Factors Influencing Utilization of Family Planning Methods among Women of Reproductive Age (15-49) Attending Fort Portal Regional Referral Hospital in Fort Portal City

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ABSTRACT

Family planning, a pillar of safe motherhood is known for its benefits including limiting unwanted pregnancies and reducing infant and maternal mortality and morbidity. This research aimed to explore factors which influence the utilization of FP among women of reproductive age (15-49) attending Fort Portal regional referral hospital in Fort portal city. A cross-sectional descriptive study design was used and a total of 292 randomly selected women of reproductive age (15-49) at Fort Portal Regional Referral Hospital were enrolled into the study. Data on the current use of family planning and related factors was collected using a researcher-administered questionnaire, checked for completeness and analyzed using the statistical package for social sciences (SPSS) software version 25. Factors influencing family planning utilization were determined using logistic regression analysis and Qui square test while statistical significance was determined at p-value≤0.05 and 95% confidence interval. The prevalence of contraceptive utilization was 29.79%.Our results indicated that age, marital status, parity, number of living children, age of the youngest child, time to have the next child, mode of delivery, partner discussion about family planning and female approval of family planning use were important predictors of family planning utilization at bivariate logistic regression analysis while only the age of the youngest child and expected time to have another child significantly influenced family planning utilization at multivariate regression analysis. Age of the youngest child and the expected time to have another child significantly influenced family planning utilization. Family planning utilization was low far way below the national family planning strategy target thus more efforts needed to improve family planning utilization among women of reproductive age if the national family planning target is to be achieved.
Keywords: Family planning, Safe motherhood, Unwanted pregnancies, Maternal deaths, Contraceptive.

INTRODUCTION

Family planning (FP) is defined as a voluntary and informed decision by an individual or couple on the number of children to have and when to have them [1, 2]. According to the world health organization (WHO) fact sheet, FP has major benefits which include but are not limited to reducing the rate of unwanted pregnancy, reduction in infant and maternal mortality, reducing risk of human immunodeficiency virus (HIV) transmission, and checking on population growth [3]. Evidence exists that if couples can space their pregnancies by at least two years apart through the use of family planning, up to 35% of maternal deaths and up to 13% of child mortalities could be averted [4] whilst 25% of under –five mortalities could be averted if birth intervals were at least three years (Bearak et al., 2018). Globally, in 2015, modern contraceptive utilization was 57.4% [3]. However, the estimates in Africa have stagnated between 2008 and 2015 at 23.6% and 28.5% respectively [1]. In Sub-Saharan Africa (SSA), Uptake of modern contraceptive methods remains low. Studies have attributed this low uptake of

FP to both social demographic and cultural factors [5]. It is estimated that, 214 million women or reproductive age in SSA have unmet need for FP [6]. Uganda has made a great progress in increasing uptake of contraceptive use over the years. As per the latest Uganda Demographic Health Survey (UDHS), use of modern methods in Uganda has increased from 8% in 1995 to 35.8% in 2016 among married women aged 15–49 years while the rate for all sexually active women is currently 29.2% [7]. However, this figure is still low and the unmet need for family planning is still high at 32.5% [8]. Furthermore, 44 % of pregnancies are unplanned [9] and spacing between pregnancies is poor, which is associated with an increased risk of infant mortality, childhood malnutrition, and complications during pregnancy [10]. Moreover, Uganda's contraceptive prevalence rate is lower than figures among neighboring countries namely Kenya (46%) [11] and Rwanda (52%) [12]. One important step in addressing the unmet need for family planning in Uganda is to explore factors that influence women's contraceptives use. Several studies have been conducted to determine factors which influence family planning use. Factors such as; woman's age group [13], woman's education level [14], woman's parity [15], household income [16], employment status [17], and religion [18] were identified among others. While the above sizable body of research exists on factors influencing use of family planning among women of child bearing age, little is known about what factors influence women's use of family planning in Western Uganda and Fort Portal regional

referral hospital (FPRRH) in particular. Thus, this study sought to explore such factors that influence family planning use among women of reproductive age within the local context.

Uganda's total fertility, maternal mortality and teenage pregnancy rates remain among the highest globally. In addition, the population of Uganda is currently 41.49 and is expected to be around 130 million by 2050 [19]. FP use is very essential in checking population growth, but FP use in Uganda has remained the lowest in the region (35%) [7]. Furthermore, 44 % of pregnancies in Uganda are unplanned and spacing between pregnancies is poor, which has been associated with an increased risk of infant mortality, childhood malnutrition, and complications during pregnancy [9]. The Ugandan government through ministry of health (MoH) had a target of reducing the unmet need for family planning to 10% and increase the modern contraceptive prevalence rate to 50% by 2020 [20]. However, almost two years later, it still looks like a dream. Previous researchers in Uganda and other developing countries have identified an array of multi-level determinants of contraceptive uptake which include individual factors, psychosocial factors, social-cultural factors and Health system factors to be associated with FP use. However, findings from these studies cannot be assumed to be the same in case of FPRRH. Therefore, this research explored factors which influence utilization of FP among women of reproductive age (15-49) attending Fort Portal regional referral hospital in Fort Portal city.

METHODOLOGY

Study Design

A cross-sectional and descriptive study [21] design was used. The design was used in collection of information that is objective and relevant. Quantitative data was collected.

Area of Study

This study was conducted in MCH Clinic at Fortportal regional referral hospital. The hospital is located in Fortportal City in Western Uganda. The hospital has a bed capacity of 333 beds. It is about 294km by

road from Kampala, the Uganda's capital city. It serves as the referral hospital for one city and seven districts of; Fortportal city, Kabarole, Bundibugyo, Kyenjojo, Bunyangabu, Kamwenge, Kasese and Ntoroko.

Study Population

Mothers aged 15-49 attending postnatal clinic, and immunization of Fort Portal regional referral Hospital in Fort Portal city were the target population.

Inclusion Criteria

All women aged 15-49, who were not pregnant and were visiting the hospital at the time of interview, and were willing to consent were included in the Study.

Exclusion Criteria

All women aged (15-49) who are not sure about their last normal menstrual period were excluded and those that did not consent were excluded from the study.

Sample Size

The sample size required for the study was calculated based on the formula by Kish Leslie (1995);-

$N=Z^2P(1-P)/e^2$

Where,

N = estimated sample size

P = anticipated proportion of women using family planning. National prevalence among all sexually active women is currently 29.2%, so P will be taken to be 0.292

Z = standard normal variation ant 95% confidence (1.96)

e = margin of error (5%)

the calculated sample size was estimated to be,

$$\frac{1.96^2 \ x \ 0.292(1-0.292)}{0.05^2} = \textbf{318 samples}$$

A total of 292 study participants completed the questionnaire.

Sampling Technique

Simple random sampling technique was used. 636 small pieces of paper of equal size were kept in a box. 318 of them had the word 'yes' and the other 318 'no'. The women who picked the papers with 'yes'

and consented for the study were enrolled. This was in order to avoid bias.

Data collection methods

Data was collected using a researcher administered questionnaire. The questionnaire collected data on current use of FP and related factors. Respondents and interviewers read out the questions exactly the way they appear in the questionnaire and interviewers translated to those respondents who did not understand the language on the questionnaire so that respondents could answer.

Data processing and Analysis

Collected data was entered and analyzed in the computer using the statistical package for social sciences (SPSS) software version 25. Categorical variables were presented as tables of frequencies and percentages, pie charts and bar graphs for descriptive statistics while continuous data was presented as means and standard deviations. Chi-square test and logistic regression analysis were used to determine the factors that influenced utilization of family planning. Statistical significance was set at P-values of at least ≤0.05 and 95% confidence interval.

Quality control

The questionnaire for data collection was pre-tested to ensure that questions are clear and allow gathering of information needed for the study. The questions that showed ambiguity during pre-testing were revisited and modified as required.

RESULTS

Socio-demographic and obstetric characteristics of the study participants Socio-demographic.

This study enrolled a total number of 292 sexually active women of reproductive age. The mean age of the study participants was 27.3(SD±7.8) with majority in the age group of 21-30 years old. Nearly all 284 (97.27%) reported to have attained formal education. Furthermore, nearly a half 142(48.63%) of the study participants had attained at least secondary education. Additionally, over 64% were married, and more than three quarters 230(78.77%) were Christian. Similarly, a greater part of the study participants 235(80.48) had reported an

informal employment status. Moreover, most of them 197(67.47) reported an income status of not enough.

Obstetric characteristics

Mean parity was 2.27(SD±2.62), majority 118(40.41%) reported a parity of three or less. Comparably, the mean number of living children was 2.22 (SD±2.50) with over 40% reporting the number of living children between 1 and 3 while more than a third 103(35.27%) of the study participants reported not having any living child. Furthermore, less than a fifth of the study participants reported either to have stopped 36(12.37%) or were expecting another child within a period of one year 48(16.49%). On the other hand, however,

more than a third was expecting the next child in a period of 2-4 years 107(36.77%) or in more than 4 years-time 100 (34.36). Similarly, greater than a third of the study participants reported the age of the youngest child to be below 2 years of age while over 89% of those who had ever delivered reported a normal vaginal-delivery.
(Table1).

Table 1Socio-demographic and obstetric characteristics of the study participants

Variable	Frequency (%) (N=292)	Variable	Frequency (%) (N=292)
Age, Mean±SD	27.34±7.79	**Parity,** Mean±SD	2.27±2.62
20 below	56(19.18)	3 or less	118(40.41)
21-30	155(53.08)	More than 3	71(24.32)
31-40	58(19.86)	Nulliparous	103(35.27)
Above 40	23(7.88)	**Number of living children,** Mean±SD	2.22±2.50
Education		None	103(35.27)
None	8(2.74)	1-3	119(40.75)
Primary	82(28.08)	4+	70(23.97)
Secondary	142(48.63)	**Time to another child**	
Tertiary	60(20.55)	Stopped	36(12.37)
Marital status		0-1 Year	48(16.49)
Married	188(64.38)	>2-4	107(36.77)
Widowed	3(1.03)	5 Years above	100(34.36)
Never married	92(31.51)	**Age of youngest child**	
Divorced/ Separated	9(3.08)	None	103(35.27)
Religion		2-5 Years	59(20.21)
Christian	230(78.77)	Below 2 Years	102(34.93)
Muslim	62(21.23)	Above 5 Years	28(9.59)
Employment		**Mode of delivery**	
Formal	57(19.52)	None	103(35.27)
Informal	235(80.48)	Caesarean section	19(6.5)
Income status		Normal delivery	170(58.22)
Enough	95(32.53)		
Not enough	197(67.47)		

Family planning use and practices
Considerably, majority of the study participants reported partner discussion on family planning 167(57.99%) with both the woman and man approving the use of family planning together 143(49.14%).

Furthermore, over 90% reported to have heard about family planning and majority of these had been counselled or given information about family planning by either a nurse or a doctor. Similarly, a greater part (over 90%) reported that health

workers were always readily available to offer family planning services, point of care was easily accessible and family planning method of choice was always available. Notably, government health facility was reported by almost all as the family planning service provider. On the other hand, however, over 58% reported side effects as one of the setbacks of family planning use. Family planning use was found at 29.79%. The family planning methods used by the study participants included abstinence 4(4%), Pills 4(4%), Implants 24(24%), injectables 56(56%), Condoms 1(1%), Intra-uterine device 3(3%) and, calendar or rhythm method 8(8%).
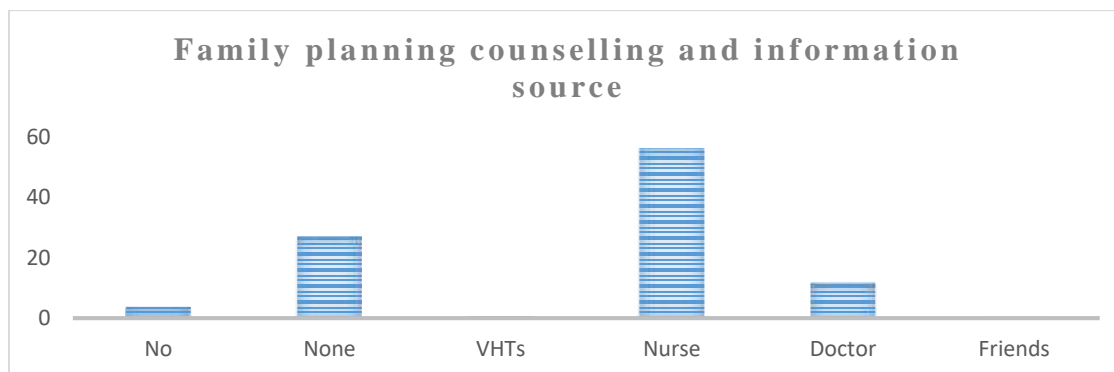
Family planning counselling and information source

(bar chart: No, None, VHTs, Nurse, Doctor, Friends on x-axis; 0, 20, 40, 60 on y-axis)

Figure 1: Family planning counselling and information source for the study participants

Table 2: Distribution of family planning practices and use among the study participants

Partner discussion on family planning	Frequency (%) (N=292)
No	17(5.90)
Yes	167(57.99)
None	104(36.11)
Approval of family planning	
None	103(35.40)
Man alone	16(5.50)
Woman alone	29(9.97)
Both man and woman alone	143(49.14)
Heard about family planning	
No	1(0.34)
Yes	291(99.66)
What you hate about family planning	
Cost	63(21.58)
Source	58(19.86)
Side effects	171(58.56)
Family planning service providers	
Government health facility	161(91.48)
Others	15(8.53)
Availability of health workers to offer family planning	
Always	177
Availability of family planning of choice	
Always	175(99.43)
Sometimes	1(0.57)
Accessibility of point of care	
No	1(0.57)
Yes	175(99.43)

A pie chart demonstrating current use of family planning by the study participants

■No ■Yes

30%

70%
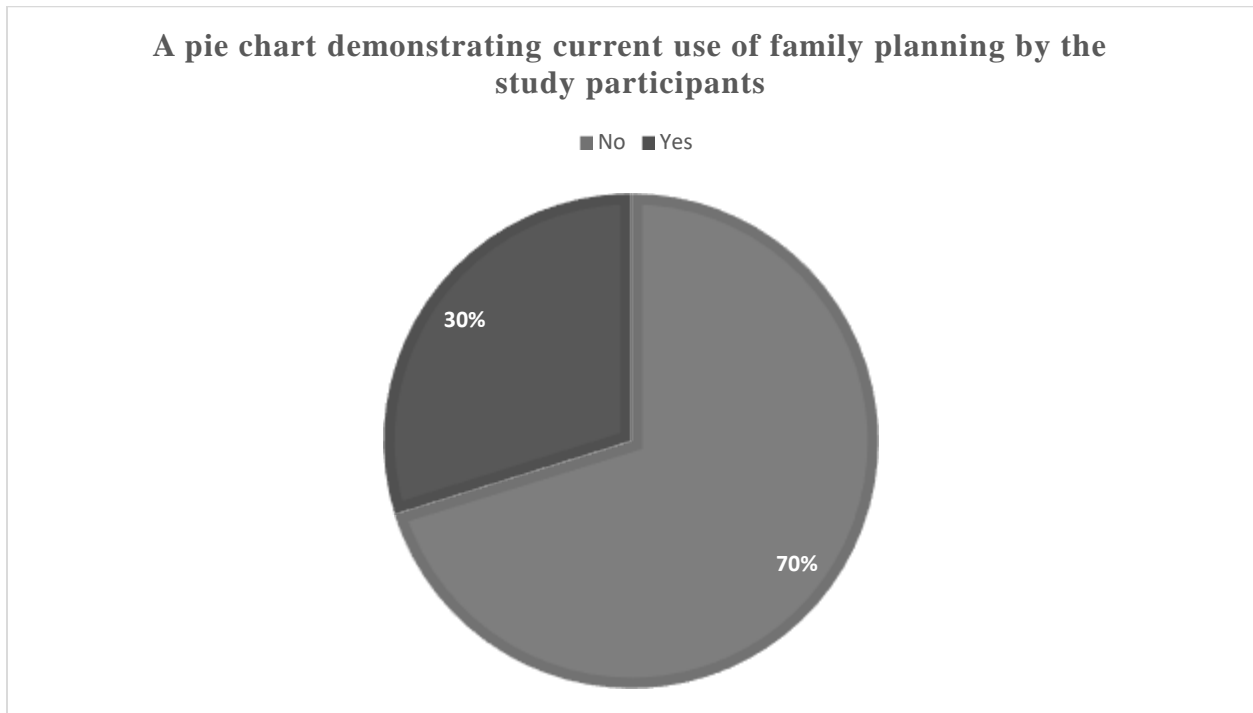
Figure 2: Family planning prevalence among the study participants

A bar graph showing the different family planning methods used by the study participants

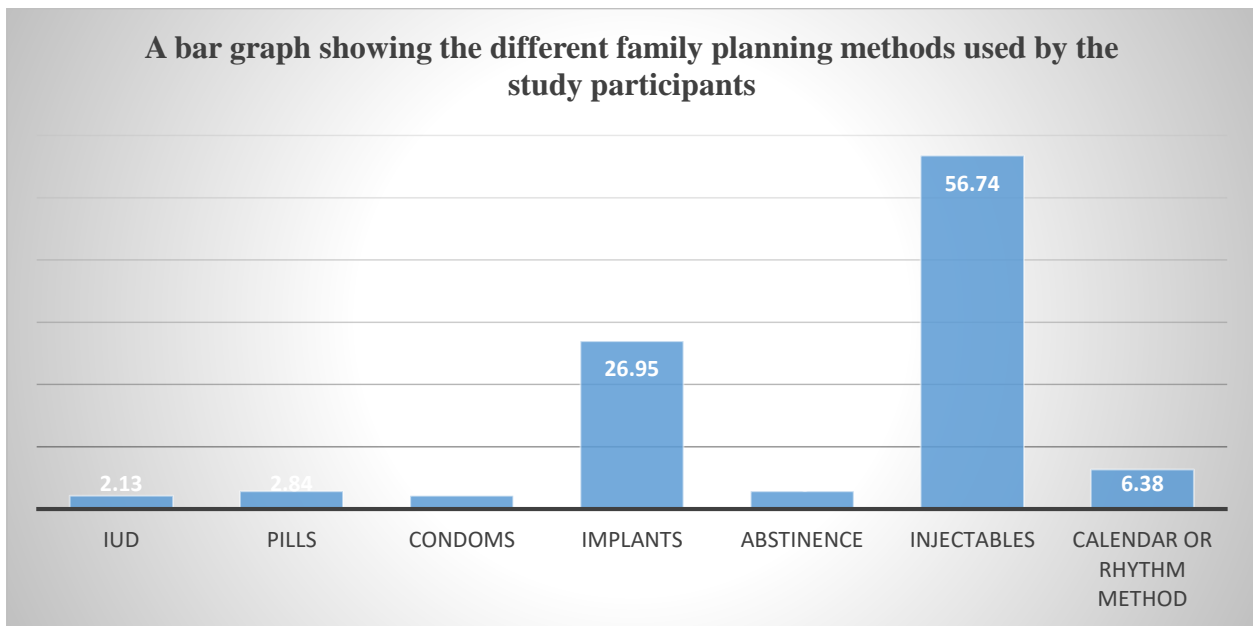|			26.95		56.74	
2.13	2.84					6.38
IUD	PILLS	CONDOMS	IMPLANTS	ABSTINENCE	INJECTABLES	CALENDAR OR RHYTHM METHOD

Figure 3: Family planning methods used by the study participants

Bivariate regression analysis of the sociodemographic, obstetric and family social factors that influence family planning utilization

Participants' age and marital status significantly influenced family planning utilization at bivariate logistic regression analysis. The findings show that participants in the age range of 21-30(COR=8.4, p-value=0.001, 95% CI=2.5-28.2), 31-40(COR=13.4, p-value=0.000, 95% CI=3.7-47.8) and above 40 years of age (COR=11.4, p-value=0.001, 95% CI=2.7-47.6) had higher odds for utilization of family planning when compared to those

below 20 years of age. Similarly, being married was significantly associated with 16.7 times likely hood for family planning utilization when compared to those who had never gotten married p-value<0.05. Regarding the obstetric factors, a higher parity, higher number of living children, age of the youngest child, time to another child and mode of delivery significantly influenced family planning utilization. Similarly, partner discussion on family planning and family planning approval significantly influenced family planning utilization (p-value<0.005). The details are reflected in tables.

Table 3: Socio-demographic factors influencing family planning utilization

Family planning Utilization			
Age	Odds Ratio (COR)	P>|z|	[95% Conf. Interval]
21-30	8.4	*0.001	2.5-28.2
31-40	13.4	*0.000	3.7-47.8
Above 40	11.4	*0.001	2.7-47.6
Below 20 years	1		
Education			
Primary	5.5	0.119	0.6-46.6
Secondary	2.3	0.446	0.3-19.3
Tertiary	2.3	0.445	0.3-20.5
None	1		
Marital status			
Married	16.7	*0.000	5.9-47.2
Divorced or separated	6.3	0.053	1.0-40.5
Never married	1		
Employment status			
Formal	1.8	0.054	1.0-3.3
Informal	1		
Income status			
Enough	1.3	0.314	0.8-2.2
Not enough	1		

Table 4: Obstetric factors and family social factors that influence family planning utilization

Family planning Utilization			
Parity	**Odds Ratio (COR)**	**P>|z|**	**[95% Conf. Interval]**
1-3	18.2	*0.000	6.3-52.7
>3	21.5	*0.000	7.1-64.8
Nulliparous	1		
Number of living children			
1-3	18.6	*0.000	6.4-53.8
4-7	20.8	*0.000	6.9-62.9
None	1		
Age of the youngest child			
2-5 Years	36.1	*0.000	11.7-111.3
Above 5 Years	9.9	*0.001	2.7-36.1
Below 2 Years	16.0	*0.000	5.4-46.8
None	1		
Time to another child			
Stopped	3.8	*0.025	1.2-12.1
>2-4 Years	4.9	*0.002	1.8-13.5
5 Years above	3.9	*0.009	1.4-10.7
0-1 Years	1		
Mode of delivery			
Caesarean section	27.5	*0.000	7.2-105.6
Normal vaginal delivery	18.6	*0.000	6.6-52.9
None	1		
Partner discussion			
No	8.9	*0.001	2.4-32.4
Yes	13.0	*0.000	5.4-31.3
None	1		
Family planning approval			
Man alone	11.2	*0.001	2.6-48.2
Woman alone	23.1	*0.000	6.7-79.6
Both man and woman	19.5	*0.000	6.8-55.8
None	1		

Multivariate regression analysis of the sociodemographic, obstetric and family social factors that influence family planning utilization

After adjusting for all the significant variables at bivariate logistic regression analysis, multivariate logistic regression analysis showed that age of the youngest child and the expected time to have another child significantly influenced family planning utilization. Details are reflected in the table.

Table 5: Multivariate regression analysis of the sociodemographic, obstetric and family social factors that significantly influenced family planning utilization.

Family planning utilization				
Variable	**Odds Ratio (AOR)**	**P>|z|**	**[95% Conf. Interval]**	
Age of the youngest child				
2-5 Years	2.5	0.015	1.193438	5.28730
Above 5 Years	1.0	0.941	0.3027348	3.028053
Time to another child				
5 Years above	6.7	0.003	1.877501	23.81909
>2-4 Years	4.9	0.011	1.441631	16.96761

DISCUSSION

Our study aimed to assess the factors that influence utilization of family planning among women of reproductive age (15-49) at Fortportal regional referral hospital and a total of 292 study participants were enrolled successfully. The prevalence of contraceptive utilization was found to be at 29.79%. This is far way below the national family planning strategy target which aimed to increase family planning utilization to 50% by 2020 [22]. Likewise, the figure is still lower than the world-wide contraceptive prevalence rate (53%) and that of the developing countries (48%) [23]. On the other hand, however, the figure is higher than the contraceptive prevalence rate reported in 21% of Ghana [24]. Notably, higher contraceptive rates have been reported in Ethiopia [25] and Kenya [26]. The differences in the contraceptive prevalence can be attributed to sociodemographic, economic and geographic variations across the study settings. Our study established that, age was associated with contraceptive uptake. We noted that family planning utilization was higher with ages 21-30(COR=8.4, p-value=0.001, 95% CI=2.5-28.2), 31-40(COR=13.4, p-value=0.000, 95% CI=3.7-47.8) and above 40 years of age (COR=11.4, p-value=0.001, 95% CI=2.7-47.6) when compared to those below the age of 20. These findings are in agreement with other studies done in Northern Uganda [27] Ethiopia [28, 29] and, Ghana [30]. The age differences could be due to the fact that older women usually have attained the desired number of children than younger ones thus opt for child spacing and limiting the number of children hence

using contraceptives. On the other hand, women in their older ages 40-49 are approaching menopause, therefore, the chances of getting pregnant are so minimal thus will find no need for contraception hence low use of contraceptives in these ages. Furthermore, being married was significantly associated with 16.7 times likely hood for family planning utilization when compared to those who had never gotten married p-value<0.05. Our findings agree with a study by the USAID conducted in Sub-Saharan Africa, Latin America, and the Caribbean which also reported a higher contraceptive prevalence among married individuals [31]. Additionally, a study by [32] also showed that married women had higher odds for contraceptive utilization (AOR=2.81, 95% CI-1.344-5.855). This could be due to the fact that married women are likely to have frequent sex and there is a need to limit and space their children. In this study, a higher parity and higher number of living children appeared to be strong predictors of family planning utilization.

Women with a parity of 1-3(COR=18.2, p-value=0.000, 95% CI=6.3-52.7) and above 3(COR=21.5, p-value=0.000, 95% CI=7.1-64.8) respectively showed higher odds for family planning utilization when compared to nulliparous women. Considerably, the findings showed that family planning utilization significantly increased with parity. These findings are in accordance with a study in Uganda by [33]. Furthermore, the study also showed that women having living children between 1-3(COR=18.6, p-value=0.000, 95% CI=6.4-53.8) and 4 or more (COR=20.8, p-

value=0.000, 95% CI=6.9-62.9) were more likely to utilize family planning when compared to those who did not have any child. In addition, the findings also showed that the more the number of living children, the higher was the likelihood of family planning utilization. These findings are consistent with a study carried out in Ethiopia that showed that women with 1-4 living children had higher odds, and the odds increased in women having 5-8 children [25]. This could be due to the fact that a higher a parity is associated with a greater number of children thus the low desire to have more children. Conversely, nulliparous women having the highest desire to have children, the need for family planning utilization is relatively low. Similarly, the more the number of living children, the more likely a woman will want to space or limit the number of children by using contraceptives while one with few living children has a desire to have more children hence less likely to use contraceptives. Moreover, the age of the youngest child was also a strong predictor for contraceptive use, women with the youngest child's age below 2 years and ranging between 2-5 years were 16.0 and 36.1 times respectively more likely to use contraceptives than those with no child. Remarkably, the odds of contraceptive utilization reduced with increase in the age of the youngest child. For instance, the odds of family planning utilization were 9.9 times when the age of the youngest child was above 5 years. Our findings are in correspondence with other studies [34, 35]. This could be that contraceptive use increases as the age of the youngest child increases but decreases with a much older age of the youngest child because the required birth spacing would have been achieved and the mother wants to conceive again. Comparably, contraceptive use was also found to be associated with the time plan of having the next child, women having a time plan of >2-4 years and 5 years and above were respectively 4.9 and 3.9 times more likely to use contraceptives than those with less than 2years plan (p-value<0.05). Equally, women who reported to have stopped baring children had higher odds of family planning utilization than those who expected the next child in less than 2 years-time. Our findings are consistent with a study done among African countries which demonstrated that women who were expecting a child in 2 years or more were more likely to use contraceptives than those less than 2 years [36]. This could probably be because couples who plan their pregnancy usually comply to the recommendations for child spacing and therefore end up with optimal birth intervals [37]. Likewise, our study also revealed that women who had a caesarean delivery showed the highest odds of family planning utilization (COR=27.5, p-value=0.000, 95% CI=7.2-105.6). These findings are consistent with a study carried out in Ghana where women who had undergone a cesarean section were 5 times more likely to use contraceptives than those with vaginal delivery or no delivery [38]. This could also be due to traumatic experiences associated with Caesarean section and also a short birth interval is associated with incomplete healing of cesarean section scars therefore these women will use contraceptives. Correspondingly, women who were easily discussing with their partners were 2.69 times more likely to use contraceptives than those who did not (AOR=2.69; p=0.016). Respectively, family planning approval also strongly predicted contraceptive utilization. Our study found out that approval by a woman alone had the highest odds (COR=23.1, p=0.000, 95% CI=6.7-79.6) followed by approval by both man and woman (COR=19.5, p=0.000, 95% CI=6.8-55.8), with the least being with approval by man alone (COR=11.2, p=0.001, 95% CI=2.6-48.2).Studies done in Ethiopia revealed that women who discussed with their partners were more likely to use contraceptives than those who had no discussions [39, 40].This calls for the need to for efforts to involve men in family planning. Notably, however, after adjusting for all the significant variables at bivariate logistic regression analysis, multivariate logistic regression analysis showed that only the age of the youngest child and the expected time to have another child significantly influenced family planning utilization.

CONCLUSION

Family planning utilization in this study was generally low far way below the national family planning strategy target, the contraceptive prevalence rate for both developing countries and worldwide. Age of the youngest child and the expected time to have another child significantly influenced family planning utilization in multivariate logistic regression analysis.

Recommendations

More efforts are needed to improve family planning utilization among women of reproductive age if the national family planning target is to be achieved. Further studies involving the community should be conducted for generalizability of the study.

REFERENCES

1. WHO. (2017). Family planning/Contraception: Fact Sheet. WHO.
2. Ouma, S., Turyasima, M., Acca, H., Nabbale, F., Obita, K. O., Rama, M., & Awor, S. (2015). Obstacles to family planning use among rural women in Atiak health center IV, Amuru District, northern Uganda. *East African medical journal*, *92*(8), 394-400.
3. WHO. (2016). WHO | Family planning/Contraception. In Who.
4. Rusibamayila, A., Phillips, J., Kalollela, A., Jackson, E., & Baynes, C. (2017). Factors influencing pregnancy intentions and contraceptive use: an exploration of the 'unmet need for family planning' in Tanzania. Culture, Health and Sexuality, 19(1), 1–16. https://doi.org/10.1080/13691058.2016.1187768.
5. UNFPA. (2017). State of Uganda Population Report. In State of Uganda Population Report.
6. World Health Organization. (2015). World Health Statistics 2015. In World Health Organisation. https://doi.org/10.1017/CBO9781107415324.004.
7. UBOS. (2017). Demographic and Health Survey.
8. Wulifan, J. K., Brenner, S., Jahn, A., & De Allegri, M. (2016). A scoping review on determinants of unmet need for family planning among women of reproductive age in low and middle income countries. BMC Women's Health. https://doi.org/10.1186/s12905-015-0281-3.
9. Guttmacher Institute. (2017). Adding it up: Investing in Contraception and Maternal and Newborn Health. Guttmacher Institute.
10. Teshome, F. T., Hailu, A. G., & Teklehaymanot, A. N. (2014). Prevalence of Unintended Pregnancy and Associated Factors among Married Pregnant Women in Ganji Woreda, West Wollega Oromia Region, Ethiopia. Science Journal of Public Health. https://doi.org/10.11648/J.SJPH.2014 0202.18.
11. Izugbara, C. O., Wekesah, F. M., Tilahun, T., Amo-Adjei, J., & Tsala Dimbuene, Z. T. (2018). Family Planning in East Africa: Trends and Dynamics. African Population and Health Research Center (APHRC).
12. Muhoza, D. N., Rutayisire, P. C., & Umubyeyi, A. (2016). Measuring the success of family planning initiatives in Rwanda: a multivariate decomposition analysis. Journal of Population Research. https://doi.org/10.1007/s12546-016-9177-9.
13. Ackerson, K., & Zielinski, R. (2017). Factors influencing use of family planning in women living in crisis affected areas of Sub-Saharan Africa: A review of the literature. In Midwifery. https://doi.org/10.1016/j.midw.2017.07.021.
14. Alemayehu, M., Lemma, H., Abrha, K., Adama, Y., Fisseha, G., Yebyo, H., Gebeye, E., Negash, K., Yousuf, J., Fantu, T., Gebregzabher, T., & Medhanyie, A. A. (2016). Family planning use and associated factors among pastoralist community of afar region, eastern Ethiopia. BMC Women's

Health. https://doi.org/10.1186/s12905-016-0321-7.

15. Apanga, P. A., & Adam, M. A. (2015a). Factors influencing the uptake of family planning services in the Talensi district, Ghana. Pan African Medical Journal, 20. https://doi.org/10.11604/pamj.2015.20.10.5301.

16. Obwoya, J. G., Wulifan, J. K., & Kalolo, A. (2018). Factors Influencing Contraceptives Use among Women in the Juba City of South Sudan. International Journal of Population Research. https://doi.org/10.1155/2018/6381842.

17. Amen, M. A., Boutros, S., Hassan, A. I., & Yahia, B. A. (2015). Factors Affecting Utilization of Family Planning Services in a Post-Conflict Setting, South Sudan: A Qualitative Study. AIMS Public Health, 2(4), 655–666. https://doi.org/10.3934/publichealth.2015.4.655.

18. Shabiby, M. M., Karanja, J. G., Odawa, F., Kosgei, R., Kibore, M. W., Kiarie, J. N., & Kinuthia, J. (2015). Factors influencing uptake of contraceptive implants in the immediate postpartum period among HIV infected and uninfected women at two Kenyan District Hospitals. BMC Women's Health. https://doi.org/10.1186/s12905-015-0222-1.

19. (PRB), P. R. B. (2008). 2008 WORLD POPULATION Data Sheet. Population English Edition, January 11, 2010, 133.

20. MoH. (2017). The ministry of health. Public Health, 44. https://doi.org/10.1016/S0033-3506(20)80102-4.

21. Ugwu, C. N., & Eze, V. H. U. (2023). Qualitative Research. *IDOSR of Computer and Applied Science*, 8(1), 20–35.

22. Ministry of Health. (2014). Uganda Family Planning Costed Implementation. Ministry of Health. http://health.go.ug/

23. United Nations. (2020). World Fertility and Family Planning 2020: Highlights. In United Nations Department of Economic and Social Affairs Population Division: New York. https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/files/documents/2020/Jan/un_2020_worldfertilityfamilyplanning_highlights.pdf.

24. Nyarko, S. H. (2015). Prevalence and correlates of contraceptive use among female adolescents in Ghana. 4–9. https://doi.org/10.1186/s12905-015-0221-2.

25. Abate, M. G., & Tareke, A. A. (2019). Individual and community level associates of contraceptive use in Ethiopia: A multilevel mixed effects analysis. Archives of Public Health, 77(1), 1–12. https://doi.org/10.1186/s13690-019-0371-z.

26. With, F. A. (2019). HHS Public Access. 22(Suppl 1), 125–130. https://doi.org/10.1007/s10461-018-2203-5.PREVALENCE

27. Bourdieu, P., Education, L., Albright, J., Luke, A., Abingdon, E., Routledge, E., Grenfell, M., Post-postmodernisme, L. E., Monjelat, N., Carretero, M., باس ع, ، خضير شراد ال فتاح عبد ،التميميّ, Implicada, P., La, E. N., Fairstein, G. A., Monjelat, N., Monjelat, A., Daniela, U. De, Sociales, C., Virtual, C., … Motivaci, L. (2018). لـFactors influencing contraceptive use among women in Northern Uganda. Director, 15(2), 2017–2019.

28. Kebede, A., Abaya, S. G., Merdassa, E., & Bekuma, T. T. (2019). Factors affecting demand for modern contraceptives among currently married reproductive age women in rural Kebeles of Nunu Kumba district, Oromia, Ethiopia. Contraception and Reproductive Medicine, 4(1), 21. https://doi.org/10.1186/s40834-019-0103-3.

29. Takele, A., Degu, G., & Yitayal, M. (2012). Demand for long acting and permanent methods of contraceptives and factors for non-use among married women of Goba Town, Bale Zone, South East Ethiopia. Reproductive Health, 9(1), 26.

https://doi.org/10.1186/1742-4755-9-26

30. Aviisah, P. A., Dery, S., Atsu, B. K., Yawson, A., Alotaibi, R. M., Rezk, H. R., & Guure, C. (2018). Modern contraceptive use among women of reproductive age in Ghana: analysis of the 2003–2014 Ghana Demographic and Health Surveys. BMC Women's Health, 18(1), 141. https://doi.org/10.1186/s12905-018-0634-9.

31. Wang, W., Staveteig, S., Winter, R., & Allen, C. (2017). Women's marital status, contraceptive use, and unmet need in Sub-Saharan Africa, Latin America, and the Caribbean . In DHS Comparative Report No. 44 . ICF . http://dhsprogram.com/pubs/pdf/CR44/CR44.pdf

32. Debebe, S., Limenih, M. A., & Biadgo, B. (2020). Modern contraceptive methods utilization and associated factors among reproductive aged women in rural Dembia District, northwest Ethiopia: Community based cross-sectional study. 15(6), 367–374.

33. Namasivayam, A., Lovell, S., Namutamba, S., & Schluter, P. J. (2020). Predictors of modern contraceptive use among women and men in Uganda: A population-level analysis. BMJ Open, 10(2), 1–11. https://doi.org/10.1136/bmjopen-2019-034675.

34. Hossain, M., Khan, M., Ababneh, F., & Shaw, J. (2018). Identifying factors influencing contraceptive use in Bangladesh: Evidence from BDHS 2014 data. BMC Public Health, 18(1), 1–14. https://doi.org/10.1186/s12889-018-5098-1.

35. Shayo, I., Msuya, S. E., Amour, C., & Mahande, M. J. (2020). Awareness and Factors Associated with Postpartum Modern Contraceptives Use among Women of Reproductive Age in Bukombe District, Geita Region. Advances in Sexual Medicine, 10(03), 71–85. https://doi.org/10.4236/asm.2020.103005.

36. Apanga, P. A., & Adam, M. A. (2015b). Factors influencing the uptake of family planning services in the Talensi district, Ghana. Pan African Medical Journal, 20(May). https://doi.org/10.11604/pamj.2015.20.10.5301.

37. Aleni, M., Mbalinda, S. N., & Muhindo, R. (2020). Birth Intervals and Associated Factors among Women Attending Young Child Clinic in Yumbe Hospital, Uganda. International Journal of Reproductive Medicine, 2020, 1–11. https://doi.org/10.1155/2020/1326596.

38. Eliason, S. K., Bockarie, A. S., & Eliason, C. (2018). Postpartum fertility behaviours and contraceptive use among women in rural Ghana. Contraception and Reproductive Medicine, 3(1), 1–12. https://doi.org/10.1186/s40834-018-0066-9.

39. Gebremedhin, M., Tesfaye, G., Belachew, A., & Desta, D. (2015). Factors influencing modern contraceptive method preference among women of reproductive age in central zone of Tigray Region, Northern Ethiopia. International Journal of Healthcare, 2(1). https://doi.org/10.5430/ijh.v2n1p82.

40. Medhanyie, A. A., Desta, A., Alemayehu, M., Gebrehiwot, T., Abraha, T. A., Abrha, A., & Godefay, H. (2017). Factors associated with contraceptive use in Tigray, North Ethiopia. Reproductive Health, 14(1), 1–11. https://doi.org/10.1186/s12978-017-0281-x.

Kitandwe Bruhan (2023). Factors Influencing Utilization of Family Planning Methods among Women of Reproductive Age (15-49) Attending Fort Portal Regional Referral Hospital in Fort Portal City. IAA Journal of Scientific Research 10(2):102-114.