# Factors Associated with Utilization of Long-Acting Reversible Contraceptive Methods Among Women Attending Family Planning Clinic at Kampala International University Teaching Hospital Western Uganda

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## ABSTRACT

This study assessed the factors associated with the utilization of LARCM among women attending the family planning (FP) clinic at Kampala International University Teaching Hospital. A cross-sectional descriptive study design was used for this study. The data was collected using a structured questionnaire in an exit interview of clients that had come to Kampala International University Teaching Hospital for family planning services after obtaining consent. Collected data was entered and analyzed in the computer using IBM SPSS version 25. Chi-squared analysis was done to determine the factors associated with LARCM utilization. Results were presented in tables and charts for descriptive analysis. A total of 272 women were included in this study of which, 67.6% (n=184) were aged 26 to 35 years, and the overall mean (±SD) age was 27.5 (± 4.5) years. 74.3. % (n=202) were married and 69.9% (n=190) were rural dwellers. A few of the participants (20.2%, n=55) were currently using LARCM. Of the 55 participants who were using LARC methods, the majority 34 (61.8%) were using implants while the rest 21 (38.2%) were using IUCD. Significant factors were; a woman's age of ≤25 years ($X^2$=72.43; P=<0.001), urban residence ($X^2$=16.69; P=<0.001), being married ($X^2$=25.19; P=<0.001), business occupation ($X^2$=99.22; P=<0.001), Catholic religion ($X^2$=61.38; P=<0.001), mother's age at the first delivery of 18-24 years ($X^2$=24.61; P=<0.001), the reproductive intention of spacing ($X^2$=50.81; P=<0.001), never wanted the last pregnancy ($X^2$=14.72; P=<0.001), Hospital as the source of FP information ($X^2$=66.82; P=<0.001), partner influence on FP ($X^2$=16.69; P=<0.001), FP counselling during ANC ($X^2$=42.01; P=<0.001), receiving contraceptives from hospital ($X^2$=151.61; P=<0.001) and receiving contraceptive services from the doctor ($X^2$=226.13; P=<0.001). LARCM use was low and was associated with younger maternal age, urban residence, being married, business occupation, mother's age at first delivery, the desire for child spacing, partner influence on FP, and FP counselling during ANC. Therefore, FP education about the benefits of LARCM should be enhanced by health providers and media.
**Keywords:** Long-acting reversible contraceptive methods, Unintended pregnancy, Maternal mortality, Family planning, Mother's age.

## INTRODUCTION

Family planning (FP) allows people to attain their desired number of children and determine the spacing of pregnancies. It is achieved through use of modern contraceptive methods and the treatment of infertility [1]. Modern contraceptive methods are divided into three: Long-acting reversible contraceptive methods (LARCM) like IUCD & Implants; permanent contraceptive methods (tubal ligation & vasectomy) and short-term contraceptives methods (Oral pill, inject-able, male & female condoms, foam tablets & cervical cap [2, 3]. Because of their long-lasting protection and reversibility, reversible long-term contraceptives are effective contraceptive methods appropriate for women wishing to limit childbearing, as well as spacing births, thus potentially playing an enormous role in reducing maternal mortality [4]. Globally, 214 million women of reproductive age in developing countries who want to avoid pregnancy

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are not using a modern contraceptive method [5]. This unmet need for contraception is too high and variation in different regions is observed [1]. This inequity is fueled by both a growing population and a shortage of family planning services. In Africa, 24.2% of women of reproductive age have an unmet need for modern contraception. In Asia, Latin America and the Caribbean – regions with relatively high contraceptive prevalence – the levels of unmet need for family planning are 10.2 % and 10.7%, respectively [6]. Unintended pregnancy remains an alarming global public health problem with its subsequent socioeconomic impact on individuals, families, and society [7]. Thoughthere is a considerable variation in the prevalence of unintended pregnancy across regions, the global burden is very high (44% in 2014) [8] and responsible for 27% of maternal deaths [9]. Different cross-sectional studies around the globe noted that there has been a high prevalence of unintended pregnancy for example, 69% in Malawi [10], 27% in Canada [11] and 44% in Botswana [9] highlighting the need for effective contraceptive utilization [9]. The 2016 Uganda Demographic and Health Survey (UDHS) report showed that there was a 28% and 32% of unmet need for family planning among married and unmarried sexually active women respectively [12]. Evidence suggests that women who have more than 4 children are at increased risk of maternal mortality [13]. By reducing rates of unintended pregnancies, family planning also reduces the need for unsafe abortion [14]. The Uganda Ministry of Health and private partners campaign for the use of long-

acting however, the contraceptive method mix is dominated by short-term methods like pills and Injectables [15]. There are no studies that have examined the factors contributing to long-acting contraception methods utilization in the study area. The present studywas intended to contribute to bridging the information gap and subsequently the coverage of long-acting reversible contraceptive method utilization in the local setting.

Family planning was essential in the effort to reduce the fertility rate and the consequential maternal mortality and morbidity as well as contributing to improvement in infant welfare [2]. Notably, Uganda's maternal mortality ratio (MMR) stands at 336 per 100,000 live births which is among the highest in the world [12]. According to population projections, the Ugandan population is projected to explode to 130 million by 2050 from the already high 44.27 million people (Population Reference Bureau, 2018). This will further strain reproductive health services and increase the unmet need for contraception. Over time the use of LARCMs has not kept pace with that of short-acting methods such as oral contraceptives (pills) and injectables. Data from demographic and health surveys show that the proportion of women currently using LARCMs is significantly lower than the proportion using short-acting methods [12]. The latter are unreliable with both high failure and discontinuation rates [16]. However, the reasons responsible for this low uptake of long-acting contraceptive methods remain unidentified. Hence the study.

## METHODOLOGY

### Study design

A cross-sectional descriptive study [17] design was used.

### Area of Study

Kampala International University Teaching Hospital is located in Ishaka town which is a municipality in Bushenyi district. The population of Bushenyi Ishaka municipality was 41,219 (census 2014). It is found approximately 62 kilometres west of Mbarara town. Ishaka has a population of 16,646 where females are 8,840 [18]. KIU-TH has a bed capacity

of 700, providing both outpatient and inpatient services.

### Study population

The study included women attending family planning clinics during the study period.

### Inclusion criteria

- Women who are aged 15-49 years
- Willing to participate

### Exclusion criteria

- Not willing to participate in the survey

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- Below 15 years and or above 49 years

## Sample size determination

This will be determined by using Kish's formula [19] which states that,

$$N = \frac{Z^2\big(p(1-p)\big)}{\varepsilon^2}$$

Where;

N = the required sample size

p= Proportion of women using LARCMs (23%) as per a study in Mbarara regional referralhospital [16].

ε = margin of error on p (set at 5%)

z= standard normal deviate corresponding to 95% confidence level (=1.96)

$$N = \frac{1.96^2\big(0.23(1-0.23)\big)}{0.05^2} = 272$$

### Sampling technique

The study used consecutive sampling where each woman that came and agreed to participate was enrolled.

### Data collection

The data was collected using a structured questionnaire in an exit interview of clients that came to Kampala international university teaching hospital for family planning services. Participants were requested to provide written, informed consent before data is collected. The questionnaire was designed to obtain information on the socio-demographic characteristics of contraceptive users, as well as ascertain their reproductive history, utilization of modern contraceptive family planning and factors affecting LARC methods. The questionnaire was prepared in English and was translated into Lunyankole during data collection for those who did not understand English well.

### Data Processing and Analysis

Collected data was entered into the computer and analyzed using IBM SPSS version 25. Categorical variables were presented in a table of frequencies for descriptive statistics. A Chi-square test was computed to test for the factors influencing the utilization of LARCMs. The point for statistical implication was a p-value of <0.05.

### Quality control

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

## RESULTS

### Socio-demographic characteristics of study participants

A total of 272 women of reproductive age were included in this study with a response rate of 100%. Of these, 67.6% (n=184) of participants were aged 26 to 35 years, and the overall mean [±SD] age of participants was 27.5 (± 4.5) years. 74.3% (n=202) participants were married and 69.9% (n=190) were rural dwellers. 20.6% (n=56) of participants had never attended formal education. (Table 1).

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**Table 1: Socio-demographic characteristics of study participants**

| Characteristics | Frequency (N=272) | Per cent |
|---|---|---|
| **Age (years)** | | |
| ≤25 | 68 | 25.0 |
| 26-35 | 184 | 67.6 |
| >35 | 20 | 7.4 |
| **Residence** | | |
| Urban | 82 | 30.1 |
| Rural | 190 | 69.9 |
| **Marital status** | | |
| Married | 202 | 74.3 |
| Single | 32 | 11.8 |
| Divorced | 27 | 9.9 |
| Widow | 11 | 4.0 |
| **Education level** | | |
| Non | 56 | 20.6 |
| Primary | 120 | 44.1 |
| Secondary | 42 | 15.4 |
| Tertiary | 54 | 19.9 |
| **Occupation** | | |
| Peasant farmer | 132 | 48.5 |
| Business | 91 | 33.5 |
| Employed | 33 | 12.1 |
| Student | 16 | 5.9 |
| **Religion** | | |
| Catholic | 106 | 39.0 |
| Protestant | 54 | 19.9 |
| Muslim | 33 | 12.1 |
| Others (Pentecostal, SDA) | 79 | 29.0 |

### Reproductive characteristics of study participants

Table 2 below shows the reproductive characteristics of the participants. 159 (58.5%) participants had a history of 2-4 pregnancies with 154 (56.6%) being multiparous mothers. A significant number (28.3%, n=77) had their first pregnancy below 18 years. The majority of the participants had no history of abortion (89.3%, n=243) and wanted their last pregnancy (70.2%, n=191).

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### Table 2: Reproductive characteristics of study participants

| Characteristics | Frequency | Per cent |
| --- | --- | --- |
| **Gravidity** | | |
| 0 | 15 | 5.5 |
| 1 | 48 | 17.6 |
| 2-4 | 159 | 58.5 |
| ≥5 | 50 | 18.4 |
| **Parity** | | |
| 0 (Nullipara) | 20 | 7.4 |
| 1 (Primipara) | 58 | 21.3 |
| 2-4 (Multipara) | 154 | 56.6 |
| ≥5 (Grand multipara) | 40 | 14.7 |
| **History of abortion** | | |
| Yes | 29 | 10.7 |
| No | 243 | 89.3 |
| **History of child death** | | |
| Yes | 6 | 2.2 |
| No | 266 | 97.8 |
| **Mother's age at first pregnancy** | | |
| <18 years | 77 | 28.3 |
| 18-24 | 114 | 41.9 |
| ≥25 | 81 | 29.8 |
| **Reproductive intention** | | |
| Want to have a child soon | 54 | 19.9 |
| Want to spice | 108 | 39.7 |
| Want to limit | 82 | 30.1 |
| Undecided | 28 | 10.3 |
| **Wanted the status of the last pregnancy** | | |
| Yes | 191 | 70.2 |
| No | 81 | 29.8 |

**Prevalence of long-acting reversible contraceptive methods (LARCM)**

Figure 2 below shows that only a few of the participants (20.2%, n=55) were currently using long-acting reversible contraceptives compared to the majority (79.8%, n=217) who were using short-term modern contraceptive methods.
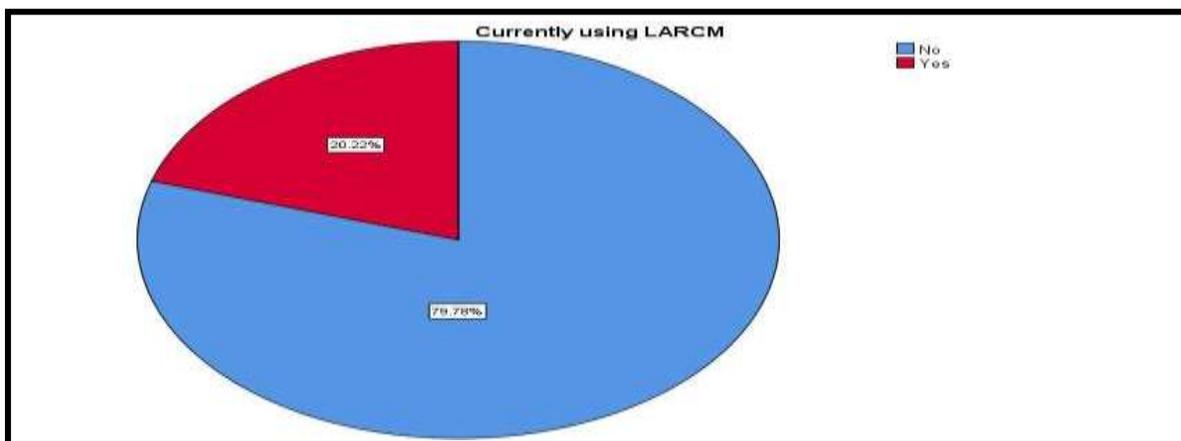
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**Figure 1: Prevalence of long-acting reversible contraceptive methods (LARCM)**

**The current LARC method used**
Of the 55 participants who were using LARC methods, the majority 34 (61.8%) were using implants while the rest 21 (38.2%) were using IUCD.
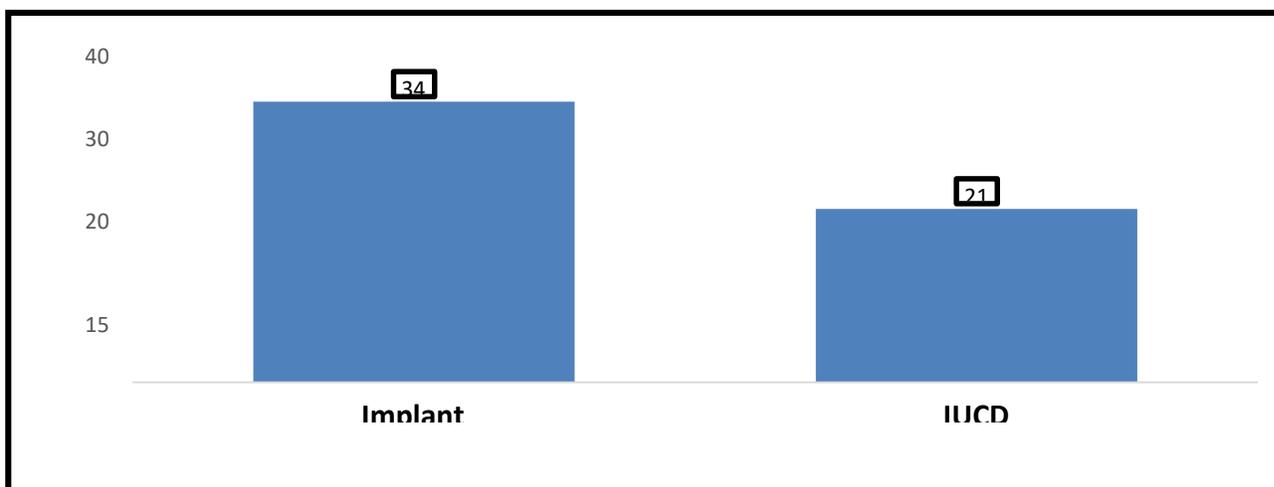


**Figure 2: Current LARC method used**
**Factors associated with LARCM utilization**

**Socio-demographic factors associated with LARCM utilization**
Table 3 below shows Chi-squared analysis of socio-demographic factors associated with LARCM use. Factors which were found to be significant were; woman's age of ≤25 years ($X^2$=72.43; P=<0.001), urban residence ($X^2$=16.69; P=<0.001), being married ($X^2$=25.19; P=<0.001), business occupation ($X^2$=99.22; P=<0.001) and Catholic religion ($X^2$=61.38; P=<0.001).

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## Table 3: Socio-demographic factors associated with LARCM utilization

| Variables | Currently using LARCM | | Chi square ($X^2$) | P-value |
|---|---|---|---|---|
| | **No** | **Yes** | | |
| **Age (years)** | | | 72.43 | <0.001 |
| ≤25 | 30 (13.8%) | 38 (69.1%) | | |
| 26-35 | 167 (77.0%) | 17 (30.9%) | | |
| >35 | 20 (9.2%) | 0 (0.0%) | | |
| **Residence** | | | 16.69 | <0.001 |
| Urban | 53 (24.4%) | 29 (52.7%) | | |
| Rural | 164 (75.6%) | 26 (47.3%) | | |
| **Marital status** | | | 25.19 | <0.001 |
| Married | 164 (75.6%) | 38 (69.1%) | | |
| Single | 16 (7.4%) | 16 (29.1%) | | |
| Divorced | 26 (12.0%) | 1 (1.8%) | | |
| Widow | 11 (5.1%) | 0 (0.0%) | | |
| **Education level** | | | 5.65 | 0.130 |
| Non | 48 (22.1%) | 8 (14.5%) | | |
| Primary | 88 (40.6%) | 32 (58.2%) | | |
| Secondary | 36 (16.6%) | 6 (10.9%) | | |
| Tertiary | 45 (20.7%) | 9 (16.4%) | | |
| **Occupation** | | | 99.22 | <0.001 |
| Peasant farmer | 131(60.4%) | 1 (1.8%) | | |
| Business | 58 (26.7%) | 33 (60.0%) | | |
| Employed | 27 (12.4%) | 6 (10.9%) | | |
| Student | 1 (0.5%) | 15 (27.3%) | | |
| **Religion** | | | 61.38 | <0.001 |
| Catholic | 64 (29.5%) | 42 (76.4%) | | |
| Protestant | 53 (24.4%) | 1 (1.8%) | | |
| Muslim | 21 (9.7%) | 12 (21.8%) | | |
| Others (Pentecostal, SDA) | 79 (36.4%) | 0 (0.0%) | | |

### Individual factors associated with LARCM utilization

Factors which were found to be significant are; mother's age at first delivery of 18-24 years ($X^2$=24.61; P=<0.001), the reproductive intention of spacing ($X^2$=50.81; P=<0.001), never wanted the last pregnancy ($X^2$=14.72; P=<0.001), Hospital as the source of FP information ($X^2$=66.82; P=<0.001), partner influence on FP ($X^2$=16.69; P=<0.001), FP counselling during ANC ($X^2$=42.01; P=<0.001), receiving contraceptives from the hospital ($X^2$=151.61; P=<0.001) and receiving contraceptive services from the doctor ($X^2$=226.13; P=<0.001). Table 4.

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## Table 4: Individual factors associated with LARCM utilization

| Variables | Currently using LARCM | | Chi-square ($X^2$) | P-value |
|---|---|---|---|---|
| | **No** | **Yes** | | |
| **Gravidity** | | | 3.07 | 0.071 |
| 0 | 5 (2.3%) | 10 (18.2%) | | |
| 1 | 29 (13.4%) | 19 (34.5%) | | |
| 2-4 | 139 (64.1%) | 20 (36.4%) | | |
| >5 | 44 (20.3%) | 6 (10.9%) | | |
| **Parity** | | | 3.82 | 0.060 |
| 0 (Nullipara) | 10 (4.6%) | 10 (18.2%) | | |
| 1 (Primipara) | 33(15.2%) | 25 (45.5%) | | |
| 2-4 (Multipara) | 140(64.5%) | 14 (25.5%) | | |
| >5 (Grand multipara) | 34(15.7%) | 6 (10.9%) | | |
| **History of abortion** | | | 2.35 | 0.125 |
| Yes | 20 (9.2%) | 9 (16.4%) | | |
| No | 197(90.8%) | 46 (83.6%) | | |
| **History of child death** | | | 1.56 | 0.212 |
| Yes | 6 (2.8%) | 0 (0.0%) | | |
| No | 211(97.2%) | 55 (100%) | | |
| **Mother's age at first delivery** | | | 24.61 | <0.001 |
| <18 years | 76(35.0%) | 1 (1.8%) | | |
| 18-24 | 80(36.9%) | 34 (61.8%) | | |
| >25 | 61(28.1%) | 20 (36.4%) | | |
| **Reproductive intention** | | | 50.81 | <0.001 |
| Want to have a child soon | 28(12.9%) | 26 (47.3%) | | |
| Want to space | 81(37.3%) | 27 (49.1%) | | |
| Want to limit | 80(36.9%) | 2 (3.6%) | | |
| Undecided | 28(12.9%) | 0 (0.0%) | | |
| **Wanted status of the last pregnancy** | | | 14.72 | <0.001 |
| Yes | 164 (75.6%) | 27 (49.1%) | | |
| No | 53 (24.4%) | 28 (50.9%) | | |
| **Table 4. (Continuation)** | | | | |
| **Knowledge about FP** | | | 2.33 | 0.127 |
| Adequate | 82 (37.8%) | 27 (49.1%) | | |
| Inadequate | 135 (62.2%) | 28 (50.9%) | | |
| **Source of FP information** | | | 66.82 | <0.001 |
| Neighbours and friends | 11 (5.1%) | 0 (0.0%) | | |
| Health facility | 45 (20.7%) | 43 (78.2%) | | |
| VHTs | 11 (5.1%) | 0 (0.0%) | | |
| Media (TV/Radio) | 150 (69.1%) | 12 (21.8%) | | |
| **Experienced side effects** | | | 3.37 | 0.066 |

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| | | | | |
|---|---|---|---|---|
| Yes | 81 (37.3%) | 28 (50.9%) | | |
| No | 136 (62.7%) | 27 (49.1%) | | |
| **Partner influence on FP use** | | | 16.69 | <0.001 |
| Yes | 53 (24.4%) | 29 (52.7%) | | |
| No | 164 (75.6%) | 26 (47.3%) | | |
| **Discuss FP with partner** | | | 3.61 | 0.065 |
| Yes | 137 (63.1%) | 27 (49.1%) | | |
| No | **80 (36.9%)** | **28 (50.9%)** | | |
| **FP counselling during ANC** | | | 42.01 | <0.001 |
| Yes | 109 (50.2%) | 54 (98.2%) | | |
| No | 108 (49.8%) | 1 (1.8%) | | |
| **Sources of contraceptives** | | | 151.61 | <0.001 |
| Hospital | 28 (12.9%) | 54 (98.2%) | | |
| Health Centre | 54 (24.9%) | 1 (1.8%) | | |
| Private clinic | 54 (24.9%) | 0 (0.0%) | | |
| Pharmacy | 81 (37.3%) | 0 (0.0%) | | |
| **Ever failed to get contraceptives** | | | 4.09 | 0.063 |
| Yes | 162 (74.7%) | 29 (52.7%) | | |
| No | 55 (25.3%) | 26 (47.3%) | | |
| **FP services provider** | | | 226.13 | <0.001 |
| Nurse | 161 (74.2%) | 0 (0.0%) | | |
| Midwife | 53 (24.4%) | 5 (9.1%) | | |
| Doctor | 3 (1.4%) | 50 (90.9%) | | |

## DISCUSSION

### Utilization of long-acting reversible contraceptive methods

In this study, the utilization of LARCM was low at 20.2%. This is comparable to the findings of a study in Mbarara university teaching Hospital which reported that LARC was used by 23% of the participants in their study [16]. The agreement in findings could be due to the fact that both studies were done in regional referral Hospitals could are likely to attract women of similar characteristics. However, it is higher than the Uganda national prevalence of 4.1% [12] and that of a study in Nepal [21] which found a 4.7% LARC utilization rate. The difference in the prevalence of LARC utilization between this study and the aforementioned studies could have resulted from sample size difference where the aforementioned studies were national-level studies with larger sample sizes while this study was done in one Hospital with a sample size of 270 participants. In this study, the woman's age of ≤25 years, urban residence, being married, business occupation, Catholic religion, mother's age at the first delivery of 18-24 years, the reproductive intention of spacing, never wanted the last pregnancy, Hospital as the source of FP information, partner influence on FP, FP counselling during ANC, receiving contraceptives from the hospital and receiving contraceptive services from the doctor were associated with LARCM utilization. In this study, younger women were more likely to use LARCM compared to older women. The majority of women who were using LARCM in this study (69.1%) were aged ≤25 years. However, this finding contradicts the findings of the study in Nigeria and Kenya [21, 22]. In both studies, LARCM utilization was higher in older women above 30 years. The low utilization of LARCM among older

women in this study could be related to bad experiences from previous FP methods. In this study, participants who were urban dwellers were found to use LARCs more often than those who resided in rural settings. This finding is consistent with studies conducted in Cameroon, Uganda and Ghana [23, 24, 25] in which women who utilized LARCM were urban residents. In the Ugandan context, many urban dwellers are wealthy people, relatively educated, and have easier access to media and information, which could lead to a well-informed understanding of the available contraceptive methods and thus, the use of LARCM. However, a study conducted in Tanzania showed that women in rural settings were positive towards implant use [26]. Differences in patterns of LARCM use between this study and the Tanzanian study can be explained by differences in the study population and setting. Therefore, it would be of paramount importance for policymakers and health planners to focus on strategies that would increase access to LARCM in rural communities which will enhance their utilization. Regarding marital status, women who were married were more likely to use LARCM compared to those women who are not currently married. This finding is consistent with the studies conducted in the East African Countries of Burundi, Kenya, Rwanda, Tanzania and Uganda [27] and Ethiopia [28]. However, it contradicts the other studies conducted in sub-Saharan Africa [29, 4]. Unlike unmarried women who may be comfortable using short-acting methods like pills or condoms, married women need a more reliable method for especially for child spacing which explains the higher prevalence of LARCM among married women in this study. This study also found that participants who indicated doing business as their occupation were more likely to use LARCM than their counterparts who either had formal employment or were peasant farmers or students. This finding is consistent with studies set in Australia [7] and Botswana [9] in which business occupation was highly associated with LARCM utilization. Women in business may be highly motivated to utilize a very

effective method of contraception since they are always busy in their businesses and may not want to pregnant frequently which can disrupt their business performance. This was also observed in a study conducted in Malawi [10] in which women who were doing business were more likely to choose an IUCD or an implant than women who were peasant farmers. It would be good for health managers to work on the creation of public awareness about the effectiveness of LARCs in preventing unintended pregnancy so that other women like those informal employment can utilize them. In this study, women who wanted to space their birth were more likely to use LARCM than those who wanted to have a child very soon. This finding is in agreement with the results of a study that took place in Canada [11], Botswana [9], Burkina Faso, Ethiopia, and Nigeria [13] in which LARCM were mainly used by women who had children and did not wish to have any more soon. One of the most important benefits of LARCM is their long duration of use once they are placed. For this reason, more women who want to space their children may tend to utilize LARCM which was long-term, effective and reversible. As such, LARCM may be used as a replacement for surgical sterilization, and because of their ease of reversibility, they may help women to avoid post-sterilization regret. In the present study, the wanted 'status' of the last pregnancy was found to affect LARC use. 50.9% of women who utilized LARCs never wanted their last pregnancy. This is similar to studies done elsewhere which showed that women who never wanted their last pregnancy were more to use LARCM [30, 16]. LARCM are highly effective in preventing unwanted pregnancy with great convenience, fewer side effects and less cost than short-acting contraceptive methods [31]. In this study, the source of family planning information, FP counselling during ANC, and contraceptive provider were found to be significantly associated with the utilization of LARCM. Clients advised by health care professionals were more likely to use LARCM than those who chose by themselves or by friends. Similarly, having had counselling during ANC

increased the likelihood of LARCM utilization. The study findings further show that where the Doctor was the provider of the FP, there was a high chance (90.9%) that the woman would use LARCM. This finding is consistent with that of a study done in Cameroon which showed that professional training and experience of the provider was significantly associated with LARCM use [23]. Another study conducted in Eastern Ethiopia found that, discussions with health care providers about long-acting contraceptive methods positively affected LARCM utilization [32]. Moreover, a Nigerian study showed that provider's lack of confidence and support for LARCM insertion had a negative effect on LARCM use [21]. Providers have a responsibility to clearly communicate and support their clients to choose the method which best fits their personal circumstance. Furthermore, this study found the influence of the male partner to be associated with LARCM utilization. This finding is inconsistent with studies conducted in Kenya [22] and Cameroon [33] where partner influence did not play a role in LARCM use. Moreover, another study in Ghana showed that women who selected their contraceptive method alone were more likely to use LARCM as compared to those who decided jointly with their partners [25]. With increased call for male involvement in maternal and child health services, it is paramount that a woman seeks a partner's opinion if the desired contraceptive goal is to be achieved. Unlike previous studies which no association between religion and LARCM use [28, 26], this study found that being Catholic has increased chances (76.4%) of utilizing LARCM. The higher LARCM utilization among Catholics could have resulted from the fact that they were the majority in the study. A similar study on a larger population is recommended to explore the effect of religion on LARC use.

## CONCLUSION

Urban residence, being married, business occupation, Catholic religion, mother's age at first delivery, desire for child spacing, never wanted the last pregnancy, Hospital as the source of FP information, partner influence on FP, FP counselling during ANC, and receiving contraceptive services from the doctor.

## Recommendations

Family planning education about the benefits of LARCM should be done by health providers and media. Male involvement in counselling and decision-making about the advantage of using LARCM may improve the negative influence of partners on LARCM utilization. Future interventions should also be designed to reach women in rural areas.

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