

GESTATIONAL AGE AT FIRST ANTENATAL VISIT IN UYO, NIGERIA

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Abstract:

Context: Antenatal care is a very important component of obstetric care and early booking for it offers a lot of advantages. This study aims to determine the gestational age at first antenatal care visits in our environment.

Materials and method: This is a cross-sectional study of women presenting for antenatal care at University of Uyo Teaching Hospital, Uyo Nigeria.

Results: During the period under review, five hundred and twenty six (526) pregnant women were seen. The mean age was 27.29 ± 5.26 years while the mean parity was 1.56 ± 1.68 . The mean gestational age at booking was 23.92 ± 7.17 weeks with a range of 4 – 39 weeks. There was a significant association between the gestational age at booking and parity as the gestational age at booking tended to increase with increasing parity ($p < 0.05$). The level of education, religion and age however, appeared to have no significant effect on the gestational age at booking ($p > 0.05$).

Conclusion: Many of our women still book late for antenatal care. There is need to intensify public enlightenment as well as health education on the importance of early antenatal booking in order to reverse this trend.

Keywords: Antenatal care, Gestational age, Booking, Pregnancy, Uyo.

Introduction:

Antenatal care (ANC) means care before birth. It is the complex of interventions that a pregnant woman receives from organized health services¹. It is the period during which the expectant mother is guided through pregnancy and made to see pregnancy and childbirth as positive experiences^{1,2}. Antenatal care has many advantages and these include the prevention, detection and treatment of diseases and other health problems that may affect the pregnant woman and her unborn child and heighten perinatal risk, the provision of health education and counselling towards a successful puerperium and breastfeeding. It also offers opportunity for the detection of congenital anomalies and, with the current HIV / AIDS pandemic, the detection of HIV

infection in the mother and institution of preventive measures against mother to child transmission². Indeed, antenatal care has become a major avenue for the implementation of strategies in the prevention of paediatric HIV/AIDS since as much as 90% of it is acquired through vertical transmission³. The importance of antenatal care in obstetric practice cannot therefore, be over emphasized.

The first antenatal visit is a very important visit as it offers the service provider the opportunity to collect basic information that will help form the basis for care during the pregnancy. An early booking gives ample opportunity for evaluation and intervention where there is a medical disorder as well as time to prepare for the delivery. Certain interventions for the detection of congenital anomalies such as chorionic villus sampling, anomaly scan and serologic tests for Down's syndrome are time specific and need to be done early in pregnancy⁴. Missing the appropriate period through late booking may make such evaluations out rightly impossible or their interpretations unreliable. Early detection of HIV infection in pregnant women has been noted to optimize their medical and psychological care, decrease the incidence of mother to child transmission and also decrease the risk of transmission to sex partners⁵. Women in Uyo, being in a high prevalence area for HIV, would certainly benefit from early booking for antenatal care. It has been observed that while booking is done early in the developed world¹ same cannot be said for most developing countries including Nigeria where most patients tend to book in the second trimester^{6,7,8}. This study was undertaken to establish the booking pattern of pregnant women in Uyo, south-south Nigeria with a view to collecting baseline data as well as identifying possible areas and basis for intervention.

Materials and Method: This was a cross sectional study of consecutive antenatal patients presenting for antenatal care booking at the University of Uyo Teaching Hospital, Uyo, Akwa Ibom State, Nigeria between the months of July and November 2004.

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Information on socio-demographic characteristics including age, parity, religion, educational level as well as gestational age at booking was obtained from the patients' case files. These was analyzed using the SPSS software, version 10.0

Results: During the period under review, five hundred and twenty six (526) pregnant women were seen. Majority of the patients (85.3%) were between the ages of 20 - 34 years with a mean age of 27.29 ± 5.26 years. The nullipara constituted 34.2% while the grandmultipara constituted 7.2%. The mean parity was 1.56 ± 1.68 with a range of 0 - 8. Almost all the patients (95.2%) were married and were Christians (92.6%) with a preponderance of the protestant (43.2%) and Pentecostal denominations (44.2%). 62.1% of those who provided information on educational status had at least attended the junior secondary school level. The range of gestational age at booking was 4 - 39 weeks with a mean gestational age at booking of 23.92 ± 7.17 weeks. Assessment by trimester showed that majority of the patients (48.7%) booked in the second trimester. However, further analysis shows that a large number (32.8%) booked between the 27th and 33rd week of pregnancy. There was a significant association between the gestational age at booking and parity as the gestational age at booking tended to increase with increasing parity ($p < 0.05$). Level of Education ($p > 0.05$), religion ($p > 0.05$) and age ($p > 0.05$) however appeared to have no significant effect on the gestational age at booking.

| Parity | N | % |
|--------|-----|-------|
| 0 | 180 | 34.2 |
| 1 | 131 | 24.9 |
| 2 | 92 | 17.5 |
| 3 | 55 | 10.5 |
| 4 | 30 | 5.7 |
| 5+ | 38 | 7.2 |
| Total | 526 | 100.0 |

| Religion | N | % |
|-------------|-----|-------|
| Catholic | 28 | 5.3 |
| Protestant | 227 | 43.2 |
| Pentecostal | 232 | 44.2 |
| Islam | 5 | 1.0 |
| No Religion | 1 | .2 |
| No Response | 32 | 6.1 |
| Total | 525 | 100.0 |

| Educational Level | N | % |
|----------------------|-----|-------|
| Primary | 67 | 12.8 |
| Part Secondary (JSS) | 69 | 13.2 |
| Secondary | 113 | 21.6 |
| Polytechnic /COE | 64 | 12.2 |
| University | 79 | 15.1 |
| Not stated | 132 | 25.2 |
| Total | 524 | 100.0 |

Table 1: **Socio-demographic characteristics of patients**

| Age Range | N | % |
|-----------|-----|-------|
| 15-19 | 27 | 5.1 |
| 20-24 | 123 | 23.4 |
| 25-29 | 187 | 35.6 |
| 30-34 | 138 | 26.2 |
| 35-39 | 38 | 7.2 |
| 40-49 | 8 | 1.5 |
| <15 | 5 | 1.0 |
| Total | 526 | 100.0 |

Table 2: **Gestational age at booking by trimester**

| | N | % |
|-----------------------------|-----|------|
| First Trimester (1-13wks) | 50 | 9.7 |
| Second Trimester (14-26wks) | 256 | 49.7 |
| Third trimester (27-40wks) | 209 | 40.6 |
| Total | 515 | 100. |

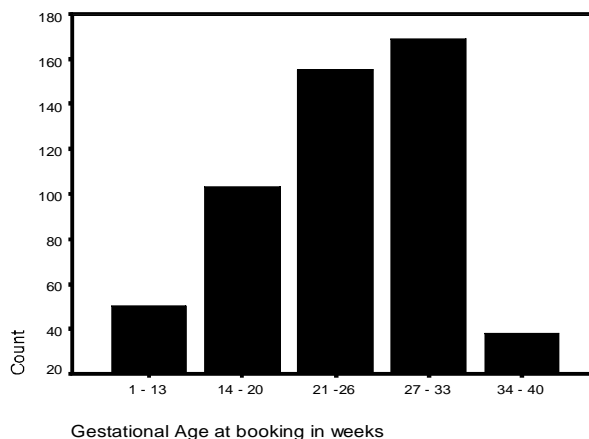
Table 3: Parity cross-tabulated against GA at booking

| Parity | GA at booking | | | | | Total |
|--------|---------------|-------|-------|-------|-------|-------|
| | 1-13 | 14-20 | 21-26 | 27-33 | 34-40 | |
| 0 | 19 | 43 | 56 | 46 | 11 | 175 |
| 1 | 16 | 20 | 42 | 42 | 10 | 130 |
| 2 | 5 | 16 | 29 | 37 | 4 | 91 |
| 3 | 5 | 9 | 11 | 23 | 5 | 53 |
| 4 | 4 | 4 | 9 | 10 | 3 | 30 |
| 5 | 1 | 6 | 4 | 3 | 3 | 17 |
| 6 | | 3 | 4 | 4 | | 11 |
| 7 | | 2 | | 3 | 38 | 515 |
| 8 | | | | 1 | 2 | 7 |
| Total | 50 | 103 | 155 | 169 | | 1 |

Table 4: Educational level cross-tabulated against GA at booking

| Educational Level | GA at booking | | | | | Total |
|----------------------|---------------|-------|-------|-------|-------|-------|
| | 1-13 | 14-20 | 21-26 | 27-33 | 34-40 | |
| Primary | 3 | 12 | 19 | 27 | 5 | 66 |
| Part Secondary (JSS) | 5 | 14 | 20 | 21 | 7 | 67 |
| Secondary | 10 | 21 | 44 | 30 | 7 | 112 |
| Polytechnic/CEO | 9 | 11 | 16 | 25 | 1 | 62 |
| University | 10 | 22 | 15 | 25 | 7 | 79 |
| Not stated | 13 | 23 | 40 | 40 | 11 | 127 |
| Total | 50 | 103 | 154 | 168 | 38 | 513 |

Figure 1:



Discussion: The mean gestational age at booking of 23.92 weeks found in this study compares with similar reports from other parts of the country. A study from Sokoto ⁶ in Northern Nigeria reported mean gestational age at booking of 23.5 weeks while that from western Nigeria reported a mean gestational age of 21.4 weeks ⁷. A study from Benin ⁸ also in the south-south part of Nigeria reported 23.7 weeks as the mean gestational age at booking. These reports are in sharp contrast to the 13weeks reported from Saudi Arabia ⁹. It is glaring from above that many of our women still come to register for antenatal clinic very late thereby running the risk of missing out on all the good effects of early antenatal booking.

In the other reports above ^{6,7,8} there was a significant difference in the booking pattern of the grandmultipara compared to the primipara possibly because of the false confidence usually exuded by the former group of women with the believe that they, having delivered many times before are well versed in the art and so do not go to the hospital early. This presumption is false as the only normal pregnancy, labour and delivery is one that is concluded safely and so it is usually, therefore, a retrospective diagnosis. In this study, it was also observed that the gestational age at booking tended to increase with increased parity. Health education on the benefits of early antenatal booking at every forum is necessary in order to counteract this trend. This is especially so as prevention of mother to child transmission (PMTCT) of HIV becomes available in our environment. Other reasons often given by women for not registering early are ignorance and financial constraints ⁸. This again requires a lot of health education and public enlightenment stating the advantages of early ANC booking to the woman and her family. It should also be emphasized that a woman who books early and has potentially major pregnancy related ailments and complications prevented or detected early and appropriately managed has a smaller long term cost than that which would have been used in the treatment of the complications arising there-from ².

Only 7.2% of the patients were grandmultipara compared to 19.3% reported in a similar study from Jos ¹⁰. This finding needs further evaluation. This is particularly so when viewed against the low contraceptive prevalence in our society ^{11,12,13}. It is, however, possible that fewer grandmultipara come to hospital for antenatal care in our environment rather than that the prevalence is low in our society.

In conclusion, many of our women still book late for antenatal care. There is need for the intensification of public enlightenment as well as health education in order to reverse this trend.

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