

Factors affecting Uptake of Post Natal Care Services among Postnatal Mothers in Lira Regional Referral Hospital, Lira City. A Cross-sectional Study .

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Abstract



Background:

Postnatal care is defined as care given to the mother and her newborn baby immediately after the birth of the placenta and for the first six weeks of life the objective of this study is to determine the individual factors, assess the health facility-related factors, and determine the community-related factors affecting the uptake of PNC services among postnatal mothers in Lira Regional Referral Hospital, Lira City.

Methods:

A descriptive cross-sectional research design was used, with quantitative methods of data collection. A sample of 50 respondents who were postnatal mothers with children less than 2 months of age were used, selected by simple random sampling. Data was collected using researcher-administered questionnaires and analyzed using a descriptive method presented on graphs, tables, figures, and charts.

Results:

Less than half (42%) of the respondents are 5 to 7 km from the health facility, majority (64%) of the respondents got routine health education, majority (74%) of the respondents reported that they took less than one hour to reach the nearest health facility, most (52%) of the respondents have ever been visited at home, majority (62%) of the respondents do not have cultural practices about PNC, most (66%) of the mothers delivered from the health facility, majority (68%) of the mothers were from low poverty level communities and finally most (64%) of the mothers were from urban areas.

Conclusion:

There was high uptake of PNC among mothers who resided nearer to the health facility, got routine health education, than those working.

Recommendations:

There is a need to encourage community awareness of the available PNC services, there is a need to provide routine health education, there is a need to encourage husband involvement in health care and finally there is a need to reduce community poverty levels.

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1 Background of the study

Postnatal care is defined as care given to the mother and her newborn baby immediately after the birth of the placenta and for the first six weeks of life (Wudineh, 2018).

Maternal Mortality is defined by the World Health Organization (WHO) as the death of women while pregnant or within 42 days after the termination of pregnancy irrespective of the size and duration, from any cause related to or aggravated by the

pregnancy or its management, but not from accidental or incidental causes (WHO,2016).

For instance, women with a low level of education are more likely to live in poverty compared to those who have attained higher levels of education.

According to the WHO report (2014), every day globally about 800 women die due to complications of pregnancy and childbirth. Out of the 440 deaths occurred in sub-Saharan Africa and 230 in South Asia, compared to five in high-income countries. Almost all of these deaths occurred in low-resource settings, and most could have been prevented. The primary causes of death are hemorrhage (34%), hypertension (19%), abortion (9%), and sepsis (9%).

Other direct causes of maternal death globally total 12% and include ectopic pregnancy, embolism, anesthesia-related causes, and indirect causes amount to 17%. Indirect causes are mostly due to interactions between pre-existing medical conditions and pregnancy. The risk of a woman in a developing country dying from maternal-related causes during her lifetime is about 23 times higher compared to a woman living in a developed country.

Although there has been significant improvement in maternal health outcomes of individuals globally, there is a wide disparity among the regions of the world (WHO,2014). For instance, several countries in Sub-Saharan Africa, have halved their levels of maternal mortality between 1990 and 2010, and in some regions, particularly Asia and North Africa, even greater headway has been made (WHO, 2015). In addition, between 1990 and 2010, some countries have experienced a reduction in their maternal mortality ratios (MMR) for instance, the MMR in Eastern Asia decreased by 69% followed by Northern Africa (66%), Southern Asia (64%) compared to Sub-Saharan Africa 41% (UNFPA, 2016).

According to Nepal Health Sector Support Programme (2015), in Nepal, the risk of postnatal maternal mortality is extremely high, often higher than for the intrapartum period. An analysis using data from the high-profile Mat Lab study (Bangladesh) found that the number of maternal deaths on the second day after birth was 52 times higher than the number of deaths occurring on the day of birth. Furthermore, a paper analysis finding from many countries has shown that postpartum deaths account for 60% of all maternal deaths, compared to

only 15.5% for intrapartum and 23.9% for antepartum.

According to DISH (2015), about 297,000 deaths occurred in Uganda in 2015 due to complications during pregnancy and childbirth. Most of these deaths could be avoided if the necessary postnatal care existed was well known to the mothers. The main cause was pregnant women's lack of access to quality skilled care, during and after childbirth. Specifically, this study assessed the factors affecting the uptake of postnatal care services among postnatal mothers in Lira Regional Referral Hospital, Lira City.

2 Methodology

The study design

A cross-sectional descriptive design with quantitative data collection tools was employed to establish the factors affecting the uptake of PNC services among postnatal mothers in Lira Regional Referral Hospital, Lira City. This is because the study did not involve follow-up of respondents.

The study area

The study was conducted in Lira Regional Referral Hospital, Lira City. The area is located within Lira City along Lira Kitgum Road and is opposite Lira School of Nursing and Midwifery in Northern Uganda.

The study population

The study included only the postnatal mothers with children less than 2 months of age seeking health care at Lira Regional Referral Hospital.

The Sample size determination

The sample size was determined using Burton's formula (1965)

$$\text{Sample size (n)} = \frac{QR}{O}$$

Where,

Q- Total number of days taken for data collection

R- Maximum number of respondents who were interviewed per day

O- Maximum time has been taken on each respondent per day.

Values: Q= 10 days

R=5 respondents.

O=1 hour

Therefore, $n = \frac{QR}{O}$

$N = \frac{(10 \times 5)}{1}$

=50 Respondents

Therefore, 50 respondents were used in the study

The sampling technique

The study respondents were selected using a simple random sampling method.

The sampling procedure

The respondents were selected using numbers written on pieces of paper according to the number of mothers with children below the age of 2 months identified on the days of data collection. After the pieces of paper were folded, placed in a basket and shaken well; then randomly 10 numbers representing mothers to participate in the study on that particular day were picked without replacement and the numbers on them were noted. The numbers that were selected were called and those were the mothers who participated in the study on that particular day. This procedure was repeated for 5 days of data collection and made a total of 50 respondents.

Data collection method

The data was collected by quantitative technique using a semi-structured questionnaire.

Data collection tools

The respondents were interviewed using open ended and closed ended questionnaire. Pens, pencils and rulers were used for filling in and files for keeping the questionnaires.

Data collection procedure

A letter of introduction was obtained from Kampala School of Health Sciences and it was taken to the hospital director of Lira Regional Referral Hospital who signed the letter and forwarded it to the head of research of Lira Regional Referral Hospital who approved my letter for data collection at Lira Regional Referral Hospital. Upon clearance, the Researcher introduced himself to the ward in charges. Two research assistants were then trained in data collection using the questionnaires. The researcher and the assistants met the respondents, introduced themselves and explained the purpose of the study in order to gain consent from them.

Piloting the study

The pretesting of the questionnaires was done one week before data collection in Ober health center III to ensure that questions are understood by the respondents. The pretested questionnaires were then analyzed and interpreted to eliminate errors and methods that might not work were corrected.

Quality control

Everything was done under full precaution to ensure quality, the research assistants were guided,

tools pretested, both the inclusion and exclusion criteria were considered and data processing, formatting and editing done to ensure that quality work was attained at the end of the study.

Data analysis and presentation

The descriptive method of data analysis was used. Quantitative data was analyzed and presented using descriptive statistics (on graphs, tables, charts etc.)

Ethical consideration

An official letter was obtained from the Principal of Kampala School of Health Sciences after submission of the research proposal. The letter introduced the researcher to the Hospital director of Lira Regional Referral Hospital and the purpose was to request him to offer the researcher an opportunity to collect data from the hospital. The hospital director signed the letter and forwarded it to the Head of Research of Lira Regional Referral Hospital who approved the researcher for data collection at the hospital. During data collection the respondent's consent was sought before administering the interview scheduled. Privacy, anonymity and confidentiality was observed throughout the study. The participants had the freedom to ignore items that they never wished to respond to and were free to withdraw from the study without giving any explanation as to why she did so. The researcher observed and respected the dignity of the respondents throughout the study.

3 Results:

The demographic characteristics of the respondents

The respondent's age, tribe, religion, occupation, place of residence, education level, and marital status were assessed as the demographic characteristics of the mothers in the study. A total of 50 mothers having children less than two months of age were interviewed making a response rate of 100%

It was found that most (42%) mothers were aged from 26 to 31 years old and only 6% were aged from 14 to 19 years old. The majority (68%) of the respondents were Lango by tribe, while only 2% were Teso by the tribe. When they were asked about their denominations most (44%) of the respondents were Catholics and only 6% were Muslims. Most (40%) of the mothers interviewed were business women and only 12% were peasant farmers. Regarding the

Table 1. Shows the demographic characteristics of the respondents (N=50)

Characteristic	Frequency(n=50)	Percentage (%)
Age		
14-19	3	6
20-25	16	32
26-31	21	42
>31	10	20
Tribe		
Lango	34	68
Acholi	7	14
Teso	1	2
Others	8	16
Religion		
Catholic	22	44
Anglican	9	18
Muslim	3	6
Others	16	32
Occupation		
Civil servant	8	16
Business woman	20	40
Peasant farmer	6	12
Others	16	32
Residence		
Village	18	36
Town	32	64
Education level		
Primary	14	28
Secondary	20	40
Tertiary	11	22
Others	5	10
Marital status		
Married	33	66
Single	11	22
Divorce	2	4
Others	4	8

place of residence, the majority (64%) of the respondents were from urban settings (towns) while 36 % were from rural settings (villages). Less than half (40%) of the respondents had secondary education and only 10% had no education. The majority (66%) of the mothers were married and only 4% were divorced. (N=50).

From the figure above, the majority (64%) of the respondents have ever heard about PNC services meanwhile the minority (36%) have never heard about PNC services.

From the table 1, more than half (53.1%) of the respondents heard about PNC services from the health facility while only 6.3% heard from other sources like relatives, neighbors and workmates.

From the figure 2, majority (78%) of the respondents said the PNC services were important while 22% said the services were not important.

From the figure 3, most (56.4%) of the respondents said the PNC services were important when asked about the magnitude while the least (7.7%) said the PNC services were less important.

From the figure 4, the majority of the mothers (62%) who attended PNC worked and a minority of the mothers (38%) never worked.

From the table 3, most of the respondents who worked (65%) had a work experience of fewer than 5 years and only 3% of the respondents had a work experience of above 15 years.

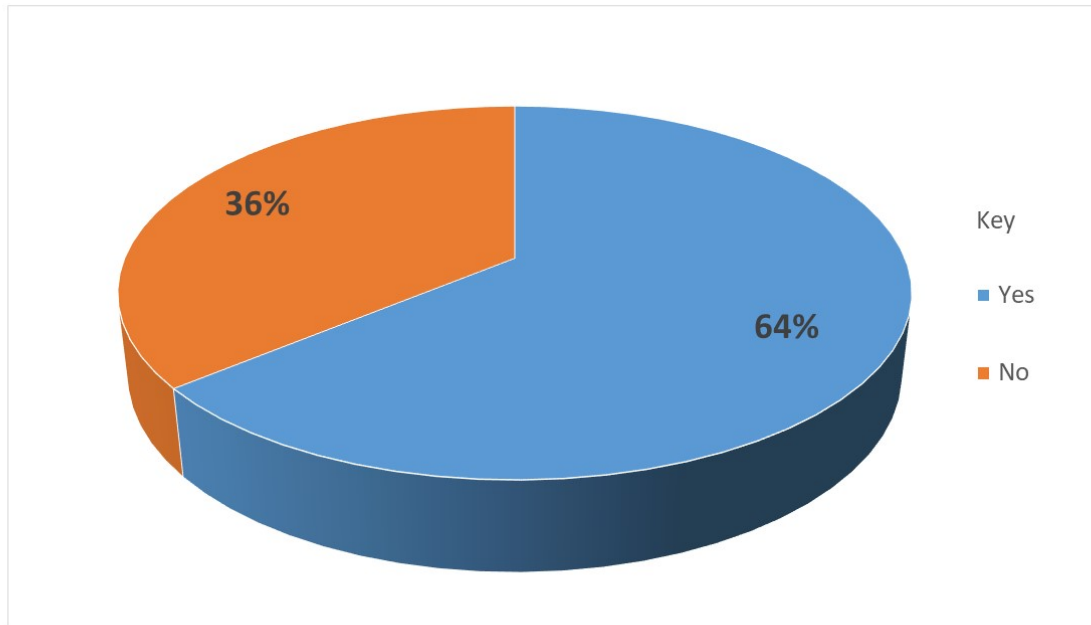


Figure 1. the respondents have ever heard about PNC services

Table 2. Shows the distribution of respondents according to the source of information about PNC services (N=32)

Source of information	Frequency	Percentage
Radio, TV, Newspapers	5	15.6
Friend	8	25
Health facility	17	53.1
Others	2	6.3
Total	32	100

Table 3. Shows the distribution of respondents who attended PNC according to their work experience (N=31)

Work experience(years)	Frequency	Percentage (%)
Less than 5 years	20	65
Between 6 and 10 years	8	26
Between 11 and 15 years	2	6
Above 15 years	1	3
Total	31	100

From the figure 5, more than half of the respondents (58%) had their husbands fully involved in reproductive health care and less than half of the respondents (42%) did not have their husbands fully involved in reproductive health.

The health facility-related factors affecting the uptake of postnatal care services.

From the figure 6, less than half of the respondents (42%) reported that they are 5 to 7 km from

the nearest health facility and only 10% of the respondents reported that they are less than 1km from the nearest health facility.

From the figure 7, the majority (64%) of respondents got routine health education about PNC services and a minority (36%) did not get routine health education about postnatal care services.

From the figure 8, the majority (62%) of the respondents were attended to by skilled health work-

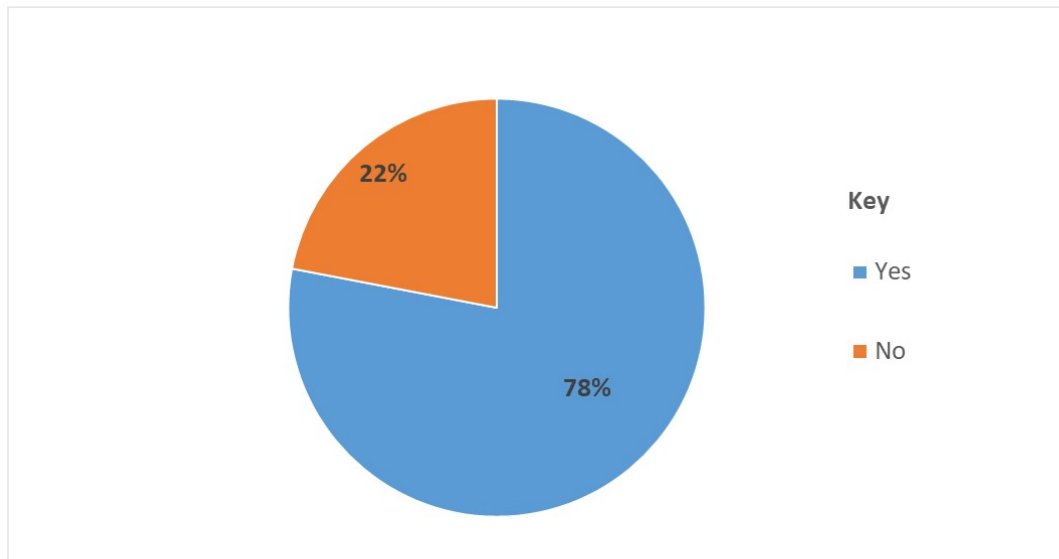


Figure 2. Shows the distribution of respondents according to the importance of the PNC services (N=50)

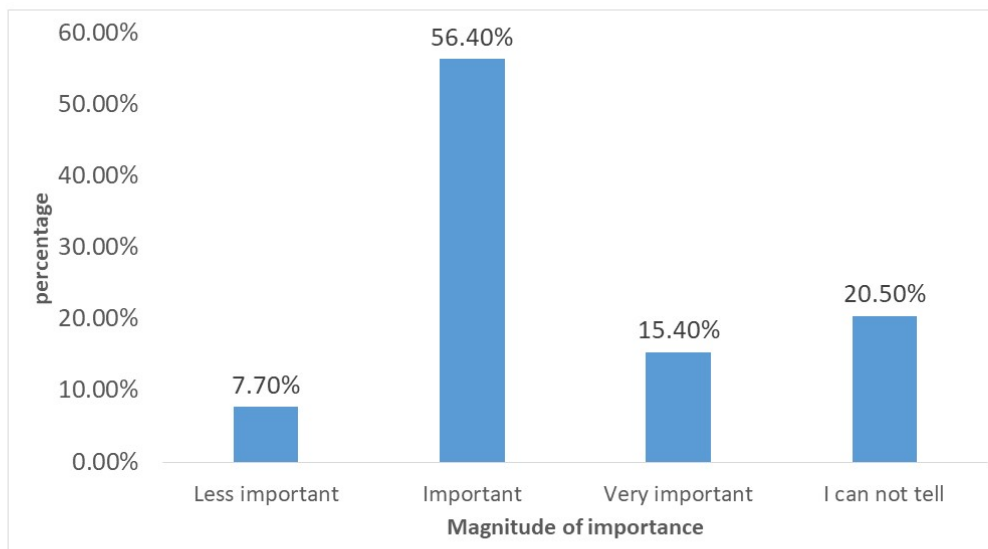


Figure 3. Shows the distribution of respondents according to the magnitude of importance of PNC services (N=39)

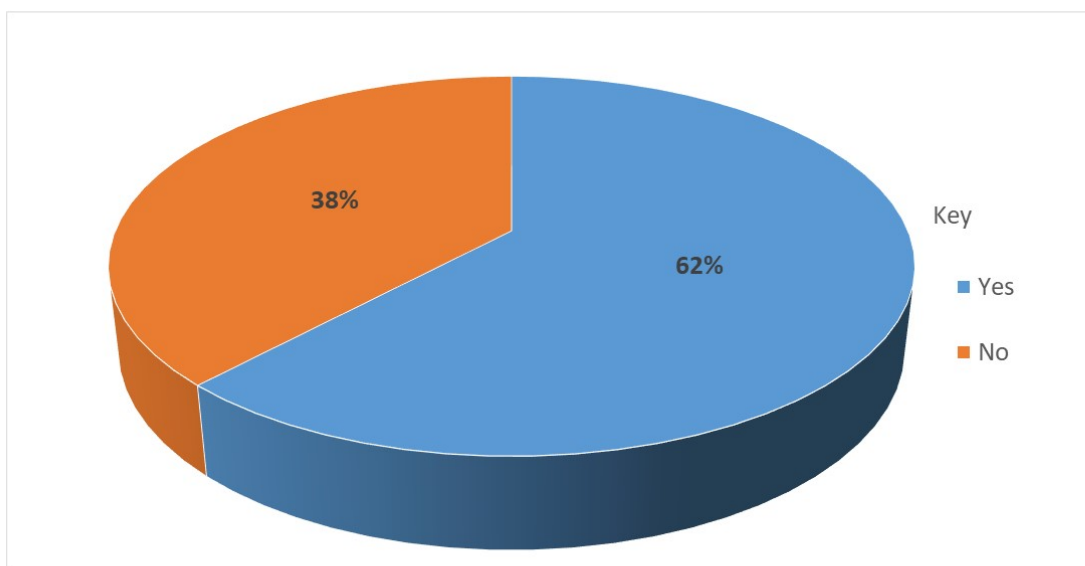


Figure 4. Show the distribution of respondents who attended PNC according to whether they worked or not (N=50)

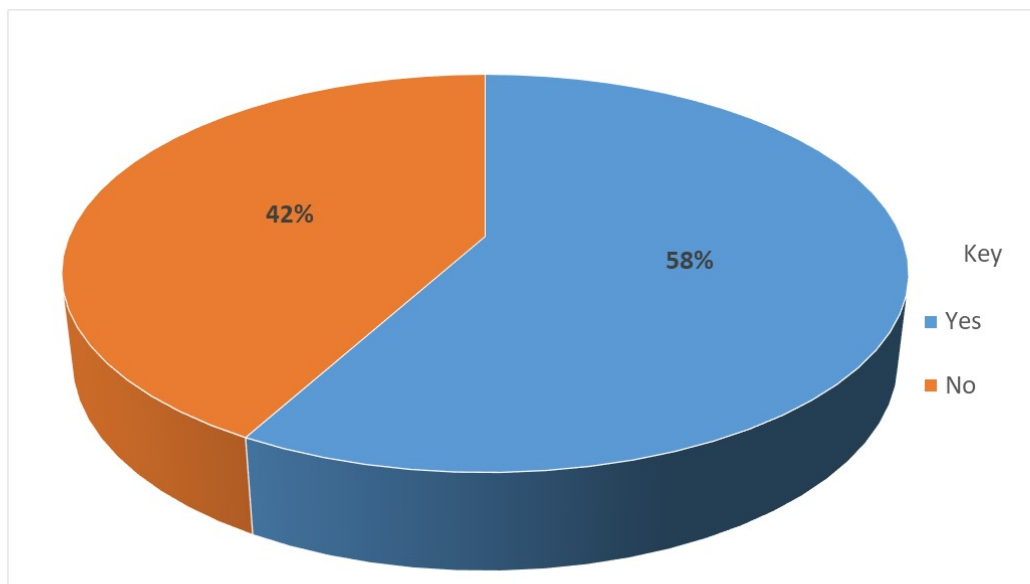


Figure 5. Show the distribution of respondents according to whether their husbands got fully involved in reproductive health care (N=50)

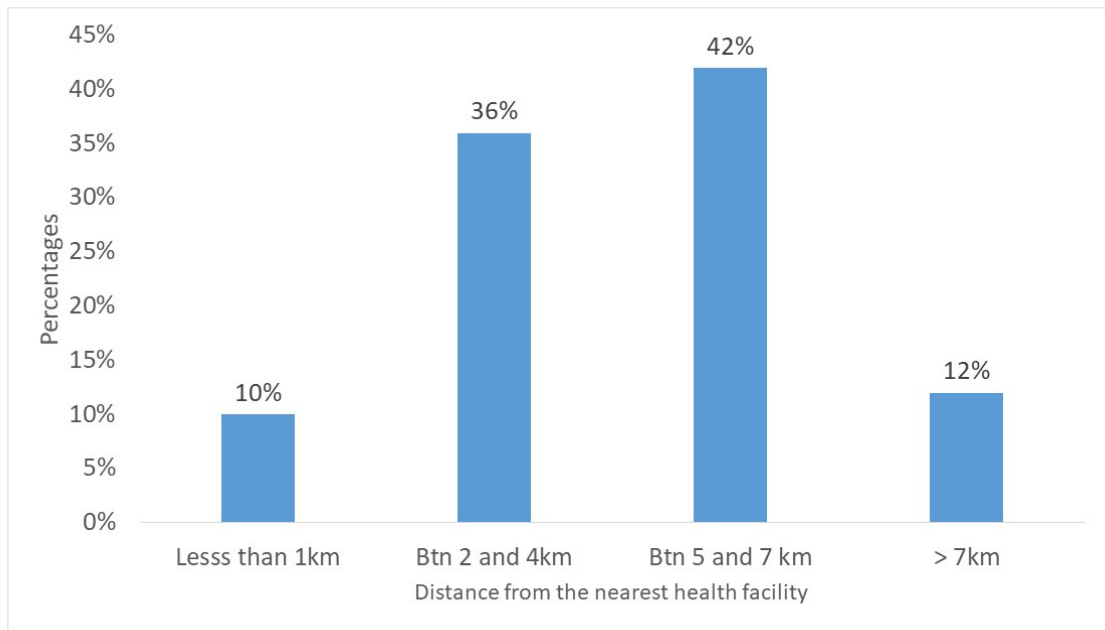


Figure 6. Shows the distribution of respondents according to the distance to the nearest health facility (N=50)

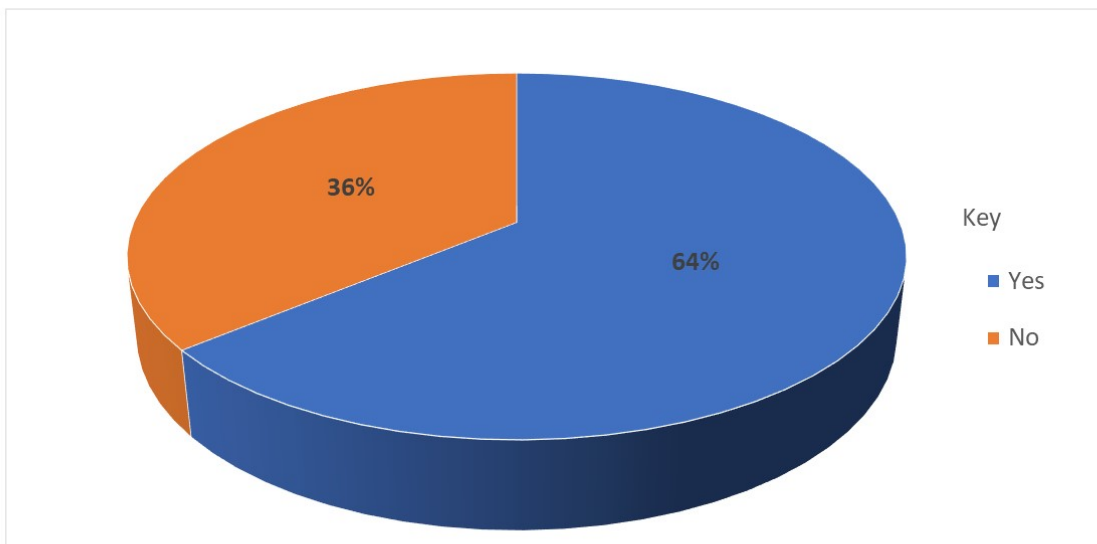


Figure 7. Shows the distribution of respondents according to whether they got routine health education about PNC services (N=50)

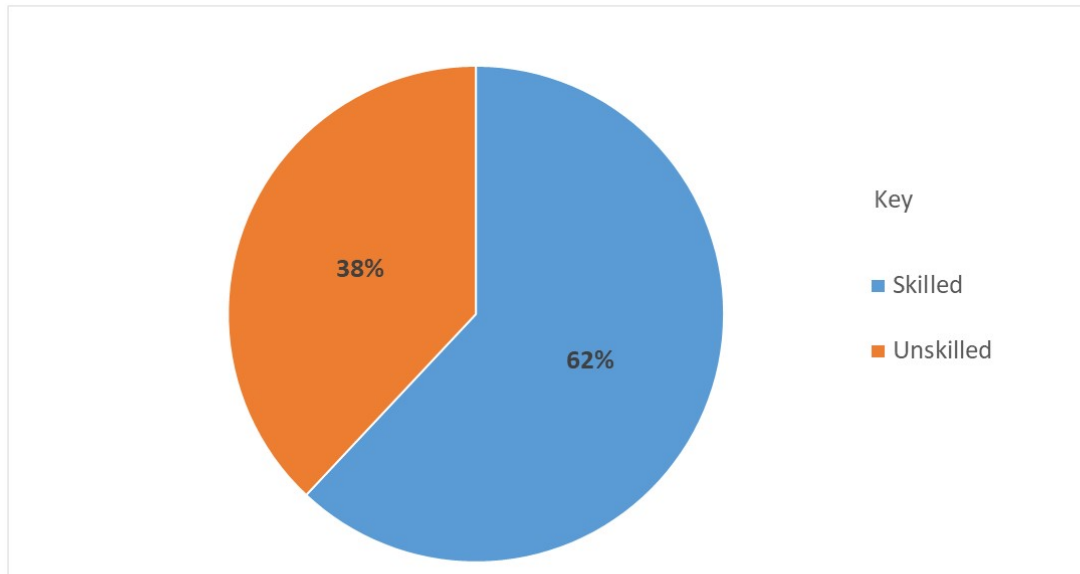


Figure 8. Shows the distribution of respondents according to the level of skills of health workers who attended to them after delivery (N=50)

ers after delivery whereas the minority (38%) reported that they were attended to by unskilled health workers after delivery.

From the table 4, majority of the respondents (74%) reported that they always take less than one hour to reach the nearest health facility and minority (2%) reported that they take more than six hours to reach the nearest health facility.

From the figure 9, most of the respondents (52%) reported that they have ever been visited at home by a health worker for postnatal care whereas the rest (48%) reported that they have never been visited at home by a health worker for postnatal care services.

From the table 5, most (65.4%) of the mothers who have ever been visited at home for PNC reported that they have been visited 1-2 times while some mothers (3.8%) who have been visited at home for PNC services reported that they have been visited >6 times.

The community-related factors affecting the uptake of postnatal care services

From the figure 10, the majority of the respondents (62%) reported that they do not have cultural practices and beliefs about PNC services in their communities and the minority of the respondents

(38%) reported that they have cultural practices and beliefs in their communities.

From the table 6, most of the respondents (66%) who attended postnatal care delivered from the health facility and only 34% of the respondents delivered from home.

From the table above, the majority of the respondents (68%) were from low poverty level communities and a minority of the respondents (32%) were from high poverty level communities.

8: Shows the distribution of respondents according to the area of residence (N=50)

From the table 8, most of the respondents (64%) who attended PNC services were from urban areas and only 36% of the respondents were from rural areas.

4 Discussion, Conclusions and Recommendations:

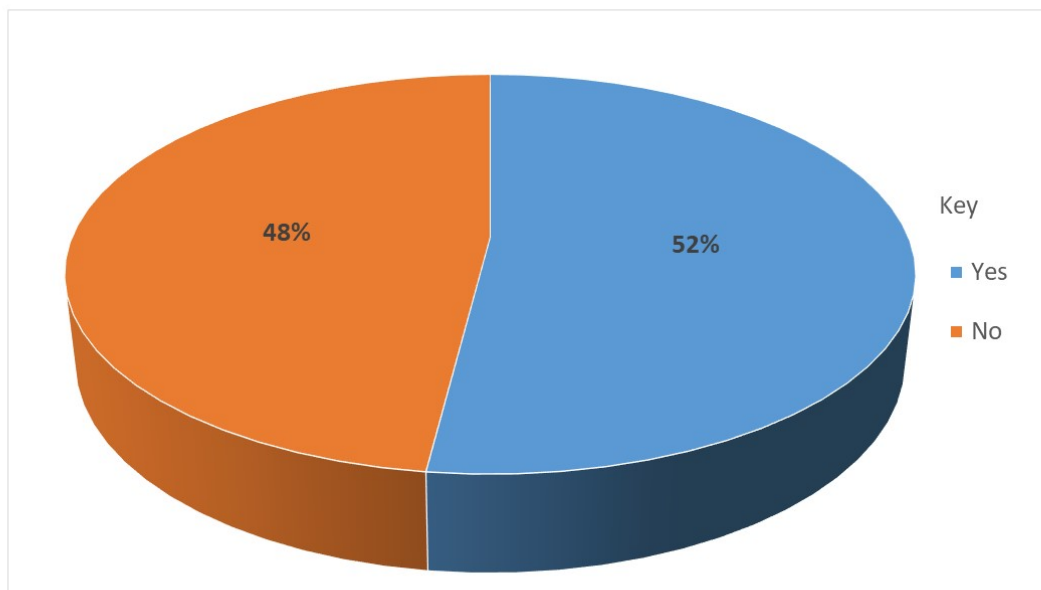
Discussions

The individual factors affecting the uptake of postnatal care services among postnatal mothers in Lira regional referral hospital, Lira city

It revealed that more than half of the respondents (64%) have never heard about PNC services.

Table 4. Shows the distribution of respondents according to the time to reach the nearest health facility (N=50)

Time to reach the nearest health facility	Frequency	Percentage (%)
<1 hour	37	74
2-3 hours	9	18
4-6 hours	3	6
>6 hours	1	2
Total	50	100

**Figure 9.** Shows the distribution of respondents according to whether they have ever been visited at home by a health worker for postnatal care (N=50)**Table 5.** Shows the distribution of respondents according to the number of times they have been visited at home by a health worker for postnatal care (N=26)

Number of times visited	Frequency	Percentage (%)
1-2 times	17	65.4
3-4 times	6	23.1
5-6 times	2	7.7
>6 times	1	3.8
Total	26	100

Figure 10. Show the distribution of respondents according to the presence of cultural practices and beliefs in their community (N=50)

Table 6. Shows the distribution of respondents according to the place of delivery (N=50)

Place of delivery	Frequency	Percentage (%)
Home	17	34
Health facility	33	66
Total	50	100

Table 7. Shows the distribution of respondents according to their community poverty levels (N=50)

Community poverty level	Frequency	Percentage (%)
Low	34	68
High	16	32
Total	50	100

Table 8. Shows the distribution of respondents according to the area of residence (N=50)

Area of residence	Frequency	Percentage (%)
Urban	32	64
Rural	18	36
Total	50	100

These findings indicate that a greater percentage of mothers within the catchment area of Lira regional referral hospital do not have knowledge on PNC services hence minimal utilization of the services available. This finding agrees with Sulochana, Chapman, Simkada *et al* (2017) in their study about utilization of postnatal care among rural women in Nepal that revealed that out of the 150 women who had delivered, 66% had no knowledge or were not aware of postnatal care services and did not make use of the services which could have helped improve on their health.

It also revealed that most of the respondents (78%) said the PNC services were important and according to magnitude of importance more than half of the respondents (56.4%) said the services are important. These findings indicate that there was a positive attitude towards PNC services.

In addition to the above, the study also revealed that majority (62%) of the postnatal mothers who attended PNC were working. This finding indicates that the respondents were engaged in income generating activities hence utilization of PNC services. This is probably because they could afford the transport costs to the health facility thus having higher chances of utilizing PNC services. This finding agree with Kyabawhiki Allen and Omona Kizito (2021) in a study on factors influencing utiliza-

tion of PNC services among postnatal mothers who delivered from China-Uganda hospital, Kampala district where results revealed that 72.2% of the mothers who attended PNC worked. Therefore, postnatal mothers who worked were more likely to utilize PNC services compared to those who never worked.

The study also revealed that most of the mothers' husbands (58%) were involved in health care. This is probably because of the strong bond between the postnatal mothers and their husbands and also ability of their husbands to cater for the costs or expenses involved especially transport cost. This finding agrees with Kyabawhiki Allen and Omona Kizito (2021) in a study on factors influencing utilization of PNC services among postnatal mothers who delivered from China-Uganda hospital, Kampala district which revealed that 53.7% of the mothers who attended PNC had their husbands involved. This implies that there was high uptake of PNC services among mothers attending PNC who had their husbands involved in health care.

Health facility related factors affecting uptake of postnatal care among postnatal mothers in Lira Regional Referral Hospital, Lira City

The study revealed that most of the respondents (52%) who utilized postnatal care services were residing in a distance less than 5 kilometers from the

hospital. This is probably because staying nearer to the health facility meant that one could even just walk to the facility for PNC services even if they did not have money for transport unlike mothers who came from far and had to incur transport costs. This implies that distance limits women's willingness to seek PNC services particularly when transportation is scarce and communication is difficult.

The study revealed that majority of the respondents (64%) got routine health education on PNC services during ANC period. This is probably because majority of the mothers attended ANC services where they were educated about PNC services, and they were also educated at the hospital after delivery. This finding agrees with Allen and Omani in a study on factors influencing utilization of PNC services among postnatal mothers who delivered from China- Uganda friendship hospital, Kampala district revealed that majority of the respondents who attended PNC (85.2%) got routine health education. This implies that there was a high uptake of PNC services among mothers who got health education than those who did not get health education.

The study also revealed that most of the respondents (62%) were attended to by skilled health workers. This is probably because most of the respondents delivered from and were taken care of from health facility by a skilled health worker, and they were educated about PNC services after delivery. This finding agrees with MOH (Babughirana, 2020); Uganda maternal and child health update which revealed that 74% of childbirth in Uganda were attended by skilled health personnel. This implies that majority of the mothers have the opportunity to safe child care and maternal care after delivery hence high uptake PNC services.

The community-related factors affecting uptake of postnatal care services among postnatal mothers in Lira Regional Referral Hospital, Lira city

The study revealed that the majority of the respondents (62%) do not have traditional or cultural beliefs about PNC services in their community. This is probably because of the increased number of converts to Christianity within Lira City and Christians do not believe in local tradition and culture. The finding agrees with Zeleke LB *et al.*, (2021) in a study titled postnatal care services utilization and its determinants in East Gojjam Zone, Northwest Ethiopia which revealed that 77.2% of the respon-

dents did not believe in traditional practices. Therefore, the uptake of PNC services is high due to the decline in traditional and cultural practices.

The study also revealed that most of the respondents (66%) who attended PNC delivered from the health facility. This is because women who gave birth in the health facility have better education and knowledge related to postnatal care services provided to them by health workers during the time of their health facility stay. This finding agrees with Kihinetu *et al.*, (2018) in their study on Postnatal care services utilization and associated factors among women who gave birth in Debretabour town, Northwest Ethiopia which revealed that 95.1% of the mothers who attended PNC delivered from the health facility. This implies that there was a high uptake of PNC services among postnatal mothers who delivered from a health facility.

The study revealed that the majority of the respondents (68%) are from low poverty level communities. This is probably because women from richer communities face lower barriers to receiving needed PNC services. This finding agrees with Dankwah *et al.*, (2021) in a study titled Assessing the contextual effects of community in the utilization of PNC services in Ghana which revealed that 75.5% of the mothers who attended PNC services had low poverty levels in their communities. This implies that respondents residing in poorer communities have low utilization of PNC services.

The study also revealed that most of the respondents (64%) who attended PNC services were from urban areas. This is probably because of the accessibility of the health facility and knowledge about the benefits of PNC provided to mothers through routine health education and during delivery at the facility. This finding disagrees with Dankwah *et al.*, (2021) in a study titled Assessing the contextual effects of community in the utilization of PNC services in Ghana which revealed that 54.7% of the mothers who attended PNC were from rural areas. This implies that uptake of postnatal care services according to the place of residence differs from region to region or country to country depending on the quality of health care delivery.

5 Conclusions

This study specifically sought to determine the individual factors, assess the health facility-related

factors, and determine the community-related factors affecting the uptake of PNC among postnatal mothers in Lira regional referral hospital, Lira city. The study revealed the following major findings under each objective;

The study on individual factors revealed that more than half of the respondents (64%) had ever heard about PNC, most of the respondents (78%) said the PNC services were important, majority of the postnatal mothers (62%) were working and finally most of the mothers (58%) had their husbands involved in health care. Given these findings, sensitizing or educating mothers about the available PNC services and their importance and encouraging husband involvement in health care increases the uptake of postnatal care among postnatal mothers.

The study on the health facility-related factors revealed that most of the respondents (52%) resided in a distance less than 5 kilometers from the hospital, the majority (64%) got routine health education on PNC services, and most of the respondents (62%) were attended to by skilled health workers. Given these findings, being nearer to the health facility, getting routine health education, and having a high level of skills of health workers attending to mothers increases the uptake of PNC services among postnatal mothers.

The study on community-related factors revealed that the majority of respondents (62) do not have traditional or cultural practices about PNC in their communities, most of the mothers (66%) who attended PNC delivered from the hospital, majority of the respondents (68%) are from low poverty level communities and most of the respondents (64%) are from urban areas. Given these findings, the absence of traditional or cultural practices about PNC, delivery from the hospital, low community poverty levels, and living in urban areas increases the uptake of PNC services among postnatal mothers.

6 List of Abbreviations and Acronyms

ANC	: Antenatal care
DISH	: Delivery of improved services for health
ETC	: And so many others
MCH	: Maternal Child Health
MDG	: Millennium Development Goals
MMR	: Maternal Mortality Ratio

MOH	: Ministry of Health
PNC	: Postnatal care
UDHS	: Uganda demographic and health survey
USAID	: United States Agency for International Development
UNFPA	: United Nations Funds for Population Activities
UNICEF	: United Nations' Children's Fund
WHO	: World Health Organization
RRH	: Regional Referral Hospital

7 Definition of Key Terms:

Antenatal care: is a regular nursing care recommended for women during pregnancy.

Attitude : is a settled way of thinking or feeling about something

Abortion : is the removal of an embryo or fetus from the uterus in order to end a pregnancy often performed during the first Weeks of pregnancy

Antepartum Period : refers to the period before childbirth.

Infant Mortality Rate : is the measure of the number of deaths of live births before one year of age divided by the total number of live births in a given population during the same period of time.

Intrapartum period : this refers to the period during labor and delivery.

Maternal Mortality Rate : is the number of death of mothers due to maternal causes i.e. pregnancy complications, childbirth and puerperium, per 100,000 live births during a year.

Neonatal Mortality Rate : is the ratio of the number of deaths in the first 28 days of life to the number of the total live births in the same population during the same period of time.

Neonatal Period : is the time from childbirth up to the first 28 days of extra-uterine life.

Postnatal Care : is the care given to the mother and/or the newborn for a period of six weeks following delivery.

Postpartum hemorrhage : is the excessive bleeding following delivery that makes the mother symptomatic and/or results in signs of hypoglycemia.

Puerperium : is the period through which the anatomical and Physiological changes regress and usually lasting from 6 to 8 weeks following delivery.

Sepsis : this is the presence of various pathogenic organisms or their toxins in the blood.

Table 9. References:

- 1) Babughirana, G., Gerards, S., Mokori, A., Nangosha, E., Kremers, S., & Gubbels, J. (2020). Maternal and newborn healthcare practices: assessment of the uptake of lifesaving services in Hoima District, Uganda. *BMC pregnancy and childbirth*, 20(1), 686. <https://doi.org/10.1186/s12884-020-03385-x> PMID:33176734 PMCID:PMC7659084
- 2) Dankwah, E., Feng, C., Kirychuck, S. et al. Assessing the contextual effect of community in the utilization of postnatal care services in Ghana. *BMC Health Serv Res* 21, 40 (2021). <https://doi.org/10.1186/s12913-020-06028-1> PMID:33413362 PMCID:PMC7792027
- 3) Kyabaihiki, Allen Christine Omona & Kizito (2021), Factors influencing utilization of postnatal care services among postnatal mothers who delivered from China- Uganda friendship Hospital, Kampala-district. *Health policy and development*, volume 19, issue1: 1-11. <http://www.bioline.org.br/hp>
- 4) Peter Muturi Kinuthia (2014), Factors affecting utilization of postnatal care services in Kenya: South American journal of public Health, Volume-2, issue 3 <https://doi.org/10.11648/j.sjph.20140203.15>
- 5) Sulochana, D. G., N Chapman, N., Radam, P., Simkhada, P. R., Teijhingen, V., Stephens, J. & Amalraj, E. R. (2017). Utilization of postnatal care among rural women in Nepal. Department of Public Health, University of Aberdeen, UK. 7: 19. (Accessed 2017)
- 6) WHO (2016), Postnatal updates and statistics?
- 7) WHO, UNICEF, NNFA, World Bank and the United Nations Population Division (2014), trends in maternal mortality? 1990 to 2013 WHO 2014.301456
- 8) Wudineh, K.G., Nigusie, A.A., Gesese, S.S. et al. Postnatal care service utilization and associated factors among women who gave birth in Debretabour town, North West Ethiopia: a community- based cross-sectional study. *BMC Pregnancy Childbirth* 18, 508 (2018). <https://doi.org/10.1186/s12884-018-2138-x> PMID:30591039 PMCID:PMC6307219
- 9) Zeleke LB, Wondie AT, Tibebu MA, Alemu AA, Tessemu MT, Shita NG and Khagehu M (2021), Postnatal care service utilization and its determinants in East Gojjan Zone, North West Ethiopia: A mixed-method study. *PLoS ONE* 16(8): eo256176. doi: 10.1371/journal.pone.0256176 <https://doi.org/10.1371/journal.pone.0256176> PMID:34403425 PMCID:PMC8370609

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