

Uptake of immediate postpartum intra-uterine device among mothers in Apac General Hospital. A cross-sectional study.

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Abstract

Background:

Many women end up pregnant again sooner than planned because they have sex before their six-week checkup. Using an IPPIUD right away is a great way to prevent that. This study aimed to determine the uptake of immediate postpartum intra-uterine devices among mothers in the postnatal clinic at Apac General Hospital.

Methodology:

A cross-sectional study design was employed with quantitative methods of data collection. Thirty respondents were obtained by simple random sampling between March and April 2024. Data was collected using self-administered questionnaires, and later analysed using manual means. Results were then presented in the form of tables and figures.

Results:

The study involved 34(70.8%) urban dwellers, 41.6%, and 2% Anglicans and Muslims by religion, respectively. The majority (58.3%) were 30 years and above, while only 14.5% were between 15 and 19 years. Of these, 47.2% had attained at least a tertiary level of education while up to 10 (20.8%) stopped only in the primary level of education and 16.7% were unemployed while (19)39.6% were self-employed. Thirty (62.5%) were married, and 2% were widowed. There was a low level of utilisation of IPPIUD (62.5%), as they had never heard about the immediate post-partum IUD. Nearly 3 in every 4 respondents (79.1%) preferred the LAM method of family planning, while approximately 1 in 10 preferred barrier methods.

Conclusion:

While over half of the women have heard of the immediate postpartum IUD (IPPIUD), awareness usually comes too late, often during labour rather than during prenatal visits.

Recommendation:

There is a need for the Ministry of Health to train more staff on the use of IPPIUD, and the community should be sensitized about its benefits and availability. More emphasis should be put on community sensitization to enhance the utilisation of IPPIUD.

Keywords: Immediate postpartum IUD, prevalence of immediate postpartum IUD usage, facilitators to the use of immediate postpartum IUD.

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Background

The intrauterine contraceptive device (IUD) is appropriate for women of all reproductive ages and is the most economical method of contraception to avoid unintended births. (Gebremedhin et al., 2021).

Every year, over 121 million unwanted pregnancies take place worldwide. (Bearak et al., 2020). Postpartum women are at risk of unintended pregnancy since over 50% of them reported having had unprotected sex before the recommended 6-week postpartum evaluation. (Asmamaw et al., 2023).

The provision of IUD during the immediate postpartum period is an effective and safe method for spacing and limiting births because it gives the advantage of immediate

postpartum period counselling. (Gebremedhin et al., 2021). Is one of the most effective and safe contraceptive methods (Kassa et al., 2021). There is an extremely high discontinuation rate of IUDs, with 43% of the contraceptive users discontinuing within a year of debut, mainly due to health concerns, fear of side effects, or a strong desire to return to fertility. (Kisuza et al., 2023).

The contraceptive prevalence rate depends on education and counselling, access to information, family planning (FP) commodity security, availability of skilled staff, and social and cultural factors. (Kisuza et al., 2023). Patients' and providers' negative beliefs, male partners' negative attitudes toward contraception, and attitudes toward menstruation are

among the many factors affecting the utilisation of PPIUD (Thummalachetty et al. 2017).

In sub-Saharan African countries, there is a notable need for long-term contraceptive solutions after childbirth, as many women do not return for postpartum check-ups. (Da Costa et al., 2019). To address this, it is crucial to prioritize immediate postpartum contraceptive services, ensuring that women leave the hospital with effective contraception. (Gebremedhin et al., 2021).

In Uganda, IUD contraceptive prevalence is only 1.5% compared with 19% for injectable and 71.6% for lactation amenorrhoea methods, male condoms, and other short-acting methods. (Omona & Namuli, 2020). A similar study in the Lubega division, Kampala, found that IUD use was at 1.8% and found to be the lowest among all other methods (Anguzu et al., 2014). Uganda still has one of the highest unmet needs, at 28%, for Family Planning in Sub-Saharan Africa (Belay et al., 2024). In northern Uganda, the prevalence of PPIUD stands at 9.6%. (Okullo et al., 2024). Despite all these, little is known about the factors affecting the uptake of immediate postpartum IUD among mothers in Apac General Hospital. This study aimed to determine the uptake of immediate postpartum intra-uterine devices among mothers in the postnatal clinic at Apac General Hospital.

Methodology

Study Design

This study used a cross-sectional study design employing quantitative data collection methods.

Study setting

The study was conducted in Apac General Hospital (AGH), located in Apac Municipality, Uganda. Apac Municipality is a metropolitan town with different religions, cultural backgrounds, levels of education, and ethnicities. Apac is dominantly the Lango tribe. The main economic activities are small-scale agricultural activity, small-scale industries, and business. Apac is bordered by Kole districts to the North, Oyam to the Northeast, Lira district to the northeast, Dakolo to the east, Amolatar to the South, Nakasongola to the southwest, and Kiryandongo to the west.

Apac General Hospital is approximately 72 km from Lira Regional Referral Hospital, and approximately 230 km north of Mulago National Referral Hospital. The coordinates of Apac General Hospital are 01°58'42.0"N, 32°32'01.0" E (Latitude: 1.978325; Longitude: 32.533618). The Hospital has a bed capacity of 100, with a total inpatient population of 160 and 370 outpatients daily. APGH has an estimated catchment population of 368626; of these numbers, females account for 187631, while males account for 180995. The hospital also received referrals from other health units within the district and the neighbouring districts since it is a general hospital.

Study population.

The study was conducted among postpartum mothers in the postnatal ward at Apac General Hospital.

Sample size determination.

The sample size was determined by the use of the Morgan and Krejcie (1970) table for sample size determination, as attached. (Krejcie & Morgan, 1970). Hence, the study consisted of a sample of 48 respondents.

Sampling procedure

A simple random sampling technique was used to obtain the participants. Lottery methods were applied, a paper labelled 1 and 2 was tossed, and the respondents were asked to take one. Only those who took the papers with Figure 1 were allowed to participate in the study. The procedure was repeated, taking 5 participants every day for 10 days until a total of 48 participants were reached. This sampling procedure was used because it selected all participants without bias.

Inclusion criteria

All postpartum women at Apac General Hospital who consented and were not too sick were considered for the study.

Exclusion criteria

All women in post-partum who were not in a good mental state were not considered for this study.

All women who were unconscious during the time of the study were considered for the study.

All women who experience stillbirth experience grief and bereavement.

The Independent Variable

Prevalence of uptake of immediate postpartum IUD

Dependent Variable

Uptake of immediate postpartum IUDs

Research instruments

The research instruments included: questionnaires, consent forms, and an approval letter from the Florence Nightingale School of Nursing and Midwifery Research Ethics Committee and Apac General Hospital.

Data collection procedures

The objectives of the study served as the basis for the design of the data-gathering tool. Semi-structured questionnaires were created and used. Interviews were held with study participants using the semi-structured self-administered questionnaire. The respondents filled out the questionnaires, the first of which collected data on the respondents' socio-demographic characteristics. Section two collected

information on the prevalence. The process of filling took approximately 10-15 minutes. After the participants brought back the questionnaire, they were cross-checked to see and correct missing parts and responded accordingly.

Data management

Page | 3 Data was checked for completeness, and the filled questionnaires were stored safely in a lockable drawer.

Data analysis

Data was analysed using the Statistical Package for the Social Sciences (SPSS) version 25, which assisted in coming up with frequencies and percentages as units of measurement. Findings were then presented in the form of tables, pie charts, and graphs.

Ethical Considerations

This study was presented to the Florence Nightingale School of Nursing and Midwifery Research Ethics Committee for approval. Administrative clearance to conduct the study was sought from the Apac General Hospital Administrators. Written informed consent was obtained from each of the respondents before enrollment into the study. Respondents below the legal age of 18 years in Uganda were treated as emancipated minors who could give valid informed consent as per the guidelines of the Uganda National Council for Science and Technology. To ensure confidentiality, all the participants were assigned a unique identification code. All the filled questionnaires were kept under lock and key in the custody of the study Principal Investigator. All the participants approached to participate in this study received

extra education and counselling about contraception, and all those who chose a method received it at no extra cost.

Limitations

The study population was small compared to the general postpartum mothers in Apac.

The study was limited by self-report bias from the postpartum mothers.

Results

Response rate

The study's response rate was 110%, although 48 respondents were expected to participate in the study; we were able to get up to 53, but only 48 responses have been considered for data entry and analysis.

Socio-demographic and professional data of the study respondents.

A total of 48 (100%) respondents, of whom 34 (70.8%) were urban dwellers, participated in the study, and 41.6% and 2% were Anglican and Muslim, by religion respectively. With the majority (58.3%) being 30 years and above, while only 14.5% were between the ages of 15-19 years. Of these, 47.2% had attained at least a tertiary level of education, while up to 10 (20.8%) stopped only in the primary level of education, and 16.7% of these were unemployed, while the majority (19)39.6% were self-employed. A great number, 30 (62.5%) of the respondents were married, and 2% were widowed; of these, 58.3% stayed with their spouses. Moreover, up to 20.8% of the respondents were staying alone.

Table 1: Showing the socio-demographic and professional characteristics of the respondents (n=48), Apac General Hospital, March 2024.

Variables	Frequency (f)	Percentage (%)
Age of participants (years)		
15-19	7	14.5
20-30	13	47.2
Above 30	28	58.3
Education level		
Primary	10	20.8
Secondary	25	52
Tertiary	13	47.2
Marital status		
Married	30	62.5
Divorced	2	4.1
Widowed	1	2.1
Single	15	31.3
Religion		
Catholic	17	35.4
Anglican	25	41.6
Muslim	1	2
Pentecostals	10	20.8
Who the respondents live with		
Spouse	28	58.3
In-laws/own parents	7	14.6
Alone	10	20.8
A friend	3	6.3
Current employment status		
Unemployed	8	16.7
Formal employment	10	20.8
Informal employment	11	22.9
Self employed	19	39.6
Respondent's place of residence		
Urban	34	70.8
Rural	14	29.2

Legend: n= frequency, % percentage

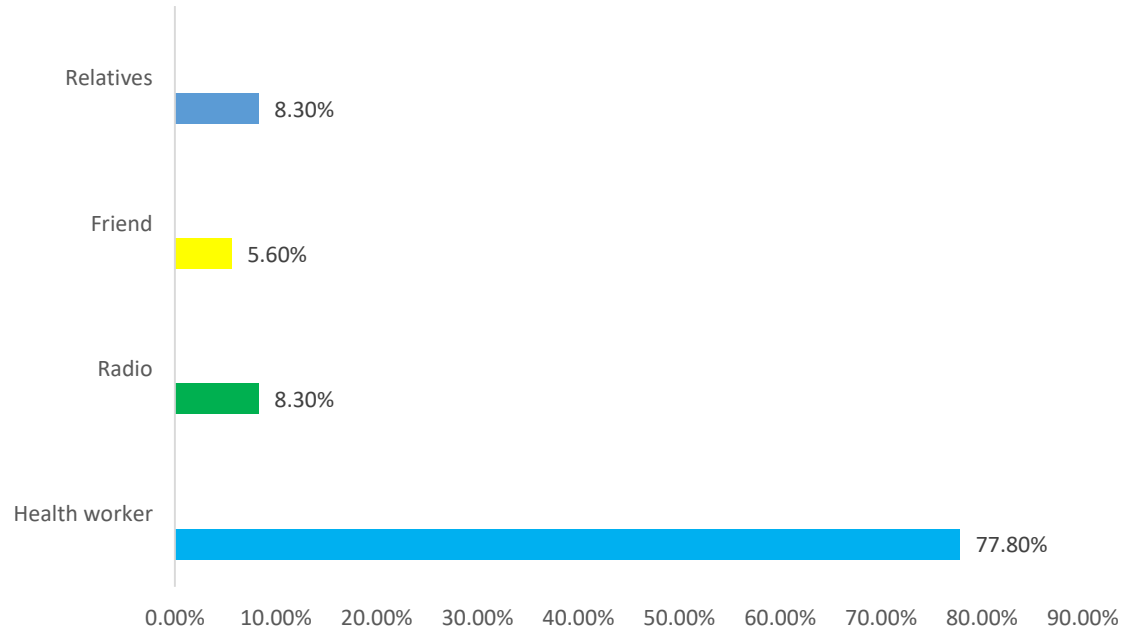
Prevalence of immediate post-partum IUD uptake

Up to (30) 62.5% of the mothers heard about immediate post-partum IUD, while (18) 37.5% had no idea about immediate postpartum IUD. Of these, only (18) 60% heard of it less than a month ago, while only 2% heard of IPPIUD more than a year ago.

Table 2: Respondents' source of information, n=48, Apac General Hospital, March 2024

Variables	Frequency (f)	Percentage (%)
When the respondents heard the information on IPPIUD		
Less than a year ago	8	26.6
More than one year ago	2	6.7
Less than a month ago	18	60
Can't remember	2	6.7
Respondents who heard about IPPIUD		
Yes	30	62.5
No	18	37.5

Figure 1: where the respondents heard the information on IPPIUD from n=36 Apac General Hospital, March 2024.



Most (28) 77.9% of the mothers had received the information on IPPIUD from the health worker, while only (2) 5.6% got the information from their friends (figure 1) Up to 31 (64.5%) of the respondents have ever delivered; of these, 18 (37.5%) had their last pregnancy 3-5 years ago, while 2 (4.2%) had another pregnancy less than 2 years ago.

52% (25) of these respondents were carrying at least their 3rd-5th pregnancy, while 6 (12.5%) were having at least their 6th pregnancy 85.4% (41) had never used IPPIUD, while 1 (2%) used IPPIUD for the first time. Most of the respondents, 38 (79.1%), preferred the LAM method of family planning, while 3 (6.3%) preferred barrier methods.

Table 3: Showing delivery, pregnancy, and family planning history of the respondents, n=48, March 2024

Variables	Frequency (f)	Percentage (%)
The respondent who has ever delivered		
Yes	31	64.6
No	17	35.4
When the respondents last had a delivery.		
Not Applicable	17	35.4
Less than two years ago	2	4.2
Over 3-5 years ago	18	37.5
More than five years	11	23
The number of pregnancies the respondents have ever carried		
First- second pregnancy	17	35.5
Third -fifth pregnancy	25	52
Sixth and above	6	12.5
The number of times respondents have ever used IPPIUD.		
First time	1	2
Second time	5	10.4
Third time	1	2
Never use	41	85.4
Other family planning methods respondents used		
LAM	38	92.6
Barrier Methods	3	7.3

Legend: f is frequency, % is percentage

Discussion

Socio-demographic characteristics of the respondents

A total of 48 (100%) respondents, nearly 7/10, were urban. This can be attributed to the fact that the hospital is located in an urban area. Up to 41.6% were Anglican, and only 2% were Muslim. This could be true since Uganda is a Christian country. More than half of the respondents were 30 years and above, while only 14.5% were between the ages of 15 and 19 years. This can be attributed to the high fertility rate among the community members. Of these, 47.2% had attained at least a tertiary level of education, while up to 10 (20.8%) stopped only in the primary level of education, and 16.7% of these were unemployed, while the majority (19) 39.6% were self-employed. This can be attributed to the high rate of school dropout and the high rate of unemployment in the region. A great number 30 (62.5%) of the respondents were married, and 2% were widowed; of these, 58.3% stayed with their spouses; moreover, up to 20.8% of the respondents were staying alone. These could not have had any influence on the uptake of IPPIUD.

Prevalence of the use of the immediate postpartum intrauterine device

Regarding awareness this study found that more than half of the respondents (62.5%) had ever heard about immediate

post-partum IUD, this could be attributed to the fact that health education has often been conducted on the same this finding is in agreement with a similar study by Kisuza et al., (2023) who stated that Contraceptive prevalence rate depends on education and counseling, access to information, availability of skilled staff. This, therefore, implies there is still more need for community sensitisation to improve the utilisation of IPPIUD.

Though nearly half (60%) were aware of IPPIUD, they heard of it only during the time of delivery. This can be attributed to low ANC visits and inadequate counselling. This finding agrees with Anguzu et al. (2018), who found that the low utilisation of IPPIUD is attributed to low awareness and a lack of adequately skilled or trained staff. Therefore, there is still room for improvement in awareness to increase the uptake of IPPIUD.

This study further investigated where the information was received from, and findings revealed that 3 in 4 of the respondents had received the information on IPPIUD from a health worker, while only one-tenth got the information from their friends. This is possible due to low community awareness of the IPPIUD. These findings further agree with a related study by Weston et al. (2012), which highlighted that Facilitators to IUD uptake included strong recommendations from healthcare providers, among others. This, therefore, implies that there is still more need for

community awareness to improve the utilisation of the immediate postpartum IUD

This study revealed that more than a half (64.5%) of the respondents have ever delivered and more than 1 in 4 had their last pregnancy 3-5 years ago. Moreover, 1/10 had another pregnancy less than 2 years ago and a half of these respondents was carrying at least 3rd -5th pregnancy even though, more than three quarter (85.4%) has never used IPPIUD. This study agrees with Guye et al. (2023), who stated that there is generally a low level of utilisation of IPPIUD. This finding is further consistent with the HMIS (2023) of Apac General Hospital, which documented that only around 2% of the mothers who delivered between the month of January 2023 and December 2023 accepted an immediate postpartum intrauterine device. This finding is a blueprint for the low utilisation of IPPIUD.

This study further revealed that nearly 3 in every 4 respondents (79.1%) preferred the LAM method of family planning, while approximately 1 in 10 preferred barrier methods. This finding is possible since most women practice exclusive breastfeeding. These findings were also highlighted by Kroe, Linger et al. (2021), who stated that even though the postpartum period is the best opportunity for LARC insertion, limited studies have documented LARC method use. This finding, therefore, implies that more still needs to be done to improve the utilisation of immediate postpartum IUDs.

Conclusion

Following data analysis, it is evident that the prevalence of utilisation of IPPIUD does not match those recommended by the World Health Organisation. The promoter of the IPPIUD that has been isolated included its immense advantage known by the clients and the influence from the healthcare practitioners, among others, while the barriers included factors within the individual, health facility, and society.

Recommendation

Immediate postpartum intrauterine device packages should be made available by the Ugandan government through the Ministry of Health.

The government, through the Ministry of Health, should allocate resources targeted towards the promotion of the use of long-acting, immediate postpartum intrauterine devices. More studies should be conducted on the socio-cultural factors affecting the utilisation of the immediate postpartum IUD

More studies are to be conducted on the knowledge and perception of expectant mothers on IPPIUD.

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List of abbreviations

FP	Family planning
IPPIUD	Immediate Postpartum Intrauterine Device
IUD	Intra-uterine Device
LARC	Long-Acting Reversible Contraceptives
MoH	Ministry of Health
PPIUD	Post-partum Intra-uterine Device
UBOS	Uganda Bureau of Statistics
UDHS	Uganda Demographic Health Survey
WHO	World Health Organisation

Source of funding

The study was not funded.

Conflict of interest

The author declares that there was no conflict of interest.

Author contributions

EA- Principal Investigator

JE- Supervised the study.

RA- Supervised the study.

FMO- Supervised the study.

Data availability

Data is available upon request.

Informed consent

Written informed consent was obtained from all participants prior to their inclusion in the study. Participants were informed about the purpose of the study, procedures involved, potential risks and benefits, and their right to withdraw at any time without penalty.

Author biography

Eunice Acen is a student at Florence Nightingale School of Nursing and Midwifery, pursuing a diploma in nursing.

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