review Committee of University of East Africa Baraton. Participants' voluntarily participated and written informed consent was obtained from them. There was no risk of harm to the participants. Confidentiality, anonymity and privacy were fully guaranteed throughout the study.

RESULTS

Proportion of postpartum women using postpartum family planning in Muhoroni sub-County. Overall, 46.8% of postpartum mothers reported that they use postpartum family planning. Approximately 47% of married women were not using any method of family planning. Whereas 30% wanted to delay childbearing for more than two years, they were not on any method of family planning. (Table 1)

Table 1
Uptake of PFP among postpartum women

Characteristic	Frequency		Percent
Use of FP			
Yes	97		46.8%
No	113		53.2%
	Use of FP		
	No	Yes	Total
	n (%)	n (%)	
Marital Status			
Single	41(41%)	43 (39.09%)	84
Married	47(47%)	51(46.36%)	98
Divorced	12 (12%)	16 (14.55%)	28
Period of waiting			
Less than one year	13 (13.98)	22 (21.78%)	35
One to two years	29 (31.18%)	27 (26.73%)	56
More than two years	30 (32.26%)	28 (27.72%)	58
I don't know	21 (22.58%)	24 (23.76%)	45

Social Demographic characteristics of study participants: Majority of the mothers were married, had attained secondary education,

were self-employed, were Protestants and were aged between 25-29. (Table 2)

Table 2
Social demographic characteristics of study participants

Characteristic	Use of family planning		Freq (%)
	No n (%)	Yes n (%)	
Marital Status			
Single	31 (24.43)	28 (28.87)	59 (28.10)
Married	67 (60.18)	54(55.67)	122 (58.10)
Divorced	14(12.39)	15 (15.46)	29 (13.81)
Education level			
Primary	56 (49.56)	32 (32.99)	88 (41.90)
Secondary	43 (38.05)	46 (47.42)	89 (42.38)
Tertiary	14 (12.39)	19 (19.59)	33 (15.71)
Age			
15-19	5 (4.42)	8 (8.25)	13 (6.2)
20-24	13 (11.50)	23 (23.71)	36 (17.1)
25-29	57 (50.44)	44 (45.36)	101 (48.1)
30-34	24 (21.24)	12 (12.37)	36 (17.1)
35-39	7 (6.19)	8 (8.25)	15 (7.1)
40-44	6 (4.31)	1 (1.03)	7 (3.3)
45-49	1 (0.88)	1 (1.03)	2 (1)
Employment Status			
Student	10 (8.85)	14 (14.43)	24 (11.37)
Housewife	39 (34.51)	22 (22.68)	61 (28.91)
Self-employed	58 (51.33)	45 (46.39)	104 (49.29)
Employed	6 (5.31)	16 (16.49)	22(10.43)
Religion			
Catholic	39 (34.51)	19 (19.59)	58 (27.6)
Protestant	56 (49.56)	65 (67.01)	121 (57.6)
Muslim	18 (15.93)	13 (13.40)	31 (14.8)

There was a significant difference among the socio demographic and economic characteristics with regards to their age (OR = 0.74, 95% CI 0.58-0.96), marital status (OR = 1.56, 95% CI 1.03-2.34), education (OR 1.65, 95% CI 1.08-2.51) and employment (OR 1.53, 95% CI 1.07-2.19) towards uptake of PFP (Table 3).

Table 3
Univariate Analysis

Use FP	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]
Age Category	0.75	0.10	-2.29	0.02	0.58 0.96
Marital Status	1.56	0.33	2.14	0.03	1.04 2.35
Education	1.65	0.36	2.33	0.02	1.08 2.51
Employment	1.53	0.28	2.35	0.02	1.07 2.19
Religion	1.01	0.12	0.11	0.92	0.80 1.28
More children	1.19	0.20	1.07	0.28	0.86 1.65

The multivariate analysis was further done as shown in Table 4 it showed that age (OR 0.94, 95% CI 0.89-0.99), secondary education (OR 1.96, 95% CI 1.00-3.82), housewife (OR 0.24, 95% CI 0.08-0.71). This has the implication that women who have attained

secondary education are 1.96 times more likely to have postpartum uptake compared to those who have primary education. Women who are housewives are 0.24 less likely to have postpartum uptake compared to those who are employed.

Table 4
Multivariate Analysis

Use FP	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]	
Age of mother	0.943	0.028	-2.01	0.045	0.890	0.999
Secondary	1.956	0.668	1.97	0.049	1.002	3.820
Tertiary	2.151	0.983	1.68	0.094	0.879	5.266
Student	0.593	0.383	-0.81	0.419	0.167	2.106
Housewife	0.243	0.132	-2.6	0.009	0.084	0.706
Self-employed	0.413	0.216	-1.69	0.090	0.148	1.149
Married	0.840	0.315	-0.47	0.641	0.403	1.750
Divorced	1.400	0.678	0.69	0.487	0.542	3.617

Uptake of contraceptive methods: The common source of information on family planning was the healthcare providers. 28% of the postpartum women reported that they know about the oral pills whereas 45% of them were using implants as their preferred

method of family planning (Figure 2). Majority of the postpartum mothers get their family planning methods from Government facility where they are asked their preferences but still the ones they know were not available.

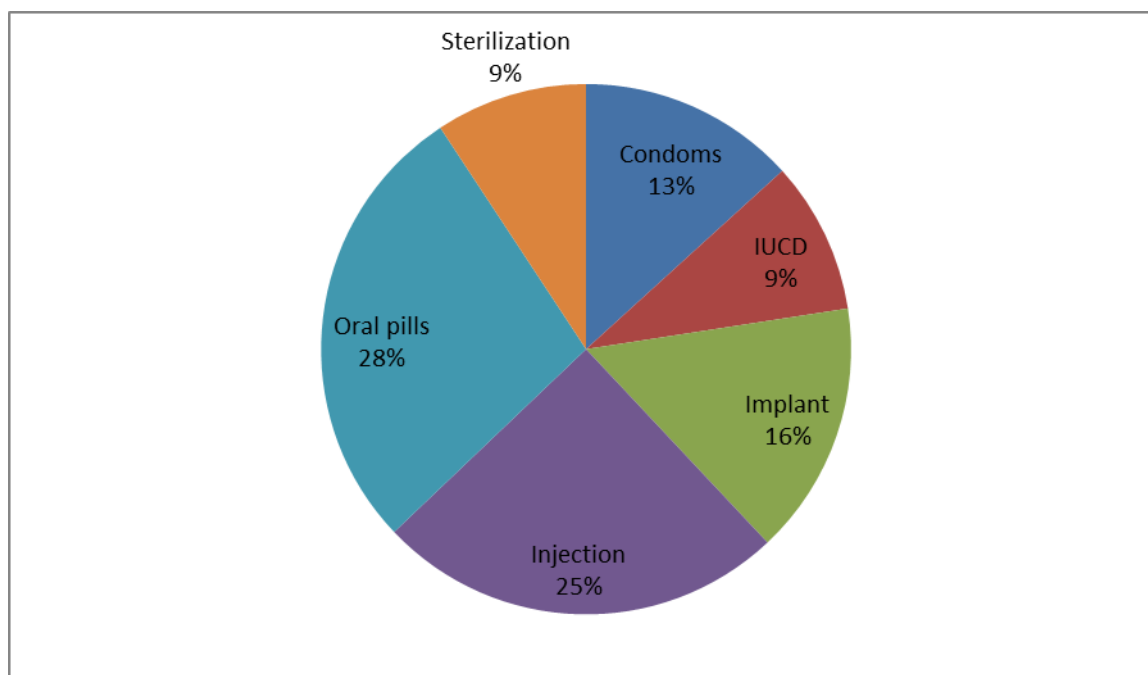


Figure 1: Methods of FP Known

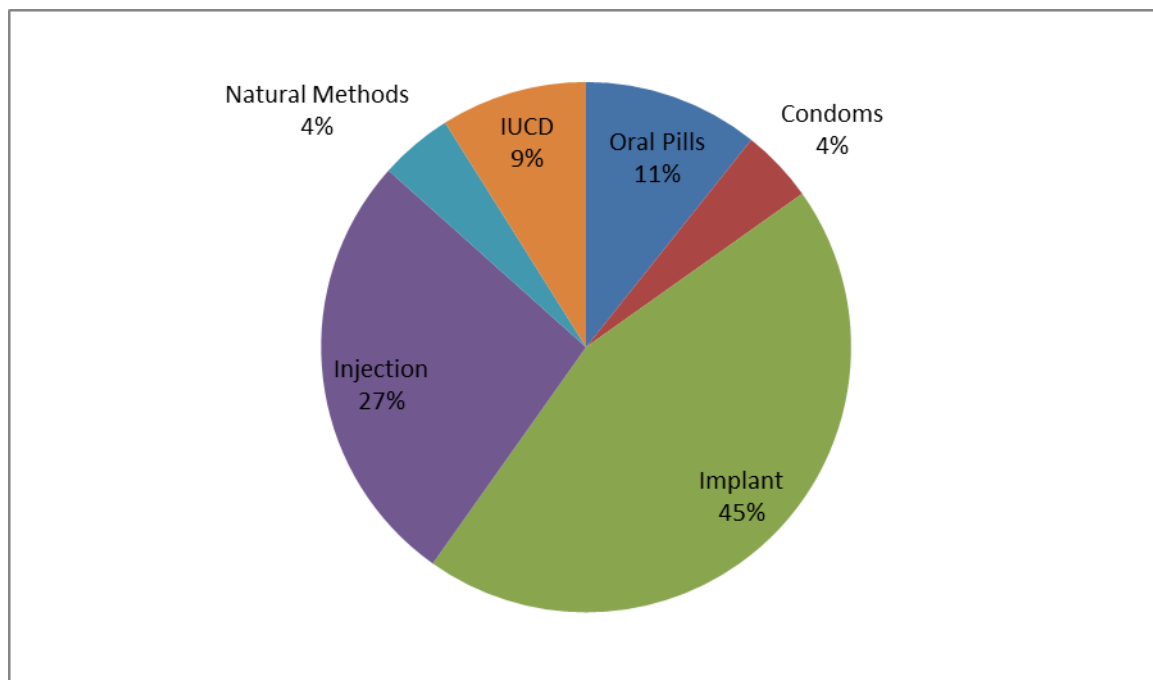


Figure 2: Methods of FP used

Barriers to utilization of PPF among the postpartum women in Muhoroni Sub-County: The barriers identified were:

Breastfeeding

The respondents felt that it would affect the production of milk.

"My neighbor told me that when you take the pills when breastfeeding the milk will dry on the breasts and you will not be able to breastfeed."

Distance to health facility

The study participants felt that sometimes the hospital is far to go for the family planning methods and they felt that they can get them from the pharmacies.

"I cannot waste my time and money to go for the family planning methods in a hospital since I can get the same methods in a nearby chemist."

Health system factors

The respondents felt that the health care workers had a general bad attitude and sometimes their preferred methods were not available.

"Some of those nurses are full of attitude as if they are not in the same predicament as ours."

"Most of those health care workers ask us to choose the method of family planning knowing

very well that the only thing available is the pills and I don't want that."

"One of the nurses could not even remove the implant from arm and she had to cut me and spent over one hour removing it."

Male involvement

The male partners felt that it made the women to be unfaithful. One of the respondents stated that

"The husband said that the unfaithful ones are those who use the pills and he can't allow me to use them."

Fear of side effects

The most common side effects expressed by the respondents were abdominal and leg pain, weight gain, bleeding, and lack of sexual desire.

A respondent felt that after having the injectable she was in a lot of pain.

"Immediately I got the injection, I started experiencing pain in the abdomen which was like the menstrual cramps."

Perception of other people

Other people played a major role on the decision of the women to use the family planning methods. They mostly learnt about the side effects and myths from other people

especially their family members, peers, and sometimes their male partners. Most of them used pronouns like 'he', 'she', 'others', and 'they', to show that other people influenced their choices. Some of the information was true while others were false.

"Other people usually feel that these family planning methods are not safe and some don't prevent pregnancies."

DISCUSSION

The prevalence of PFP use in this study was 46.8%. This finding was lower than a study conducted in: Addis Ababa Ethiopia where the prevalence of PFP was 80.3%, Nairobi 95.2% and South Africa 89.0%.⁷⁻⁹The discrepancy could be due to the presence of socio-economic differences such as the employment status of the women, cultural variations such as what the different cultures believe about family planning, service accessibility and reproductive characteristics among participants.

Women who say they are not using contraception and who say either that they do not want any more children or that they want to wait two or more years before having another child and those mothers whose pregnancy is unintended are considered to have an unmet need for family planning. Conversely, women using a family planning method are said to have a met need for family planning. Both unmet and met needs are categorized as such based on whether the need is for spacing or limiting births. The combination of women with unmet need and women with met need for family planning constitutes the total demand for family planning.

The unmet need for FP was 47.6%. Approximately 27% of currently married women's need for FP was met. Although, 46.7% of the currently married women had a demand for family planning, the unmet need for spacing was 35.7% and 11% for limiting. The unmet need in the current

study is relatively higher than that of studies conducted in Nigeria and Sudan¹⁰ even though it was lower than that of the study conducted in India.¹¹ When it is compared with the latest demographic health survey in the country it is higher.⁵ These differences might be because of the differences in the access to health services and awareness level of the communities. The findings can be a source of alert to be able to reduce the unmet need. The majority of the unmet need is the need for spacing whereby the mother doesn't want any child in the next two years and is not on any long acting method of FP.

The significant predictors were age and employment status and employment of the postpartum mothers. Majority of the women 48.1% were aged between 25 and 29, the least of the mothers 0.95% were aged between 45 and 49 years, this could be due to no need of family planning among most of them. 51.4% had attained secondary education, 35.2% had attained primary education and 13.4% had attained tertiary education. This was not the same case in a study in Nigeria which showed that women, who intended to use a contraceptive postpartum, the rates were higher among women who were aged 31-35 years, had post-secondary education, had 2-4 children alive, married for 2-5 years, were Christians and whose pregnancies were intended.¹² This suggests that women's age, level of education, parity, religion and duration of marriage play an integral role in uptake and utilization of postpartum contraception. This is also seen in the study in Uganda which showed that utilization of modern postpartum family planning was significantly associated with women's education level, wealth status, religion, and age of the woman, number of surviving children, exposure to the media and utilization of reproductive health services.¹³ The most commonly known method of FP was Oral pills. According to a demographic survey in Kenya, the most widely known

modern methods of contraception among women are male condoms 96%, injectables 95% and the pill 94%.⁵ The most preferred contraceptive methods from a study in Nigeria were the implants 19.2% and injectables 18.4%.¹² A different study found that the most preferred contraceptive used after delivery were the minipill 29.3% and the intrauterine contraceptive device 25% while another showed, Depot medroxy progesterone acetate 38.4% and the progestinonly pills 26.0% were the preferred postpartum contraceptive methods.¹⁴⁻¹⁵ From this figures, we observe that in some other parts of the world, the oral contraceptive pills tend to be used more compared to the implants and the intrauterine contraceptive device. It is possible that these methods are easily affordable, readily accessible and do not necessarily require a skilled provider.

Health providers and the media were mentioned as the frequent source of information on contraception. However, these sources, mostly the media, often propagated myths (infertility, birth defects) and exaggerated rare side effects (uncontrollable bleeding, enormous weight gain/loss). These findings are in line with other studies, for example, the influence of others' perceptions - propagated through hearsay - was also found in a study among youth in Kisumu.¹⁶⁻²⁰

Our findings support evidence that women do not make decisions to use contraceptives in isolation, but in consultation with others in their social networks.²⁰ Both information and misinformation are spread through social networks. In this way, networks provide an opportunity to encourage or discourage use; a way of sharing potentially positive information on contraceptive technologies but also a channel for rumors, which may negatively influence use.²¹ This could either be due to limited knowledge of the available contraceptive methods or myths and misconceptions and levels of education seek care at the facilities.

CONCLUSION

The prevalence of postpartum family planning use was generally low with most women opting for methods that were not priority preference. Women's age, level of education, marital status including social media networks played an important role in the uptake of PPF. Majority of the women were undecided as to the method of postpartum contraception they would opt for.

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