A Study on Late Antenatal Booking and Its Predictors among Women Attending Antenatal Clinic at the Women and Children Hospital, Damaturu North East Nigeria

Nusirat Ayeni M., Hindatu Baba Machina, Aisha Saidu, Aida Mohammed Kajima

Department of Midwifery, ShehuSule College of Nursing and Midwifery Damaturu, Yobe State, Nigeria

Abstract: - **A field experiment was conducted in 2018 to evaluate and late antenatal booking and its predictors among women attending children and women hospital Damaturu in Yobe state. A convenience sampling technique was used to select the sample for the study. All pregnant women attending antenatal clinic at the institution within the period of the data collection and who are willing to participate was used for the study. A self-developed questionnaire comprising of 23 questions was administered to willing pregnant women. The questionnaire constructed by the researcher was reviewed by medical expert to ensure validity while a few samples of the questionnaire (5 copies) were distributed to some respondents before actual distribution to ensure its reliability. The results reveal that, greater percentages of women (87.2%) were happy about their pregnancy and are likely to book earlier than those who were indifferent or sad about their pregnancy. The incidence of late booking is likely to be higher in women who had no problems in previous pregnancy. Women who were ill prior to booking will be likely to book earlier than those who had no illness. Likewise, a greater percentage of the women (56.7%) who were encouraged to book early by their husbands will be likely to book earlier. Those whose homes were located far from the health facility (63.3%) are likely to book later than those whose homes were located close to the health center, 21 (14%) of the population believe that early booking has no advantage, 18(12%) however were ignorant of the fact that they were to register earlier, while17 (11.3%) did not want the pregnancy to be known too soon in public. A few percentage of the population 14(9.3%) claimed they were seeing health worker at home before coming to register for antenatal care while 18(12%) felt it just wasn't the right time for them to book. 18(12%) however did not envisage any problems in the first trimester, hence there was no need to book earlier while a few percentage 25(16.6%) simply wanted to gain more strength before commencing booking as they felt weak always.**

Key Words: **Antenatal, Booking, Women, Predictors**

I. INTRODUCTION

Antenatal care is the care given to pregnant women in order to have a safe pregnancy and a healthy baby. 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. Thus, Antenatal care is a key strategy to improve maternal and infant health. Different studies have found that inappropriate antenatal care has been associated with adverse pregnancy outcomes. The provision of antenatal care services brings with it a positive impact on pregnancy as it enables the identification of risk factors and early diagnosis of pregnancy complications like preterm delivery and appropriate management (Perumal *et al.,* 2013). The positive impact can be achieved through screening for pregnancy problems, assessing pregnancy risk, treating problems that may arise during the antenatal period, giving medication that may improve pregnancy outcomes, providing information to the pregnant woman, preparing physically and psychologically for childbirth and parenthood ([Kisuule *et al*., 2013)and WHO, 2011.The purpose of antenatal care is to assure that every pregnancy culminates in the birth of a healthy baby without any impairment of the mother's health. Its aim is essentially prophylactic to keep the pregnancy within the physiological limits, to detect at an early stage, any developing risk factors, correcting them promptly and preventing them from deteriorating changes, delivery, breastfeeding, contraception, infant immunization and allay the fears and anxieties of the pregnant woman. This is accomplished by a system of record keeping that document information about the pregnant woman's detailed history, physical examination, investigations and management (Anh, Trinh Tuyet., 2002). High quality antenatal care is therefore a fundamental right for women to safeguard their health (Orvos*et al*.,).Safe motherhood aims at the safety of the mother and her baby during pregnancy, delivery and after delivery through participatory health actions of all persons having any form of dealings with the pregnant woman. The Safe Motherhood Initiative is a global effort to reduce maternal mortality and morbidity. As a component of reproductive health, safe motherhood focuses on prenatal care, neonatal care, post natal care and breast feeding. Antenatal care refers to the care given to a pregnant woman from the time that conception is confirmed until the beginning of labour (Vicars and Maputle, 2006). Essential interventions in antenatal care include identification and management of obstetric complications and identification and management of infections. It is usually recommended that a woman books prior to 14 weeks of pregnancy and attends a minimum of 4 visits to the antenatal

clinic (Adekunle & Isawumi, 2008). When these recommendations are not followed, many of these interventions and opportunities could be missed or inadequate, thus contradicting the aims of antenatal care. Poor attendance to antenatal care is the commonest patient- related cause of maternal death (Kingston, 2006). This is presumed to be as a result of late detection of pregnancy complications and subsequent untimely management. Good and timely initiation of antenatal visit is therefore of great importance in ensuring safe motherhood thus reducing maternal mortality and morbidity. Antenatal booking visit is the initial visit the pregnant woman makes to her midwife or health provider upon confirmation of pregnancy. The purpose of the visit is to introduce the woman to maternity service. The first assessment in antenatal care is to distinguish pregnant women who require standard care such as the four visit model from those requiring special attention and more visits. (Ndidi & Oseremen 2010). The initial assessment provides an opportunity for the woman and her family to express and discuss any concerns they might have about the current pregnancy and previous pregnancy losses/complications, labour and peuperium. Thus, for antenatal care to become meaningful, early booking is recommended. Early commencement of antenatal care by pregnant women as well as regular visits has the potential to affect maternal and foetal outcome positively. Previous studies indicate that the vast majority of Nigerian women who utilize modern antenatal care book late, which is in sharp contrast with findings in most developed countries. Adekanle Isawumi (2008), reported prevalence of late booking of 86% and 82.6% respectively from south western Nigeria. Ebeigbe and Igberase(2005) similarly reported an incidence of 79.9% in the Niger delta while the mean gestational age at booking ranged from 20.3-23.6 weeks. In Damaturu, Yobe state, the case is not different. Most women present for antenatal booking mostly only when they can feel foetal movements (24-28 weeks) or when the pregnancy is visible enough. This is surprising considering the free health service offered by the state government to pregnant women from booking till delivery and under five children. Hence the urgent need for this study to find out reasons for late booking in antenatal clinic.

The study has the following objectives:

1. To determine the prevalence of late antenatal care booking in the Maryam Abatcha Maternal and Child Health Center, Damaturu.
2. To determine the socio demographic variables that affects late booking in the study area.
3. To identify other factors associated with late antenatal booking.

II. LITERATURE REVIEW

Antenatal care (ANC) is the care given to a pregnant woman from the time that conception is confirmed until the beginning of labour (Viccars & Maputle, 2006). It is a branch of preventive diagnosis of general medical disorders, nutrition, immunology, health education and social medicine in addition to preventive and early detection of pregnancy disorders (Hibbard, 1988). ANC is a key to modern obstetrics; however, to achieve the full life saving potential that ANC promises for women and babies, early booking and adequate (at least four visits) attendances are required. The usual recommendation nowadays is for booking to take place in early pregnancy. The WHO recommends that booking within the first 3 months for developed countries and first 4 months for developing countries. Preventing problems for mothers and babies depends on continuum of care with accessible, high quality care before and during pregnancy, childbirth and the post natal period. An important element in this continuum of care is effective ANC. The goal of the ANC package is to prepare for birth and parenthood as well as prevent, detect, alleviate or manage the three types of health problems during pregnancy that affects mothers and babies viz:

- Complications of pregnancy itself
- Pre-existing conditions that worsen during pregnancy
- Effects of unhealthy lifestyle.
- ANC also provides women and their families with healthy pregnancy, safe childbirth, and post natal recovery, including care of the new born, promotion of early exclusive breast-feeding and assistance with deciding on future pregnancies in order to improve pregnancy outcomes. This is achieved through:
- Developing a partnership with the mother
- Developing a holistic approach to the woman's care
- Promoting an awareness of the public health issues for the woman and her family.
- Exchanging information with the woman and her family and enabling them to make informed choices about pregnancy and birth.
- Recognizing complications of pregnancy and appropriately referring women within the multidisciplinary team.
- Facilitating the woman and her family in their preparations to meet the demands of birth and making a birth plan.
- Offering education for parenthood within a planned program (Viccars & Maputle, 2006).

In Nigeria, a visit to the ANC clinic can often be the first or only point of contact with the health care system to some women, only about 60% of women have access to prenatal care in Nigeria (Lindross & Rikka, 2004). Studies carried out in Nigeria according to Adekunle & Isawumi (2008), showed that the mean gestational age of booking among pregnant women in Benin, Sokoto and Osun states were 23.7, 23.5 and 26.3 % per weeks respectively; another study in Niger Delta revealed that 79.9% of women booked late for ANC with a mean gestational age of 23.7 (Ebeigbe & Igberase, 2009). Generally, antenatal coverage is a success with about 71% of women receiving at least one ANC. Studies have been carried out to show factors affecting ANC attendance by mothers of pacific infants in New Zealand using questionnaire based interview. The finding of this study revealed that women who

attend ANC late tend to be younger (in particular adolescents), of high parity or gravidity, without a partner, of low socio-economic status, and low educational achievement. The study also found other factors that were in late initiation of ANC as maternal gravidity and parity. High parity indicating that the mother had experience giving birth before was associated with late initiation of antenatal care, also, there are mothers whose pregnancy were unplanned and not being employed prior to pregnancy. This contradict to result obtained in South African where the booking pattern was found not to be influenced by socio-demographic factors but by other factors such as accessibility and availability of antenatal health care facilities, confirmation of pregnancy and financial problems (Sibeko & Moodley, 2006). In a similar study in South West Nigeria by Adekunle & Isawumi (2008), about 81% of women entered ANC after 12 weeks of gestation with factors influencing late entry into ANC discovered to be age, educational status, and husband's educational status, and parity, type of family, income, problem in index pregnancy, previous caesarian section and problems in last delivery. This is in contrast to the findings of Sibeko & Moodley, 2006 which showed that financial constraints did not play a role in making women book late for antenatal care. Ebeigbe & Igberase from their findings reported that there is a perception among Nigerian women that there is no advantage in booking early for antenatal care. 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 we have today (Adekunle & Isawumi, 2008). He further explains that in terms of global coverage, ANC is a success story. Currently, 71% of women worldwide receive antenatal care; in industrialized countries, more than 95% of pregnant women have access to ANC (Linecco, Mothebesoane, Patricia & munjanja, 2005).In Africa, 80% of women in the richest quartile have access to three or more ANC while only 48% of the poorest women have some level of access while in Nigeria; only about 60% of women have access to ANC (Linecco et al, 2005). In recent years, there has been a shift from the high risk approach to focused ANC. The World health Organization (WHO) has developed the focused ANC package to include counseling, examinations and tests that serve immediate purposes and have proven health benefits. However, the approach to ANC is still finding its feet in developing countries.

III. METHODOLOGY

Sample Size

One hundred and sixty (160) subjects were used for the study. The decision of the number of subjects was based on the suggestion that if the population used for the study involves a few tens, 100% of the sample size will be used, if it involves a few hundreds, 40% or more will be used, if many hundreds, 20% will be used. If a few thousands, 10% of the sample will be used (Nwana, 2001).

Sampling Technique

A convenience sampling technique was used to select the sample for the study. All pregnant women attending antenatal clinic at the institution within the period of the data collection and who are willing to participate was used for the study.

Population of the Study

The target population was all pregnant women attending antenatal clinic within the month of August in the Maryam Abatcha Maternal and Child Health Clinic Damaturu. The average number of women attending antenatal clinic every month in the health center is about 800 (data from past records at the health center).

Instruments for Data Collection

A self-developed questionnaire comprising of 23 questions was administered to willing pregnant women. The questionnaire made up of close-ended questions to enable the respondents to choose from available options.

Validity and Reliability of Instrument

The questionnaire constructed by the researcher was reviewed by medical expert to ensure validity while a few samples of the questionnaire (5 copies) were distributed to some respondents before actual distribution to ensure its reliability.

Procedure for Data Collection

Questionnaire was administered to willing pregnant women who attend antenatal clinic at the study center. The questionnaire wasinterpreted to those women who can't read and was assisted in completing the questionnaire in their local language.

Method of Data Analysis

The data was analyzed using SPSS. Result was presented in frequency tables and percentages.

IV. RESULTS

Result presented in Table 4.1 revealed that, most of the women fall within the ages bracket > than 35 years. Highest number of the women (37. 9 %) is secondary school graduated while their husband has further their education. Highest number of with the incidence of late booking highest among women of this age bracket (33.1%). 6 (20.7%) of the women who had tertiary education had the highest incidence of early booking, 11(37.9%) had secondary education, 4(13.8%) had primary education while 4(13.8%) had Quranic education. Again, their husband's educational status was mostly of tertiary education 43 (35.5%) for women that booked after 16 weeks of gestation followed by secondary education 33 (27.3%) and the least being Qur'anic education 16(13.2%). Majority of the late bookers 45(37.2%) were housewives, a minority 18(14.9%) were civil servants and few 16(13.2%) were students. The highest incidence of late booking was found amongst the housewives and the least amongst the civil servants. Of the 65 primigravid women, 54(44.6%) booked

late with the next highest incidence of late booking seen in >4 gravidity 43 (35.5%).

Table 4.1 Socio-Demographic Factors that Affect the Time of Booking.

Variables	**Gestational age**		**Total population**
Age (years)	≤ 16 weeks (%)	≥ 16weeks (%)	
≤19	4 (13.8)	12 (9.9)	16
20-24	5 (17.2)	23 (19.0)	28
25-29	7 (24.1)	40 (33.1)	47
30-34	5 (17.2)	17 (14.0)	22
≥ 35	8 (27.6)	29 (23.9)	37
Total	29	121	150
Educational status			
Arabic	4 (13.8)	36 (29.8)	40
Primary	4 (13.8)	32 (26.4)	36
Secondary	11 (37.9)	38 (31.4)	49
Tertiary	6 (20.7)	15 (12.4)	21
Total	29	121	150
Husband's educational status			
Arabic	6 (20.7)	16 (13.2)	22
Primary	11(37.9)	29(23.9)	40
Secondary	7(24.1)	33(27.3)	40
Tertiary	5(17.2)	43(35.5)	48
Total	29	121	150
Employment status			
Civil servant	7(24.1)	18 (14.9)	25
Business/trading	6 (20.7)	22 (18.2)	28
Housewife	5 (17.2)	45 (37.2)	50
Farming	3(10.3)	16 (13.2)	19
Student	8(27.6)	20 (16.5)	28
Total	29	121	150
Gravidity			
1	11 (37.9)	54 (44.6)	65
2-4	8 (27.6)	24 (19.8)	32
>4	10 (34.5)	43 (35.5)	53
Total	29	121	150

Field work 2018

Table 4.2 above indicates that greater percentages of women (87.2%) were happy about their pregnancy and are likely to book earlier than those who were indifferent or sad about their pregnancy. The incidence of late booking is likely to be higher in women who had no problems in previous pregnancy. Women who were ill prior to booking will be likely to book earlier than those who had no illness. Likewise, a greater percentage of the women (56.7%) who were encouraged to book early by their husbands will be likely to book earlier. Those whose homes were located far from the health facility (63.3%) are likely to book later than those whose homes were located close to the health center. Again in the population, those who have had experience from previous pregnancy book are likely to book later 64 (42.7%) than those with no experience from previous pregnancy.

Table 4.2 Predictors of Late Entry into Antenatal Care Booking.

Variables	**Frequency**	**Percentage (%)**
Perception of pregnancy		
Happy	124	82.7
Indifferent	19	12.7
Sad	7	4.7
Total	150	100
Problems in previous pregnancy		
Yes	54	36
No	96	64
Total	150	100
Illness prior to booking		
Yes	48	32
No	102	68
Total	150	100
Husband encouraged early booking		
Yes	85	56.7
No	65	43.3
Total	150	100
Friends encouraged early booking		
Yes	73	48.7
No	77	51.3
Total	150	100
Distance from health facility		
Far	95	63.3
Near	55	36.7
Total	150	100
Experience from previous pregnancy		
Yes	64	42.7
No	86	57.3
Total	150	100
Financial constraint		
Yes	72	48
No	78	52
Total	150	100

Field work 2018

Table 4.3 above shows that 21 (14%) of the population believe that early booking has no advantage, 18(12%) however were ignorant of the fact that they were to register earlier, while17 (11.3%) did not want the pregnancy to be known too soon in public. A few percentage of the population 14(9.3%) claimed they were seeing health worker at home before coming to register for antenatal care while 18(12%) felt it just wasn't the right time for them to book. 18(12%) however did not envisage any problems in the first trimester, hence there was no need to book earlier while a few percentage 25(16.6%) simply wanted to gain more strength before commencing booking as they felt weak always.

Table 4.3 Barriers to Early Booking

Barriers	Frequency	Percentage
Early booking has no advantage	21	14
Didn't know I was to register earlier	18	12
Didn't want the pregnancy to be known in public too soon	17	11.3
Was seeing health worker at home	14	9.3
Not the right time to book	18	12
Did not expect any problems in the first three months	18	12
Women don't have problems in early pregnancy that needs intervention	19	12.6
Wanted to gain more strength before registering	25	16.6
Total	150	100

Field work 2018

Result presented in Table 4.4 shows percentage of early booker and late booker. Highest percentage of the women book at 25-36 weeks, while less than 2 percent book at 3 weeks

Table 4.4 Time of booking

Booking time(weeks)	Frequency	Percentage (%)
≤ 12	3	2
13-16	26	17.3
17-24	40	26.7
25-36	51	34
>36	30	20
Total	**150**	**100**

Mean gestational age= 29.4 weeks.

Percentage of early bookers =19.3%

Percentage of late bookers=80.7%

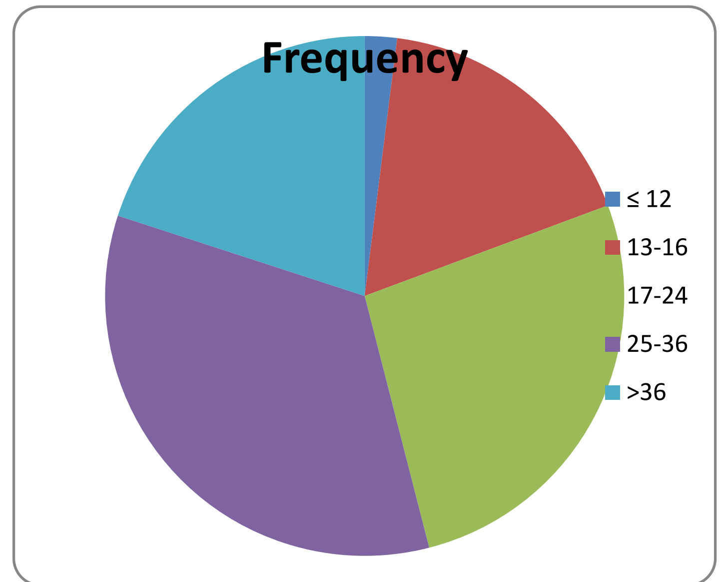

Figure 4.2 Pie Chart Showing the Percentage of Early Bookers and Late Bookers in the Population

V. DISCUSSIONS AND CONCLUSION

Results presented on Table 1 shows that a total of 29(19.3%) subjects booked before or during 16 weeks of gestation and majority of the population booked late 121(80.7%).Most of the women booked between the gestational ages of 25-36 weeks. 2% booked in the first trimester, 44% booked in the second trimester, while 54% booked in the third trimester. Also, of the women who had given birth before, 80% had booked late in at least one previous pregnancy. This result of late initiation of antenatal care is similar to studies reported in other parts of the country like Osogbo (81%), Niger Delta (79%) (Adekunle *et al.,* 2008; Egbeise *et al.,*2005). The mean gestational age at first attendance was 29.4 weeks (approximately 7 months). This was higher than studies obtained in other parts of the country. Adekunle and Isawumi(2005) found a mean gestational age of 20.3 weeks from Osogbo, Ekele and Audu, 23.5 weeks from Sokoto and Gharoro and Igbata reported 23.7 weeks from Benin. However, result obtained in the study differ from findings in most developed countries where the vast majority of pregnant women present early for antenatal care although the incidence of late booking is still found (Low *et al.,* 2005). The similarity in this study and previous reports obtained from other parts of the country suggest that there is still a perception among Nigerian women that pregnancy is not a disease condition and so one needs not book early unless the woman is sick. Results from table 3 showed that 7(4.7%) were not happy about their pregnancy and they are likely to initiate antenatal care late. Previous reports from other parts of the world have shown that mothers whose pregnancies were unplanned and had a less than a very happy reaction to the pregnancy were more likely to initiate antenatal care late and attend inadequately (Low *et al.,* 2005). Result from this study is similar to other previous reports , Mikhail and Curry (1999) suggested that ambivalence over the pregnancy and its outcome can delay a

woman's decision making about whether to attend antenatal care or not. Illness as an indicator for booking is associated with early booking while mothers who were asymptomatic are more likely to book late. This finding is supported by Gharoro EP, Igbafe (2000), who reported that the women were only worried about the delivery and only attend ANC early when they are ill and symptomatic. Women who were encouraged by their husbands and friends are more likely to initiate antenatal clinic early as seen in table 3. Results from this study supports the traditional belief that husbands, being the head of the family have a great influence over their wives especially in the Northern part of the country. It is therefore not surprising to hear that the access to antenatal care in the North is lower than in other parts of Nigeria. This is probably because of the strong control of the men over their wives. The study also showed that only 36% of the subjects had problems in previous pregnancy. Although these women reported a problem in the current or previous pregnancy, coming late for antenatal care implies that they did not perceive a possibility of the problem reoccurring which necessitates coming early for antenatal care. Finally, it might be expected that financial constraints should play a role in making women book late for antenatal care, however, findings from this study and other studies show that finance was not really a factor. There was still a tendency of those with or without financial constraint to initiate antenatal care late. Analysis of the socio-demographic data of the subjects (table 1) showed that the incidence of late booking was found more in age group 25-29 years. This is similar to the findings of Adekunle *et al*.,(2008), where late booking was found high amongst ages <25 years. The educational status of women also influenced their time of booking. Women who had higher educational status booked earlier than those with lower educational status. Results from the study reveal that the incidence of late booking was high amongst those with Arabic education (29.8%). This implies that better educated women would likely appreciate the importance of early booking more than the less educated ones. This emphasizes the importance of education on antenatal care. The same is true for the educational status of the husband. Husbands who are well educated are more likely to advice their wives on the importance of early antenatal booking. The employment status of the population affected their time of booking. Table 1 showed that greater percentages (37.2%) who were housewives booked late as against the civil servants who had the highest incidence of early booking (24.1%). The study also showed that gravidity is associated with late initiation of antenatal care. High gravidity >4as well as primigravidity was associated with late booking (35.5% and 44.6% respectively). This could be because multigravida women feel they do not need to attend antenatal care early because they already know what to expect during pregnancy and child birth. It is however more surprising that primigravidas who are more likely to initiate early due to lack of knowledge or experience with pregnancy and childbirth are also initiating antenatal care late. This could be attributed to the fact that mothers-in law are usually the ones that determine when primigravidas are to initiate antenatal care. The findings from this study as seen in table 3 suggest that the determinants of late antenatal booking are multifactorial. A major finding of this study was that for the majority of the subjects, the barriers to early booking hinged on misconceptions or ignorance of the purposes of and therefore the right time to commence antenatal care and care and not on physical or financial constraints. This attitude seems governed by a perception that that antenatal care is primarily to detect or treat serious diseases. This explains the belief that women did not need to book early since they do not have any problems from in early pregnancy that need a health worker's intervention or the presumption that there is no benefit in booking in the first three months. There seems to be an underlying belief that a woman can do without registering in early pregnancy as seen from the study findings since whatever symptoms women may have in early pregnancy are normal, mild or not serious enough to need a health worker's intervention. Thus, antenatal care seems viewed by most of the women as curative rather than preventive which is in sharp contrast with the goals of antenatal care which are manly preventive (Okunlola *et al*.,2008). This may explain why as much as 9.3 % of the subjects were content with seeing a health worker at home, many of whom may be auxillary nurses or even health assistants until they felt their pregnancies were old enough to have to have problems that needed them to register for antenatal care. It would be expected that in a low resource country like Nigeria, financial constraints may play a major role in determining the timing of initiation of antenatal care but the findings of this study suggest that the woman's understanding and perception of the need for antenatal care may play a dominant role. Similarly, Gharoro and Igbafe (2011) reported that ignorance was the underlying factor in initiation of antenatal care in two-fifth of the women in their study among pregnant women in a Nigerian hospital.

The study showed that most women initiate antenatal care late due to many factors such as distance from health center, problems in previous pregnancy, illness prior to booking predisposition towards pregnancy etc. The findings from this study also suggest that most women book late because of the belief that there are no advantages in booking for antenatal care in the first three months of pregnancy. This seems to be because antenatal care is viewed primarily as curative rather than preventive in the study population.

Conclusion

Late antenatal booking still remains significantly high in our environment indicating that the importance of early booking is yet to be appreciated. Maternal education and age which had been associated with better income earning had been found to improve booking status. There is therefore a need for public enlightenment and incorporation of the benefits of early booking in the routine antenatal health education. Women empowerment through qualitative education and gainful employment are also major factors that would contribute significantly to early booking.

REFERENCES

[1] AdekanleD. A, Isawumi A. I., 2008. Late Antenatal Care Booking and Its Predictors Among Pregnant Women In South Western Nigeria, *Online Journal of Health and Allied Sciences* Vol. 7 Issue 1(4): 1-6

[2] Ebeigbe&Igberase., 2010.Reasons Given by Pregnant Women for Late Initiation of Antenatal Care in the Niger Delta, NigeriaGhana Med J. Jun; 44(2): 47–51.

[3] Ebeigbe P N, Igberase GO., 2005. Antenatal Care: A comparison of demographic and Obstetric Characteristics of early and late attendees in the Niger delta, Nigeria. MedSciMonit. ;11(11):529–532. [PubMed] [Google Scholar]

[4] Gharoro EP, Igbafe A.A., 2000. Antenatal care: some characteristics of the booking visit in a major Teaching hospital in the developing world. Med SciMonit. ;6(3):519–522. [PubMed] [Google Schola

[5] Kisuule I, Kaye DK, Najjuka F, Ssematimba SK, Arinda A, Nakitende G, *et al*.2013 Timing and reasons for coming late for the first antenatal care visit by pregnant women at Mulago hospital, Kampala Uganda, BMC Pregnancy Childbirth, 13:121.

[6] Mikhail .C., Curry, M. A., 1999.Perceived Impediments to Prenatal care among low Income women. West Journal Nursing Research, Vol., 235-55 21

[7] Nwana, O.C. Principle and method of Nursing Research 6th edition, Batman press,lagos demark 2001 ,p$_{p}$42-46

[8] Okunlola MA, Ayinde OA, Omigbodun AO, Owonikoko KM (2008).Factors influencing gestational age at antenatal booking at theUniversity College Hospital, Ibadan, Journal of Obstetrics andGynaecology, 26(3):195-197.

[9] Perumal N, Cole DC, Ouédraogo HZ, *et al*. Health and nutrition knowledge, attitudes and practices of pregnant women attending and not-attending ANC clinics in Western Kenya: a cross-sectional analysis. BMC Preg Child birth, 2013; 13:1

[10] Sibeko and Moodley J, Health care attendances pattern by pregnant women in Durban South Africa 2006, University of Kwazula-Natal, Durban Sourth Africa

[11] Vicar and Maputle, Antenatal care, Myles Textbooks for midwives, London, pp 237

[12] WHO Global Health Observatory (GHO): Antenatal care situations and trends. 2011