

FACTORS INFLUENCING UTILIZATION OF IMPLANTS AMONG WOMEN OF REPRODUCTIVE AGE AT KAWAALA HEALTH CENTRE IV, KAMPALA DISTRICT. A CROSS-SECTIONAL STUDY.

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Abstract

Background

Implants are a more effective method of family planning methods as they enable women to control their reproductive lives better and are better options for contraception than other long-term family planning methods. The purpose of this study was to identify the factors influencing the utilization of implants among women of reproductive age at Kawaala Health Centre IV, Kampala District.

Methodology

The method was a descriptive-cross sectional design that utilized quantitative methods of data collection from a sample size of 30 respondents who were sampled by simple random sampling method using a self-administered questionnaire, and data was analyzed using micro soft office programs and presented in the form of tables, graphs, and pie-charts.

Results

The majority of 12(40%) were between 18 and 24 years of age, and 17(56.7%) were not employed. Regarding individual factors, 19(63.3%) would wish to have three children to start using an implant, 11(36.7%) had one child, 24(80%) did not know all the information about the implant, and 20(66.7%) did not have an overall decision on the use of implants. Concerning Social and cultural factors, 23(76.7%) mentioned that their husbands did not support the use of implants, 27(90%) mentioned that their husbands had desires to have many children, 26(86.7%) did not get support from their husbands during utilization of family planning, and 18(60%) mentioned that their cultural belief does not support the use of implants.

Conclusion

Factors identified were lack of knowledge about implants, desire to have more children, lack of overall decision-making, lack of husband support, and cultural beliefs.

Recommendations

Health workers should develop comprehensive health education programs regarding using of long-acting methods of family planning such as implants.

Keywords: Utilization of Implants, Women of Reproductive Age, Kawaala Health Centre Iv, Kampala District.

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Background of the study

Globally, 53% of women in the reproductive age group use modern methods of contraception, with less than one percent of them using implants (Tirumalasetti, Xu, Sneed, & Pathak, 2022). This less utilization of implants is due to factors such as knowledge, availability, and other socio factors such as husband influence, as most women who know about it prefer to use it (Kin, Mikateko, Kalichman, Morroni, & Mathews, 2020).

In Europe, data from Nordic countries indicated that the use of implants increased with time and was highest in Sweden, 20%, and Finland, 18%. This is because it is a long-acting method of family planning (Lindh, Skjeldestad, Gemzell, Heikinheimo, Hognert, Milsom, & Lidegaard, 2017).

In Africa, 7% of women of reproductive age utilized implants (Tumlinson, Senderowicz, Bullington, Chung, Goland, Zimmerman, Gichangi, Thiongo, Guiella, & Karp, 2023). Data from demographic and health surveys from four sub-Saharan countries show that the proportion of women currently using long-acting contraceptives is significantly lower than the proportion using short-acting methods (Yimer, Seid, Walelign, Damtie, & Seid, 2023). In many sub-Saharan African countries, fewer than 5% of women are using long-term contraceptives, including implants (Bolarinwa, Afaya, Ajayi, Ojo, & Alawode, 2022).

In East Africa, a study carried out in Kenya indicated that the proportion of modern contraceptive users using a contraceptive implant rose from 17.9% in 2014 to 38.1% in 2019

(Gichangi, Agwanda, Thiongo, Waithaka, Tsui, Radloff, Temmerman, Zimmerman, Ahmed, & Anglewicz, 2020). In Uganda, using implants is generally low, with the Kigezi sub-region having the highest proportion of users. Karamoja and Busoga regions have the lowest percentage of users (Otim, 2020). According to the United Nations Population Fund, the number of new implant insertions in 2019 almost doubled those of 2018 in North and South Buganda, i.e., from 47,099 in 2018 to 74,586 in 2019 for North Buganda and 37,471 in 2018 to 64,843 in 2019 for South Buganda. In North Buganda, the highest number of implant insertions was from the Buikwe district, followed by Mukono and Luwero districts. On the other hand, in South Buganda, the push was from the Wakiso district, followed by Kalungu and Lwengo (Family Planning Atlas, 2020). At Kawaala Health Centre IV, data from the family planning clinic records indicated that only 2 in 10 women utilized implants in 2023/2023 (Unpublished data).

Implants are among the modern contraceptive methods that are hormonal, long-acting, and reversible contraceptives (Brunie, Stankevitz, Nwala, Nqumayo, Chen, Danna, Afolabi, & Rademacher, 2021). They are small, thin, and flexible plastic rods that release a progestin hormone in the body, either levonorgestrel or etonogestrel (Gautam, Dwivedi, Singh, & Anbumani, 2020). After being inserted under the skin of a woman's upper arm by trained health professionals, implants work by releasing a small amount of progestin hormone steadily into the blood that gives continuous protection for 3 to 5 years, depending on the number of rods inserted (Abera, Kote, Shoegaze, Andarge, & Hussien, 2020). Implants are one of the most effective reversible hormonal contraceptive methods ever developed as compared to short-acting methods (Mohit, Hussain, & Mohapatra, 2021).

Methodology

Study design and rationale

The study used a descriptive cross-sectional study design. This design was chosen because it allowed the researcher to collect numerical data within a short period. A quantitative method of data collection was used because quantitative data was collected.

Study setting and rationale

The study was conducted at Kawaala Health Centre IV, Kampala District. Kawaala is bordered by Nabweru to the north, Kazo to the northeast, Makerere to the east, Naakulabye to the south, Kasubi to the southwest, and Namungoona to the west. This is approximately 5 kilometers by road, north of Kampala's central business district. The Health Center IV is located in Kawaala town and offers services that include general medicine, pediatric care, maternal health, and laboratory services. The study setting was selected because of the inadequate utilization of implants among women of reproductive age.

Study population

The study population was women of reproductive age at Kawaala Health Centre IV, Kampala District. This population was chosen because it was important for women of reproductive age to actively participate in family planning services.

Sample size determination

The sample size was determined according to Roscoe's (1975) set guidelines, which suggested that a sample size of 30 and less than 500 is appropriate. This study, therefore, took a sample size of 30 respondents, which was manageable because of limited time and resources for data collection.

Sampling procedure

The study used a simple random sampling technique. This technique was chosen for this study because every study participant had an equal chance of participation. Thus, selection bias was avoided. To obtain the participants, the researcher made 60 pieces of similar size, which were written on Yes (30) and No (30). Eligible patients picked a single paper at random on each day of data collection. Those who picked papers with the word **Yes** were enrolled in the study.

Inclusion and exclusion criteria

The study included women of reproductive age at Kawaala Health Centre IV, Kampala District, who voluntarily consented to participate in the study, and those who were ill were excluded.

Independent variables

The independent variables were factors influencing the utilization of implants among women of reproductive age.

Dependent variable

The dependent variable was the utilization of implants among women of reproductive age.

Research instrument

Data was collected using a self-administered and researcher-administered structured questionnaire. It was written in English and contained close-ended and open-ended questions related to the study objectives. Before data collection, the tool was pretested among five women before final consideration for data correction. This helped to rectify errors that would interfere with final data collection, thus proving the validity and reliability of the tool.

Data collection procedures

An introductory letter from the Mildmay Uganda School of Nursing and Midwifery Research and Ethics committee was presented to the KCCA; then an authorization letter was given to the researcher, which was presented to the in charge of Kawaala Health Centre IV, who introduced the researcher to the respondents.

Data management

Filled-in questionnaires were collected, counted, checked for completeness, and edited after every data collection day to ensure that they were all returned and kept in a safe place as a backup, raw data was kept in the cupboard for security purposes.

Data analysis

Data from the questionnaires was tallied using a pen and paper and analyzed using a computer package called Microsoft Excel, then presented in tables and figures in frequencies and percentages.

Ethical considerations

A recommendation letter was presented to KCCA and in charge of Kawaala Health Centre IV seeking permission for data collection. After being granted permission, the researcher sought consent from the respondents before enrolling them to participate. Respondents were assured of the confidentiality of their information and the anonymity of their identity. This was done by not writing their names on the consent forms and questionnaires.

Informed consent

The participants consented to the study.

Results

Table 1: Social demographic data of the respondents, n=30

Variable	Category	Frequency (f)	Percentage (%)
Age	18-24	13	43.3
	25-30	12	40
	31-35	5	16.7
Place of residence	Urban	30	100
Level of education	Nonformal	3	10
	Primary	6	20
	Secondary	12	40
	Tertiary	9	30
Employment status	Employed	13	43.3
	Not employed	17	56.7

Table 1 shows that the majority, 12(40%), were between 18 and 24 years of age. Regarding place of residence, all 30(100%) were urban residents. Most 12(40%) of the

respondents had a secondary level of education. More than half, 17(56.7%) of the respondents were not employed.

The individual factors influencing the utilization of implants among women of reproductive age

Table 2 Shows the number of children one would wish to have to start using implant

Variable	Frequency (f)	Percentage (%)
Two	6	20
Three	19	63.3
Four and more	5	16.7
Total	30	100

Table 2 shows that the majority, 19(63.3%) of the respondents, mentioned that they would wish to have three children to start using implants.

Figure 1: Shows the number of children of the study participants

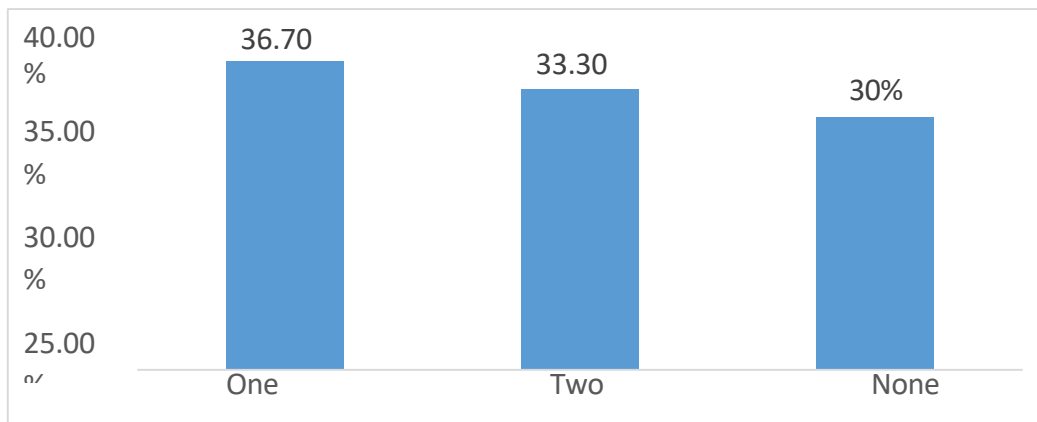


Figure 1 shows that 11(36.7%) of the respondents mentioned that they had one child.

Table 3: Shows whether respondents knew all information about implants, what was known about them, and the source of information. n=30

Variable	Category	Frequency (f)	Percentage (%)
Whether respondents knew all the information about implant	Yes	6	20
	No	24	80
What was known about it	They protect one from pregnancy	4	66.7
	They protect one from pregnancy for a long time	2	33.3
Source of information	Media	1	16.7
	Friends	2	33.3
	Health workers	3	50

Table 3 shows that the majority, 24(80%) of the respondents mentioned that they did not know all the information about implants. Of those who knew, the

majority stated 4(66.7%) that they protect one from getting pregnant, and 3(50%) mentioned that they got information from health workers.

Table 4: Reasons for not using implants

Variable	Frequency (f)	Percentage (%)
Heavy bleeding	3	10
Loss of weight	6	20
Need to have more children	12	40
Fear of entering it and removing it	9	30
Total	30	100

Table 4 shows that 12(40%) of the respondents mentioned they would not use implants because of a desire to have more children.

Figure 2: Shows whether respondents had an overall decision on the use of implants, n=30

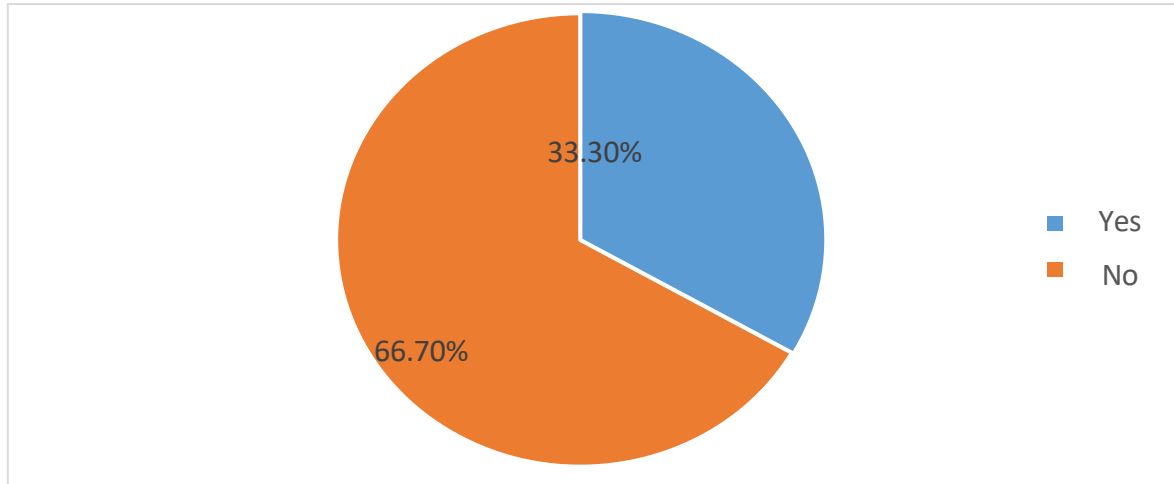


Figure 2 shows that most 20(66.7%) of the respondents mentioned that they did not have an overall decision on the use of implants.

Table 5: The Social and cultural factors influencing the utilization of implants among women of reproductive age. n=30

Variable	Category	Frequency (f)	Percentage (%)
Husband supports the use of implants	Yes	7	23.3
	No	23	76.7
The husband desires to have many children	Yes	27	90
	No	3	10
Get support from the husband during the utilization of family planning	Yes	4	13.3
	No	26	86.7
What does cultural belief say about implants	It supports it	12	40
	It does not support it	18	60
The society promotes the use of implant type of family planning	Yes	13	43.3
	No	17	56.7

Table 5 shows that the majority, 23(76.7%) of the respondents, mentioned that their husbands do support the use of implants. The majority, 27(90%) of the respondents, mentioned that their husbands had desires to have many children. The majority, 26(86.7%) of the respondents, mentioned that they did not get support from their husbands during the utilization of family planning. The majority, 18(60%) of the respondents, mentioned that their cultural beliefs do not support the use of implants. More than half 17(56.7%) of the respondents mentioned that their society does not promote the use of implant type of family planning.

Discussion

The individual factors influencing the utilization of implants among women of reproductive age

The study findings showed that the majority, 19(63.3%) of the respondents, mentioned that they would wish to have three children to start using implants. This indicated that the respondents had a small number of children and, therefore, no need to use implants since it is a long-acting method of family planning. This finding is in line with findings by Abera et al. (2020) in Ethiopia, who revealed that the majority of the respondents mentioned that the major determinant for implant utilization was the desire to have 3 to 4 children. The number of children desired was negatively associated with implant utilization. The

chances of utilizing implants were 0.104 times lower for women who wanted to have 3 to 4 children than those women who wanted to have 1 to 2 children.

Furthermore, the study findings showed that 11(36.7%) of the respondents mentioned that they had one child. This indicated that they had a small number of children and, therefore, would need to have more children, leading to a low uptake of implants. This finding is similar to the findings by Mekonnen & Wubneh (2022) in Ethiopia, who showed that the number of living.

Children were independent predictors of implant contraceptive use among reproductive-age women.

In addition, the study findings showed that the majority, 24(80%) of the respondents mentioned that they did not know all the information about implants. This indicated that there was inadequate information dissemination regarding the use of implants. This is probably because of a lack of health education to sensitize people on the use of implants in the community. This finding is contrary to the findings by Jonas, Mazinu, Kalichman, Kalichman, Lombard, Morroni, & Mathews (2021) in South Africa, who showed that knowledge was associated with the utilization of implants. Most of the participants (75.6%) had heard about the implant, (9.4%) were currently using it, and (20.2%) intended to use it in the future.

The study findings showed that most 12(40%) of the respondents mentioned they would not use implants because of the desire to have more children. This indicated that a small number of children contributed to the low uptake of implants. This is probably because it is a long-acting method of family planning and, therefore, would not be desired by someone who wishes to have more children in the future. This finding is in agreement with findings by Elias & Hailemariam (2015), who showed that the main reason for implant contraceptive discontinuation was a desire for more children 6(33.3%).

The study findings showed that most 20(66.7%) of the respondents mentioned that they did not have an overall decision on the use of implants. This indicated that the study participants would seek authority before using implants. This is probably because of being in a marital relationship. This finding is in line with findings by Abera et al. (2020) in Ethiopia, who showed that women who had joint decisions on contraception had 3.11 times higher chances of using implants than those with self/husband decisions only.

The Social, and cultural factors influencing the utilization of implants among women of reproductive age

The study findings showed that the majority, 23(76.7%) of the respondents, mentioned that their husbands do not support the use of implants. This indicated that there was a lack of support from husbands during the utilization of family planning. This is probably because of a lack of joint decision-making regarding the use of family planning. This finding is in line with findings by Abera et al. (2020) in Ethiopia, who showed women whose

husbands disapproved of the use of implants had 0.11 times lower chances of using implants than those women whose husbands approved the use of implants.

In addition, the study findings revealed that the majority, 27(90%) of the respondents mentioned that their husbands had desires to have many children. This indicated that there was a rejection of the husbands to recommend their wives to use family planning. This finding is in agreement with findings by Mekonnen & Wubneh (2022) in Ethiopia, who showed that the prevalence of implant contraceptive utilization among reproductive-age women was 9.4%. The results showed that the husband's desire for more children was an independent predictor of implant contraceptive use among reproductive-age women (Mekonnen & Wubneh, 2022).

The study findings showed that the majority, 26(86.7%) of the respondents, mentioned that they did not get support from their husbands during the utilization of family planning. This indicated that lack of husband support in terms of finances majorly led to poor utilization of implants. This finding is contrary to the findings by Jonas, Mazinu, Kalichman, Kalichman, Lombard, Morroni, & Mathews (2021) in South Africa, who showed that support from partners for women to use implants were factors significantly associated with to use the of implants. The study findings revealed that the majority, 18(60%) of the respondents, mentioned that their cultural beliefs do not support the use of implants. This indicates that some cultural beliefs stopped the use of implants, such as beliefs in supernatural powers regarding the provision of children. This finding is in line with findings by Mulekhwa & Nakasolo (2022) in Uganda, who showed that 70% of the respondents said they would not use implants because their culture does not support it.

The study findings showed that more than half 17(56.7%) of the respondents mentioned that their society does not promote the use of implant type of family planning. This indicated that there was social stigmatization regarding the use of implants, which contributed to low utilization. This finding is in line with findings by Laput, Manongga, Muntasir, Padeng, & Nanur (2021), who showed that respondents with an unsupportive society and culture did not use implants (43.8%).

Conclusion

Factors influencing utilization of implants among women of reproductive age at Kawaala Health Centre IV, Kampala District.

The study results revealed that the individual factors influencing the utilization of implants among women of reproductive age were the desire to have more children, knowledge about implants, and overall decision-making. The social-cultural factors were support from husbands, husbands' desire to have more children, cultural beliefs, and influence from society. Therefore, both individual and social-cultural factors contributed to the poor utilization of implants. Hence, there is a need for interventions to improve its utilization.

Recommendations

Recommendations to the Ministry of Health

They should implement national awareness campaigns to educate women and families about the benefits and safety of contraceptive implants.

They should partner with community leaders to address cultural beliefs and misconceptions regarding implants.

They should develop policies that ensure equitable access to family planning services, including implants, particularly in underserved areas.

They should provide training for healthcare providers on counseling techniques that involve both partners in family planning decisions, emphasizing the importance of shared decision-making.

Recommendations to the Health Centre

The Health Centre should enhance counseling services to provide comprehensive information about implants, addressing fears and misconceptions.

It should create support groups for women who have used implants to share experiences and benefits, helping to build community trust in the method.

It should ensure consistent availability of implant supplies to prevent stockouts and build trust in the service.

Recommendations to Women

They should seek information about family planning options, including implants, from trusted healthcare providers and community resources.

They should discuss family planning choices openly with partners to foster a supportive environment for decision-making.

They should participate in local health initiatives that promote reproductive health education and share experiences with peers to demystify the use of implants.

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List of Abbreviations

E. A.:	East Africa
Et al.:	And others
FP:	Family Planning
HMIS:	Health Management and Information System
KHCIV:	Kawaala Health Centre IV
LARCs:	Long-acting reversible contraceptives
MOH:	Ministry of Health

UNMEB: Uganda Nurses and Midwives Examinations Board

UNP: United Nations Population

USA: United States of America

WHO: World Health Organization

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The study was not funded.

Conflict of interest

The author declares no conflict of interest.

Author contributions

Recheal Namuli, the principal investigator.

Mercy Bantia supervised the research.

Data availability

Data is available upon request.

Author Biography

Recheal Namuli, a student midwife at Mildmay Uganda School of Nursing and Midwifery pursuing a diploma in midwifery (extensions)

Mercy Bantia, a tutor at Mildmay Uganda School of Nursing and Midwifery

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