

Prevalence and Factors Associated with Modern Contraceptive Uptake among Women of Reproductive Age (15-49) Attending the Jinja Regional Referral Hospital in the Jinja District

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ABSTRACT

Modern contraception, a pillar of safe motherhood is known for its benefits including limiting unwanted pregnancies and reducing infant and maternal mortality and morbidity. Modern contraception significantly reduces up to 35% of maternal deaths, 13% of child mortalities and up to 25% of under-five mortalities. This research aimed to explore factors associated with the utilization of modern contraceptive methods among women of reproductive age (15-49) attending the Jinja regional referral hospital in the Jinja district. The study involved the use of a descriptive cross-sectional study design and a total of 365 randomly selected women of reproductive age (15-49) at Jinja Regional Referral Hospital were enrolled into the study. Data on the current use of modern contraceptives and related factors were collected using a researcher-administered questionnaire after which the data was checked for completeness and analyzed using the statistical package for social sciences (SPSS) software version 25. Factors associated with modern contraceptive utilization were determined using logistic regression analysis and Chi² square test while statistical significance was determined at p-value ≤ 0.05 and 95% confidence interval. We enrolled a total of 365 study participants. The prevalence of modern contraceptive uptake was found to be 30.14%. Factors associated with modern contraception uptake included age, marital status, parity, number of living children, age of the youngest child, caesarean delivery, and discussion of modern contraceptive use with partner. After adjusting for possible confounders, multivariate logistic regression analysis showed that only the age of the youngest child and the expected time to have another child significantly influenced modern contraceptive use. Modern contraceptive use in this study was low and independently associated with the age of the youngest child and the expected time to have another child. More efforts need to increase modern contraceptive uptake.

Keywords: Modern contraception, Safe motherhood, Unwanted pregnancies, women of reproductive age, maternal deaths.

INTRODUCTION

Modern contraception is a family planning method that assists individuals in their decisions regarding the number of children to have and when to have them [1]. According to the world health organization (WHO) fact sheet, modern contraception has major benefits which include but not limited to reducing the rate of unwanted pregnancy, reduction in

infant and maternal mortality, reduced risk of human immunodeficiency virus (HIV) transmission, and checking on population growth [2]. Evidence exists that if couples can space their pregnancies by at least two years apart through the use of modern contraceptives, up to 35% of maternal deaths and up to 13% of child mortalities could be averted [3], whilst 25%

of under-five mortalities could be averted if birth intervals were at least three years [4]. Globally, in 2015, modern contraceptive utilization was 57.4% [2]. 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 modern contraceptives to both social demographic and cultural factors [5]. It is estimated that, 214 million women or reproductive age in SSA have unmet need for modern contraceptives [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) [7], 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% [8]. However, this figure is still low and the unmet need for family planning is still high at 32.5% [9]. Furthermore, 44 % of pregnancies are unplanned [10], and spacing between pregnancies is poor, which is associated with an increased risk of infant mortality, childhood malnutrition, and complications during pregnancy [11]. Moreover, Uganda's contraceptive prevalence rate is lower than figures among neighboring countries namely Kenya (46%) [12], (52%) [13]. One important step in addressing the unmet need for modern contraceptive uptake in Uganda is to explore factors that influence women's contraceptives use. Several studies have been conducted to determine factors which influence modern contraceptive use. Factors such as; maternal age group [14], maternal education level [15], maternal parity [16], household income [17], employment status [18], and religion [19], were identified among others. While the above sizable body of research exists on factors influencing use of modern contraception among women of child bearing age, there is paucity of data on factors influencing women's use of contraceptives in Eastern Uganda and Jinja regional referral hospital (JRRH) in particular. Thus, this study

sought to explore such factors that are associated with modern contraceptive use among women of reproductive age within the local context.

Statement of Problem

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 [20]. Modern contraceptive use is a very effective method in checking population growth, but modern contraceptive uptake in Uganda has remained low in the region (35%) [8]. 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 [10]. The Ugandan government through ministry of health (MoH) set a target of reducing the unmet need for modern contraceptive use to 10% and increase the modern contraceptive prevalence rate to 50% by 2020 [21]. However, the realization of this target remains a mystery up to date. 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 modern contraceptive use. However, findings from these studies cannot be assumed to be the same in case of JRRH due to differences in the cultural, sociological, and economic backgrounds of the study populations. Therefore, this research aimed to explore factors associated with modern contraceptive use among women of reproductive age (15-49) attending Jinja regional referral hospital in Jinja district.

Aim of the Study

The study aimed to determine the factors associated with modern contraceptive utilization among women of reproductive age (15-49) attending Jinja regional referral hospital in Jinja district.

Specific objectives of the Study

- To determine the prevalence of modern contraceptive utilization

among women of reproductive age (15-49) attending Jinja regional referral hospital in Jinja district.

- To identify the socio-demographic and obstetric factors associated with the utilization of modern contraceptives among women of reproductive age (15-49) attending Jinja regional referral hospital in Jinja district.
- To identify health service and method factors associated with modern contraceptive utilization among women of reproductive age (15-49) attending Jinja regional referral hospital in Jinja district.

Research Question

Study Design

This was a facility-based quantitative cross-sectional study. The cross-sectional method was chosen because it is not costly to perform, captures a specific point in time and does not require a lot of time [22]. This enabled the researchers to conduct the study in the shortest time possible provided the limited time available to conduct the study. In addition, the method is cheap. Quantitative methods were considered as they enabled the researcher to measure the magnitude of modern contraceptive uptake among women of reproductive age at JRRH [23].

Area of the Study

The study was carried out in JRRH in Jinja district, Uganda. Jinja is the second largest town/city in Uganda, Africa. It is the second busiest commercial center in the country, after Kampala, Uganda's capital and largest city. Jinja lies in southeastern Uganda, approximately 54 miles (87 km), by road, east of Kampala [24]. The town is located on the shores of Lake Victoria, near to the source of the Nile River which is approximately 3km away from JRRH. The hospital currently has abed capacity of 600 beds and consists of several departments, including Obstetrics and Gynecology. The Obstetrics and Gynecology departments will be used for the study as it consists of the target clinics like young child clinic (YCC), family planning, and gynecological clinic among others. This hospital was chosen because it has the largest

- i. What is the prevalence of modern contraceptive utilization among women of reproductive age (15-49) attending Jinja regional referral hospital in Jinja district?
- ii. What are the socio demographic and obstetric factors associated with modern contraceptive use among women of reproductive age (15-49) attending Jinja regional referral hospital in Jinja district?
- iii. What are the health service and method factors associated with modern contraceptive use among women of reproductive age (15-49) attending Jinja regional referral hospital in Jinja district?

METHODOLOGY

outpatient family planning unit in the region which provide free family planning services for mothers. The hospital was also chosen because it is near and easily accessible by the researcher.

Study Population

The study population in this study included all women of reproductive age receiving care at the hospital.

Inclusion Criteria

All women aged 15-49, who were not pregnant and mothers who had delivered and are currently admitted in the postnatal ward at the time of interview and were willing to consent were included in the study.

Exclusion Criteria

Women who were not in the right state of health to respond to the questionnaire for example those who were very sick or were mentally unstable. The study also excluded women below the age of 15 or those above 49 years of age.

Sample Size

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

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

Where,

N = estimated sample size

P = anticipated proportion of women using modern contraceptives. National prevalence among all sexually active women is currently 48.2%, so P will be taken to be 0.482

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

e = margin of error (5%).

The calculated sample size was estimated to be, $\frac{1.96^2 \times 0.482(1-0.482)}{0.05^2} = 384$ samples and a total of 365 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 selection bias.

Data collection methods

The study involved use of a survey questionnaire. A survey questionnaire was used as an instrument because it is relatively cheap. Data was collected using a researcher administered questionnaire which comprised questions on the utilization and factors associated with the use of modern contraceptive methods.

Data processing

Collected data was entered into a data excel sheet, transferred to epidata and then analyzed in the computer using the statistical package for social sciences (SPSS) software version 25.

Data Presentation

Categorical variables are presented as tables of frequencies and percentages, pie charts and bar graphs for descriptive statistics while continuous data is presented as means and standard deviations.

Data Analysis

For Objective one, the prevalence of modern contraceptive use was established

Socio-demographic and obstetric characteristics of the study participants

Socio-demographic characteristics

This study enrolled a total number of 365 participants. The mean age of the study participants was 27.50(SD±7.93) with majority in the age group of 21-30 years old. Nearly all 355(97.26%) reported to have attained some formal education, majority with secondary school and above 246(67.40%). Additionally, close to two thirds 233(63.84%) were married, and more than three quarters 291(79.73%) were

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from the number of women that had ever used a modern contraceptive method expressed as a percentage of the total number of women enrolled into the study. For objective two and three, the associated factors were initially analyzed descriptively in univariate analysis. This was followed by bivariate and multivariate logistic regression analysis to establish the associations between the factors and modern contraceptive uptake. Chi-square test was used to determine the factors associated with utilization of modern contraceptive methods. Odds ratios were used to establish the measure of association. 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 on 10% of the original sample size to ensure that questions are clear and allow gathering of information needed for the study. The questions that showed ambiguity during pre-testing were revised and modified as required.

Ethical Consideration

Ethical approval for the study was sought from faculty of clinical medicine and dentistry KIU Western campus in form of an introductory letter. This letter was then taken to the District Health Officer and a copy to the medical director of Jinja Regional Referral hospital. Informed consent was obtained from the participants before data collection and the data collected was kept confidential and not used for any other unintended purposes.

RESULTS

Christian. Similarly, a greater part of the study participants 298(81.64%) reported an informal employment status. Further, most of them 239(65.48%) reported an inadequate income status.

Obstetric characteristics

Mean parity was 2.37 (SD± 2.76), majority 139(38.08%) reported a parity of three or less. Comparably, the mean number of living children was 2.32(SD± 2.62) with over 38% reporting the number of living children between 1 and 3. Furthermore, less than a fifth of the study participants

reported either to have stopped 53(14.56%) or were expecting another child within a period of one year 57(15.66%). Similarly, about a third 120(32.88%) 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. Details are reflected in Table 1.

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

Variable	Frequency (%) (N=365)	Variable	Frequency (%) (N=365)
Age, Mean±SD	27.50 ± 7.93	Parity, Mean±SD	2.37± 2.76
20 below	73(20.00)	3 or less	139(38.08)
21-30	185(50.68)	More than 3	95(26.03)
31-40	73(20.00)	Nulliparous	131(35.89)
Above 40	34(9.32)	Number of living children, Mean±SD	2.32± 2.62
Education		None	131(35.89)
None	10(2.74)	1-3	140(38.36)
Primary	109(29.86)	4+	94(25.75)
Secondary	177(48.49)	Time to another child	
Tertiary	69(18.90)	Stopped	53(14.56)
Marital status		0-1 Year	57(15.66)
Married	233(63.84)	>2-4	130(35.71)
Widowed	3(0.82)	5 Years above	124(34.07)
Never married	119(32.60)	Age of youngest child	
Divorced/ Separated	10(2.74)	None	131(35.89)
Religion		2-5 Years	75(20.55)
Christian	291(79.73)	Below 2 Years	120(32.88)
Muslim	74(20.27)	Above 5 Years	39(10.68)
Employment		Mode of delivery	
Formal	67(18.36)	None	131(35.89)
Informal	298(81.64)	Caesarean section	25(6.85)
Income status		Normal delivery	209(57.26)
Adequate	126(34.52)		
Inadequate	239(65.48)		

Source: Primary Data 2022

Health Service, Social and Method Factors Associated with Modern Contraceptive use

Considerably, more than half of the study participants reported partner discussion on modern contraception 201(55.83%) with

both the woman and man approving modern contraceptive use. Furthermore, this study also showed that modern contraceptive awareness was universal with only one mother reporting not to have heard about modern contraception.

Additionally, majority of the participants were counselled or given information about modern contraception by either a nurse or a doctor. Similarly, a greater part 262(71.78%) reported that health workers were always readily available to offer modern contraception services, point of care was easily accessible 219(99.10%) and modern contraception method of choice was always available 219(99.10%). Notably, government health facility was reported by almost all as the modern contraception service provider. On the other hand, over

59% reported side effects as one of the setbacks of modern contraceptive use.

Modern Contraceptive Use Prevalence

Modern contraceptive use was found at 30.14%. The modern contraceptive methods used by the study participants included abstinence 5.75%, Pills 5.75%, Implants 20.82%, injectables 52.32%, Condoms 4.12%, Intra-uterine device 4.12% and, calendar or rhythm method 7.12%. Details are reflected in table 2 and figures 2, 3 and 4 below.

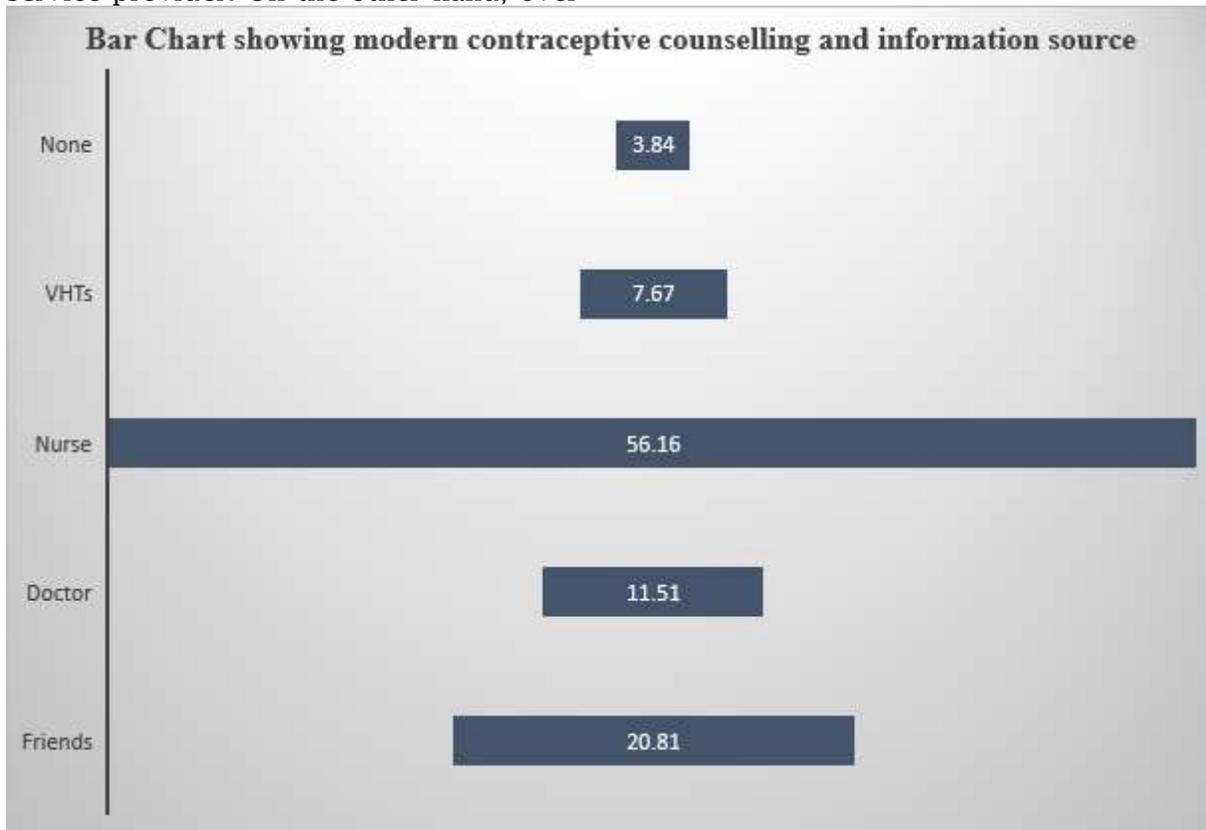


Figure 1: Modern contraceptive counselling and information source for the study participants.

Table 2: Distribution of participants based on health service, social and method factors

<i>PARTNER DISCUSSION ON MODERN CONTRACEPTIVE USE</i>	<i>FREQUENCY (%) (N=365)</i>
YES	201(55.83)
NO	159(44.17)
APPROVAL OF MODERN CONTRACEPTIVE USE	
NONE	131(36.09)
MAN ALONE	17(4.68)
WOMAN ALONE	37(10.19)
BOTH MAN AND WOMAN ALONE	178(49.04)
HEARD ABOUT MODERN CONTRACEPTIVE	
NO	1(0.27)
YES	364(99.73)
WHAT YOU HATE ABOUT MODERN CONTRACEPTIVES	
COST	80(21.92)
SIDE EFFECTS	216(59.18)
SOURCE	69(18.90)
MODERN CONTRACEPTIVE SERVICE PROVIDERS	
GOVERNMENT HEALTH FACILITY	199(90.05)
OTHERS	22(9.95)
AVAILABILITY OF HEALTH WORKERS TO OFFER MODERN CONTRACEPTIVE SERVICES	
ALWAYS	262(71.78)
SOMETIMES	75(20.55)
NEVER AVAILABLE	28(7.67)
AVAILABILITY OF MODERN CONTRACEPTIVES OF CHOICE	
ALWAYS	219(99.10)
SOMETIMES	2(0.90)
ACCESSIBILITY OF POINT OF CARE	
NO	2(0.90)
YES	219(99.10)

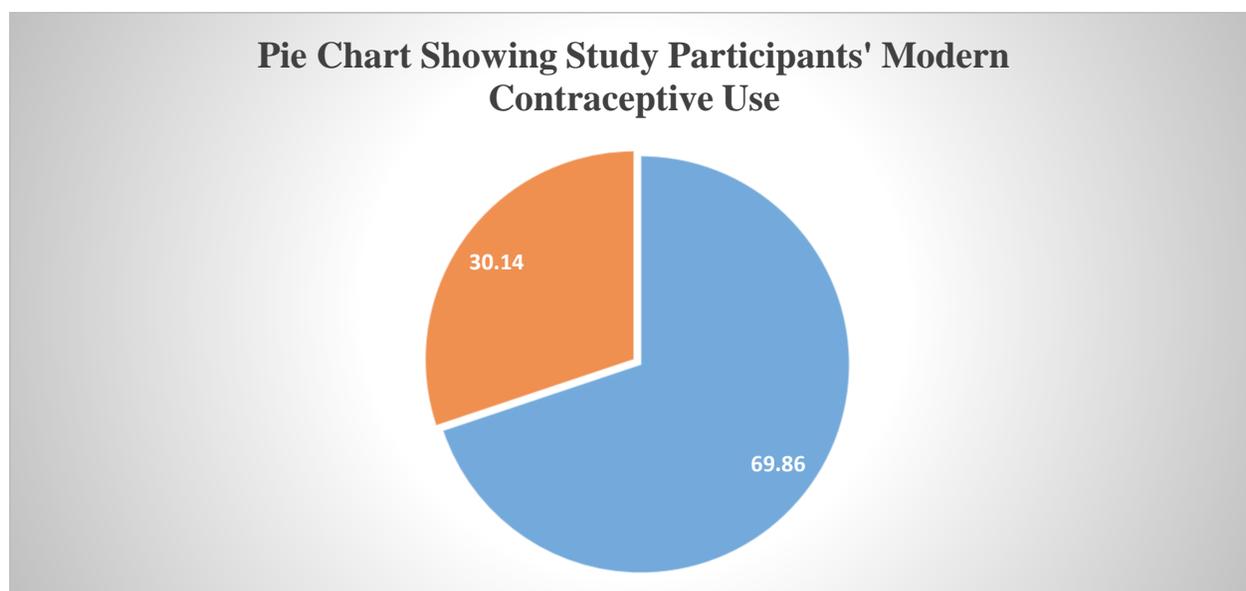


Figure 2: Modern Contraceptive prevalence among the study participants

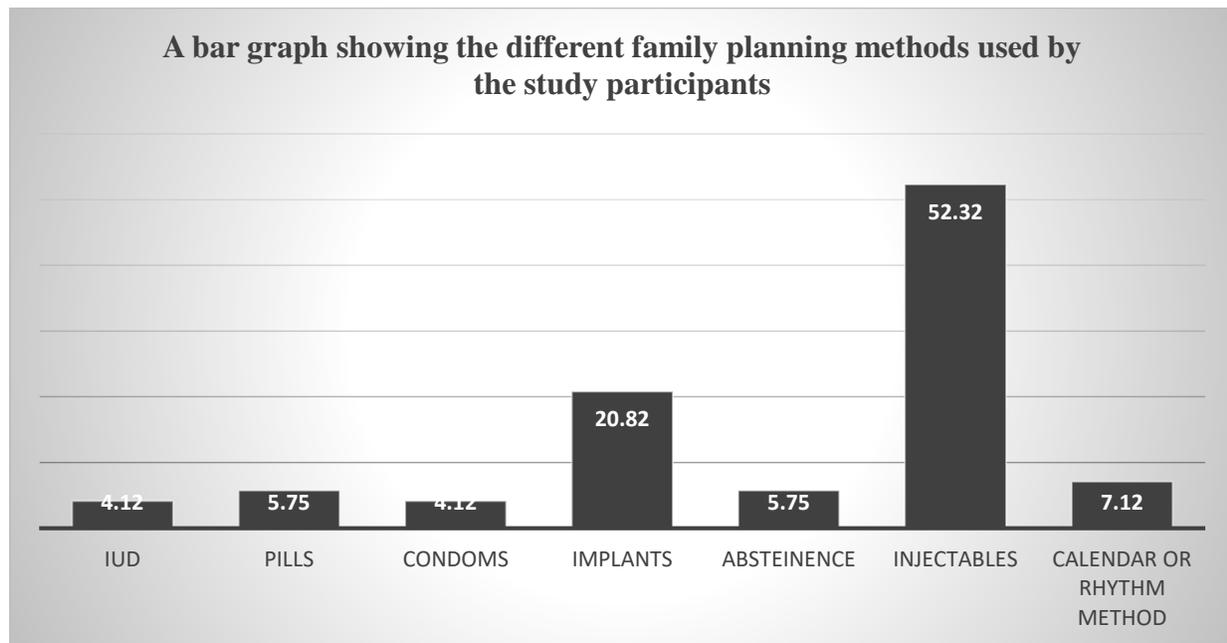


Figure 3: Family planning methods used by the study participants

Bivariate regression analysis of the sociodemographic, obstetric and family social factors that influence Modern contraceptive use

Participants' age and marital status significantly influenced modern contraceptive utilization at bivariate logistic regression analysis. The findings show that participants in the age range of 21-30(COR=8.3, p-value=0.000, 95% CI=2.9-23.8), 31-40 (COR=15.0, p-value=0.000, 95% CI=5.0-45.5) and above 40 years of age (COR=9.4, p-value=0.001, 95% CI=2.8-32.2) had higher odds for utilization of modern contraception when compared to those below 20 years of age. Similarly, being married was significantly associated with 16.7 times likelihood for

modern contraceptive utilization when compared to those who had never gotten married p-value<0.000. 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 modern contraceptive utilization. Similarly, partner discussion on modern contraception and modern contraception approval significantly influenced modern contraception use (p-value<0.005). The details are reflected in tables 3 and 4 below.

Table 3 Socio-demographic factors influencing modern contraceptive use

<i>Modern contraceptive use</i>			
<i>Age</i>	<i>Odds Ratio (COR)</i>	<i>P> z </i>	<i>[95% Conf. Interval]</i>
<i>21-30</i>	8.28	*0.000	2.89-23.75
<i>31-40</i>	15.03	*0.000	4.97-45.54
<i>Above 40</i>	9.41	*0.000	2.75-32.16
<i>Below 20 years</i>	1		
<i>Education</i>			
<i>Primary</i>	3.27	0.146	0.7-16.1
<i>Secondary</i>	1.24	0.787	0.3-6.1
<i>Tertiary</i>	1.31	0.749	0.3-6.8
<i>None</i>	1		
<i>Marital status</i>			
<i>Married</i>	16.7	*0.000	5.9-47.2
<i>Divorced or separated</i>	6.3	0.053	1.0-40.5
<i>Never married</i>	1		
<i>Employment status</i>			
<i>Formal</i>	1.8	0.054	1.0-3.3
<i>Informal</i>	1		
<i>Income status</i>			
<i>Enough</i>	1.3	0.314	0.8-2.2
<i>Not enough</i>	1		

Source: Primary Data 2022

Table 4 Obstetric factors and family social factors that influence modern contraceptive use

<i>Modern contraceptive use</i>			
<i>Parity</i>	<i>Odds Ratio (COR)</i>	<i>P> z </i>	<i>[95% Conf. Interval]</i>
<i>1-3</i>	18.2	*0.000	6.3-52.7
<i>>3</i>	21.5	*0.000	7.1-64.8
<i>Nulliparous</i>	1		
<i>Number of living children</i>			
<i>1-3</i>	18.6	*0.000	6.4-53.8
<i>4-7</i>	20.8	*0.000	6.9-62.9
<i>None</i>	1		
<i>Age of the youngest child</i>			
<i>2-5 Years</i>	36.1	*0.000	11.7-111.3
<i>Above 5 Years</i>	9.9	*0.001	2.7-36.1
<i>Below 2 Years</i>	16.0	*0.000	5.4-46.8
<i>None</i>	1		
<i>Time to another child</i>			
<i>Stopped</i>	3.8	*0.025	1.2-12.1
<i>>2-4 Years</i>	4.9	*0.002	1.8-13.5
<i>5 Years above</i>	3.9	*0.009	1.4-10.7
<i>0-1 Years</i>	1		
<i>Mode of delivery</i>			
<i>Caesarean section</i>	27.5	*0.000	7.2-105.6

<i>Normal vaginal delivery</i>	18.6	*0.000	6.6-52.9
<i>None</i>	1		
<i>Partner discussion</i>			
<i>No</i>	8.9	*0.001	2.4-32.4
<i>Yes</i>	13.0	*0.000	5.4-31.3
<i>None</i>	1		
<i>Family planning approval</i>			
<i>Man alone</i>	11.2	*0.001	2.6-48.2
<i>Woman alone</i>	23.1	*0.000	6.7-79.6
<i>Both man and woman</i>	19.5	*0.000	6.8-55.8
<i>None</i>	1		

Source: Primary Data 2022

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

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 3 below.

Table 5 Multivariate regression analysis of the sociodemographic, obstetric and family social factors that significantly influenced modern contraceptive use.

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

Source: Primary Data 2022

DISCUSSION

This study aimed to assess the factors that influence uptake of modern contraceptives among women of reproductive age (15-49) at Jinja regional referral hospital and a total of 365 study participants were enrolled successfully. The prevalence of modern contraceptive uptake was found to be at 30.14%. This is far way below the national modern contraception target which aimed to increase modern contraceptive use to 50% by 2020 [25]. Likewise, the figure is still lower than the world-wide contraceptive prevalence rate (53%) and that of the developing countries (48%) [26]. On the other hand, the figure is higher than the contraceptive prevalence rate reported in Ghana (21%) [27]. Notably, higher contraceptive rates have been reported in Ethiopia [28], and Kenya .The

differences in the contraceptive prevalence can be attributed to socio-demographic, economic and geographic variations across the study settings. This study also established that, age was associated with contraceptive uptake. We noted that use of modern contraception was higher with ages 21-30 (COR=8.3, p-value=0.000, 95% CI=2.9-23.8), 31-40 (COR=15.0, p-value=0.000, 95% CI=5.0-45.5) and above 40 years of age (COR=9.4, p-value=0.001, 95% CI=2.8-32.2) when compared to those below the age of 20. These findings are in agreement with other studies done in Northern Uganda [28], Ethiopia [29], [30] and, Ghana [31]. 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 modern contraceptive uptake 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 [32]. Additionally, a study by [33], 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 modern contraceptive use. 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 modern contraceptive use 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 [34]. 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 modern contraceptive use. 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 [27]. 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 modern contraceptive use 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 modern 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 modern contraceptive use were 9.9 times when the age of the youngest child was above 5 years. Our findings are in correspondence with other studies [35], [36]. 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 2 years, plan (p -value <0.05). Equally, women who reported to have stopped baring children had higher odds of modern contraceptive use 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 likely to use contraceptives than those less than 2 years [37]. 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 [38]. Likewise, our study also revealed that women who had a caesarean delivery showed the highest odds of modern contraceptive use (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 [39]. 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, approval of modern contraceptive use also

Modern contraceptive use 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. For the case of the socio-demographic factors, age of the youngest child and the expected time to have another child independently influenced modern contraceptive use in multivariate logistic regression analysis.

CONCLUSION

Recommendations

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

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Nakiryia 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 [40], [41]-[45]. This calls for the need to escalate efforts to involve men in modern contraceptive use. Notably, 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 modern contraceptive use.

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