A Cross-sectional study to identify the factors contributing to low uptake of 1st ANC services among Pregnant Mothers in first trimester at Kamira Health Centre III, Luweero District.

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Abstract

Background:

A study was carried out to identify the factors contributing to low uptake of 1st ANC services among pregnant mothers during the first trimester at Kamira Health Centre III, Luweero District. The study design was descriptive and cross-sectional and it employed both quantitative and qualitative data collection methods. A sample of 60 respondents was selected using a purposive sampling procedure and an interview guide was used to collect data.

Results:

Socio-economic factors contributing to low uptake of 1st ANC services among pregnant mothers during the first trimester as 36 (60%) reported 4 – 6 months as the age at which they were supposed to start attending ANC services, 40 (66.7%) started attending ANC between 4 – 6 months and the major reasons were lack of awareness/knowledge 24 (40%) and lack of support 16 (26.7%). Most 24 (40%) had a monthly income between 100,000 – 200,000shs, 40 (66.7%) reported that the income was not enough to enable access to ANC services as 24 (40%) resided 4 – 5 km away from Kamira Health Centre III and 24 (40%) spent between 5,000 – 10,000shs on transport to the health facility. Health facility factors contributed to low uptake of 1st ANC services among pregnant mothers during the first trimester as most 40 (67%) reported that Kamira Health Centre III was understaffed, and 20 (50%) had the inadequate infrastructure to handle large numbers of mothers. Most 40 (67%) reported that health workers had negative attitudes during the provision of ANC services to mothers 24 (40%) mentioned that they were rude and unwelcoming and 16 (26.7%) mentioned that health workers had poor customer care skills.

Conclusion:

Respondents faced various socio-economic, cultural, and health facility factors which contributed to low uptake of 1st ANC services among pregnant mothers during the first trimester.

Recommendations:

Including improving efficiency and reducing waiting time, improving customer care, more support, and health education about ANC among others.

Keywords: Socio-economic factors, 1st ANC services, First trimester, Pregnant mothers, Date submitted: 15th/08/2022 Date accepted: 02nd/10/2022

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1. Background of the study

Antenatal care is a complex set of activities aimed at reducing maternal and fetal morbidity

and mortality which is achieved by decreasing the likelihood that a pregnant woman will experience serious complications during pregnancy and by reducing the maternal death and pre-labor fetal outcomes of women with complications (Dowswell *et al,* 2017).

Antenatal care indirectly saves the lives of mothers and babies by promoting and establishing good health before childbirth and the early postnatal period – the periods of the highest risk. Antenatal care often presents the first contact opportunity for a woman to connect with health services, thus offering an entry point for integrated care, promoting healthy home practices, influencing care-seeking behaviors, and linking women with pregnancy complications to a referral system (Simkhada, Teijlingen, Porter & Simkhada, 2018).

The World Health Organization (WHO) 2016 recommends that all pregnant women should attend ANC at least 4 times or as recommended by the health provider (Alva, Wang & Fort, 2016). The first ANC visit, in the 1st quarter of pregnancy, helps health workers to ensure that appropriate advice and care is provided to mothers to ensure adequate nutrition, prevention of disease such as malaria through the use of Insecticide Treated Nets (ITNs) and intermittent Prevention (IPT) of Malaria among others (Magoma *et al,* 2018). Furthermore, the first ANC visit is also an opportunity for health workers to promote the use of skilled attendance at birth and healthy behaviors such as breastfeeding, early postnatal care, and planning for optimal pregnancy spacing as well as an emphasis on creating good birth plans together with the husband (Alio *et al,* 2017).

Globally, although there is an increase in the use of ANC services and currently nearly 70% of pregnant women attend all the recommended ANC visits, important disparities exist between developed countries, such as the United States, Canada, France, and Germany which have an estimated 99% of women attending all scheduled ANC visits and developing countries such as Thailand where the rate is closer to 48% (Myer & Harrison, 2016).

In Africa, research on ANC attendance has shown that attendance of the 1st ANC visit remains late with current figures showing that for countries such as Ivory Coast, 65%, Cameroon at 60%, Ghana at 54%, Mali at 49%, Senegal and Nigeria at 48 and 45% respectively attended the first ANC visit when their pregnancy was more than 6 months. This late attendance of 1st ANC visit was often influenced by poor and inadequate provision of services and unavailability of health workers, socio-economic factors, and location of services (Pell, Straus, Andrew, Menaca & Pool, 2016).

Similarly, in East African countries, attendance at the 1st ANC visit remains late. For instance, it was estimated that in northern Tanzania, about 68% of pregnant mothers attended the 1st ANC visit at 5 – 7 months of pregnancy (Mwaniki, Kabiru & Mbugua, 2017). The late attendance of the 1st ANC visit was influenced by the low level of knowledge, lack of provision of services, poor socio-economic status of the family, and low level of education attainment by the woman and rural residents (Khanum, Quaiyum, Islam & Ahmed, 2015).

Conversely, in Uganda, there was also late attendance of the 1st ANC visit as figures showed that in 2012, an estimated 66% of mothers attended the 1st ANC visit at between 6 – 7 months of pregnancy. This late attendance of 1st ANC visit was attributable to a lack of information and knowledge about the benefits of ANC services, reliance on cultural/traditional birth attendants for maternity services, location of services, unavailability of health workers as well as socio-economic factors (Muwanga et al, 2014). This study documents the factors contributing to the low uptake of 1st ANC services among pregnant mothers in the first trimester at Kamira Health Centre III, Luweero District.

2. METHODOLOGY

Study Design

The study design was descriptive and cross-sectional, employing both quantitative and qualitative data collection approaches. The qualitative data collection approach explored the views of the

respondents and the quantitative explored the numerical findings of the factors affecting 1st ANC. The design is descriptive as it described the data as it was without any changes. It was a cross-sectional type of design because it involved the collection of data from a single point in time and from a group of respondents whose characteristics such as age, level of education, number of children, and marital status were described.

Study setting

The study was conducted at Kamira Health Center III, Luweero District which is located in central Uganda. The health center offers many health care services including immunization, child health services, HIV/AIDS management services, general patient management, laboratory services, nutrition services, antenatal, maternity, and postnatal services, EMTCT program as well as RCT services among many others. It's made up of 19 staff, 3 midwives, 2 clinical officers, 4 enrolled Nurses, 1 laboratory technologist, 2 laboratory technicians, 2 porters, 1 records assistant, and 1 health assistant The ANC clinic operates on three specific days every week, that is on Tuesday, Wednesday and Thursday with an average attendance of 20 to 60 pregnant mothers attending daily from 8:30 am to 4:30 pm.

Kamira Health Centre III was chosen because according to the District Health Information Systems (DHIS) records and review of the Antenatal registers show that in the financial year 2019/2020, the consistency of health facility 1st ANC attendance of pregnant women in Kamira H/C III was as low at 16% of mothers booked for ANC visit which is far lower than the WHO (2013) standards. No study has ever been done to shed light on the factors contributing to the low uptake of 1st ANC services at Kamira Health Centre III

The study area is selected because the problem of late attendance of the 1st ANC visit is prevalent at the facility and the data, and records can easily be accessed and easy collection of data because it's within my residence.

Study Population

The study included pregnant mothers attending ANC services at Kamira Health Center III.

An average of 70 mothers attended the ANC services on every clinic day.

Sample Size

The study consisted of a sample of 60 respondents. The respondents were found at the ANC clinic, Kamira Health Center III. The sample size was determined by the use of Morgan and Krejcie

With a study population of 70 pregnant women attending the ANC clinic every day, the sample size for the study was 60 respondents and this was deemed representative enough of the entire study population.

Sampling procedure

The researcher will use a purposive sampling procedure to select the required number of pregnant mothers for the study at Kamira Health Center III. In this procedure, the researcher will specifically select pregnant mothers that have come for ANC services. This technique will enable the researcher to collect relevant data needed for the study. This will continue until the total number of respondents to be interviewed per day is achieved. The researcher hopes to sample 10 respondents per day for a total of 60 respondents for 6 days.

Inclusion criteria

The study included only pregnant mothers attending ANC services late at Kamira Health Center III who were available at the ANC clinic and were willing to voluntarily consent to participate in the study.

Pregnant mothers between the age of 18 to 49 attending ANC with a sound mind at the time of Data collection.

Exclusion criteria

Pregnant mothers between the age of 18 to 49 but with no sound mind at the time of data collection and who had not consented did not participate in the study.

Definition of Variables

The independent variable for the study included:

Socio-economic factors

Cultural factors

Health facility-related factors

The dependent variables for the study included:

Delayed attendance of ANC services

Delayed attendance of antenatal is caused by socioeconomic, cultural, and health facility-related factors.

Research Instruments

Data was collected using an approved semi-structured interview guide which consisted of both open and closed-ended questions. This tool was selected because the study involved both literate and illiterate respondents who were thus unable to read, write and understand English used to develop the questionnaire. It was easy to administer and cheap to develop and analyze.

Data Collection Procedure

Before approaching and collecting data from respondents at the ANC clinic, the researcher was accompanied and introduced to the respondents by the in charge of the ANC clinic and the researcher explained the purpose of the study. The researcher administered interview guides to respondents who met at the ANC clinic. The guide had pretested questions both open and closed-ended questions. This improved efficiency and confidentiality during data collection.

Data management

Data management included data editing before leaving the area of study to ensure that there were no mistakes or areas left blank and that any found were corrected before leaving the area of study. The researcher stored the collected data under lock and key and it was only accessible to the researcher.

Data analysis and presentation

The collected data were first analyzed by the use of Statistical Package for Social Scientists (SPSS) version 25 to analyze the data. All data were entered into the computer and after analysis, it was exported to Microsoft Excel version 2013 to present the data in tables, graphs, and pie charts.

Ethical Considerations

A letter of introduction was obtained from Health Tutors College-Mulago Makerere University introducing the researcher to the in charge of Kamira Health Center III and seeking permission to carry out the study explaining the purpose of the research to the participants. After permission was granted, the in-charge introduced the researcher to the in-charge of the ANC clinic who hence introduced the researcher to the respondents. Respondents were assured of maximum confidentiality and only numbers instead of names were used to identify the respondents. The study only commenced after the objectives of the study had been well explained to participants, and they had consented to participate in the study.

3. Results:

Demographic and Social Characteristics

The interview guide included questions on demographic characteristics such as age, marital status, level of education, occupation, level of education of spouse, and occupation of a spouse. This information was assessed to find out its relationship with the factors contributing to low uptake of 1st ANC services among pregnant mothers in the first trimester at Kamira Health Centre III, Luweero District. The results were presented as follows:

Half of the respondents 30 (50%) were in the age range of 26 – 35 years, followed by 20 (33%) who were 18 – 25 years while the least 10 (27%) were 36 years and above.

The majority of respondents 50 (83%) were married, followed by 6 (10%) who were single while the least 4 (7%) were widowed.

Results showed that 22 (37%) respondents attained primary level education, followed by 14 (23%) who attained secondary level, 14 (23%) attained tertiary level education while the least 10 (17%) did not attain formal education.

A total of 24 (40%) respondents were self-employed, followed by 16 (26.7%) who were housewives, 12 (20%) were peasants and the least 8 (13.3%) were professionals.

A total of 24 (40%) respondents' spouses attained primary level education, followed by 18 (30%) who attained secondary level education, 12 (20%) attained tertiary level education while the least 6 (10%) did not attain any formal education.

The majority of respondents' spouses, 36 (60%) were self-employed, followed by 14 (23.3%) who were peasants while the least 10 (16.7%) were unemployed.
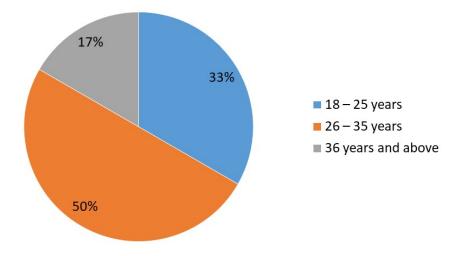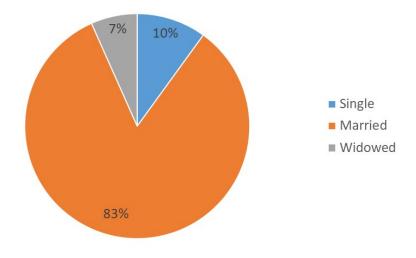
Figure 1: Distribution of respondents by age (n=60)

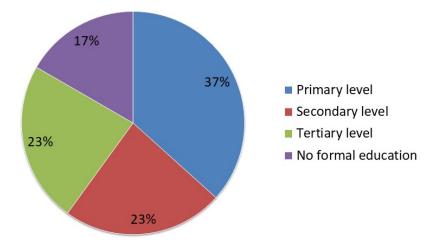Figure 2: Distribution of respondents by marital status (n=60)

Figure 3: Distribution of respondents by level of education (n=60)

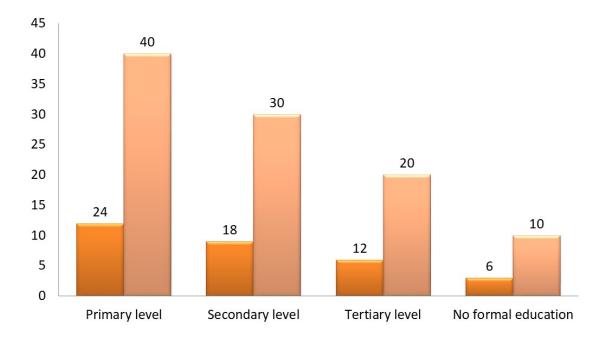Figure 4: Distribution of respondents by occupation (n=60)

Figure 5:   Distribution of respondents by level of education of spouse (n=60)

Table 1: **Distribution of respondents by occupation of spouse** (n=6 0)

Occupation	Frequency	Percentage (%)
Unemployed	10	16.7
Self employed	36	60
Peasants	14	23.3
Total	**60**	**100**

Socio -economic factors contributing to low uptake of 1st ANC services among pregnant mothers in first trimester.

Most respondents 26 (43.3%) had 2 − 3 children, followed by 16 (26.7%) who had 1 child, 14 (23.3%) had 4 children and above while the least 4 (6.7%) did not have children.

Results showed that half 30 (50%) of the respondents left their children with maids when going for ANC, followed by 20 (33.3%) who left the children with their siblings while the least 10 (16.7%) left them with their fathers.

The majority 50 (83%) of respondents reported that having to leave children hindered their attendance of ANC while the least 10 (17%) reported

that it did not hinder them.

The majority 36 (60%) of respondents reported 4 − 6 months as the age at which they were supposed to start attending ANC, followed by 14 (23.3%) who reported 1 − 3 months while the least 10 (16.7%) reported 7 − 9 months.

The majority 40 (66.7%) of the respondents started attending ANC between 4 − 6 months of pregnancy, followed by 12 (20%) who started attending ANC between 1 − 3 months of pregnancy while the least 8 (13.3%) started at 7 − 9 months of pregnancy.

Most 24 (40%) respondents started attending ANC at that age of pregnancy because of a lack of awareness/knowledge, followed by 16 (26.7%)
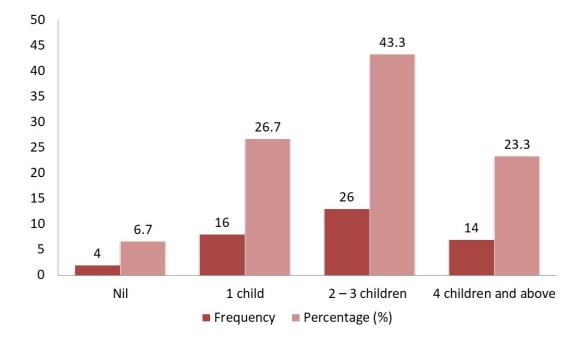
November 17, 2022

Figure 6: Distribution of respondents by number of children (n=60)
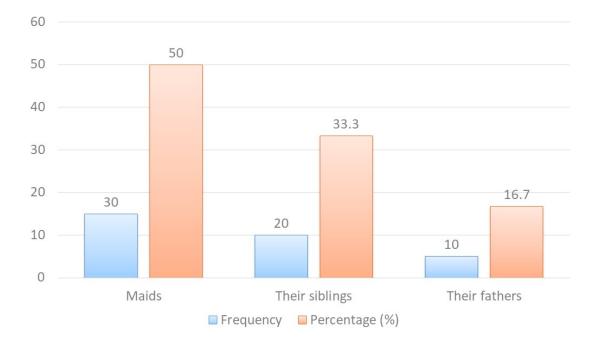

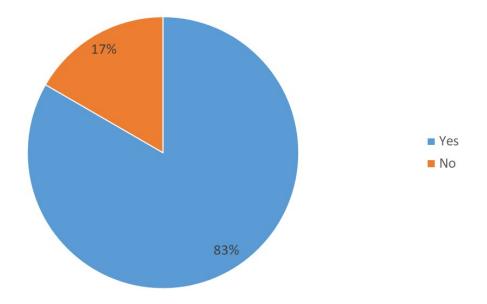Figure 7: Whom respondents left children with when going for ANC   (n=60)

Figure 8: Whether having to leave children hindered their attendance of ANC   (n=60)

Table 2: Age of pregnancy at which respondents were supposed to start attending ANC (n=60)

Age of pregnancy	Frequency	Percentage (%)
1 − 3 months	14	23.3
4 − 6 months	36	60
7 − 9 months	10	16.7
Total	**60**	**100**

Table 3: When respondents started attending ANC (n=60)

Age of pregnancy	Frequency	Percentage (%)
1 − 3 months	12	20
4 − 6 months	40	66.7
7 − 9 months	8	13.3
Total	**60**	**100**

Table 4: Reasons why respondents started attending ANC at that age (n=60)

Reasons	Frequency	Percentage (%)
Lack of awareness/knowledge	24	40
Lack of support	16	26.7
Did not feel the need to attend early	12	20
They were not feeling ill	8	13.3
Total	**60**	**100**

who reported a lack of support, 12 (20%) reported that they did not feel the need to attend early while the least 8 (13.3%) reported that they were not feeling ill.

A total of 24 (40%) respondents reported health education of mothers about nutrition, followed by 20 (33.3%) who mentioned prevention of diseases such as malaria while the least 16 (26.7%) reported immunization.

Results showed that 24 (40%) respondents reported that their monthly income was between 100,000 – 200,000shs, followed by 16 (26.7%) whose monthly income was above 200,000shs, 12 (20%) had a monthly income of 50,000 – 100,000sh while the least 8 (13.3%) had a monthly income of 0 – 50,000shs.

Most 40 (66.7%) respondents reported that their monthly income is not enough to enable access to ANC services while the least 20 (33.3%) reported that it was enough for them to access ANC services.

A total of 24 (40%) respondents resided 4 – 5 km away from Kamira Health Centre III, followed by 20 (33.3%) who resided 6 km and above away, 10 (16.7%) resided less than 1 km away while the least 6 (10%) resided 2 – 3 km away.

Results showed that 24 (40%) respondents used Boda boda as a means of transport to get to the health facility, followed by 14 (23.3%) who footed, 12 (20%) used taxis while the least 10 (16.7%) used private means.

A total of 24 (40%) respondents spent between 5000 – 10,000shs on transport to the health facility, followed by 14 (23.3%) who did not spend any money as they footed to the facility, 12 (20%) spent 1000 – 5000shs while the least 10 (16.7%) spent 10,000shs and more on transport.

Results showed that 26 (43.3%) respondents got financial support from their partners, followed by 18 (30%) who got it from their jobs while the least 16 (26.7%) got it from their relatives and friends.

Most respondents 40 (67%) reported that their partners supported them to access ANC services early while the least 20 (33%) reported not getting support from their partners.

Out of the 40 respondents who reported getting supported by their partners to access ANC

services, half 20 (50%) said the partners provided material support, followed by 12 (30%) who said the partners provided financial support while the least 8 (20%) said the partners encouraged and motivated them to attend.

Cultural factors contributing to low uptake of 1st ANC services among pregnant mothers in first trimester

All of the respondents 60 (100%) reported that their culture encouraged mothers to attend services.

Most 36 (60%) respondents reported not facing any cultural hindrances because of being pregnant while the least 24 (40%) reported facing cultural hindrances because of being pregnant such as not having the freedom to move freely.

Most 24 (40%) respondents decided on when and where to attend ANC services, 16 (26.7%) reported that their partner decided on when and where to attend ANC services, 12 (20%) reported that their parents decided while the least 8 (13.3%) reported that mothers in law made the decision.

Majority 42 (70%) of respondents agreed that herbal medicine use affected attendance of ANC services while the least 18 (30%) disagreed.

Health facility related factors contributing to low uptake of 1st ANC services among pregnant mothers in first trimester.

Most respondents 40 (67%) reported that Kamira Health Centre III is not equipped to provide ANC services while the least 20 (33%) reported that it is equipped to provide ANC services.

Out of the 40 respondents who reported that Kamira Health Centre III is not well equipped to provide ANC services, half 20 (50%) reported that inadequate infrastructure to handle large numbers of mothers, 12 (30%) mentioned inadequate staffing while the least 8 (20%) reported frequent stock outs of required medication.

Out of the 20 respondents who reported that St. Francis Hospital is well equipped to provide ANC services, most 12 (60%) reported that they had welcoming staff with good customer care while the least 8 (40%) reported that the hospital had efficient staff.

Table 5: Benefits of attending ANC (n=60)

Benefits of ANC	Frequency	Percentage (%)
Health education of mothers about nutrition	24	40
Prevention of diseases such as malaria	20	33.3
Immunization	16	26.7
Total	**60**	**100**

Table 6: Monthly income of respondents (n=60)

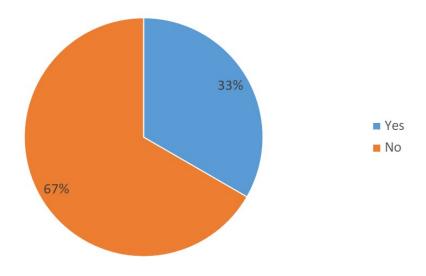| Monthly income	Frequency	Percentage (%)
0 − 50,000shs	8	13.3
50,000 − 100,000shs	12	20
100,000 − 200,000shs	24	40
Above 200,000shs	16	26.7
Total	**60**	**100**

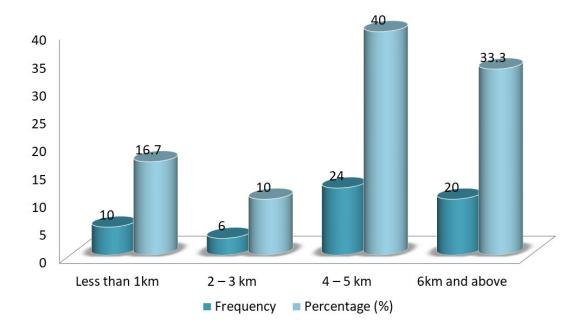Figure 9: Whether monthly income is enough to enableaccess to ANC services (n=60)

Figure 10: Distance of Kamira Health Centre III from respondents' homes (n=60)

Table 7: Means of transport used to get to the health facility (n=60)

Means of transport	Frequency	Percentage (%)
Footing	14	23.3
Boda Boda	24	40
Taxi	12	20
Private means	10	16.7
Total	**60**	**100**

Table 8: Where respondents got financial support   (n=60)

Responses	Frequency	Percentage (%)
My partner	26	43.3
My job	18	30
Others (specify) my relatives and friends	16	26.7
Total	**60**	**100**

Table 9: **How respondents' partners supported them**   **(n=4 0)**

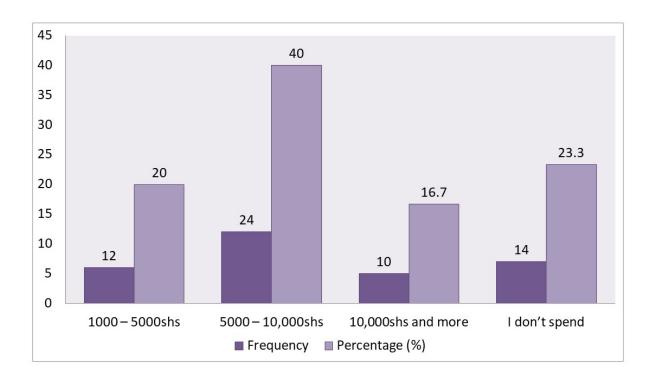| Responses	Frequency	Percentage (%)
By providing material support	20	50
By providing financial support	12	30
Through encouraging and motivating them to attend	8	20
Total	**40**	**100**

Figure 11: Amount of money spent on transport to the health facility (n=60)

Figure 12: Whether respondents' partners supported them to access ANC services early (n=60)

Table 10: **Whether respondents' culture encouraged mothers to attend ANC services(n=6 0)**

Responses	Frequency	Percentage (%)
Yes	60	100
No	0	0
Total	**60**	**100**

Table 11: **Whether respondents faced any cultural hindrances because of being pregnant (n=6 0)**

Responses	Frequency	Percentage (%)
Yes	24	40
No	36	60
Total	**60**	**100**

Table 12: **Who makes decision on when and where to attend ANC services (n=60)**

Responses	Frequency	Percentage (%)
Myself	24	40
My partner	16	26.7
My parents	12	20
Others (specify) Mothers in law	8	13.3
Total	**60**	**100**

Table 13: **Whether herbal medicine use affected attendance of ANC services (n=60)**

Responses	Frequency	Percentage (%)
Yes	42	70
No	18	30
Total	**60**	**100**

Table 14: **Reasons whyKamira Health Centre III is not well equipped to provide ANC services (n=4 0)**

Reasons	Frequency	Percentage (%)
Inadequate infrastructure to handle large numbers of mothers	20	50
Inadequate staffing	12	30
Frequent stock outs of required medication	8	20
Total	**40**	**100**

Table 15: **Reasons whyKamira Health Centre III is well equipped to provide ANC services (n=2 0)**

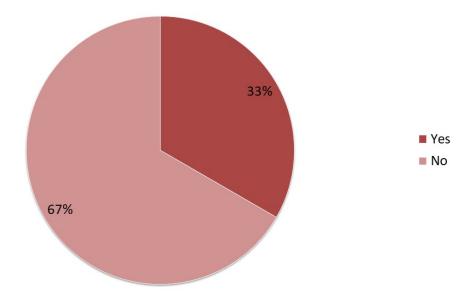| Reasons	Frequency	Percentage (%)
Welcoming staff with good customer care	12	60
Efficient staff	8	40
Total	**20**	**100**

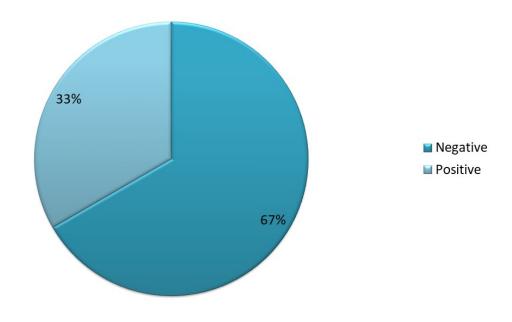Figure 13: Whether Kamira Health Centre III is equipped to provide ANC services (n=60)

Figure 14:   Attitude of health workers during provision of ANC services   (n=60)

Most respondents 40 (67%) reported that health workers had negative attitudes during the provision of ANC services to mothers while the least 20 (33%) reported that the health workers had positive attitudes.

A total of 24 (40%) respondents reported that health workers had negative attitudes during the provision of ANC services to mothers as they were rude and unwelcoming, 16 (26.7%) said they had poor customer care skills and did not communicate well. However, 20 (33.3%) reported that health workers had positive attitudes as they were welcoming.

Results showed that 24 (40%) reported waiting for more than 2 hours to receive ANC services, followed by 16 (26.7%) who waited for 1 – 2 hours, 12 (20%) waited for 40 minutes – 1 hour while the least 8 (13.3%) waited for less than 30 minutes.

All 60 (100%) of the respondents reported facing health facility challenges on the provision of ANC services.

A total of 24 (40%) respondents reported long waiting times to receive services as a health facility challenges faced by respondents on the provision of ANC services, followed by 16 (26.7%) who reported long distances to the health facility, 12 (20%) negative attitude of health workers while the least 8 (13.3%) reported frequent stock outs of required drugs.

Results showed that 24 (40%) respondents reported long waiting times to receive services as something that would prevent them from attending ANC services early, 16 (26.7%) reported negative attitudes and poor communication with health workers, 12 (20%) reported long distances to health facilities while the least 8 (13.3%) reported frequent stock outs of required drugs.

Half 30 (50%) of the respondents reported that they would have preferred to be helped by improving efficiency to reduce waiting time, followed by 20 (33.3%) who recommended improving customer care and communication of health workers while the least 10 (16.7%) recommended ensuring ready availability of required drugs.

4. Discussion:

Demographic and Social Characteristics

Half of the respondents 30 (50%) were in the age range of 26 – 35 years, followed by 20 (33%) who were 18 – 25 years while the least 10 (27%) were 36 years and above. This showed that respondents were mature enough to understand and appreciate the importance of ANC services to ensure their good utilization.

The majority of respondents 50 (83.3%) were married, which implied that since they were married, they would be able to receive support and encouragement from their partners to ensure the use of ANC services. However, this was not entirely the case in the study. This study finding was similar to Amentie and Abdulahi (2015) whose study about factors influencing the utilization of antenatal care services among women of childbearing age in Assosa District, Benishangul Gumuz Regional State, West Ethiopia it was revealed that factors contributing to low uptake of 1st ANC services among pregnant mothers included marital status, rural residence, the distance of health units and lack of reliable transport.

Results showed that 22 (37%) respondents attained primary level education while 24 (40%) respondents' spouses attained primary level education. This demonstrated that most respondents and their spouses attained a low level of education and this could greatly affect their awareness of the importance and benefits of ensuring early utilization of ANC. This study finding was in agreement with Gitonga (2017) whose study about the determinants of focused Antenatal Care Uptake among Women in Tharaka reported that important factors contributing to low uptake of 1st ANC services among pregnant mothers included the social economic status of the couple and the level of education of the couple. It was mentioned that couples who were both educated were presented with a much higher chance of attending the ANC services as they are more aware of the importance and benefits of ANC services during pregnancy.

A total of 24 (40%) respondents were self-employed and the majority of respondents' spouses, 36 (60%) were self-employed. This

Table 16: **Reasons why respondents thought health workers had positive/negative attitudes (n=6 0)**

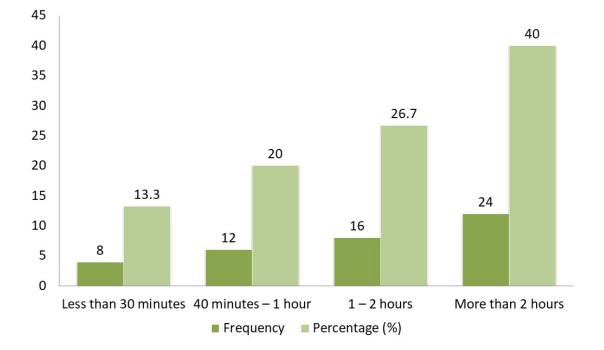| Reasons	Frequency	Percentage (%)
They are rude and unwelcoming	24	40
They have poor customer care skills and don't communicate well	16	26.7
They are welcoming	20	33.3
Total	**60**	**100**

Figure 15: Waiting time at the facility to receive ANC services (n=60)

Table 17: Whether respondents faced health facility challenges on the provision of ANC services (n=60)

Reasons	Frequency	Percentage (%)
Yes	60	100
No	0	0
Total	**60**	**100**

Table 18: What would prevent respondents attending ANC services early (n=60)

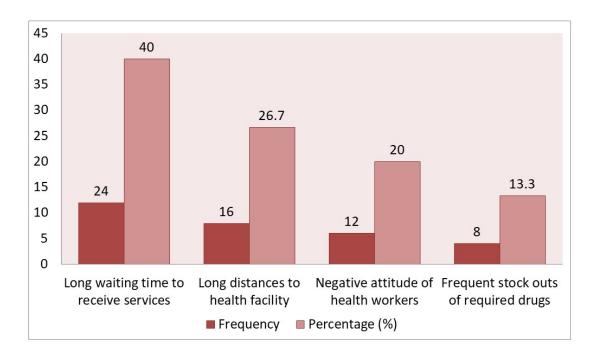| Responses	Frequency	Percentage (%)
Long waiting time to receive services	24	40
Negative attitudes and poor communication of health workers	16	26.7
Long distances to health facilities	12	20
Frequent stock outs of required drugs	8	13.3
Total	**60**	**100**

Figure 16: Health facility challenges faced by respondents on the provision of ANC services   (n=60)

Table 19: How respondents preferred to be helped (n=60)

Responses	Frequency	Percentage (%)
Improving efficiency to reduce waiting time	30	50
Improving customer care and communication of health workers	20	33.3
Ensuring ready availability of all required drugs	10	16.7
Total	**60**	**100**

implied that since most respondents and their spouses were self-employed and gainfully involved in income-generating activity, they would be better placed to ensure adequate access to and utilization of ANC services. This study finding was in line with Bilenko, Hammel, and Belmaker (2018) whose study about the utilization of antenatal care services by a semi-nomadic Bedouin Arab population: evaluation of the impact of a local maternal and child health document among the women interviewed, it was revealed that the type of job done by pregnant mothers influences attending ANC. It was further revealed that women and their husbands who had formal employment were more likely to access and attend ANC services as compared to those with informal employment as their income was not guaranteed and the employers know the relevance of ANC.

Socio-economic factors contributing to low uptake of 1st ANC services among pregnant mothers in the first trimester

Most respondents 26 (43.3%) had 2 – 3 children, followed by 16 (26.7%) who had 1 child, and 14 (23.3%) had 4 children and above. This implied that since respondents had more than 1 child, they would have more experience with ANC and its associated benefits and hence ensure early utilization.

Results showed that half 30 (50%) of the respondents left their children with maids when go-

ing for ANC, followed by 20 (33.3%) who left the children with their siblings, however, the majority 50 (83%) of respondents reported that having to leave children at home with the maid hindered their attendance of ANC. This demonstrated that most respondents delayed attending ANC services due to having no one to leave their children with when they attended ANC services.

The majority of 36 (60%) respondents reported 4 – 6 months as the age at which they were supposed to start attending ANC services. This demonstrated that a significant number of women did not possess accurate knowledge regarding when to start attending ANC services, a fact which delayed their attendance and this also highlighted the need for regular health education of mothers about the recommended time for commencing ANC attendance. This study finding was in agreement with Din and Thu-Ha (2018) whose study about the integrated prevention of mother-to-child transmission of HIV and syphilis testing and treatment in antenatal care services in the Northern Cape and Gauteng provinces, South Africa, it was reported that one of the social economic factors like inadequate knowledge about the right time to commence ANC attendance, poverty contributed a lot to low uptake of 1st ANC services among pregnant mothers due to lack of money for transport and to pay for the necessary services like blood tests.

The majority of 40 (66.7%) of the respondents started attending ANC between 4 – 6 months of pregnancy. This demonstrated that most respondents did not commence attendance of ANC services as early as recommended which could perhaps be due to a lack of knowledge about the recommended time for attendance as well as other potential factors. This further implied that most mothers had missed out on the opportunity to engage in some services provided during this period. This study finding was in agreement with Din and Thu-Ha (2018) whose study about the integrated prevention of mother-to-child transmission of HIV and syphilis testing and treatment in antenatal care services in the Northern Cape and Gauteng provinces, South Africa, it was reported that one of the social economic factors like in-

adequate knowledge about the right time to commence ANC attendance, poverty contributed a lot to low uptake of 1st ANC services among pregnant mothers due to lack of money for transport and to pay for the necessary services like blood tests.

Most 24 (40%) respondents started attending ANC at that age of pregnancy because of a lack of awareness/knowledge. This highlighted one of the major factors influencing late ANC services attendance which also pointed to the need for regular health education of mothers about ANC services, their benefits as well as the recommended age of pregnancy at which to commence ANC attendance.

A total of 24 (40%) respondents reported health education of mothers about nutrition, followed by 20 (33.3%) who mentioned prevention of diseases such as malaria while the least 16 (26.7%) reported immunization. This demonstrated that respondents were fully aware of the various services provided to mothers during ANC which implied that since they were aware of the services, they would endeavor to attend early to attain these services. However, this was not the case in the study.

Results showed that 24 (40%) respondents reported that their monthly income was between 100,000 – 200,000shs, followed by 16 (26.7%) whose monthly income was above 200,000shs, 40 (66.7%) respondents reported that their monthly income is not enough to enable access to ANC services. This demonstrated that most respondents had a low monthly income, a situation which predisposed them to poverty and hence the inability to afford transport to ensure early attendance of ANC services. Similar findings were presented by Dahiru and Oche (2015) whose study about the determinants of antenatal care, institutional delivery, and postnatal care services utilization in Nigeria revealed that poverty was one of the biggest factors contributing to low uptake of 1st ANC services among pregnant mothers.

A total of 24 (40%) respondents resided 4 – 5 km away from Kamira Health Centre III, followed by 20 (33.3%) who resided 6 km and above away. This demonstrated that most respondents resided

a considerable distance away from Kamira Health Centre III and this influenced their first ANC booking, particularly if they did not have reliable transport means or even money to pay for this transport. This study finding was in agreement with Amentie and Abdulahi (2015) whose study about factors influencing the utilization of antenatal care services among women of childbearing age in Assosa District, Benishangul Gumuz Regional State, West Ethiopia it was revealed that factors contributing to low uptake of 1st ANC services among pregnant mothers included marital status, rural residence, the distance of health units and lack of reliable transport.

Results showed that 24 (40%) respondents used Boda Boda as a means of transport to get to the health facility, followed by 14 (23.3%) who footed, 12 (20%) used taxis and the least 10 (16.7%) used private means. This showed that respondents used various means of transport to get to the health facility. However, some of the means of transport were unreliable and could greatly affect the ability of mothers to attend ANC services early and on time as recommended, especially among those who for instance walked to the health facility. This study finding was in agreement with a study conducted by Din and Thu-Ha (2018) about the integrated prevention of mother-to-child transmission of HIV and syphilis testing and treatment in antenatal care services in the Northern Cape and Gauteng provinces, South Africa, it was reported that one of the social economic factors like inadequate knowledge about the right time to commence ANC attendance, poverty contributed a lot to low uptake of 1st ANC services among pregnant mothers due to lack of money for transport and to pay for the necessary services like blood tests.

A total of 24 (40%) respondents spent between 5000 – 10,000shs on transport to the health facility while the least 10 (16.7%) spent 10,000shs and more on transport. This demonstrated that respondents spent a considerable amount of money on transport to the health facility which might directly influence the first ANC booking. This study finding was in line with Din and Thu-Ha (2018) about the integrated prevention of mother-

to-child transmission of HIV and syphilis testing and treatment in antenatal care services in the Northern Cape and Gauteng provinces, South Africa, it was reported that one of the social economic factors like inadequate knowledge about the right time to commence ANC attendance, poverty contributed a lot to low uptake of 1st ANC services among pregnant mothers due to lack of money for transport and to pay for the necessary services like blood tests.

Results showed that 26 (43.3%) respondents got financial support from their partners, followed by 18 (30%) who got it from their jobs while the least 16 (26.7%) got it from their relatives and friends. This showed that respondents obtained support from various sources, even from their partners which implied that they would be in a much better position to ensure access and early utilization of ANC services. This study was contrary to Boamah, Amoyaw, and Luginaah (2016) who carried out a study on explaining the gap in antenatal care service utilization between younger and older mothers in Ghana mentioned, and it was revealed that factors contributing to low uptake of 1st ANC services among pregnant mothers included lack of support of the partners and the long distances to health facilities.

Most respondents 40 (67%) reported that their partners supported them to access ANC services early and out of the 40 respondents who reported getting supported by their partners to access ANC services, half 20 (50%) said the partners provided material support. This demonstrated that the respondents' partners in this case endeavored to support their partners to attend ANC services as early as recommended. This study finding was in line with Amentie and Abdulahi (2015) whose study about factors influencing the utilization of antenatal care services among women of childbearing age in Assosa District, Benishangul Gumuz Regional State, West Ethiopia it was revealed that factors contributing to low uptake of 1st ANC services among pregnant mothers included marital status, rural residence, the distance of health units and lack of reliable transport.

Cultural factors contributing to low up-

take of 1st ANC services among pregnant mothers in the first trimester

All of the respondents 60 (100%) reported that their culture encouraged pregnant women to attend ANC services which implied that in this case, late first booking for ANC could not be attributed to a lack of cultural support for ANC but to other factors.

Most 36 (60%) respondents reported not facing any cultural hindrances because of being pregnant while the least 24 (40%) reported facing cultural hindrances because of being pregnant such as not having the freedom to move freely. This demonstrated that most respondents did not encounter any cultural hindrances to ANC attendance. This study finding was in agreement with Tiruneh, Chuang, and Chuang (2017) who carried out a study about women's autonomy and maternal healthcare service utilization in Ethiopia and found that cultural factors contributing to low uptake of 1st ANC services among pregnant mothers included a cultural preference for local herbs due to beliefs about their efficacy and affordability.

Most 24 (40%) respondents decided on when and where to attend ANC services, 16 (26.7%) reported that their partner decided on when and where to attend ANC services, 12 (20%) reported that their parents decided while the least 8 (13.3%) reported that mothers in law made the decision. This demonstrated that decisions about when and where to attend ANC in the home were not individually made which potentially influenced delayed ANC attendance. This study finding was in line with Teka (2018) whose study about the factors influencing antenatal care service utilization among pregnant women in pastoralist communities in Menit-Shasha District, Ethiopia, it was noted that cultural beliefs and practices promoted the use of traditional care such as traditional healers during pregnancy affected antenatal care service attendance.

The majority 21 (70%) of respondents agreed that herbal medicine use affected the attendance of ANC services which was in agreement with Bande, Shehu, and Garba (2018) whose study about the effects of socio-demographic and institutional factors on utilization of antenatal care

services among pregnant women in Damaturu, Yobe State, revealed that pregnant mothers prefer using traditional providers and their local herbs for treatment instead of attending the formal health care services because the herbs were readily available in large quantities and were cheap, traditional providers were always present at their work stations and effectively communicated with pregnant mothers about their care compared to formal health workers who were few, not available, especially when most needed and when they were present drugs were out of stock.

Health facility-related factors contributing to low uptake of 1st ANC services among pregnant mothers in the first trimester

Most respondents 40 (67%) reported that Kamira Health Centre III is not equipped to provide ANC services and out of the 40 respondents who reported that Kamira Health Centre III is not well equipped to provide ANC services, half 20 (50%) reported inadequate infrastructure to handle large numbers of mothers while the least 8 (20%) reported frequent stock outs of required medication. This study finding was in line with Piaggio et al, (2016) whose study about the WHO systematic review of randomized controlled trials of routine antenatal care revealed that poor infrastructure as well as poor customer care skills among other factors were much associated with ANC attendance at the health facilities.

Results showed that 12 (30%) respondents mentioned inadequate staffing as a factor influencing early ANC attendance. This showed that various factors made Kamira Health Centre III unsuitable to provide ANC services and this greatly influenced early ANC attendance. This study finding was in line with Dina and Thu-Ha (2018) whose study about integrated prevention of mother-to-child transmission of HIV and syphilis testing and treatment in antenatal care services in the Northern Cape and Gauteng provinces, South Africa revealed that long waiting time to receive services at the health **facility due to large numbers of pregnant mothers, the bureaucracy of the facility may be the related** factors contributing to low uptake of 1st ANC services.

Most respondents 40 (67%) reported that health workers had negative attitudes during the provision of ANC services to mothers and a total of 24 (40%) respondents reported that health workers had negative attitudes during the provision of ANC services to mothers as they were rude and unwelcoming, 16 (26.7%) said they had poor customer care skills and did not communicate well. This implied that health workers needed to improve their customer care skills to realize an improvement in the first antenatal booking by pregnant mothers. This study finding was in agreement with Piaggio et al, (2016) whose study about the WHO systematic review of randomized controlled trials of routine antenatal care revealed that poor infrastructure as well as poor customer care skills among other factors were much associated with ANC attendance at the health facilities.

Results showed that 24 (40%) reported waiting for more than 2 hours to receive ANC services, followed by 16 (26.7%) who waited for 1 – 2 hours, and 12 (20%) waited for 40 minutes – 1 hour. This showed that respondents reported waiting for a prolonged period before receiving services and this greatly influenced service utilization. This study finding was in agreement with Jallow and Isatou (2019) whose study about women's perception of antenatal care services in public and private clinics in the Gambia reported that health facility factors contributing to low uptake of 1st ANC services among pregnant mothers included perceived poor quality of services as well as the long waiting time to receive services.

All 60 (100%) of the respondents reported facing health facility challenges in the provision of ANC services and a total of 24 (40%) respondents reported long waiting times to receive services as health facility challenges faced by respondents on the provision of ANC services. This study finding was in agreement with Jallow and Isatou (2019) whose study about women's perception of antenatal care services in public and private clinics in the Gambia reported that health facility factors contributing to low uptake of 1st ANC services among pregnant mothers included perceived poor quality of services as well as the long waiting time

to receive services.

Results showed that 24 (40%) respondents reported long waiting times to receive services as something that would prevent them from attending ANC services early, 16 (26.7%) reported negative attitudes and poor communication with health workers, 12 (20%) reported long distances to health facilities while the least 8 (13.3%) reported frequent stock outs of required drugs. This demonstrated that various factors influenced early attendance of ANC services.

Half 30 (50%) of the respondents reported that they would have preferred to be helped by improving efficiency to reduce waiting time, followed by 20 (33.3%) who recommended improving customer care and communication of health workers while the least 10 (16.7%) recommended ensuring ready availability of required drugs. This demonstrated that respondents were aware of what could be done to positively influence early ANC attendance.

5. Conclusion

The study found that respondents faced various socio-economic factors contributing to low uptake of 1st ANC services among pregnant mothers in the first trimester. For example, most respondents reported 4 – 6 months as the age at which they were supposed to start attending ANC services and started attending ANC between 4 – 6 months of pregnancy due to lack of awareness/knowledge and lack of support while others did not feel the need to attend early. Even though respondents were aware of the services provided to mothers during ANC including health education about nutrition, prevention of diseases such as malaria, and immunization, most respondents had a monthly income between 100,000 – 200,000shs and reported that their monthly income is not enough to enable access to ANC services as most resided 4 – 5 km away from Kamira Health Centre III and spent between 5000 – 10,000shs on transport to the health facility.

Respondents also faced a few cultural factors contributing to low uptake of 1st ANC services among pregnant mothers in the first trimester and

although all respondents reported that their culture encouraged pregnant women to attend ANC services and reported not facing any cultural hindrances because of being pregnant, most reported facing hindrances such as not having the freedom to move freely while pregnant as well as having other people such as partners, parents and mothers in law making the decision also influenced late ANC attendance. Furthermore, most of the respondents agreed that herbal medicine use affected the attendance of ANC services.

Respondents faced various health facility factors contributing to low uptake of 1st ANC services among pregnant mothers in the first trimester. For instance, most respondents reported that Kamira Health Centre III is not equipped to provide ANC services because of inadequate infrastructure to handle large numbers of mothers, inadequate staffing, and frequent stockouts of required medication. Furthermore, most respondents reported that health workers had negative attitudes during the provision of ANC services to mothers as they had negative attitudes during the provision of ANC services to mothers as they were rude and unwelcoming and had poor customer care skills. Other health facility factors included long waiting times to receive services and frequent stockouts of required drugs.

Limitations of the study

The researcher encountered financial constraints in gathering information from the internet and libraries and printing and transport costs. The researcher overcame this limitation by drawing up a budget that was strictly followed to utilize the available means.

The researcher also encountered difficulty in getting the required information from the respondents for whatever reason. The researcher overcame these limitations by promising and ensuring maximum confidentiality of the identities of the respondents as well as the information given. Respondents also demanded payment in exchange for the information to be given, however, they were explained that there were no financial incentives or benefits to participating in the study.

Recommendations
The Ministry of Health

The Ministry of Health should endeavor to create nationwide guidelines for pregnant women about the importance of early booking for the first ANC.

Kamira Health Centre III

The administration of Kamira Health Centre III should work together wevelopment partners to improve the infrastructure of the health facility to enable it to handle a large number of mothers.

The administration needs to ensure the effective provision of all required resources, equipment, and drugs to improve efficiency during the provision of ANC services.

The administration needs to improve the monitoring and supervision of health staff during the provision of ANC services to ensure good customer care skills when handling mothers.

Health workers at Kamira Health Centre III should endeavor to have good communication and customer care skills which will improve efficiency and reduce delays during the provision of ANC services to pregnant mothers.

Health workers, especially those at Kamira Health Centre III can play a vital role in improving timely access and utilization of ANC services. This can be done through continuous and regular health education of mothers about the importance of early attending ANC services, having good customer care skills, and providing efficient services which reduce waiting time to receive services among others.

6. Abbreviations

ANC : Antenatal Care
HMIS : Health Management Information System
IPTp : Intermittent Preventive Treatment
STIs : Sexually Transmitted Infections
TBAs : Traditional Birth Attendants
UNFPA : United Nations Population Fund
WHO : World Health Organization

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Appendix A. Publisher details:

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