

Utilization of antenatal care services among women of reproductive age at Kigungu health centre III, Entebbe municipality, Wakiso district. A cross-sectional study.

Rehemah Nakakeeto, Hasifah Nansereko, Frank Ssemuwemba, Jane Frank Nalubega, Immaculate Prospa Naggulu*

Mildmay Institute of Health Sciences

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ABSTRACT

Background: Antenatal Care is a critical pillar of maternal health designed to monitor the well-being of both the expectant mother and the fetus. It serves as the primary entry point into the formal healthcare system, offering a critical window for early detection and management of pregnancy-related complications. This study identified factors affecting the utilization of antenatal care services among women of reproductive age at Kigungu Health Centre III, Entebbe Municipality, Wakiso District.

Methodology: A cross-sectional descriptive study was conducted at the antenatal clinic at Kigungu Health Centre III. The sample size ($n = 91$) was determined through convenience sampling. Data were collected using semi-structured questionnaires and analyzed in Microsoft Excel. Findings were then presented in tables and figures.

Results:

Of 91 respondents, 85.7% lived in urban centers, and 41.8% attained secondary education. More than half (52.7%) of the respondents were self-employed. While 72.5% of respondents reported initiating care between the third and sixth month of pregnancy, only 7.6% began antenatal care within the first three months, 10.9% sought care after six months, and 8.7% attended ANC only when they felt unwell. The most common approaches were seeking advice from elders (27.5%), using herbs (14.3%), and consulting spiritual healers (29.7%) regarding ANC. Beliefs and myths that ANC was for rich families, 31.9%, and that ANC affects the newborn (22%), or ANC is for weak women (18%), negatively affected ANC utilization.

Conclusion:

Utilization of ANC services is influenced by multiple factors. Most women initiate ANC in the second trimester. Family support was a strong facilitator, while overcrowding and perceived high medical costs were major deterrents.

Recommendations:

Implement strategies to reduce congestion, such as staggered appointment schedules at the facility, provision of ongoing health education sessions for mothers, and use of community health workers to encourage early ANC initiation.

Keywords: Focused Antenatal care, Kigungu health centre III, Trimester, Danger signs.

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Corresponding author: Rehemah Nakakeeto.

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BACKGROUND

Antenatal care (ANC) serves as a critical healthcare intervention that is essential for lowering the worldwide burden of maternal and neonatal deaths and complications (McCauley, 2022). This specialized care is provided to expectant mothers to ensure both a successful pregnancy and the birth of a healthy infant. These services include screening for pregnancy complications, assessing pregnancy risk, treating problems that may arise during the antenatal period, providing medication that may improve pregnancy outcomes, providing information to the pregnant woman, and preparing physically and psychologically for childbirth and parenthood (Ali, 2018).

Globally, the ANC initiation rate is 58.6%, but it varies by continent (Tessema, 2023). The estimated rate of early antenatal care visits is 48.1% in low-income countries compared with 84.8% in high-income countries (Tessema, 2023).

In sub-Saharan Africa (SSA), the proportion of ANC visits initiated in the first trimester is 38.0%. This statistic ranges from 14.5% in Mozambique to 68.6% in Liberia. According to the 2019 Mini Ethiopian Demographic and Health Survey, only 28% of women had their first ANC visit in the first trimester. This indicates that the rate also varies across geographic regions (Tessema, 2023). In East Africa, the overall magnitude of optimal ANC utilization is around 56%, with Zimbabwe (80.96%) and Rwanda (44.31%) demonstrating the highest and lowest levels, respectively (Raru, 2022), and yet due to the high burden of maternal and child mortality, WHO adopted the focused antenatal care model by the year 2002, which recommended a minimum of four antenatal care visits by a pregnant woman (Aziz Ali et al., 2018a). By 2016, at the start of the Sustainable Development Goal era, maternal and child mortality was unacceptably high, and the World Health Organization changed the ANC model to an essential care package of routine ANC, with the number of visits increased to eight (Gebeyehu, 2022).

In Uganda, the utilization of adequate antenatal care (ANC) is approximately 61.4% (Towongo, 2023). While the attendance rate for a single ANC visit is high (97.3%), only 59.9% of women complete four or more visits. Additionally, only 25% of pregnant women initiate ANC before 20 weeks of gestation (Uhirwe, 2023). The UDHS 2016 data revealed that 61.72% of women in northern Uganda attended at least four ANC visits, exceeding the global average among countries with high maternal mortality rates. Studies in Northern Uganda have identified promising rates of ANC attendance but have also highlighted gaps in identifying key determinants of utilization patterns (Okwanyi, 2024), particularly in areas such as Kigungu, where research on ANC utilization remains limited. This study determined factors affecting utilization of antenatal care services by women of reproductive age at Kigungu Health Centre III, Entebbe Municipality, Wakiso District.

METHODOLOGY

Study Design

The study employed a cross-sectional descriptive design because it enabled efficient use of limited resources.

Study Area

This study was conducted in the antenatal clinic of Kigungu Health Centre III, located in Entebbe Municipality, Wakiso District, Uganda.

Study population

The study population comprised women of reproductive age attending antenatal care at Kigungu Health Centre III.

Sample Size Determination

The sample size was determined using the Kish and Leslie formula (1965).

$$N = \frac{(Z)^2 PQ}{d^2}$$

Where n = the sample size

z = z score of 1.96 at 95% level of confidence

p = In Uganda, the prevalence of adequate antenatal care (ANC) utilization is 61.4% (Towongo, 2023) = 0.614

e= margin of error of 5% q = 1- p = 0.386

$$n = \frac{(1.96)^2 * (0.614) * (0.386)}{(0.05)^2} = 364$$

Dividing 364 by 4 gives 91 mothers.

Therefore, 91 mothers aged 15 to 49 attending ANC services at Kigungu HC III were recruited for the study.

Sampling Technique

A consecutive sampling technique, a type of convenience sampling, was used to obtain the required number of respondents for the study. This choice was made due to its ease and time limitation.

Sampling procedure

All mothers attending ANC services at Kigungu HC III who met the inclusion criteria were consecutively

approached and recruited to the study until the target sample size was reached.

Data Collection Method

Interviewer-administered questionnaires were used to collect quantitative data.

Data collection tools

The study employed a semi-structured questionnaire in both English and Luganda. Data collection procedure Once informed consent was obtained, data were collected directly from the study participants.

Dependent variable

Utilization of ANC services.

Independent variables

Socio-cultural beliefs, financial constraints, accessibility, and availability of ANC services.

Quality Control

The data collection tool was pretested at Kajjansi HC IV to ensure consistency, reliability, and appeal to study participants. Filled questionnaires were consistently checked for completeness and accuracy of the information. Ample time was allocated to each study participant to ensure reliable data were obtained.

Inclusion criteria

All pregnant women aged 15 to 49 years attending ANC services at Kigungu HC III who were present at the time of data collection and consented to the study were included.

Exclusion criteria

Women who did not consent to the study and those with severe medical conditions requiring immediate attention were excluded.

Data Analysis and Presentation

The data were manually tallied and entered into Microsoft Excel for processing, including frequency distributions, percentages, tables, graphs, and pie charts, before final entry into Microsoft Word.

Ethical consideration

Ethical approval was obtained from the Mildmay School of Health Sciences Research Ethics Committee; an introductory letter was obtained from the Mildmay Institute of Health Sciences; and permission to access research participants was obtained from the person in charge of Kigungu HC III. Participation in the study was completely voluntary. The confidentiality of the participant's information was ensured, and no personal information was disclosed. Study materials will remain under lock and key until termination of the study. Finally, the social beliefs and standards of the community under study were respected.

RESULTS

Socio-economic factors that affect the utilization of antenatal services

The majority of respondents (66; 72.5%) reported initiating care between the third and sixth months of pregnancy. Only 7 (7.6%) began antenatal care within the first three months, representing early ANC initiation. A smaller proportion, 10 (10.9%), sought care after six months, whereas 8 (8.7%) attended ANC only when they

felt unwell. It indicates that most study participants initiated ANC after the recommended first-trimester period.

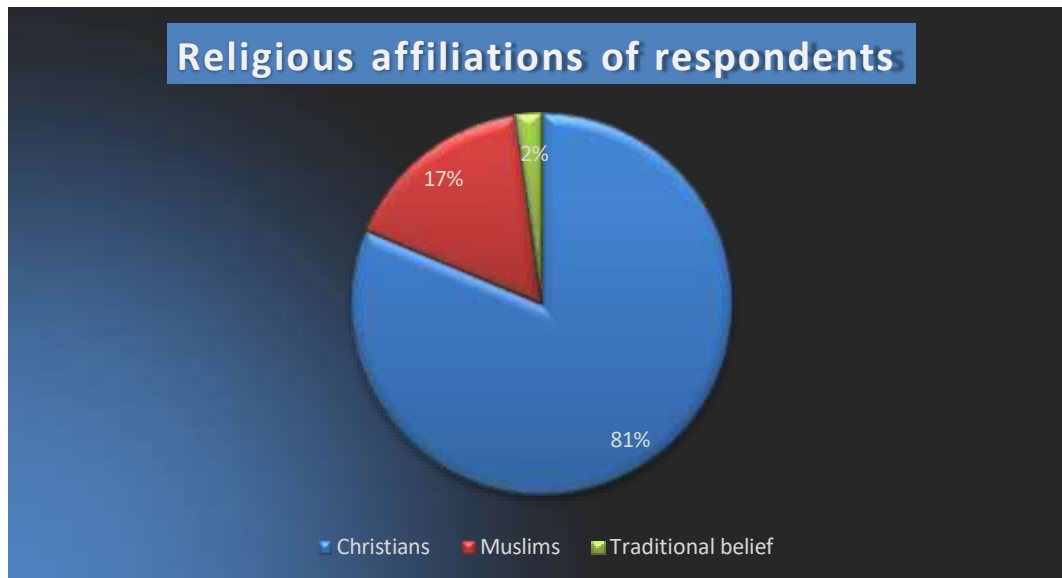
Most respondents lived in urban centers (85.7%). The largest proportion (41.8%) attained secondary education, followed by primary education (34.1%) and tertiary level (16.5%). Only 7.7% had never attended school.

More than half (52.7%) of the respondents were self-employed. Those in formal employment accounted for 20.9%, while 26.4% reported not being employed.

Table 1: Socio-economic characteristics of respondents (n=91)

Question	Response	Frequency	Percentage (%)
At what stage of pregnancy do you seek antenatal care?	Within the first three months	7	7.6
	Between the first three months and six months	66	72.5
	After six months	10	10.9
	When you feel sick	8	8.7
Where is your home located?	Urban center	78	85.7
	Rural center	13	14.3
At what level of education did you maximally attain?	Primary level	31	34.1
	Secondary level	38	41.8
	Tertiary level	15	16.5
	Never went to school	7	7.7
What is your religious sect?	Christian	74	81.3
	Muslim	15	16.5
	None	0	0
	Traditional belief	2	2.2
What is your occupation?	Self employed	48	52.7
	Employed	19	20.9
	Not working	24	26.4
Who influences your decision to seek antenatal care the most?	Husband/partner	18	19.8
	Family members/community	29	31.7
	Health workers	4	4.4
	Personal decision	40	43.9

Figure 1: Religious affiliations of respondents (n=91)



The figure shows that 80% of the respondents were Christians, 17% were Muslims, and 2% were traditionalists.

Cultural beliefs that influence pregnant women's decisions regarding antenatal care.

Table 2: Cultural factors affecting ANC (n=91)

Question	Response	Frequency	Percentage
Are there community activities and beliefs you know of that affect utilization of antenatal care services?	Yes	21	23.1
	No	27	26.7
	Don't know	43	47.2
Which of the following do you believe most affects antenatal care service utilization?	Secrecy of pregnancy	18	19.8
	Preference for traditional healers	13	14.3
	Religious teachings	7	7.7
	Don't know	53	58.2
How does family affect antenatal care service utilization?	Some women require permission to attend the Antenatal clinic.	5	5.5
	Some families do not care	16	17.6
	Family does not influence antenatal care services	7	7.7
	Families support antenatal care services.	63	69.2
Which of these cultural practices is common in the community	Seeking advice from elders	25	27.5
	Use of herbal medicine	13	14.3
	Spiritual healers	27	29.7
Which of these have you heard about antenatal care within the community?	Don't know any	65	71.4
	Early antenatal care services affect the newborn	20	22
	Not heard any	24	26.4
	Antenatal care is for weak women	18	19.8
	Antenatal care is for the rich families	29	31.9
Why do women prefer traditional birth attendants	They have experience	22	24.2
	It is easier to trust them	18	19.8
	Lack of funds to attend hospitals	38	41.3
	Don't know	13	14.3
Why do some women avoid medical antenatal services?	Traditional postpartum confinement practices	16	17.6
	Fear of exposing pregnancy complications	35	38.5
	Belief in pregnancy protection using magical powers	7	7.7

	Antenatal visits make mothers sicker and more worried	33	36.3
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Nearly half (43; 47.2%) of the respondents don't know whether community activities and beliefs affect the utilization of antenatal care services. Slightly more than half (53; 58.2%) of respondents don't know what most affects antenatal care service utilization. More than half (63; 69.2%) believe that family support facilitates the utilization of antenatal care services. More than half (65; 71.4%) don't know any cultural practices in the community that affect ANC utilization.

Respondents were asked whether any community activities or beliefs affected ANC utilization. A considerable portion (43; 47.2%) reported not knowing any beliefs or practices influencing ANC attendance; 29.7% mentioned consulting spiritual healers, 27.5% cited seeking advice from elders, and 14.3% reported using herbal medicine.

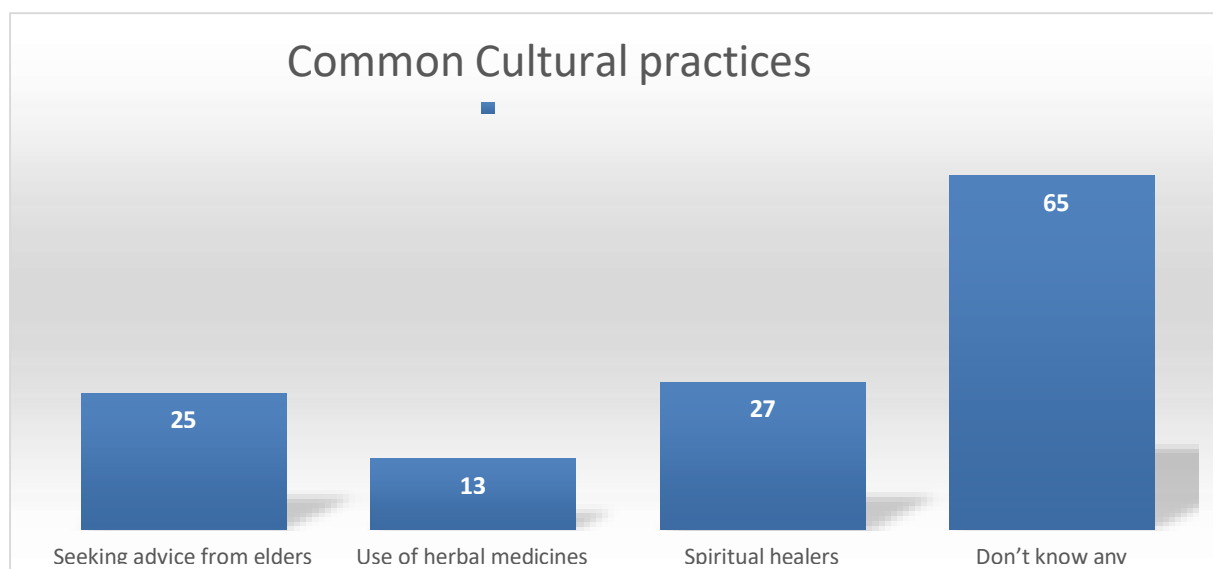
Some perceptions about ANC were identified. The most commonly reported perception was that ANC was for

wealthy families, reported by 31.9% of respondents. Others mentioned that ANC affects the newborn (22%) or that ANC is for weak women (18%). 26.4%, however, stated that they had not heard of such beliefs.

The most common reason for visiting traditional birth attendants was lack of funds to attend hospitals, reported by 41.3%. Others mentioned that TBA's had experience (24.2%) or that they were easier to trust (19.8%). A small group did not know the reason.

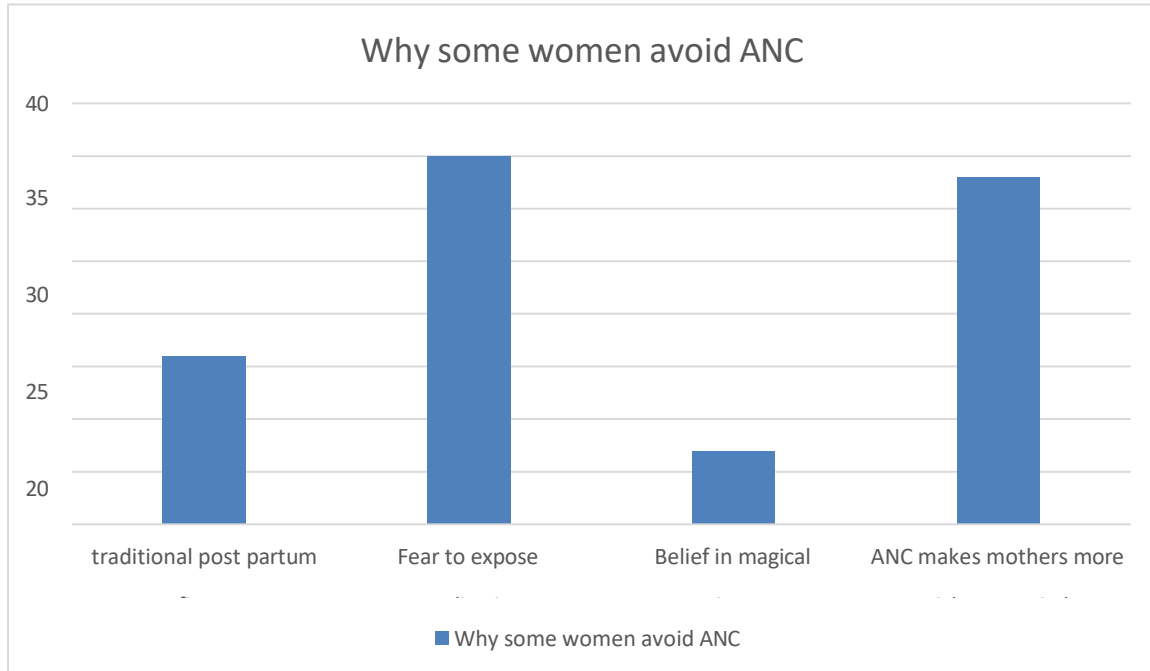
The majority cited fear of exposing pregnancy complications as the main reason for avoiding medical antenatal services (38.5%), followed by the belief that ANC makes mothers sick or worried (36.3%). Others reported traditional postpartum confinement practices (17.6%) and belief in magical pregnancy protection (7.7%).

Figure 2: Common Cultural practices regarding ANC



Findings showed that 27.5% reported seeking advice from elders, 14.3% reported using herbs, 29.7% reported consulting spiritual healers, and 71.4% reported not knowing any.

Figure 3: Reasons why some women avoid ANC



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DISCUSSION

Socio-demographic factors affecting ANC utilization

The study revealed that the majority of participants initiated ANC between the third and sixth months of pregnancy, with only a small number attending in the recommended first trimester. This is consistent with findings in Uganda and other low-income countries, which report delayed ANC initiation as a challenge due to limited awareness and misconceptions about ANC, as seen in other studies (Starker et al., 2020). Education level also emerged as an important determinant, with most respondents having at least primary or secondary education, consistent with evidence that education increases health-seeking behavior by raising awareness of ANC benefits, as reported in other studies (Merdad and Ali, 2018).

Community and Cultural influences on ANC utilization

The study identified mixed perceptions and cultural influences. A considerable number of respondents reported not knowing whether community beliefs affect ANC, suggesting limited awareness and reluctance to discuss cultural issues. Secrecy surrounding pregnancy and reliance on traditional birth attendants were also identified.

Family support emerged as the major facilitator, with most respondents reporting that their families encouraged ANC attendance. This finding aligns with existing literature indicating that spousal and family involvement

positively influences maternal health service utilization (Gebeyehu et al., 2022). However, a minority of women still believe that family permission is required to attend ANC services, indicating a lingering dynamic that may undermine maternal autonomy as seen in other similar studies (Nisha et al., 2021).

LIMITATIONS

The study was limited by recall bias, social desirability bias, the inability to generalize the research findings given that it was conducted at a single health facility, literacy barriers, and limited time resources.

CONCLUSION

The study concludes that the utilization of ANC services at Kigungu Health Centre III is influenced by a combination of socio-demographic, cultural, economic, community, and health facility-related factors. Most women initiate ANC in the second trimester, largely due to cultural norms, misconceptions, financial barriers, and distance to the facility. Family support was a strong facilitator, whereas overcrowding and perceived high medical costs were major deterrents. Addressing these barriers through targeted community engagement, improved health facility capacity, and strengthened health education may enhance timely and consistent ANC attendance.

RECOMMENDATION

There is a need to implement strategies to reduce congestion, such as staggered appointment schedules at

the facility. There is also a need to provide ongoing health education sessions for mothers attending ANC and to collaborate with community health workers to identify and encourage pregnant women to initiate ANC early. There is a need to encourage male involvement and family support for ANC attendance.

Jane Frank Nalubega is a research supervisor at Mildmay Institute of Health Sciences.

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LIST OF ABBREVIATIONS

ANC – Antenatal Care

ANCC – Antenatal Care Clinic

SSA – Sub-Saharan Africa

UDHS – Uganda Demographic and Health Survey

WHO – World Health Organization

SOURCE OF FUNDING

The study was not funded.

CONFLICT OF INTEREST

The author declares no conflict of interest.

AUTHOR CONTRIBUTIONS

RN- Principal investigator.

HN supervised the Study.

FS-Supervised the Study.

JFN-Supervised the Study.

DATA AVAILABILITY

Data is available upon request.

INFORMED CONSENT

There was full disclosure; full comprehension, and respondents voluntarily consented to participate in the study.

AUTHOR BIOGRAPHY

Rehemah Nakakeeto is a student at Mildmay Institute of Health Sciences, pursuing a diploma in Clinical Medicine and Community Health.

Hasifah Nansereko is a research supervisor at Mildmay Institute of Health Sciences.

Frank Ssemuwemba is a research supervisor at Mildmay Institute of Health Sciences.

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