

KNOWLEDGE AND AWARENESS LEVELS OF PREGNANT WOMEN AGED 15-49 YEARS REGARDING THE IMPORTANCE OF TIMELY ANTENATAL CARE AND ITS IMPACT ON MATERNAL AND FOETAL HEALTH AT NSANGI HEALTH CENTRE III. A CROSS-SECTIONAL STUDY.

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ABSTRACT

Background

The knowledge and awareness levels of pregnant women regarding the importance of timely antenatal care enrolment can have a significant impact on their maternal and foetal health. The study aims to assess the knowledge and awareness levels of pregnant women aged 15-49 years regarding the importance of timely antenatal care and its impact on maternal and fetal health at Nsangi Health Center III.

Methodology

The study employed a cross-sectional design, utilizing quantitative data collection methods. The study targeted patients in the ANC department. A sample size of 80 respondents was determined using Cochran's formula. The study utilized a simple random sampling technique to select respondents. Data analysis was performed using Microsoft Office Excel 2021 and SPSS version 23.

Results

85.0% of the respondents were aware of the term "Antenatal Care," 56.3% were aware that it should begin in the first trimester, 40.0% understood that it should be monthly, 22.5% every two months, 25.0% trimester-wise, and 12.5% based on personal preference. 51.3% recognized it as a means to monitor the health and growth of the baby, 32.5% acknowledged its role in detecting and managing pregnancy-related complications and 1.3%. Among the 80 respondents, 21 (26.3%) recognized the potential harm to both mother and baby due to undiagnosed maternal health conditions. Additionally, 33 (41.3%) understood.

Conclusion

There was a high level of awareness about antenatal care and its importance among the study population with respondents well-informed about the ideal timing for starting antenatal care, with an emphasis on early care in the first trimester.

Recommendation

Pregnant women should actively seek antenatal care as early as possible, ideally in the first trimester.

Keywords: Knowledge and awareness levels of pregnant women, Impact of antenatal care on maternal and fetal health, Nsangi health center III.

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BACKGROUND

The knowledge and awareness levels of pregnant women regarding the importance of timely antenatal care enrolment can have a significant impact on their maternal and foetal health. When pregnant women have a better understanding

of the significance of early and regular antenatal care, it leads to several positive outcomes. Regular antenatal check-ups enable healthcare providers to identify any potential risks or complications early in the pregnancy. This early detection allows for timely management and interventions, reducing the likelihood of complications that could negatively impact the health of both the mother and the baby

(Mbuagbaw L, et al. 2015). Nutritional Guidance and Supplementation: Antenatal care provides women with essential dietary advice and supplementation, ensuring the mother and the baby receive adequate nutrients for healthy growth and development. Antenatal micronutrient interventions recommended in this guideline for pregnant women and adolescent girls include daily elemental iron (30–60 mg) and folic acid (0.4 mg) to prevent maternal anemia; calcium supplementation (1.5–2 g daily) in populations with low dietary intake of calcium to avoid pre-eclampsia; (WHO, 2020). Promotion of Healthy Behaviors: Antenatal care visits often involve counseling on healthy behaviors during pregnancy, such as maintaining a balanced diet, engaging in regular physical activity, avoiding harmful substances like tobacco, and alcohol, and managing stress. Awareness of these behaviors positively impacts the overall well-being of the mother and the baby (Lau et al, 2014).

Monitoring Foetal Growth and Development: Regular antenatal care includes foetal growth monitoring, which helps identify any potential issues with the baby's development. Timely detection of growth concerns allows for appropriate actions to be taken to ensure the baby's well-being (Akolekar, R., E AL. 2019). Antenatal care visits provide an opportunity for pregnant women to discuss their emotional and psychological well-being. Raising awareness about mental health during pregnancy can lead to early identification and support for women experiencing prenatal depression or anxiety. Psychosocial support not only lowers prematurity and low birth weight rates but also inspires healthier behaviors and lifestyles among pregnant women and discourages behaviors like smoking, substance abuse, and poor nutritional intake, which can have other detrimental effects on the mother and baby (O'Keane and Marsh 2017). Knowledge about the importance of antenatal care often goes hand in hand with understanding the significance of birth preparedness, including identifying a skilled birth attendant and arranging transportation to a health facility. Preparedness can reduce delays during labor and delivery, which is crucial in emergencies (Dodd JM, Robinson SJ, Crowther AC. 2012). The study aims to assess the knowledge and awareness levels of pregnant women aged 15-49 years regarding the importance of timely antenatal care and its impact on maternal and fetal health at Nsangi Health Center III.

METHODOLOGY

Study design

The study employed a cross-sectional design, utilizing quantitative data collection methods. This study design

facilitated the acquisition of valid and relevant information concerning the variables in the field of study. It aimed to offer insights into determinants associated with late antenatal care among pregnant women aged 15-49 and serve as a foundation for controlling and preventing late ANC cases in Nsangi's catchment area.

Study Area

Nsangi Health Centre III is situated in the Wakiso district in central Uganda, approximately 20 kilometers north of Kampala, the country's capital. It is bordered by Luweero in the north, Mukono district in the northeast, and Lake Victoria in the south. The coordinates of Nsangi Health Centre III is 00°25'32"N, 32°54'04"E.

Study Population

The study targeted patients in the ANC department, and questionnaires were explained to those who couldn't read or write in the local language. All individuals who were not present at the ANC department during data collection or were unwilling to participate were excluded from the study.

Sample Size Determination

A sample size of 80 respondents was determined using Cochran's formula:

$$n = N / (1 + (Ne^2))$$

Where, n = Expected number of respondents.

N = the general population. e = Margin of error at 95%, which is 0.05.

$$n = 100 / (1 + (100 \times 0.05^2)) n = 80.$$

Therefore, the sample size was set at 80.

Sampling Technique

The study utilized a simple random sampling technique to select respondents. Specifically, the ANC department was visited since it contained the variables the researcher intended to measure.

Sampling Procedure

The researcher employed a quota sampling method, a non-probability sampling approach where the sample was selected from a convenient location. Health workers were consulted to identify pregnant women who had enrolled for their first antenatal visits after 14 weeks of gestation. Ultrasound scans were performed to confirm the gestational weeks, and interviews were conducted until the required sample size was achieved.

Data Collection Method

The researcher employed self-administered questionnaires containing both closed and open-ended questions to collect data. For respondents who could not read or write in English, the questionnaire content was explained by a research assistant who also assisted in completing the questionnaire.

Data Collection Tool

A researcher-administered questionnaire was used to collect data. It included both open-ended and closed-ended questions, chosen for its efficiency in collecting information from a large population in a short time and ease of correction in case of errors.

Data Collection Procedure

An introductory letter from the Mildmay Institute of Health Sciences was presented to the in-charge for permission. After orientation to the ANC department staff, consent was obtained from the respondents. Quota sampling was used to select respondents, and the questionnaires were distributed in the ANC department.

Study Variables

Independent Variables

The independent variables included socio-demographic factors, knowledge, and awareness levels among pregnant women aged 15-49, as well as barriers and challenges faced by this group.

Dependent Variable

The dependent variable for this research study was access to late antenatal care enrollment among pregnant women aged 15-49.

Quality Control

The study tool was pre-tested at Kajjansi Health Centre IV among individuals attending OPD services. Ten randomly selected respondents filled in the pre-test questionnaires, and their critiques, comments, and recommendations were collected to assess the tool's accuracy and reliability.

Adjustments were made as necessary before using it in the study area.

The research assistants were presented with the questionnaires before to ensure that they clearly understood everything before the pretesting was carried out.

Inclusion criteria

Pregnant women aged 15-49 years who were available at the facility and had fully consented were included in the research.

Exclusion criteria

Pregnant women aged 15-49 years who did not consent were excluded from the research.

Adherence to standard operating procedures (SOPs)

Regular cross-checking and Scrutinizing information on research instruments were done to ensure the accuracy, consistency, completeness, and uniformity of data collected.

Data Analysis and Presentation

Data analysis was performed using Microsoft Office Excel 2021 and SPSS version 23. The results were presented through tables, pie charts, and graphs, with SPSS employed for all levels of analysis.

Ethical Considerations

The research and ethics committee of the Mildmay Institute of Health Sciences reviewed the proposed study to ensure compliance with research ethics. Informed consent, privacy, and confidentiality of respondents were maintained during interviews and questionnaire filling. Respondents were assured that their information would be treated with utmost confidentiality and used only for the study's purpose. Data tallying was performed solely by the researcher.

RESULTS

Knowledge and awareness levels regarding the importance of timely antenatal care and its impact on maternal and foetal health

Figure 1: A pie chart showing results for awareness of "Antenatal Care"

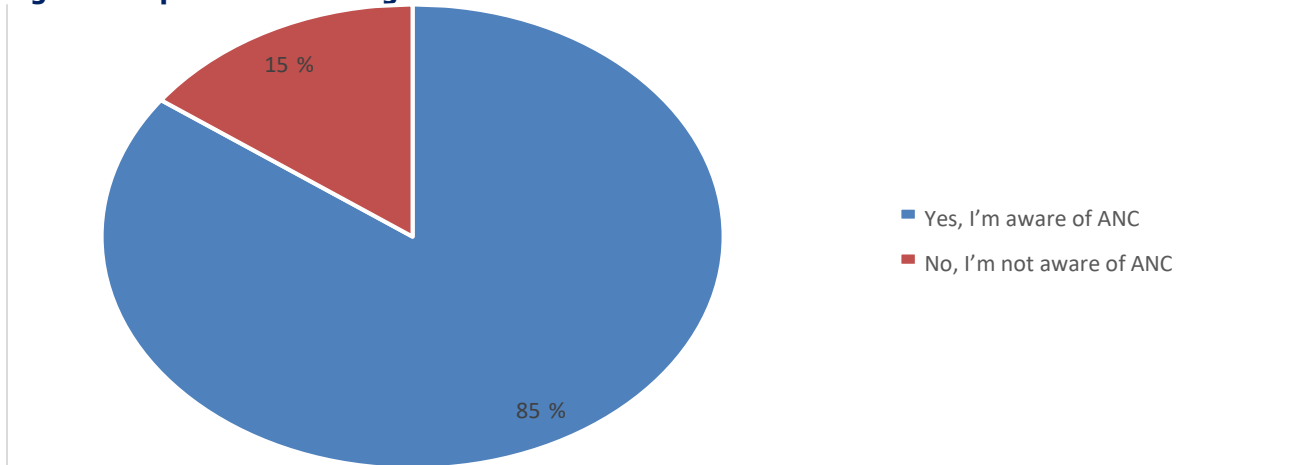


Figure 1, 85.0% of the respondents were aware of the term "Antenatal Care," while 15.0% had no awareness of it.

Figure 2: A pie chart showing results for awareness of the ideal start of Antenatal Care

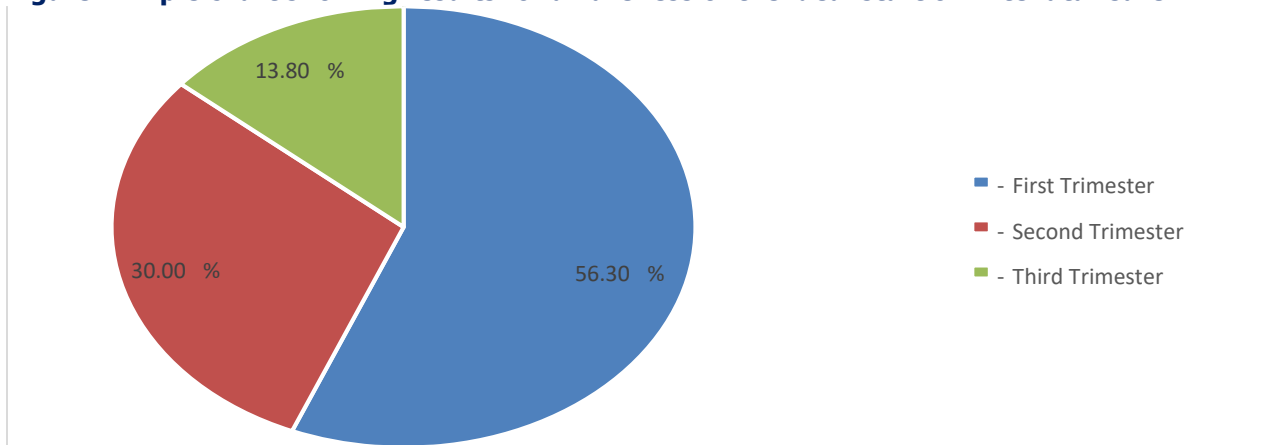


Figure 2, 56.3% were aware that it should begin in the first trimester, 30.0% indicated the second trimester, and 13.8% knew it could start in the third trimester.

Figure 3: A bar graph showing results for awareness of frequency of antenatal care

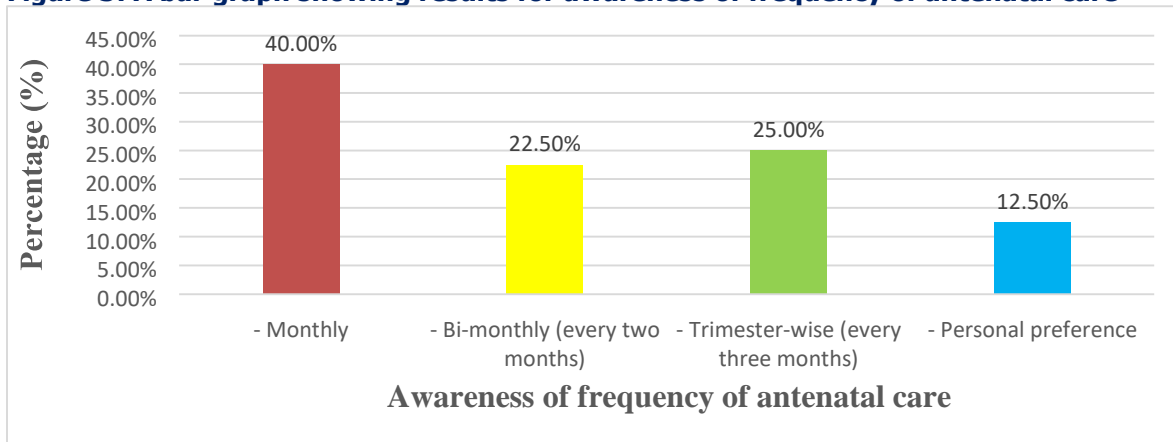


Figure 3, 40.0% understood that it should be monthly, 22.5% every two months, 25.0% trimester-wise, and 12.5% based on personal preference.

Figure 4: A pie chart showing results for the importance of timely antenatal care

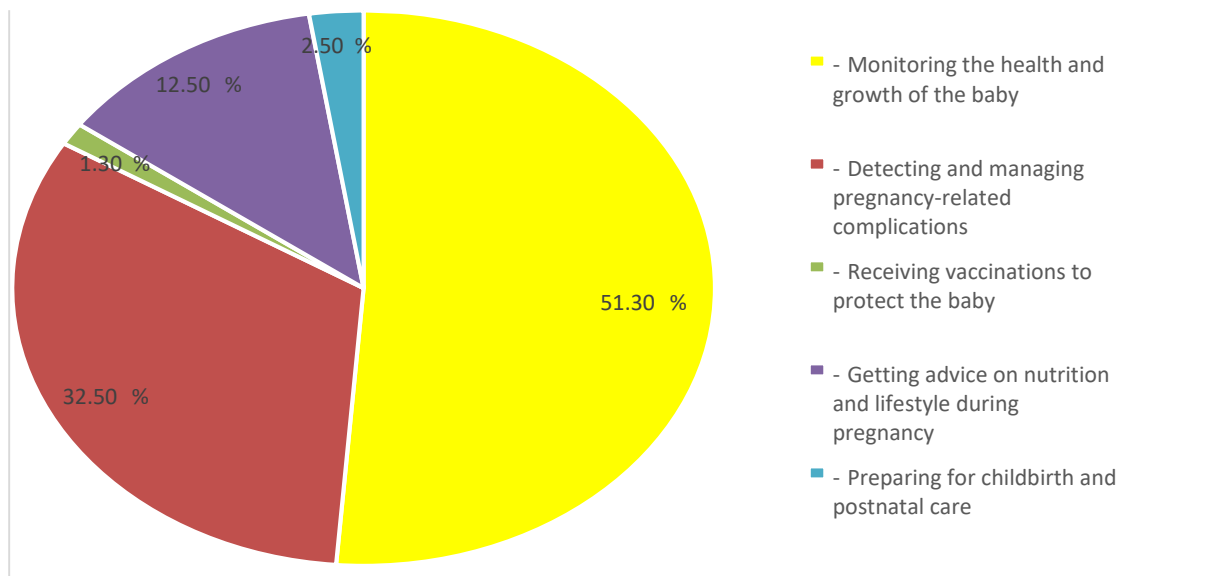


Figure 4, 51.3% recognized it as a means to monitor the health and growth of the baby, 32.5% acknowledged its role in detecting and managing pregnancy-related complications, 1.3% identified it as a way to receive

vaccinations to protect the baby, 12.5% appreciated it for providing advice on nutrition and lifestyle during pregnancy, and 2.5% saw it as a preparation for childbirth and postnatal care.

Table 1: showing results on potential risks of not seeking timely antenatal care

Potential risks of not seeking timely antenatal care	Frequency	Percentage
Undiagnosed maternal health conditions may harm both mother and baby.	21	26.3%
Delayed detection and management of complications can worsen health issues.	33	41.3%
Missing vaccinations may leave the baby unprotected.	5	6.3%
Limited guidance on nutrition and lifestyle can affect both mother and baby.	16	20.0%
Unpreparedness for childbirth and postnatal care can lead to challenges.	5	6.3%
Total	80	100.0%

Table 1, Among the 80 respondents, 21 (26.3%) recognized the potential harm to both mother and baby due to undiagnosed maternal health conditions. Additionally, 33 (41.3%) understood that delayed detection and management of complications during pregnancy could exacerbate health issues for both the mother and the baby. In terms of vaccinations, 5 (6.3%) identified the risk of missing essential vaccinations. Moreover, 16 (20.0%) mentioned

concerns about limited guidance on nutrition and lifestyle affecting both mother and baby, while 5 (6.3%) acknowledged the potential challenges associated with unpreparedness for childbirth and postnatal care. These insights emphasize the diverse awareness levels among the participants regarding the risks associated with delayed or insufficient antenatal care.

Table 2: Showing results for impacts of antenatal care on maternal health

Impact of antenatal care on maternal health	Frequency	Percentage
Monitors and manages maternal health conditions.	32	40.0%
Provides emotional support and addresses mental health.	22	27.5%
Reduces the risk of preterm labor and low birth weight.	18	22.5%
Educates mothers about breastfeeding and postnatal care.	6	7.5%
Offers additional benefits outlined by respondents.	2	2.5%
Total	80	100.0%

Table 2, The study, involving 80 respondents, highlighted various impacts of antenatal care on maternal health. A significant proportion, 32 (40.0%), viewed it as crucial for monitoring and managing maternal health conditions. For 22 (27.5%), it provided essential emotional support and addressed mental health concerns during pregnancy. Additionally, 18 (22.5%) recognized its pivotal role in reducing the risk of preterm labor and low birth weight. A smaller group of 6 (7.5%) mentioned its role in educating mothers about breastfeeding and postnatal care, while 2 (2.5%) cited other unspecified benefits.

awareness suggests that pregnant women in the study area generally had some understanding of the concept of ANC. This finding aligned with existing research by Mbuagbaw et al. (2015), which underscored that higher awareness of ANC is associated with more positive maternal and foetal health outcomes. When pregnant women are aware of ANC and its importance, they are more likely to seek these services, resulting in early detection and management of risks. Regarding the ideal start of Antenatal Care, 56.3% of respondents were aware that it should begin in the first trimester, emphasizing the importance of early care. In comparison, 30.0% indicated the second trimester, and 13.8% knew it could start in the third trimester. Early initiation of care allowed timely monitoring and management of risks and complications, ultimately benefiting both maternal and foetal health. Regarding the importance of timely antenatal care, 51.3% of respondents recognized it as a means to monitor the health and growth of the baby. This perception aligned with research by Dodd et al. (2012), who emphasized that monitoring foetal growth and development is a crucial component of ANC. Furthermore, 32.5% of respondents acknowledged the role

DISCUSSION

Knowledge and awareness levels regarding the importance of timely antenatal care and its impact on maternal and foetal health

Determinants of access to late antenatal care enrolment among pregnant women. The study found that 85.0% of the respondents were aware of the term "Antenatal Care," while 15.0% had no awareness of it. This substantial level of

of ANC in detecting and managing pregnancy-related complications, in agreement with the notion that ANC aids in the early identification and management of risks. A smaller percentage, 1.3%, identified ANC as a way to receive vaccinations to protect the baby. This is congruent with the recommendation for iron and folic acid supplementation by WHO (2020). Awareness of the necessity for nutritional support during pregnancy, like iron supplementation, is a positive sign. These findings emphasized that knowledge about the importance of timely ANC directly impacted maternal and foetal health by promoting early care-seeking and risk management.

The study results agree with previous research. For instance, the knowledge and awareness levels of pregnant women regarding the significance of early and regular antenatal care aligned with the findings of Mbuagbaw et al, and Dodd et al. (2012), which emphasized the positive impact of awareness on maternal and foetal health. These studies suggest that women who were informed about the benefits of early and regular ANC were more likely to seek early care, leading to early detection and management of risks, prevention of complications, nutritional guidance, psychological support, and better preparation for labor and delivery.

In summary, the findings indicated that awareness, ideal timing for ANC initiation, and understanding of its importance had significant implications for maternal and foetal health. This aligned with the research question, demonstrating that the knowledge and awareness levels of pregnant women directly impacted maternal and foetal health at Nsangi Health Centre III. To improve outcomes, it is essential to continue educating pregnant women about the significance of early and regular ANC, as this knowledge empowers them to make informed decisions that positively influence their health and the health of their babies.

CONCLUSION

There was a high level of awareness about antenatal care and its importance among the study population with respondents well-informed about the ideal timing for starting antenatal care, with an emphasis on early care in the first trimester.

RECOMMENDATION

Pregnant women should actively seek antenatal care as early as possible, ideally in the first trimester.

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ABBREVIATIONS

ANC: Antenatal care

WHO: World Health Organisation

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There was no source of funding

CONFLICT OF INTEREST

No conflict of interest declared

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