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Attendance and Knowledge Level of Antenatal Care Services by Pregnant Women Attending Antenatal Care Services in Mubende Regional Referral Hospital Mubende District

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ABSTRACT

This study aimed at determining the attendance and knowledge level of antenatal care services of pregnant women attending antenatal care services in Mubende Regional Referral Hospital in Mubende town council, Mubende district. To determine the level of utilization of antenatal care services in Mubende Regional Referral Hospital, Mubende Town Council, Mubende district, to determine individual knowledge on antenatal care services and to determine health facility related factors influencing utilization of antenatal services in Mubende Regional Referral Hospital, Mubende Town Council, Mubende district. A cross-sectional study was conducted whereby quantitative data was acquired using participant self-administered questionnaires, investigator administered questionnaires. A total of 100 females in reproductive age from the age of 15years to 45 years was sampled using the convenience sampling technique. Results are depicted in 95% Confidence Intervals (C.I), Odd Ratios (OR), P-values; all calculated using Binary Logistic Regression with Pearson's correlation in the Statistical Package for Social Sciences (SPSS) Version 26. Graphical representation was done by Microsoft Excel Software. A total of 100 females in reproductive age from the age of 15years to 45 years were studied with the response rate of 100%. The results based on the 100 respondents showed that about 9(9.0%) were of ages 15-20, 26(26.0%) were of ages 21-25, 37(37.0%) were of ages 26-30, 24(24.0%) were 31-35 and 4(4.0%) were >40. The mean age of study population was 21 years (with a standard deviation of 5.06 years). The incidence of non-attendance of ANC by females in reproductive age is influenced by factors including health service seeking behavior, level of education, and occupation. Intensive health education and awareness campaigns on the importance of ANC attendance to expectant mothers should be done to equip mothers with tactical knowledge thus this will reduce delivery and labour-related maternal mortality. ANC health education services should be integrated at health facilities for all females of reproductive age and expectant mothers.

Keywords: Utilization of antenatal care services, pregnant women, Health facility, Females of reproductive age, ANC health education services.

INTRODUCTION

Antenatal care plays a great role in ensuring a healthy mother and baby during pregnancy and after delivery. Antenatal care involves a planned program of medical management of mothers from the time of conception till delivery directed towards a health outcome for the mother and the baby [1]. Again in 2015, the world health organization defined antenatal care as preventive health care with the goal of providing regular checkups that

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minimize pregnancy-related complications [2]. ANC services are those services given to women of childbearing age that is 15-49 years during pregnancy, labour and puerperium [3], these services lead to a healthy pregnancy, delivery of a normal baby, preparing the mother psychologically for her labour and also after her delivery given nutritional guide. [4]. The world health organization estimates that nearly 70% of pregnant women have at least one antenatal care visit, and the majority of women presenting for any antenatal have at least four visits. All age groups show similar rates of four or more visits although statistics change with the level of education with the results showing rural and uneducated women are least likely to receive antenatal care. [5]. Women reporting at least four visits are on average 3:3 times more likely than other women to give birth with a skilled provider. [6]. The standard recommended number of ANC visits is four as a minimum which is at 16 weeks, between 24-28 weeks, at 32 and at 36 weeks of pregnancy, but the number of times a client can be seen may vary depending on her condition. Women who may develop complications like hypertension may be recommended for frequent visits [6]. Good antenatal services help prevent factors associated with newborn mortality like low birth weight, and complications from infectious diseases through the elimination of mother-to-child transmission male partner involvement in maternal health also affects the newborn infant [7]. Low birth weight is a reflection of maternal ill health and nutritional status during pregnancy, which results in significant neonatal morbidity for example 95% of all low birth weight deliveries occurring in low-income countries all attributed to low utilization of antenatal care services [7]. Antenatal care involves integrated system by health care providers that depends on the level of the health facilities. Providers of antenatal care include obstetricians, general practitioners like nurses counsellors laboratory personnel and generally midwives provided in health centres majorly III's to referral hospitals by different key players that were specialists as obstetricians to lower cadres such as midwives [8]. In antenatal clinics, a number services are offered like Voluntary testing and counselling, Health education on HIV/AIDS and other STIs, Physical examination, Laboratory investigations, Developing a delivery care plan for every mother who visits the antenatal clinic, Management of complains, referring high-risk mothers and those with complications, Immunization against tetanus, Screening and risk assessment and Height, Weight and blood pressure assessment [9]. Several factors affect the utilization of ANC for instance Laveist, and McDonald 2012 found that factors such as maternal education, maternal employment, age, poverty, and access to the media are influencing the utilization of antenatal care services. Furthermore, the differences in economic status amongst prospective mothers significantly explain the differences in accessibility and utilization of antenatal care services in developing countries unlike developed countries still to that, travel time to the health facility was an important factor explaining consistent utilization of antenatal care service in the developing countries [10]. Globally, an estimated 211 million pregnancies and 136 million births occur every year. While they are natural and usual processes, pregnancy and childbirth put every woman at risk of complications. Most maternal, fetal and neonatal deaths occur during late pregnancy and the first month of the child's life. Complications of pregnancy and childbirth are the leading causes of morbidity and mortality among women of reproductive age in developing countries this is attributed to low utilization of antenatal care services [11].

Statement of Problem

The World Health Organization reported that about 830 women die worldwide every day in connection with pregnancy and childbirth [12]. Nearly all (99 %) maternal, newborn, and child deaths occur in low and middle-income countries including Uganda. [12]. Moreover, acute morbidity may affect over 50 million pregnancies/deliveries each year, and severe chronic and long-term disabilities like fistulas and prolapses affect an estimated 10 million women each year [12]. The maternal mortality ratio in developing countries is 450 maternal deaths per 100,000 live births compared to only nine in developed countries. [12]. According to the Report, every year three million babies are stillborn and almost one-quarter of these die during birth. Among the 133 million babies who are born alive each year, 2.8 million die in the first week of life and slightly less than one million in the following three weeks. Neonatal tetanus, which can be avoided by appropriate antenatal care, is still killing 100,000 babies a year. [12]. Maternal morbidity and mortality remain one of the major public health problems in developing countries like Uganda. Each year pregnancy and childbirth claim over 6,000 women and approximately 120,000 newborns in Uganda [8]

Aim

To determine the attendance and knowledge level of antenatal care services of pregnant women attending antenatal care services in Mubende Regional Referral Hospital in Mubende town council, Mubende district.

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Specific objectives

- To determine the level of utilization of antenatal care services in Mubende Regional Referral Hospital, Mubende Town Council, Mubende district.
- To determine individual knowledge of antenatal care services.
- To determine health facility-related factors influencing utilization of antenatal services in Mubende Regional Referral Hospital, Mubende Town Council, Mubende district.

Research Questions

- i. What was the level of antenatal care utilization in Mubende Regional Referral Hospital?
- ii. What was the individual knowledge of antenatal care services?
- iii. What are the health facility-related factors influencing the utilization of antenatal services in Mubende Regional Referral Hospital?

METHODOLOGY

Area of Study

The study was carried out in Mubende Regional Referral Hospital located in Mubende town council, Mubende district. Mubende district is located in the Bunyoro Sub-Region of Western Uganda. It borders with Buliisa district to the North and Masindi district to the northeast, the Kyankwanzi district to the east, the Kibaale district to the south, the Ntoroko district to the southwest and the Democratic Republic of Congo to the west. The district has seven sub-counties namely; Bugambe, Buhanka, Buhimba, Buseruka, Busiisi, Mubende Town Council, Kabwoya, Kigorobya Kigorobya Town Council, Kitoba, Kiziranfumbi, Kyabigambire, Kyangwali. Its main town is Mubende Town located in Mubende Town Council. The study targets pregnant women of reproductive age (15-45 years) who have ever been or are pregnant, attending Mubende Regional Referral Hospital.

Study design

The study was a descriptive cross-sectional study with data collected by use of a questionnaire.

Sample size calculations

The sampling size was calculated by the use of the [13], formula

$$N = \frac{Z^2 PQ}{D^2}$$

Where, the N-desired sample size

Z-standard normal deviation taken as 1.96 at a confidential level of 95%

P-proportion of the target population, estimated to have similar characteristics (where 50% is used if no measurable estimate or 0.5)

Q-is standardized = 1.0 - P; where P is 0.5,

; There for Q was, 1.0-0.5=0.5 or 50%

D-degree of error = 0.05 or 5%

Calculation:

; My confidentiality level was, 95%

; My degree of error was, 10%

; On substitution; If 95% gives 1.96 (standard deviation)

; 79% gives $(79 \times 1.96) \div 95 = 1.63$ thus my deviation

; Degree of error $10/100 = 0.1$

Thus $N = (1.63^2 \times 0.5 \times 0.5) \div 0.1^2 = 100$ people.

Sampling procedure

A random sampling method by convenience was used to select the respondents, regardless of marital status, tribe, nationality, and educational background.

All 100 women were interviewed and questionnaires were used.

Inclusion criteria

Mothers of childbearing age who have ever conceived or were pregnant and accept to give informed consent.

Exclusion Criteria

Mothers of childbearing age who have ever conceived or been pregnant but refuse to give informed consent and those who were mentally sick.

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Data Collection Tools

The researcher and her assistant used the following tools to collect data; questionnaires that will be pre-tested, pens, pencils, and erasers.

Quality control

The questionnaire contained both open and close-ended questions which helps the researcher to get the right information from the respondents. The researcher has to interpret the local language for illiterate respondents.

Data collection procedure

Data was collected by using a questionnaire written in English; closed and open-ended questions which were translated to the local language by the researcher and research assistants during the time of data collection which the respondents were able to understand easily.

Data management

After data collection, the questionnaires were checked for completeness and stored safely. No additional information was added to the questionnaires after data collection. After data analysis, the questionnaires were kept under a lock and key for future reference.

Data analysis

Data were analyzed using descriptive statistics by Microsoft Excel spreadsheet, and presented in bar graphs and pie charts to summarise data.

Ethical considerations

The researcher got an introductory letter. The letter was taken to the relevant authorities to seek permission and assistance in carrying out research. Before interviewing respondents, each respondent was given an explanation of the objectives of the study and requested to make an informed consent before any information is sought. Before proceeding with data collection, respondents were briefed on the importance and purpose of the study. The researcher explained clearly that there were no incentives the researcher offered to respondents after data collection. Respondents were assured of the utmost confidentiality of their responses and that they were free to quit the study at any point if they so wish. Respondents were assured that there were no risks that respondents are exposed to through their participation in the study. They were also assured that participation in the study would not have any legal implications or any form of legal prosecution

RESULTS

Social-demographic characteristics of the study population

A total of 100 females of reproductive age from the age of 15 years to 45 years were studied with a response rate of 100%. Table 1 below shows the distribution of the study population by demographic characteristics. The results based on the 100 respondents showed that about 9(9.0%) were of ages 15-20, 26(26.0%) were of ages 21-25, 37(37.0%) were of ages 26-30, 24(24.0%) were 31-35 and 4(4.0%) were >40. The mean age of the study population was 21 years (with a standard deviation of 5.06 years).

Table 1: Distribution of the Study Population by Age

Characteristics	Frequency	Percentage (%)	95% Confidence Interval	
			Lower	Upper
Age				
15-20	9	9	3.9	14.5
21-25	26	26	20.9	31.5
26-30	37	37	31.9	42.5
31-35	24	24	18.9	29.5
>40	4	4	2.1	5.9

ANC Attendance of Respondents

Table 2 shows ANC Attendance of the respondents where majority 39(39.0%) were mothers aged 26-30; followed by those aged 21-25 who were 24(24.0%); then 31-35 accounting for 17(17.0%) and then those above 40 2(2.0%).

Table 2: ANC Attendance of Respondents by Age

Characteristics	Frequency	Percentage (%)	95% Confidence Interval	
			Lower	Upper
Age				
15-20	6	6	0.9	11.5
21-25	24	24	18.9	29.5
26-30	39	39	33.9	44.5
31-35	17	17	11.9	22.5
>40	2	2	0.1	3.9

Education Level and Occupation of the Respondents

The education level and occupation of the respondents is represented below in **Figure 1** and **Figure 2** respectively showing that 5(5.0%) attended primary school 33(33.0%) attended secondary school 47(47.0%) attended tertiary school and 15(15.0%) attended university of which (7.0%) were casual laborers, (76.0%) were self-employed and (17.0%) civil servants.

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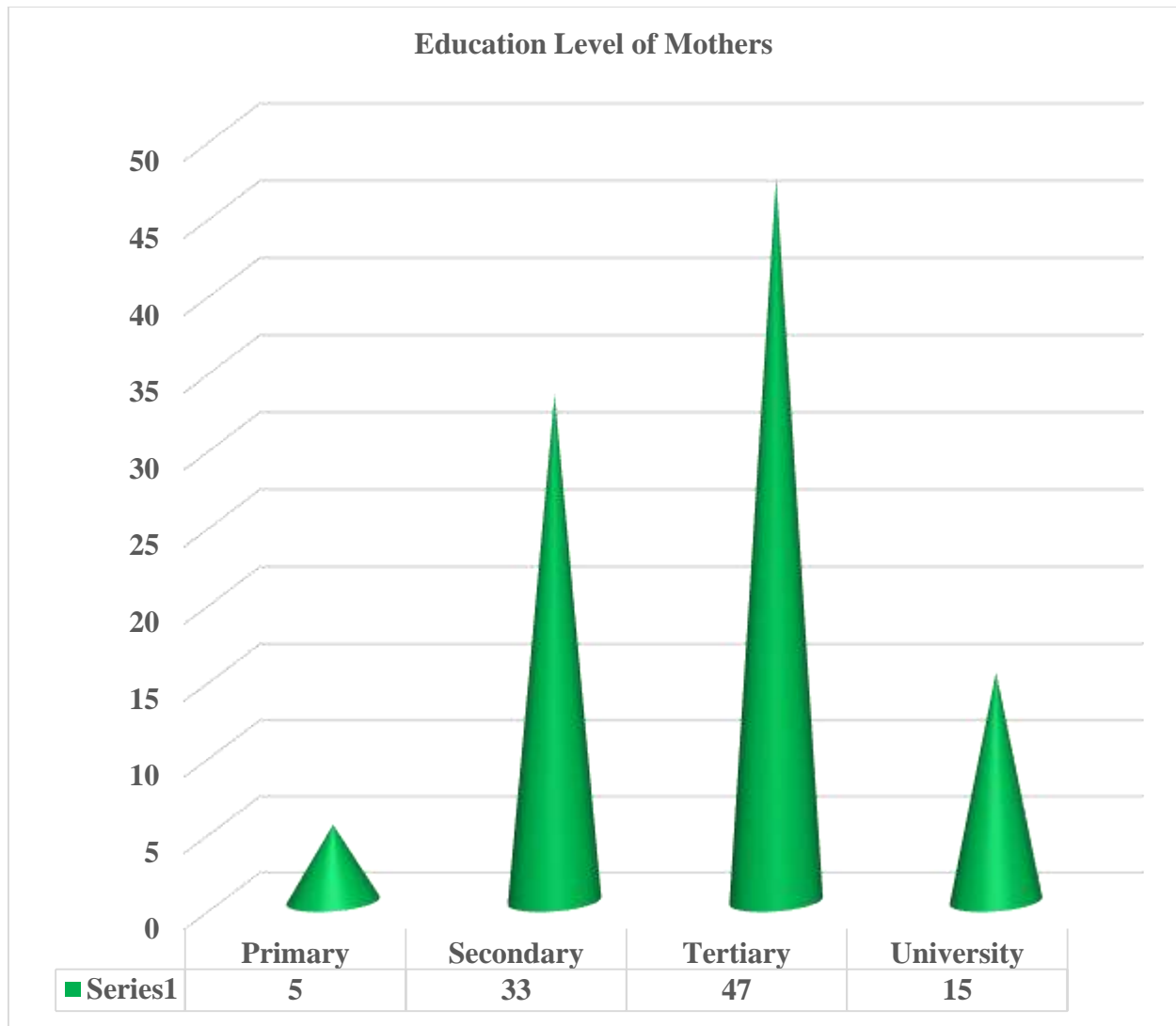


Figure 1 Showing the Education Level of Mothers

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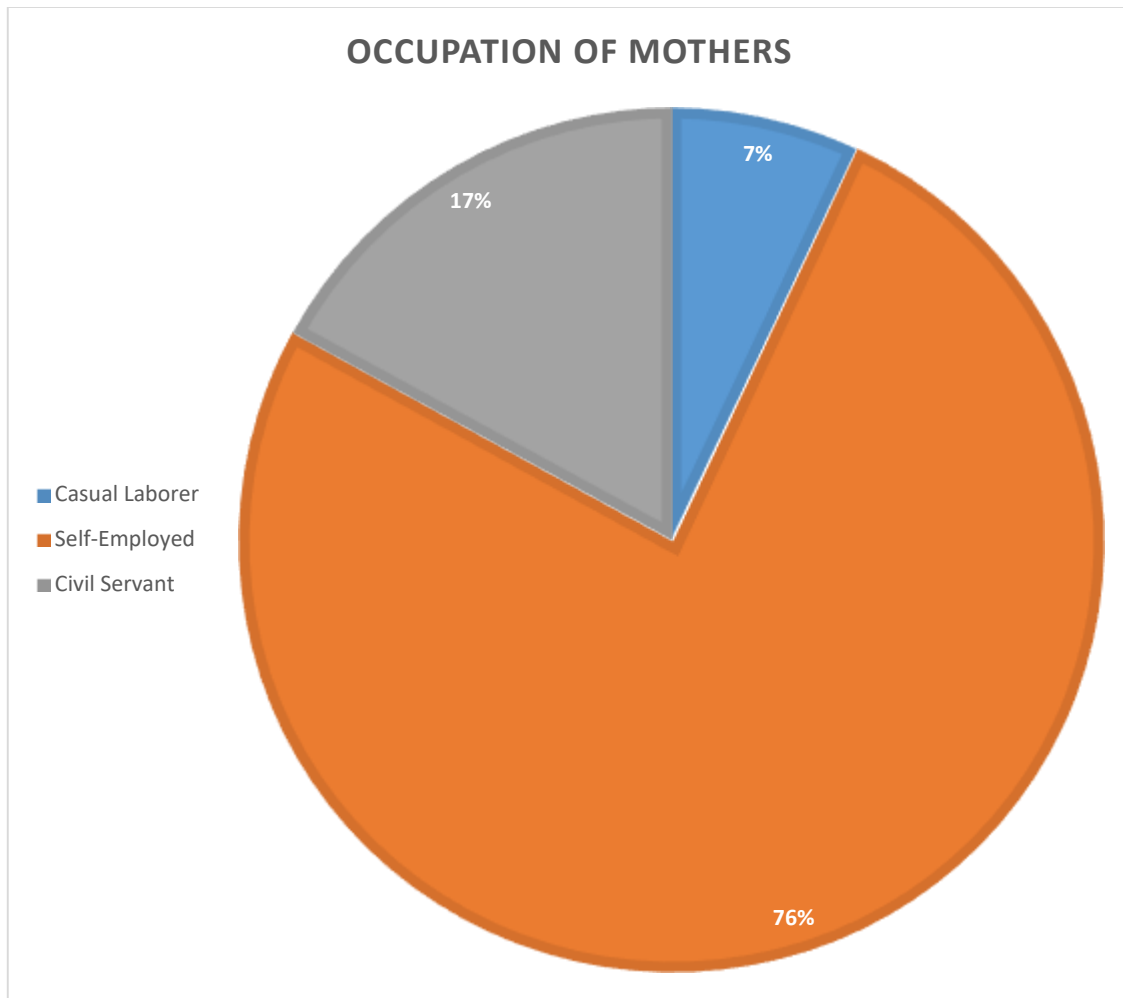


Figure 2: Showing Occupation of Mothers.
Respondents were asked whether they have ever heard of antenatal care

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Responses are summarized in Figure 3 below

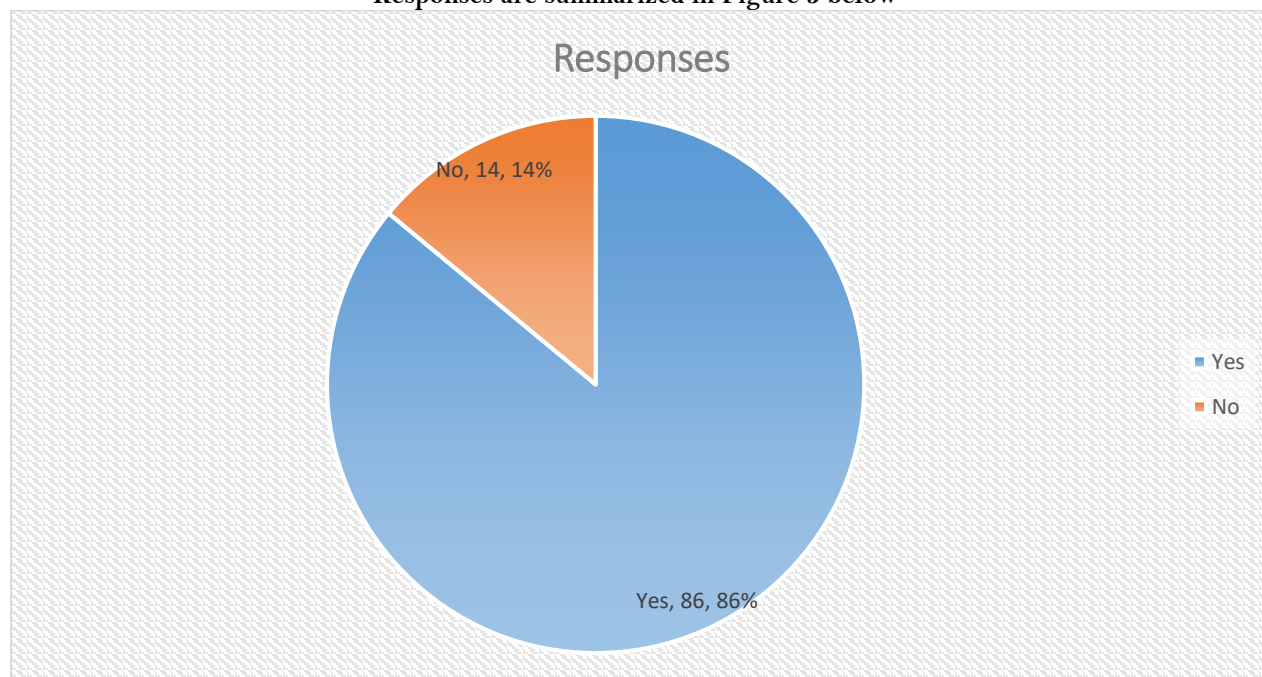


Figure 3: Respondents' responses on whether they have ever heard of antenatal care

Most of the respondents (86%) revealed that they never had antenatal care while 14% agreed that they ever had antenatal care. This implied that the majority of women do attend antenatal care at Ishaka Adventist Hospital in Bushenyi District.

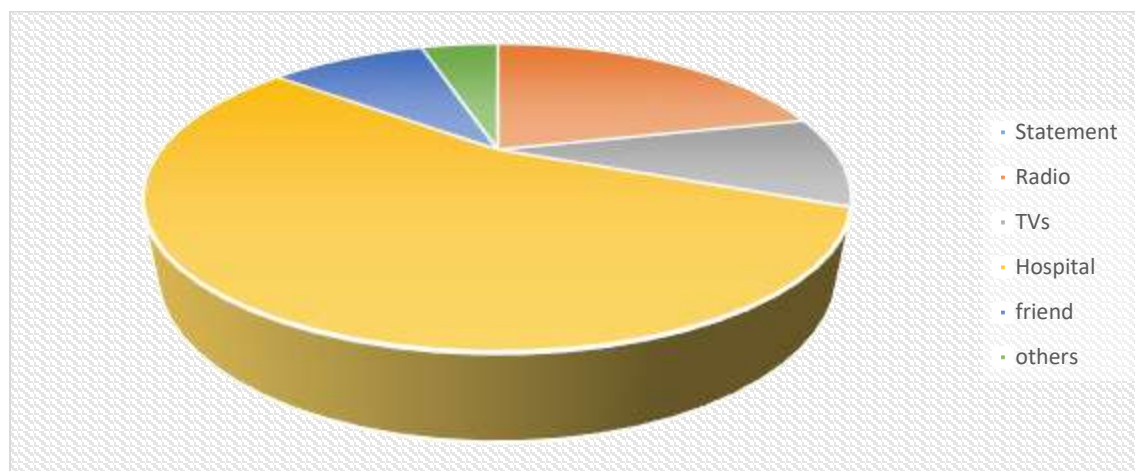


Figure 4: Mode of communication do respondents hear antenatal care services

The majority, 54.8% agreed that they heard about antenatal care in the hospital, 21.4% agreed that they heard it on the radio, and 9.5% cited on both TVs and friends unlike 4.8% agreed on other services. The findings implied that there is wide communication between healthcare workers and the community: However, most women said that there should be individual or group information sessions for pregnant women. Respondents were also asked whether they know the recommended antenatal care visits. The results are summarized below.

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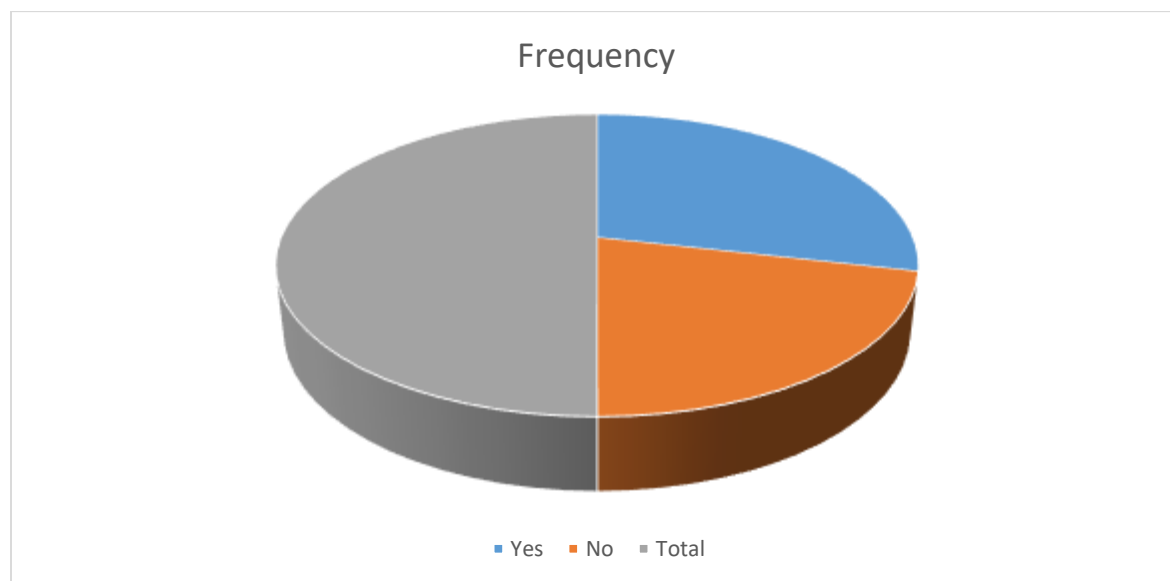


Figure 5: Respondents' awareness of the recommended antenatal care visits

57.1% knew the recommended antenatal care visits unlike 42.9% did not know the recommended antenatal care visits. Respondents on the other hand were also asked to state the visiting times they are supposed to attend for one before giving birth.

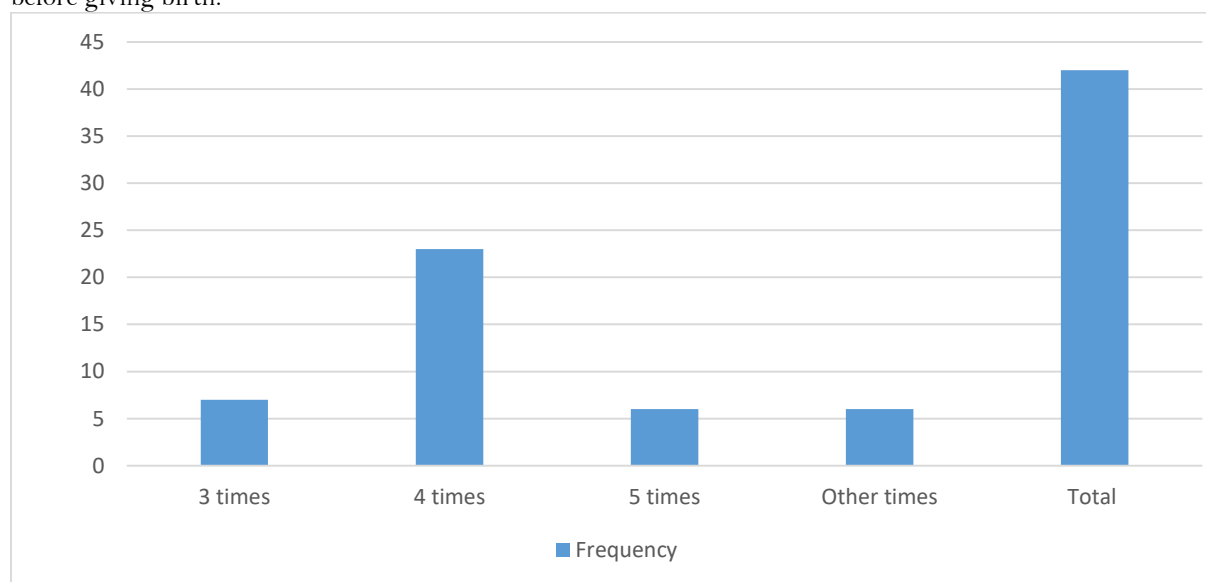


Figure 6: Visiting times they are supposed to attend for one before giving birth

According to the findings, 54.7% of respondents agreed that they are supposed to attend 4 times before giving birth, 16.7% cited 3 times while 14.3% cited 5 times and other times. In an interview with some nurses at Ishaka Adventist Hospital, they viewed that most women took some time to accept a pregnancy especially when they are not ready for a baby. Unplanned pregnancies often end with passive acceptance. They then become reluctant to visit ANC clinics Respondents were also asked about the proper time for the first visit for antenatal care.

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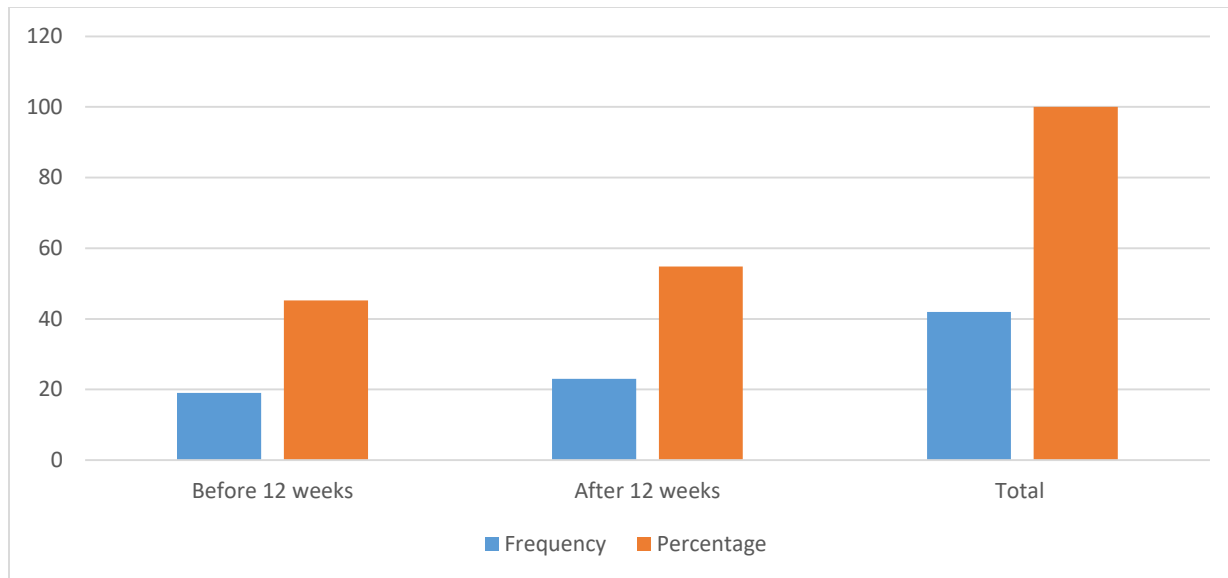


Figure 7: The proper time for the first visit for antenatal care

The findings revealed that the majority of respondents showed that the proper time for the first visit for antenatal care should be after 12 weeks unlike 45.2% cited before 12 weeks.

In an interview, one woman did not consider antenatal visits to a clinic as a priority. She engaged in other work because the pregnancy was perceived as a natural process for every adult woman: 'I was busy with my work and so didn't have time to visit a clinic. Anyhow it is not necessary until my baby has grown big enough.'

DISCUSSION

Incidence of Non-Attendance of ANC

The incidence of non-attendance of ANC by females of reproductive age in Mubende is (19%). This prevalence is influenced by factors including health service-seeking behaviour, level of education, and occupation. The significance of these variables was computed using Pearson's correlation of which health service-seeking behaviour being significant with a value of 0.129*(P=0.021); level of education being significant with a value of 0.286*(P=0.001); occupation was shown to be significant with a value of 0.151*(P=0.011) with a 2 tailed test at 95% confidence level, P<0.05. The findings revealed that the majority of respondents showed that the proper time for the first visit for antenatal care should be after 12 weeks unlike 45.2% cited before 12 weeks. The findings are in line with [14], argued that in the sub-Saharan still, 72% of pregnant women received antenatal care visits one or more times and 68% in East Asia, less than one-third of pregnant mothers received care in Pakistan, only 64% in Nigeria received antenatal care from a qualified health care provider. 37% of the deliveries take place in health institutions while 57% take place from home. According, to UBOS 2006 8% of rural women in Uganda received ANC from a doctor/ qualified health worker. Regionally southwestern women were likely to receive skilled care at 20%, then Eastern women at 3%, while 2% of women in Karamoja were reported to seek antenatal care. It was reported that women in Uganda tend to seek antenatal care very late, with 37% attending for the 1st time at 6 months or more. [15-18]. In an interview, one woman did not consider antenatal visits to a clinic as a priority. She engaged in other work because the pregnancy was perceived as a natural process for every adult woman: 'I was busy with my work and so didn't have time to visit a clinic. Anyhow it is not necessary until my baby has grown big enough. A study conducted in Lao Eastern village shows low accessibility of antenatal, due to; most mothers living about 8 km or more from the nearest ANC service, while more than half, complained that travel conditions made it inconvenient for them to visit the ANC other factors that directly affected utilization of antenatal services included, level of education, employment status, health insurance, household income, pregnancy and delivery history among others. [16, 19].

CONCLUSION

The incidence of non-attendance of ANC by females of reproductive age in Mubende is (19%). This prevalence is influenced by factors including health service-seeking behaviour, level of education, and occupation.

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RECOMMENDATIONS

Intensive health education and awareness campaigns on the importance of ANC attendance to expectant mothers should be done to equip mothers with tactical knowledge thus this will reduce delivery and labour-related maternal mortality. ANC health education services should be integrated at health facilities for all females of reproductive age and expectant mothers. More effort must be applied to spreading awareness about proper health service seeking by mothers to seek specialized obstetric healthcare from properly equipped health facilities with trained obstetric health workers.

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