

Assessment of Factors that influence the application of contraceptive implants in reproductive women at Bufunda HCIII, Ibanda Municipality

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ABSTRACT

Contraception is an important component of reproductive health due to its contribution to maternal health. Contraception helps to prevent unplanned pregnancy and unsafe abortion, and their related risks thus reducing the number of deaths related to pregnancy. The main objective of this study was to determine factors that influence the utilization of contraceptive implants, among women within the reproductive age group at Bufunda HCIII, Bufunda division in Ibanda municipality. A cross sectional study was carried out from 25th/August to 30th September 2017 at Bufunda HCIII. Pretested questionnaires were administered through interview to 73 women of reproductive age. The current use of a contraceptive implants method at Bufunda HCIII was 10%. The only factor found statistically to be associated with the use of a contraceptive method was the level of awareness about contraceptive methods. Although, the current use of contraceptive implants in the area is higher than its nationwide, educational programmes should be put in place to increase the awareness level and also address safety concerns about contraceptive implants.

Keywords: contraceptives, unsafe abortion, implants, maternal health.

INTRODUCTION

Contraceptive implants, also known as sub-dermal implants are small plastic rods or capsules each about the size of a matchstick inserted under the skin of a woman's upper arm that releases progestin hormone slowly to achieve contraception [1]. There are mainly two types of implants in the public health facilities; Jadelle, made up of 2 rods each containing 75mg of Levonorgestrel effective for 5 years, and Implanon made up of a single rod containing 68mg of Etonogestrel effective for 3 years. Contraceptive implants are safe [2-6], effective and long-term reversible family planning (FP) method [7-10] that has been shown to be used even in the immediate postpartum period and by HIV positive women whether or not using ART [11]. The immediate postpartum period is also an opportune time to improve access to FP since the women are known to be motivated to use contraception and the

hospital setting offers convenience to both the mother and the health care worker [12]. Family planning is the process and actions taken by individuals to either prevent, delay or achieve pregnancy [13]. Family planning services include counseling and education on sexuality, prevention and management of sexually transmitted infections [14-17], screening and laboratory tests, pre-conception care, contraception and infertility management. Contraception is any means; traditional or modern used to prevent pregnancy. This is based on the duration of the effect of the method and whether the effect can be reversed or not. The effect of the short-term methods is short with the longest being three months. The short-term methods; oral contraceptive pills, injectables, condoms and vaginal barrier methods are mostly used for spacing of pregnancy. Condom has an additional benefit of protecting against sexually

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transmitted infections (STIs) and HIV. The pills and injectables contain either the hormones oestrogen and progesterone or only progesterone. The effectiveness of short-term methods depends on it being used correctly and consistently, in which case it can be as high as 99%. However, inconsistent or incorrect use of these methods can lead to unintended pregnancy [18]. Permanent methods - bilateral tubal ligation and vasectomy- are mostly for persons who want to limit their pregnancy. It is an operation that is performed on a woman; tubal ligation, or a man; vasectomy, who desires not to have

children in future. It is more than 99% effective in preventing pregnancy. However, the type of contraceptive methods that may be most appropriate for an individual depends on the person's reproductive history, fertility intentions, medical history, health risks and benefits [19].

The main purpose of this study will be to determine factors that influence utilization of contraceptive implants among women within the reproductive age group (15-49 years) at Bufunda HCIII, Ibanda Municipality.

METHODOLOGY

Study design and rationale

This was a cross sectional descriptive study design that employed quantitative methods of data collection. The study design aimed at describing the factors influencing utilization of contraceptive implants among women of reproductive age (15-49 years) at Bufunda HCIII, Ibanda municipality. The cross-sectional design enabled the researcher to collect data in a very shortest period thus saving time.

Study setting and rationale

The study was carried out at Bufunda HCIII. Bufunda HCIII is found in Bufunda ward, near Bufunda trading centre in Bufunda division, Ibanda municipality in southwestern Uganda. Bufunda HCIII is located approximately 350kilometers from Kampala and 2Km from Bufunda trading centre along Ibanda -Mbarara road. Majority of mothers came from Bufunda division and some came from neighboring sub counties of Bishenshe and Keihangara. Approximately, it serves a total population of 15833 people.

Bufunda HCIII is a government Aided health facility and all services offered are free of charge. The facility has bed capacity of approximately 100 and on average, it receives 40 women of reproductive age (15-49 years) daily at the facility. This study area was chosen because women in this area are unlikely to have access to what they need to utilize contraceptive implants and are thus more at risk of getting unintended pregnancies.

Study population

The study population involved mothers who were visiting the child welfare clinics at Bufunda HCIII, Ibanda Municipality at the time of the study. These women were used because it was expected that they should be using contraceptive implants during this period to help them prevent pregnancy and adequately space birth. The health providers at the family planning centres in the facility were also included.

Sample size determination

The sample size was determined by use of fisher's, et al (1990) formula.

$$n = \frac{z^2 pq}{d^2}$$

Where; n=Sample size

Z=Standard deviation of the desired degree of accuracy 1.96

P= estimated proportion of population with characteristics under study = 95%

Q=1-P; Q=1-0.95= 0.05

d=level of significance or measure of anticipated error taken at 0.05

Substituting the values into the formula

$$n = \frac{z^2 (pq)}{d^2}$$
$$n = \frac{(1.96)^2 (0.95 * 0.05)}{0.05^2}$$

n=72.9904

n= 73

Therefore, the sample size of 73 respondents was used.

Sampling procedure and rationale

Convenience sampling method was used to select mothers who were enrolled in the study until the desired sample size was reached. This method was used because

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it's easy and not biased when used in homogeneous population.

Exclusion and inclusion criteria

Inclusion criteria

The following respondents were included in the study:

- i. All women of child bearing age and were in age group of (15 to 49 years) attending postnatal clinic at Bufunda Health Centre III.
- ii. Mothers who brought their children for immunization.
- iii. Those who consented to participate in the study.

Exclusion criteria

The following people were excluded from the study:

- i. Women below the age of 15years
- ii. Those who did not consent to participate in the study
- iii. Mothers who were attending other departments or clinics in the health centre

Definition of variables

Independent variables

The various factors influencing utilization of contraceptive implants among women of reproductive age (15-49 years) at Bufunda HCIII, Ibanda municipality

Dependent variables

Utilization of contraceptive implants among women of reproductive age (15-49 years)

Research instruments

Questionnaire was used as data collection tool in the study and it contained both closed and open-ended questions to collect data. This was because it made data collection easy and fast. It also simplified data analysis.

Pre-testing of the research Instrument

Questionnaire was pre-tested in one of the health centre that was not chosen for the

study three days before data collection for validity and reliability. Any observed inconsistency of the questions was corrected to meet the intended objectives before time of data collection.

Data collection procedure

The researcher and the trained research assistants administered the questionnaires to the participants through interview. The purpose of the study was explained to the participants and informed consent was obtained before administering the questionnaires to the qualified participants. It aimed at obtaining information on the knowledge level and practices of women that influence the use of contraceptive implants.

A pre-tested research administered questionnaire was given to the research assistant to collect data from respondents until the required sample size was reached. Women of child bearing age attending postnatal clinic in Bufunda HCIII were enrolled in the study. Privacy and confidentiality was maintained throughout the process of data collection.

Data analysis and presentation

Microsoft programs particularly Microsoft office and excel 2007 was used to analyze data and later was presented in form of graphs, tables and pie-charts.

Ethical considerations

Ethical clearance was obtained from KIU-WC Committee on Human Research, Publications and Ethics (CHRPE). Permission was sought from the In-charge of the health facility. Informed consent was obtained from participants by informing them of the purpose and process of the study, and the right to discontinue at any time. They were also assured of confidentiality and privacy. No names were written on the questionnaire.

RESULTS

Social - demographic information

Table 1; shows social demographic information. (n=73)

Variables		Frequency (n)	Percentage (%)
Age (years)	15-24	14	19%
	25-34	39	53.4%
	35-45	20	27.3%
	others	0	0%
Total		73	100%
Education level of respondents			
None		8	11%
Primary		43	59%
Secondary		20	27%
Tertiary		2	3%
Total		73	100%
Occupations of respondents			
Farming		54	74%
Trading		15	21%
Civil servant		4	5%
Others		73	100
Total			
Religion	Catholic	25	34%
	Protestant	27	37%
	Moslem	16	22%
	Pentecostals	5	7%
Total		73	100
Tribe/Bakiga			
Banyankole		51	70%
Baganda		0	0%
Others		0	0%
Total		73	100
Marital status	Single	0	0%
	Married	34	47%
	Cohabitation	39	53%
	Divorced	0	0%

Widow	0	0%
Total	73	100
Occupations of partners		
Farming	52	71%
Trading	17	23%
Civil servants	4	6%
Unemployed	0	0%
Total	73	100

Majority 39(53%) of the respondents were in age group of 25-34 years followed by 20(27.3%) in age group of 35-45 years and the least 14(19%) belonged to age group of 15-24 years.

The analysis of findings in table 1 above indicated that majority of the participants 59% had gone to Primary school only while 20(27%) proceeded to Secondary school. It was important to note that 8(11%) of the respondents had never been to school while a minority of 2(3%) had gone up to tertiary level of education.

Majority 54(74%) of participants were farmers, 15(21%) were traders and minority 5% were civil servants. This

showed that many people in the study area depended on subsistence farming.

Majority of the respondents were Protestants 27((37%) and the least 5(7%) belonged to Pentecostals.

The study revealed that majority of the participants were Banyankole 51(70%) followed by Bakiga 22 (30%) and this confirmed that the study area was predominantly Banyankole settlement.

More than half 39(53%) of respondents were cohabiting and almost half 34(47%) were married.

Majority 52(71%) of participants' partner's occupations were farmers and the rest 4(6%) were civil servants.

Knowledge of respondents about contraceptives

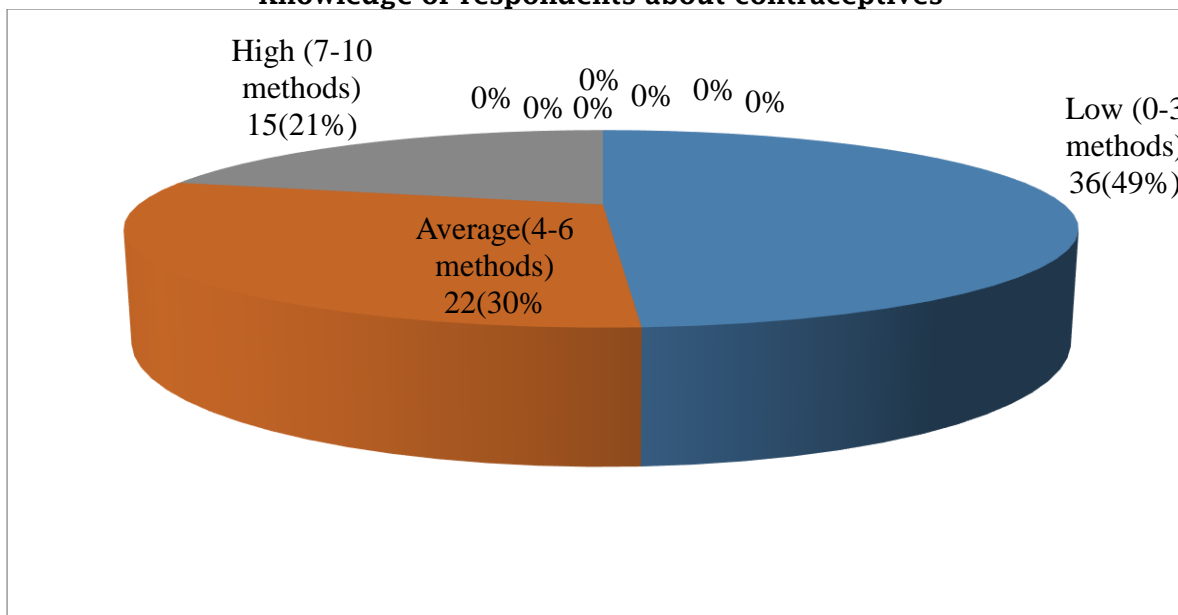


Figure 1: Level of awareness on contraceptives (n=73)

Majority of the respondents 36(49%) mentioned 0-3 methods (low level of awareness) and the least 15(21%) of

respondents mentioned 7-10 methods (high level of awareness).

Table 2: Knowledge on methods (n=73)

Variables	Yes (n) (%)	No (n) (%)
Side effects	38(52%)	35(47%)
Benefits	58(79%)	15(21%)
Duration	47(64%)	26(35%)
Where it can be obtained	60(82%)	13(18%)

Majority of the respondents had a good knowledge about the benefits, side effects,

duration and where the method can be obtained from.

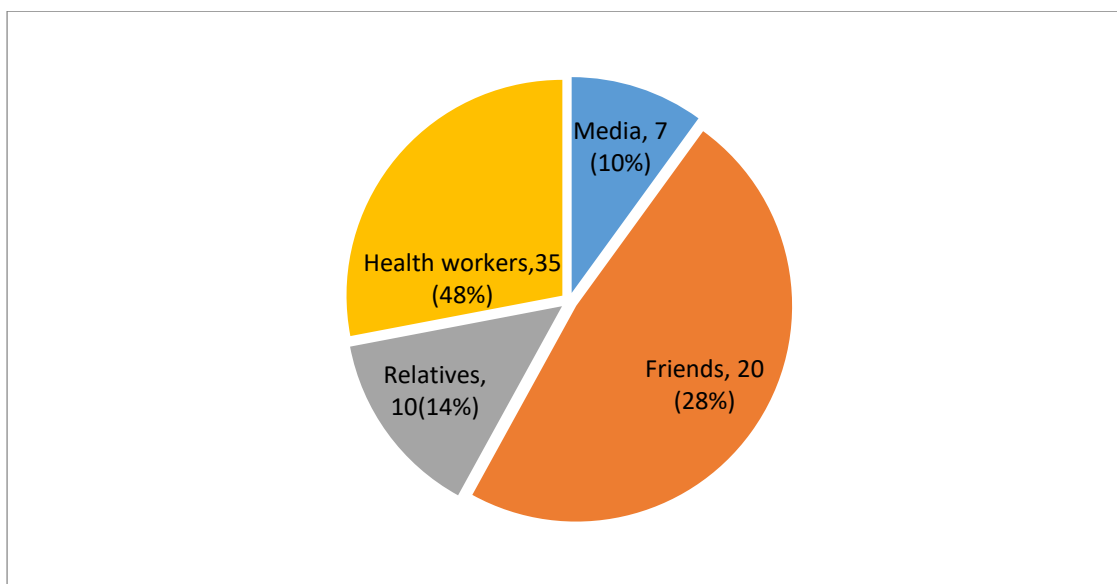


Figure 2: Source of information (n=73)

The study revealed that majority 35(48%) of participants their main source of information was from health workers and

the least 7(10%) got information from media.

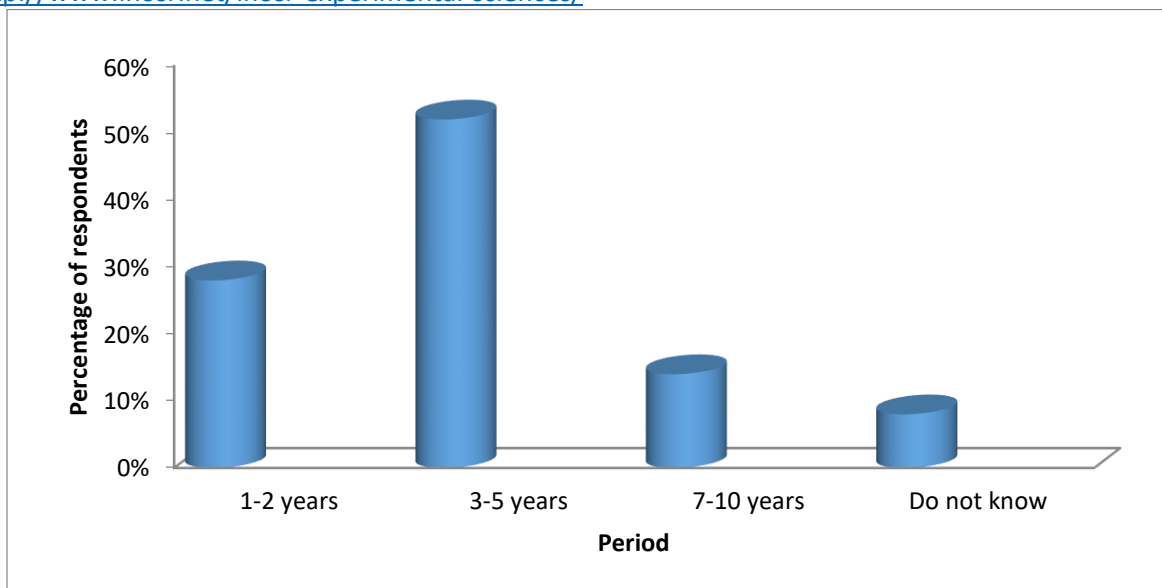


Figure 3: Period one can keep implant (n=73)

Majority of participants 37(52%) said one can keep implant for 3-5 years and the

least 6(8%) said it can be kept for 7-10 years.

Table 3: Family planning discussed during pregnancy (n=73)

Response	Frequency (n)	Percentage (%)
Yes	60	82%
No	13	18%

A greater proportion 60(82%) of the participants had a discussion on family planning during their last pregnancy.

Table 4: Knowledge on advantages and disadvantages (Tick appropriately) (n=73)

Advantages	
No need to visit provider frequently for re-supply /convenient to use	11(15%)
No need to remember to carry out a task regularly	16(22%)
Provides protection for a long period	28(37%)
Decrease menstrual flow/pain	
Good for women who cannot use oestrogen containing methods	12(15%)
Rapid return to fertility when removed	6(12%)
Disadvantages	
Can't protect against STIs/HIV	25(34%)
Loss of menstruation	20(27%)
Irregular bleeding	23(32%)
Removal may be difficult	5(7%)

Less than half 28(37%) of the respondents mentioned that implants provides

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protection for a long period and the least 6(12%) said it is rapid return to fertility when removed.

Concerning the disadvantages of implants, majority 25(34.5%) of the respondents

correctly said implants cannot protect against STIs/HIV and the least said its removal may be difficult.

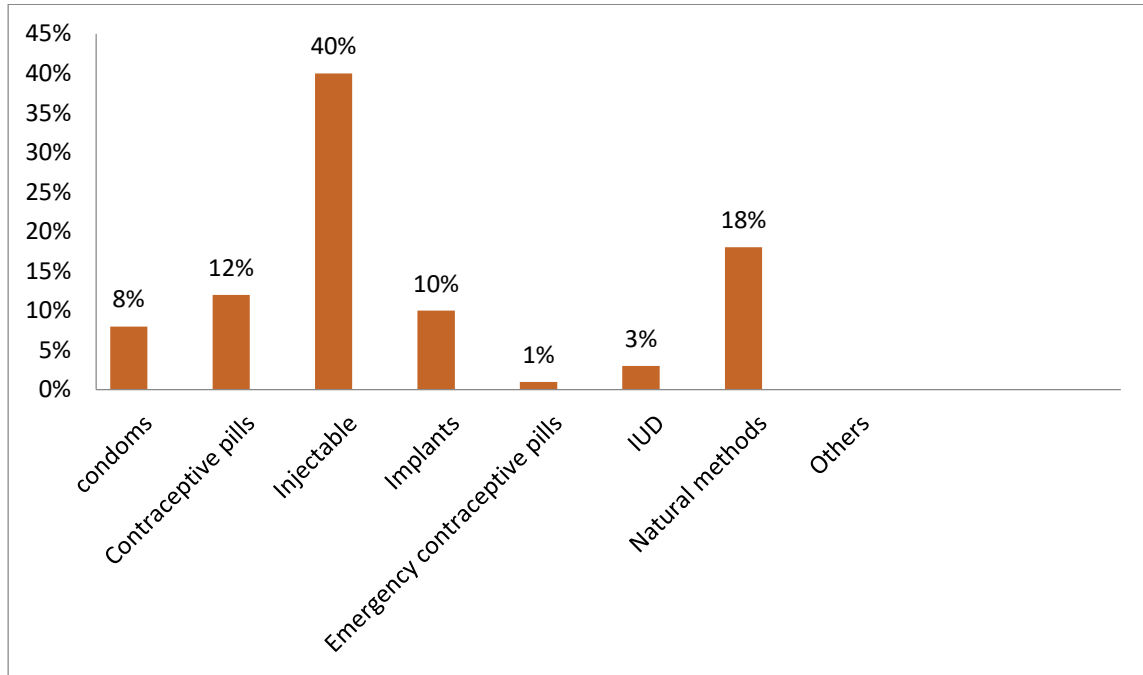


Figure 4: Contraceptives used by respondents in past 12 months (n=73)

Majority of the participants 29(40%) reported injectable as the mostly used

contraceptive method and the least 1(1.3%) used emergency contraceptive pills.

Table 5: Primary purpose of using contraceptive implants (n=73)

Variables	Yes (n)(%)	No(n)(%)
Prevent pregnancy	73 (100%)	0(0%)
Prevents STIs including HIV	0	0
Enhance sexual performance	0	0
Others	0	0
Total	73	100%
Protecting against STIs while on non-dual protection methods		
Using condoms	6(8%)	67(92%)
Trust my partner	37(51%)	36(49%)
Faithfulness	54(74%)	19(26%)
Others	0(0%)	0(0%)
Total	73	100%

All participants 73 (100%) mentioned prevention of pregnancy as their primary purpose of using contraceptive implant. Majority of participants 54(74%)

mentioned being faithfulness as the way of protecting against STIs while on non-dual protection methods and the minority 6(8%) mentioned condom use.

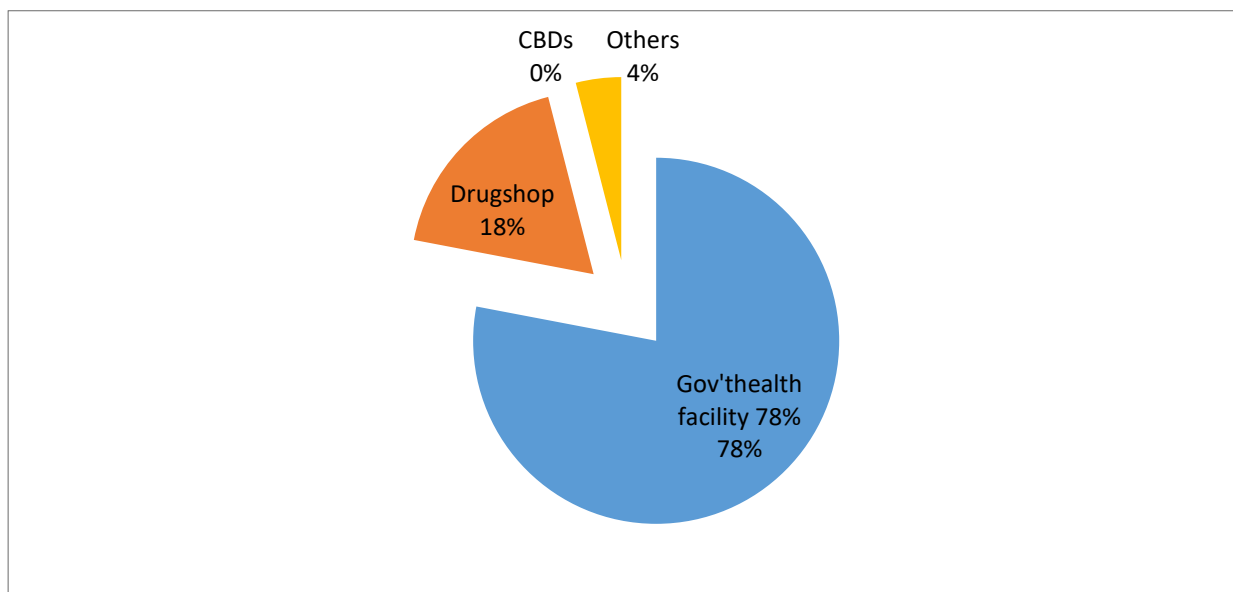


Figure 5: Access point of contraceptives (n=73)

Most of respondents 56(78%) access family planning from Government health facility

and the least 3(4%) from others access points.

Table 6: Responses to questions on practices towards contraceptive implants

Variables	Yes (n) (%)	No (n) (%)
Discussion with partner about contraception	31(42%)	42(57%)
Partner's approval of family planning	29(39%)	44(60%)
Family support on the use of family planning	35(47%)	38(52%)
Hindrance of money to use of family planning	63(86%)	10(14%)
Recommendation of Gov't health facility to a friend or relative to seek contraceptives	45(62%)	28(38%)

Majority 44(60%) of participants reported that their partners disapprove them on the use of family planning. Respondents

63(86%) also mentioned that sometimes they're denied services if they do not have money.

DISCUSSION

Socio-demographic characteristics of the respondents

Socio-demographic variables age, occupation and religion had association with use of contraceptive in an unadjusted logistic regression analysis. However, when other factors were adjusted for in a multi-variable analysis none remained significant.

Regarding age this study found that majority (53.4%) of the participants was in age group 25-34 years unlike findings in the United States where women over the age 35 were more likely to be LARC users [20]. It had been expected that those in age group 35-45 would have completed delivery and so will be using more effective type of contraceptive such as implant to prevent pregnancy, but this was not so.

Almost half of the implant users are married possibly because it is seen as a more serious method reserved for married women as was stated for IUD use in the United States [20].

Surprisingly education was also not predictive of using contraceptive although 89% of respondents in this study were women with educational level of primary level and above. Usually it is assumed that the educated are more advantageous in accessing and understanding information on contraception. It is also because the educated women have more access to information from different sources, like school, leaflet, newspaper, media and internet. Again, they often will want to

delay delivery and so tend to use contraceptive.

None of the socio-demographic variables in this study had a significant association with use of contraceptive. Probably these factors are no longer crucial in the use of contraceptive; there may be other factors outside socio-demographic factors influencing the use of contraceptive.

The participants identified a number of measures to improve uptake of contraceptive implants among women at community level. These included; sensitization of women on contraceptives by fellow women, ensure privacy at distribution points. In addition, the respondents noted the need to integrate contraceptive services with other services in-order to appeal more of users. Ensuring client follow-up and consistent stocking of contraceptive implants were also mentioned by respondents as measures to improve uptake of contraceptive implants among women.

The overall level of awareness about the various methods of contraceptive among all participants in this study was low. Thirty-six (49%) did not know more than three contraceptive methods. This is in sharp contrast to a situation where it was found that averagely, women in Ghana knew of at least eight contraceptive methods (Ghana Statistical Service (GSS) [21,22,23,24,25].

Awareness level was significantly associated with use of contraceptives. Women who knew of four to six methods

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were about twice likely to use contraceptive compare to those who knew zero to three contraceptive methods [26, 27, 28, 29, 30]. However, about half (49%) of those currently using contraceptive did not know more than three methods of contraceptive. The method most knew was the injectable [31, 32, 33]. This could account for the wide use of injectable contraceptive method (40%) in this study. However, it would have been assumed that people using contraceptive will know of many other contraceptive methods but this was not so in this study [34, 35]. Only 21% of participants in this study knew of about seven to ten methods while 2008 GDHS states that on the average all women know of eight contraceptive method. Could it be that they were counselled on few methods [22].

Assessing what participants knew about the methods they mentioned, more than half of them were knowledgeable about the benefits, side effects, duration and where the method can be obtained, and 48% said their main source of information was from health providers. This was not the situation in rural India where there was lack of correct knowledge about the mechanisms and side effect of temporary methods because their main source of information was other women and this was a barrier to the use of implants [23]. Williamson et al. [24] also found limited knowledge among young women due to little education by health services. This study findings shown that the user were knowledgeable about the methods they were aware of. Most of them had the information from health providers and it is in line with findings in Pakistan where the women who were knowledgeable about the contraceptive methods had the information from health professionals [25].

In this study, majority of the participants 40% reported injectable as the mostly used contraceptive method followed by daily pills 18%. Further still, this study showed that youths used only short term contraceptives like, contraceptive pills and Depo-Provera. This indicates knowledge gaps among respondents, limited access to comprehensive contraceptive information

as well as full range of contraceptive services. Another reason for use of only short term contraceptives could be that participants are at the onset of their reproduction and therefore believe use of long term methods like Norplant is inappropriate.

It may also be due to unavailability of other methods of contraceptives. When it comes to the use of implant, was at (10%) lower than injectable and pills. This may be due to the logistical requirement for implant insertion, required skill for inserting or perceived complications associated with use of implant. It seems it is easier to give an injection and pills than inserting implant as it is contrary to study by Kavanaugh *et al.* [20]. Providers may therefore incline to counsel women on methods that are easier to offer. This could be due to availability of the methods in distribution points. This is in line with a study by Gizachew et al. [22] which revealed that among the methods, injectable was mentioned by 96.5% of the respondents followed by daily pills (80.3%).

In table 2, all respondents 73 (100%) mentioned prevention of pregnancy as their primary purpose of using contraceptive implant. This could be due to adequate sensitization of respondents from different sources.

In this study, majority of participants 54(74%) mentioned being faithful to their partner as the way of protecting against STIs while on non-dual protection methods and the minority 6(8%) mentioned condom use. This is contrary to study in Malaysia all respondents mentioned that their husband disapproved of male contraceptive methods, and would not like to use condoms [26].

Out of the 73 respondents who reported using contraceptives, 78% obtained the services from government health facilities, 18% obtained from drug shops, while 4% obtained from other points. These results clearly pointed out that government health facilities are the main providers of contraceptives among users.

Majority 44(60%) of participants reported that their partners do not approve them on the use of family planning. It is therefore

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suggestive that partners are crucial in contraceptive uptake, however, not statistical association was found. This finding is in line with sociocultural perceptions in Kampala district of Uganda where approximately half (48.1%) of the respondents agreed that the contraceptive to use is their partners' decision [27].

The findings indicated that the current use of contraceptives among women within reproductive group at Bufunda HCIII was lower than contraceptive implants usage globally 54%. The use was higher in women who attained primary level of education and cohabiting. There was low utilization of LTRC with that of the implant being higher than that of the IUD, and this was similar to findings in other parts of the world. Awareness of the various methods

Similarly, in Malaysia, fear of side effects and husbands disapproval of male's contraceptive methods created a substantial barrier to continuing with modern contraceptive methods. All respondents mentioned that their husband disapproved of male contraceptive methods, and would not like to use condoms [26].

CONCLUSION

of contraceptive was the only factor significantly associated with use of contraceptives. Factors such as fear of effect on health and disapproval by partner were seen to be hindering the use of contraceptive, however they were not statistically significantly. None of the socio-demographic factors was associated with use of contraceptive implant after adjusting for possible confounding.

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