KESMONDS INTERNATIONAL UNIVERSITY
Entreprenuerial Education for a Changing Society
IQ RESEARCH JOURNAL
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Volume 4, Issue 2

May 2025

IQ RESEARCH JOURNAL

A Quarterly Journal of Kesmond International University

Factors Associated with Late Antenatal Care Booking and Utilization of Antenatal Services among Pregnant Women in Kumba Baptist Hospital

YUNGSI ROSE FIEN, ANEH RITA NDAMUKONG, SUNDJO FABIEN AND NJI AUGUSTINE ASAKIZI

ISSN: 2790-4296 (Online)
ISBN: 978-9956-504-74-9 (Print)

Published by IQRJ publications
www.iqresearchjournal.com

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Entrepreneurial Education for a Changing Society

IQ RESEARCH JOURNAL
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IQRJ: Volume 004, Issue 002, May 2025
Original Research Article

Factors Associated with Late Antenatal Care Booking and Utilization of Antenatal Services among Pregnant Women in Kumba Baptist Hospital

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Article History

Received: 04/ 02/2025;

Accepted: 06/ 04/2025;

Published: 02/ 05/2025

Unique Paper ID:
IQRJ-25004005

Abstract:

Antenatal care embodies care given to women from the time they become pregnant till beginning of labor. At this time the midwife provides the woman and her family with a centered approach by sharing information with the women to facilitate her to make informed choice about her care. Also Antenatal care can be defined as the care provided by skilled health care professionals to pregnant women in order to ensure the best health condition for both mother and baby during pregnancy. The institutional-based cross-sectional study design was conducted in Kumba Baptist Hospital with aim to find the factors associated with late ANC booking and utilization of ANC services by pregnant women. The study also assessed knowledge on importance of ANC by pregnant women and how lack of finance influence late ANC booking and if distance from health unit influence late attendance and use of ANC services. A random sampling technique whereby pregnant women who came for ANC visit and who met the inclusion criteria were unsystematically approached and given questionnaire. Verbal questioning was done where pregnant women could not understand or interpret the questionnaire. All the respondents 78(97.5%) accepted "YES" that there are measures to improve antenatal care utilization while only a small proportion 2(2.5) said there exist NO measures in improving antenatal care services usage. Only half of the pregnant mothers sampled have knowledge on antenatal care and it benefits. This entails that up to about 50% of women still do not adequately have knowledge on antenatal care and its importance to them and the foetus. Three quarter of the pregnant mothers have difficulties hindering them from having access and readily using antenatal care services, with poverty and ignorance being the most prominent, followed by long distances from the health unit which entails cost. These barriers are the major indication for low attendance of antenatal care.

Keywords: Antenatal care, Communities, Kumba Baptist hospital, Kumba health district, South west region Cameroon**.**

To cite this article:

Yungsi. R. F. Aneh. R. N., Sundjo F., Nji. A. A. (2025). Factors associated with late antenatal care booking and utilization of antenatal services among pregnant women in Kumba Baptist Hospital. *IQ Research Journal* Vol. 004, Issue 002, 05-2025, pp. 053 - 071

INTRODUCTION

Antenatal care embodies care given to women from the time they become pregnant till beginning of labor. At this time the midwife provides the woman and her family with a centered approach by sharing information with the women to facilitate her to make informed choice about her care (Myles, 2003). Also Antenatal care can be defined as the care provided by skilled health care professionals to pregnant women in order to ensure the best health condition for both mother and baby during pregnancy (WHO, 2023).

According to Harrington (2006), Antenatal care is the clinical assessment of mother and fetus during pregnancy for the purpose of obtaining the best possible outcome for the mother and child. According to McCarthy & Maine (2012), antenatal care is an important determinant of high maternal mortality rate and one of the basic components of maternal care on which the life of mothers and babies depend. It includes routine follow up provided to all pregnant women at primary care level from screening to intensive life support during pregnancy and up to delivery (Jafarey et al, 2013).

According to WHO (2023), It's best for a pregnant woman to have her first antenatal visit before 10 weeks into her pregnancy. Ideally this will happen when she is about 6 to 8 weeks pregnant. Antenatal care followed a traditional pattern consisting of monthly visits until 28weeks of gestation, forth nights (2weeks) visit until 36 weeks and weekly visits until the birth of the baby. This retrospect analysis demonstrated that expectations of antenatal care might not be met. They found that conditions requiring hospitalization, including pre-eclampsia, were neither prevented nor detected by antenatal care, and intra-uterine growth restriction was over diagnosed. A more flexible approach to both the timing of visit and place of consultation has been incorporated into midwifery practice in more recent years (Jewell et al 2000).

This has been an attempt to improve maternal satisfaction by the provision of holistic individualized care and organizational change in the pattern of care Systematic antenatal care was first introduced early in the 20th century in Europe including North America, and is now almost universal in the developed world (Rooney, 2012).

There have been great improvements in health and medical care in this century and it is in the field of mother and child health that progress has been most noticeable. In most ancient societies less than 50% of the babies born alive survived to maturity (Stanhope, 2020).

Modern medicine has learned not only how to cure many diseases; it has also discovered that the vast majority of maternal and children's disorders are preventable (Freeman & Heinrich 2018). Before the advent of scientific medicine, it was taken for granted that a large proportion of children born alive would die in childhood, and the parents felt it necessary to have many children in the hope that some would survive (Perri, 2014).

Antenatal care thus brings in interventions to curb maternal and infant mortality. It is a planned program of medical management of pregnant women directed towards; making pregnancy and labor a safe and satisfying experience (MOH, 2016). Antenatal care evolved over a period of about a century, with the trend changing gradually from in-patient to out-patient form of care that takes place today. The provision of special care for women during pregnancy through the public health services was a relatively late development in modern obstetrics (WHO & UNICEF, 2021). This form of care for pregnant women has become an important pillar in the safe motherhood program, as the aim is to improve the outcome of pregnancy for both the mother and the fetus. The Health Sector Strategic Plan phase 11 (HSSP II) also recognizes the importance of strengthening the health system at each level. This includes increasing demand at the community level implementing outreach antenatal and postnatal packages and providing sophisticated

clinical care at higher level health facilities (WHO, 2021).

Every day in 2020, almost 800 women died from preventable causes related to pregnancy and childbirth, also a maternal death occurred almost every two minutes in 2020. According to same report between 2000 and 2020, the maternal mortality ratio (MMR, number of maternal deaths per 100 000 live births) dropped by about 34% worldwide. Also important to note that almost 95% of all maternal deaths occurred in low and lower middle-income countries in 2020(WHO, 2023).

Although significant changes have been made, maternal and child mortality in Cameroon is still high. For those living in the poorest areas of the country, there are 39 deaths per 1,000 live births. Even in areas considered the "richest sectors" report 29 deaths per 1,000 live births. late start of ANC is contributing very high to the above statistics. Kumba Baptist Hospital registered 1 maternal death in 2023 and 5 neonatal deaths, the clients that were victims either started ANC late or did not start at all.

Household and community practices during pregnancy involve demand for antenatal care services and planning for a healthy birth, including emergency preparedness, prevention of malaria, HIV testing and nutrition. In most developing countries, access to and utilization of ANC services in rural areas is more limited than in urban areas. Many countries over the years have taken maternal health as priority service area and have invested resources purposely to reduce the barriers faced by women in seeking antenatal care services and have also adopted a goal oriented, focused ANC model for the implementation of ANC services. But even with these motivating strategies, late ANC attendance has continued to prevail exposing mothers and infants to the highest risk of deaths. Following the Cameroonian Demographic and Health Survey conducted in 2011 indicated that only 34% of pregnant women start antenatal care in the first trimester. This late start of ANC put mother and baby at risk. Hence the necessity of this research to identify and examine the factors influencing late attendance and utilization of ANC services by pregnant mothers receiving health care at the Kumba Baptist Hospital.

MATERIALS AND METHOD

Research Design

The research used a cross- sectional design in which data was collected at a given period of time.

Research Population

The target population for this study was made up of pregnant women attending antenatal care at the Kumba Baptist Hospital

Research Population

The target population for this study was made up of pregnant women attending antenatal care at the Kumb

Baptist Hospital.

Figure 1.Map of Cameroon Baptist Health services

This study was carried out at the Kumba Baptist Hospital, Meme Division, and South West Region of Cameroon. Kumba is a city with an estimated population of about 400,000 inhabitants (2015 census), with three quarter of this population falling within the youthful age group. The city is a trade centre for cocoa and palm oil, including rubber and has a timber industry as well which have all attracted the interest of foreigner.

Sample Size

The Yamane's formula of sample size determination was employed.

N n =1+N (e2)

Where: N = Population size

N = Sample size

e = Level of Significance = e=0.05=e2 = (0.05) 2= 0.0025

100

n =1+100(0.052)

100

n =1+100(0.0025)

100

n = 1.25 = 80 pregnant women

Sampling Procedure

A random sampling technique whereby pregnant women who came for antenatal visit and who met the inclusion criteria were unsystematically approached and given questionnaire. Verbal questioning was done where pregnant women could not understand or interpret questions in the questionnaire.

The primary instrument used to carry out this study was semi-structured questionnaire according to objectives. After establishing the questionnaire, a copy was submitted to professionals in the field who made some necessary corrections. It was printed and finally became eligible for administering to the respondents.

Data Analysis

Data collected from the field was entered into Microsoft Excel 2018, analyzed in SPSS version 25.0 to produce descriptive statistics where percentages, ranges was used to express data and pie charts, and tables were used to represent and interpret data.

Ethical Consideration

An authorization letter from school was presented to the Administrators of the hospitals who authorized the researcher to see the head nurse of the maternity unit to seek consent before data collection in the unit commenced. Participants consent in the hospital was sought and confidentiality and privacy was highly ensured.

RESULTS

Questionnaire Distribution

In total, 80 questionnaires were formulated and administered to the respondents and all the questionnaires were answered and returned

Demographic data of respondents

Table 1: Demographic data of respondents

Age Distribution		
Age	**Frequency**	**Percentage (%)**
15 – 19 years	15	18.75

20 – 24 years	15	18.75
25 – 30 years	30	37.5
31 – 35 years	10	12.5
36 – 40 years	8	10
41 – 45 years	1	1. 25
45 years above	1	1.25
Total	**80**	**100**

Distribution according occupation

Occupation	**Frequency**	**Percentage (%)**
Housewife	30	37.5
Farmer	10	12.5
Business	25	31.25
Civil servant	15	18.75
Total	**80**	**100**

Distribution According To Marital Status

Marital status	**Frequency**	**Percentage (%)**
Single	48	60
Married	30	37.5
Divorced	2	2.5
Widower	0	0
Total	**80**	**100**

Distribution According To Level of Education

Level Education	**Frequency**	**Percentage (%)**
Primary	15	18.75
Secondary	55	68.75
Tertiary	10	12.5
None	0	0
Total	**80**	**100%**

Distribution According Religion

Religion	**Frequency**	**Percentage (%)**
Christian	75	93.75
Muslim	5	6.25
Total	**80**	**100**

Distribution according Income Level

Income Level	**Frequency**	**Percentage (%)**
Low	45	56.25
Fairly high	30	37.5

Higher	5	6.25

Total	**30**	**100**

As shown by table 1 above, majority of the respondents 30(37.5%) were within the age range 25 – 30 years, followed by 15(18.75%) of them each whose ages range from 15 – 19 years and 20 – 24 years respectively. 10(12.5%) of the respondents had ages ranging from 31 – 35 years while 8 (10%) had ages ranging from 36 – 40 years. Only 1(1.25%) of them were above 40 years of age. Concerning their occupation majority 30(37.5%) of the respondents were housewives followed by 25 (31.25%) who were into business. 15(18.75%) constituted civil servants while 10(12.5%) were farmers. With respect to their marital status, most of the respondents 48(60%) were single, followed by 30(37.5%) who were married. 2(2.5%) of them had divorced while none (0%) were widowers. Regarding their educational background, more than half of them 55(68.75%) were at the secondary level, 15(18.75%) were at the primary level while the remaining 10(12.5%) had reached the tertiary level of education. Concerning the religion of the respondents, majority 75(93.75%) of them were Christians while 5(6.5%) constituted Muslims. Lastly, the income level of the respondents showed that most of them 45(56.25%) had low level income followed 30(37.5%) of them who had fairly high income level and lastly 5(6.25%) with a higher income level

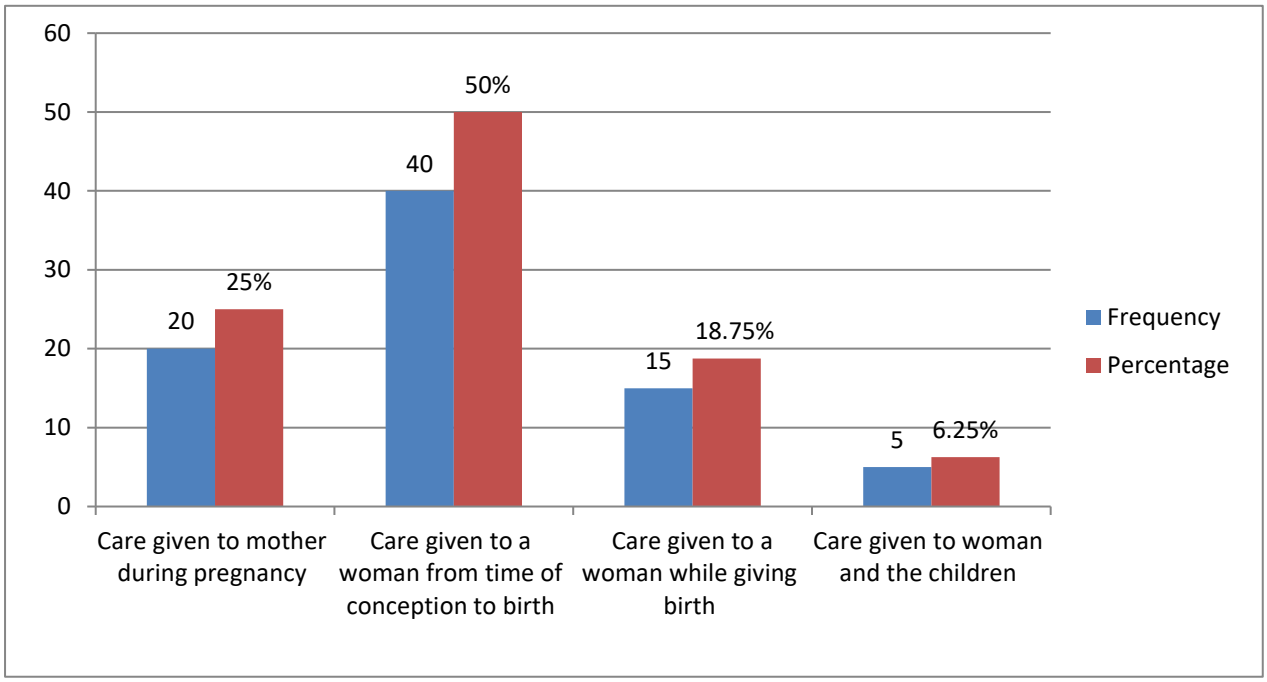
Knowledge on antenatal care and its benefiting services

Respondent's views on the definition of antenatal care

With respect to the definition of antenatal care half of the respondents, 40(50%) considered antenatal care as care given to a woman from time of conception to birth while 20(25%) regarded antenatal care as care given to mother during pregnancy. 15 of the respondents who constituted 18.75% chose the option care given to a woman while giving birth as the meaning of antenatal care. Lastly, 5(6.25%) said antenatal care is care given to a woman and the children

Figure 2: Respondents views on the definition of antenatal care

Figure 2: Respondents views on the definition of antenatal care



Respondents views on non-ANC facility

As illustrated by table 2 below, more than half of the respondent 60(75%) considered surgery to not be an antenatal care facility while 12(15%) of them regarded laboratory investigation and family planning as a non-antenatal care facility. 8(10%) said the non-antenatal facilities are counseling, consultation and vaccinati

Table 2: Respondents views on the non ANC facility

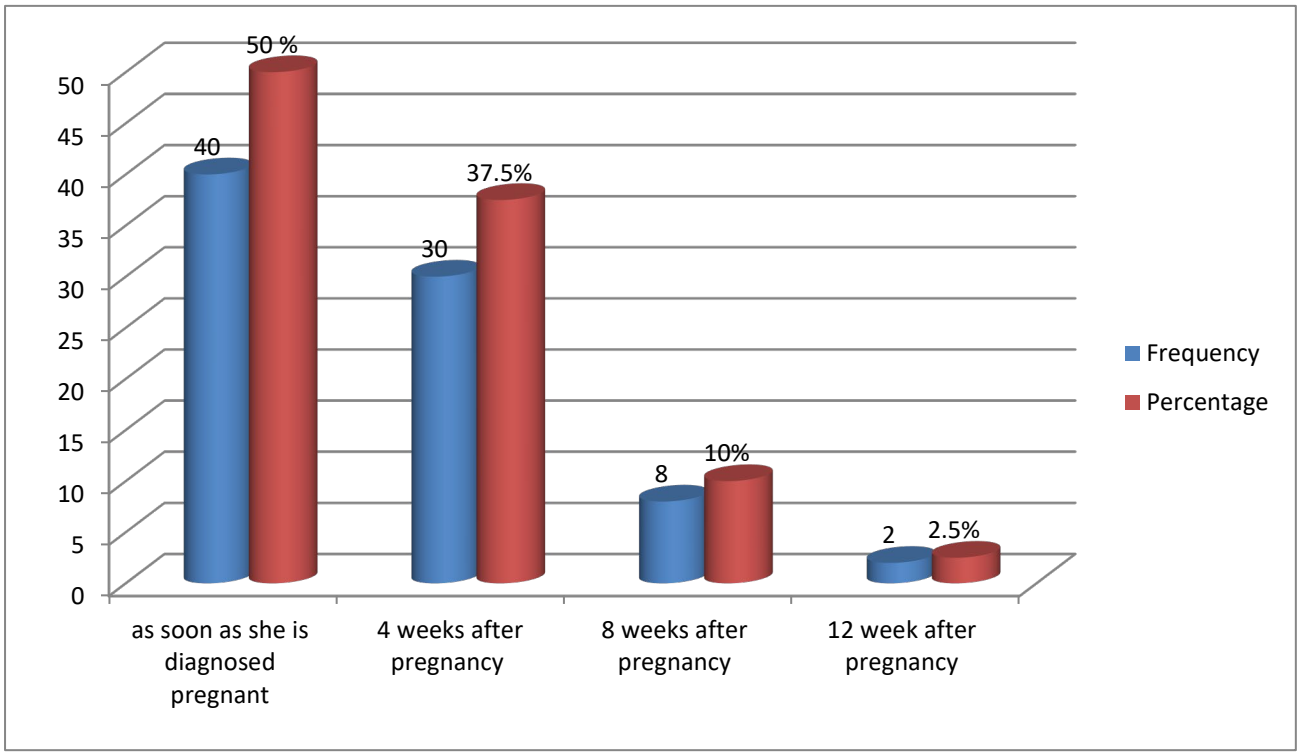
Non ANC facilities	**Frequency**	**Percentage**
Counseling, consultation and vaccination	8	10
Lab investigation and family planning	12	15
Surgery	60	75
Total	**80**	**100**

Respondents view on when a pregnant woman is to commence with antenatal care

Figure 3 illustrates that 40(50%) of the respondents said a pregnant woman should commence as soon as she is

diagnosed pregnant, followed by 30(37.5%) who said 4 weeks after confirmed pregnant. 8 of the respondents constituting 10% a pregnant woman should start antenatal care 8 weeks after pregnancy while only 2 (2.5%) of them had the view that antenatal care should commenced 12 weeks after a woman is diagnosed pregnant.

Figure 3: Respondent's views on when antenatal care should be commenced



3 Respondents views on the reasons for attending antenatal care

Concerning the respondents' views on reasons for attending antenatal care, figure 3 shows that majority of them 30(37%) identified; vaccination and immunization as reasons for attending antenatal care, follow by 25(31%) who chose the option; to prepare for safe and sound delivery.11 (14%) of them said a reason for antenatal care is to know the woman's pregnancy status whereas 8(10%) said it is to prevent diseases. 4(5%) of the respondent considered current abnormalities as reason for antenatal care attendance while only 2(3%) gave; to know fetal growth and position as the reasons for attending antenatal care.

Figure 4: Respondent's views on reasons for attending ANC

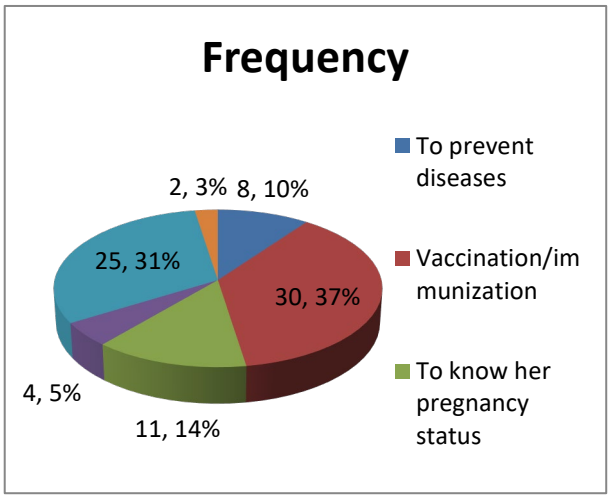
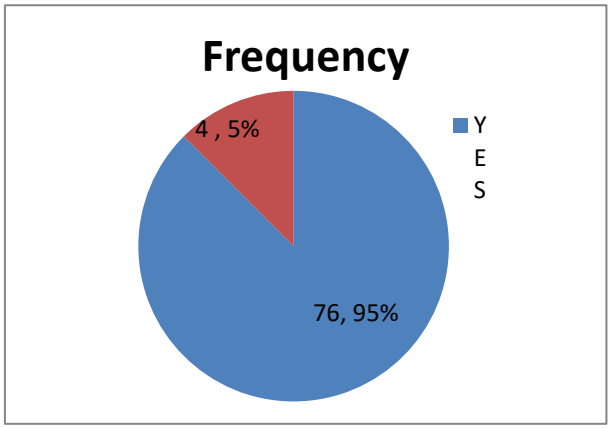


Figure 5: precision to knowing the benefits of antenatal care



Respondents views on the benefits of antenatal care

Precision to knowing the benefits of antenatal care

With regards to figure 4 below, almost all the respondents 76(95%) accepted YES to knowing the benefits of antenatal care while only 4(5%) said NO to not knowing the importance of antenatal care

Table 3 below shows that majority of the respondents 32(40%) considered free giving of mosquito nets as a benefit of antenatal care, 20(25%) said the importance of antenatal care is; distribution of free drugs while 16(20%) of them regarded free vaccination as a benefit of antenatal care. 8 of the respondents constituting 10% said antenatal care is important in rolling out abnormalities in pregnancy. Only 4(5%) of them had the view that antenatal care is beneficial in ensuring a healthy status of the mother and foetus.

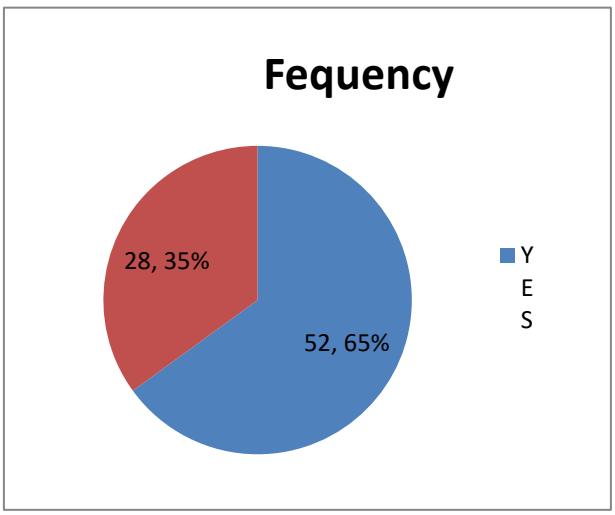
Benefits of ANC	Frequency	Percentage
Giving of free drugs	20	25
Free giving of mosquito nets	32	40
Free vaccination	16	20
Rolling out abnormalities in pregnancy	8	10
Ensure healthy status of mother and foetus	4	5
Total	80	100

Factors influencing late attendance for antenatal care services

Precision to whether respondents have been using of antenatal services

With respect to the respondent's utilization of antenatal services, figure 5 illustrates that more than half of them 52(65%) have been using antenatal services while a moderate proportion 28(35%) have not been using antenatal services

Figure 6: precision to utilization of antenatal care service



Precision to distance from the health center

Concerning the distance from health unit, table 4 below indicates that majority 37(46.25%) of the respondents live a distance of ≥ 10 km from the health center, followed by 25(31.25%) of them who live a distance of 6 – 10 km away from the health center. A less proportion of respondents 18(22.5) live a distance of 2 – 5 km away from the health center

Table 4: Distribution of respondents according to distance from the health unit

Distance from Health unit	Frequency	Percentage
2 – 5 km	18	22.5
6 – 10 km	25	31.25
≥ 10 km	37	46.25
Total	80	100

Factors affecting antenatal care service utilisation and attendance

With regards to barriers to antenatal care attendance, table 5 shows that 24(30%) the respondents considered poverty and ignorance as a barrier to attending antennal visits. 22(27.5%) of them had problems with long distances to health centre which affect attendance while 16(20%) said attendance is low because of inadequate health centers and qualified staff. 12(15%) considered cultural practices and beliefs as obstacles to antenatal care visit, 4(5%) had geographical barriers due to bad roads whereas only 2(2.5%) of them regarded communication problems as an obstacle to attending antenatal care schedule.

Table 5: Barriers to antenatal care attendance

Barriers	**Frequency**	**Percentage**
Poverty	24	30
Inadequate health centers and qualified staff	16	20
Long distances to health centers	22	27.5
Cultural practices and beliefs	12	15
Geographical barriers (bad roads)	4	5
Communication problems	2	2.5
Total	**80**	**100**

Measures to improve utilization of antenatal care services

Precision to whether there are measures to improve antenatal care usage

Table 6 illustrates that almost all the respondents 78(97.5%) accepted "YES" that there are measures to improve antenatal care utilization while only a small proportion 2(2.5) said there exist NO measures in improving antenatal care services usage.

Table 6: precision to whether there exist measures to improve antenatal care usage

Variable	**Frequency**	**Percentage**
YES	78	97.5
NO	2	2.5
Total	**80**	**100**

Respondents views on the measures to improve antenatal care services utilization

With respect to their views on the measures to improve antenatal care services utilization, table 7 shows that 24(30%) suggested reducing laboratory test cost as a measure to improve antenatal care services usage, follow by 22(27.5) who said staff improvement of conducts is a factor to encourage antenatal services to use by mother. 16(20%) of the respondents said creation of health centers and extension of EPI services to suburb area can help improve antenatal services utilization while 12(15%) suggested availability of health personnel in the health center as a measure. 4(5%) of the respondents regarded continuous education on pregnancy and it importance while only a little proportion of them 2(2.5%) considered provision and availability of most essential antenatal care services such as vaccines, tests and drugs as measures to step up attendance and utilization of services

Table 7: Measures to improve ANC utilization

Measures	**Frequency**	**Percentage**
Reduction of lab cost	24	30
Creation of health centers in remote area and extension of EPI services to suburb area	16	20
Improvement on staff conducts	22	27.5
Availability of health personnel in the health unit	12	15
Continuous health education on pregnancy and ANC importance	4	5
Provision and availability of most essential ANC services (vaccines, tests drugs)	2	2.5
Total	**80**	**100**

DISCUSSIONS

Mothers' knowledge on antenatal care and its benefits

From the data obtained in this study, one can deduce that half of the mothers (50%) understood the meaning of antenatal care. Their views are therefore in line with Tah *et al*, (2012) definition of antenatal care which is care given to a woman from the time of conception till the delivery of the foetus. This probably is as a result of their high educational background level and frequent ANC attendance. Only a few proportions of mothers (6.25%) were unable to give a clear meaning of antenatal care as they considered it to be care given to woman and children hence counteracting Harrington (1986) view of antenatal care as the clinical assessment of mother and fetus during pregnancy. This can be accounted for by their low level of education and possible little or no attendance of antenatal care visits to equip them with knowledge on antenatal care. Moreover, more than half of the mothers (60%) readily rolled surgery not to be an antenatal care facility. Frequent or continuous attendance of antenatal visits couple with their advanced educational level must have given them the ability to do so. Only a few proportion of the pregnant mother (10%) identified counseling, consultation and vaccination to be a non-antenatal care facility. Their views therefore contradict Awusi *et al*, (2009) findings which stipulates that essential interventions during the pregnancy period are provided through the antenatal care package, including, immunization/vaccination, identification and management of diseases and pregnancy complications such as anemia, nutrition, counseling, preparedness and counseling on maternal and new born danger signs. As a matter of facts, half of the pregnant mothers (50%) who possible because of advanced educational background and full participation in antenatal programs and lessons, acknowledged that the appropriate time for a woman to commence antenatal care visit is as soon as she is diagnosed and confirmed pregnant. This finding is relatively in conjunction with Lancet, (2001) and World Health Organization, (2010) who respectively found out that the usual recommendation nowadays is for booking (first antenatal visit) to take place in early pregnancy, and that pregnant women in developing countries should seek antenatal care within the first 4 weeks of pregnancy. Only a minute proportion (2.5%) of the mothers acknowledged antenatal care should commence 12 weeks after pregnancy. These low proportions of mothers are therefore lacking when it comes to knowing the appropriate period to beginning antenatal care. This can be attributed to their poor attendance of antenatal visits, missing vaccination cards, inattentiveness during antenatal lectures and health talks and possibly a low level of education.

Concerning the reasons for attending antenatal care, the study showed that all the mothers (100%) had knowledge on reasons for attending antenatal care but a moderately high proportion (30%) because of their frequent meeting up of antenatal care schedule, acknowledged vaccination and immunization as the paramount reasons. Their views are in line with Awusi *et al*, (2009) who propounded that one among other essential motives or interventions during pregnancy is immunization and this can readily be achieved through antenatal care. Furthermore, with respect to the benefits of antenatal care, the study revealed that all the mothers could identify the importance of antenatal care. The greatest proportion of them (40%) who possibly because of their past experiences in attending antenatal visits acknowledged that free giving of mosquito nets is a vital beneficial aspect of antenatal. Only a few proportions of the mothers (5%) acknowledge that antenatal care is beneficial in ensuring a healthy status of the mother and foetus. Their sentiments were thus similar Harrington, (1986) who postulated that antenatal care is the clinical assessment

of mother and fetus during pregnancy for the purpose of obtaining the best possible outcome for the mother and child. The views of this proportion mothers can be attributed to the fact that they have an advance educational background couple with their regular meeting up of antenatal care schedule where vital aspects of mother and foetus including pregnancy are taught

Factors influencing late attendance of antennal care visits

The study further revealed that more than half of the mothers (65%) attested that they have been regularly attending antenatal care, and respecting their appointment schedule while a wholesome proportion (35%) have not been keeping to their antenatal appointed. Possible reasons for such failure to keep appointment are cultural background, financial limitations and low income status of the mothers. This is similar to Bouwer *et al,* 2010) finding which stipulated that cultural and socio-economic factors such as the low status of the female in society, limited decision making powers, social immaturity and financial limitations might contribute to poor utilization of antenatal care services.

Concerning the distance from health unit, the study revealed that majority of the mothers (46.25%) live in distances ≥ 10 km from the health center they therefore find difficulties not only with transport cost but also on the poor nature of roads. A similar study finding was

shared by Ensor (1996) who in a study in Vietnam found that distance is a principle determinant of how long patients delay before seeking care and that location and distance costs are often seen to negatively impact antenatal care service utilization. Still in conjunction with long distances from health unit, Nawaha, (2000) revealed in his study at 50% of maternal deaths from hemorrhage could be attributed to the absence of emergency transport. Nuwaha went further to expantiate5, distance is also cited as a reason why women choose to deliver at home rather than at a health facility in many rural areas.

Results of this study indicate that a major barrier to antenatal care services utilizations include poverty and ignorance (30%). Poverty is attributed to maternal low socio economic status as the study revealed majority (56.25) of them had low income level while ignorance is reflected in missed of antenatal care appointment and low educational level as a good number of them (18.75%) were of the primary level of education. These findings suggest similarity consistent to Ensor, (2004) who found out that the first thing that affect the use of health facility is consumers (mothers) lack of the human capital-education to promote their own and their families' health and further explained that education may provide consumers with a basis for evaluating whether they require treatment inside or outside the home. As a matter of fact, despite some of the sound health policies put in place by the health center, 20% of the mothers acknowledged that inadequate health center and qualified personnel are barriers to effective utilization of antenatal care services. Their views strongly affirm to Bantebya, (2003) who in his research findings propounded that some low income countries like Uganda, coupled with lack of resources and skilled staff to improve quality and delivery of maternity services, despite good policies and concerted efforts, have hindered the increase in the utilization of those services by women.

Measures to improve utilization of antenatal care services

Regarding the measures to improve antenatal care services usage, the study showed that majority (30%) of the pregnant women suggested reducing laboratory test cost as a measure to improve antenatal care services usage, followed by 27.5% who suggested staff improvement of conducts to be a motivating factor to antenatal services to use by mother. 20% of the

respondents said creation of health centers and extension of Expanded Program on Immunization services to suburb area can help improve antenatal services utilization while 15% suggested availability of health personnel in the health center as a measure. 5% of the respondents regarded continuous education on pregnancy and it importance while only a little proportion of them 2.5% considered provision and availability of most essential antenatal care services such as vaccines, tests and drugs as measures to step up attendance and utilization of services. Most of their views ties with Freddie, (2004) who postulated that delivery of essential services and focus on improving the quality of staff skills, protocols of treatment, availability of supplies and environment of health facilities would encourage antenatal attendance.

CONCLUSIONS AND RECOMMENDATION

From the data gathered and careful observation and analysis I therefore make the following conclusions;

Only half of the pregnant mothers sampled have knowledge on antenatal care and it benefits. This entails that up to about 50% of women still do not adequately have knowledge on the antenatal care and its importance to them and the foetus.

Three quarter of the pregnant mothers have difficulties hindering them from having access and readily using antenatal care services, with poverty and ignorance being the most prominent, followed by long distances from the health center which entail cost. These barriers are the major indication for low attendance of antenatal care

There readily exist sound measures to encourage antenatal care attendance and service utilization such as creation of more health centers with well trained staff, provision of essential drugs and other health facilities including reduction of cost of laboratory. Hence this can readily be achieved when the health sector set policies to expand the platform for health care services, and when the private sector is envisaged to play an important role in the implementation of the national health policy and a public-private partnership policy drafted to set the modalities of the collaboration

Health care providers, more especially nurses and midwives should be encouraged to take opportunity of the numbers of mothers that attend ANC services and educate them on the unpredictability of complications of pregnancy and delivery. This opportunity should also be used to impress upon the mothers, their spouses and community the importance of having a planned pregnancy and hospital/clinic deliveries.

To improve women access and utilization of ANC services in rural areas, there is need to establish or strengthen national policies and locally adapted guidelines to protect the rights of all women, regardless of their socioeconomic status or place of residence.

The study also recommends the need to strengthen the quality of ANC services by promoting evidence based guidelines and standards for focused ANC. This is because quality improvement approaches and tools help identify and overcome local constraints to providing client-orientated, effective ANC and ensure that women return after their first ANC visit.

Continuous community based health education and facility-based education, peer group discussions in the community and group education among pregnant women and mothers and at the same time raise the issue and discuss ANC and its advantages will help to create a sense of belongingness, build their consciousness to seeking health services

Government should provide pregnant women with social and financial support, as well as transportation to health facilities. The need for women themselves to generate and save income for transport and delivery costs was also

highlighted. The study recommends an improvement in health care systems at all levels and improving maternal survival and well-being, through improving physical infrastructure, essential drugs supplies, equipment to improve the extremely difficult working conditions for staff and enable providers to offer quality care

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