

Gestation age at antenatal clinic booking in Sokoto, Northern Nigeria

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Summary

Between January 1995 and December 1996, a cross-sectional study was undertaken to determine the gestational age at which women book for antenatal care. The average gestational age at first antenatal attendance for the 2,304 women in the survey group was 23.5 ± 6.0 weeks. The difference between the gestational age at first attendance for the literate subgroup (24.2 ± 6.1 weeks) was not statistically significant ($P > 0.05$). The gestational age at booking among the grand multiparous women was significantly higher than that of the primigravidae (25.30 ± 5.9 versus 23.1 ± 6.1 weeks; $P < 0.05$). In 71% of cases there was no specific reason for electing the time for antenatal booking. Health education, with emphasis on the benefits of booking in the first trimester of pregnancy, is advocated. Service providers should also develop a referral system for those pregnant women relocating to new stations.

Keywords: *Booking, antenatal care, gestational age*

Résumé

Entre Janvier 1995 et Decembre 1996, une etude periodique a été entreprise afin de determiner l'âge gestationnel à laquelle les femmes enceintes s'inscrivent à la clinique antenatale. L'âge gestationnel moyen de la première participation à la clinique antenatale des 2304 femmes du groupe d'investigation a été de $23,5 \pm 6,0$ Semaines. La différence entre l'âge gestationnel à la première participation à la clinique antenatale pour le sous-groupe des femmes lettrées ($24,2 \pm 5,9$ semaines) et celui du sous-groupe des illettrées ($23,6 \pm 6,1$ semaines) n'a pas été statistiquement différente ($P < 0,05$). L'âge gestationnel à la première participation parmi les grandes multipares a été significativement élevé comparé à celui des primipares ($25,30 \pm 5,9$ contre $23,1 \pm 6,1$ semaines, $P < 0,05$). Chez 71% des cas il n'y avait pas des raisons spécifiques concernant la decision de commencer la participation à la clinique antenatale. Il ya lieu d'advouquer les programmes d'éducation de la sante insistant sur les les avantages de se presenter en clinique au premier trimestre de la grossesse. Les pouvoyeur se services devroient developper un systeme referrant les femmes enceintes deployés à des nouvelles stations aux cliniques antenatales.

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Introduction

Antenatal care has long been associated with marked reduction in maternal and perinatal morbidity and mortality, especially in the developing countries. [1] A woman is regarded as having had antenatal care if she booked for such care and afterwards paid a minimum of two antenatal visits, the last no more than 2 weeks before delivery [2]. The time of the first for antenatal care is as important as the number of visits and the interval between the last visit and delivery. There is very little information on the gestational age at which women book for antenatal care in Nigeria.

The Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto, though a tertiary health institution, does not restrict its role to tertiary services. Hence, women who come for maternal care are unselected. Patients pay for services rendered.

The objective of this work was to determine the gestational age at which pregnant women book for antenatal care and the reason for electing such a time.

Subjects and Method

All pregnant women that came to the Wednesday booking clinic for antenatal care UDUTH, Sokoto, between January 1995 and December 1996 were interviewed and examined using a questionnaire. The questionnaire sought information on respondent's age, tribe, parity, literacy status, husband's literacy status/occupation, date of booking, last menstrual period, expected date of delivery, expected gestational age, fundal height, reason(s) for choosing today for antenatal care booking.

Inclusion criteria include, those who were sure of the dates of their last menstrual period with compatible uterine size. Also included were those women that had abdominal-pelvic ultrasound scan for dating either because of uncertain dates or presence of disparity between the gestational age and size of uterus.

Mean gestational ages were compared where necessary by Student's *t* test. A *P* value of less than 0.05 was considered statistically significant.

Results

Out of a total of 2,812 women that booked for antenatal care within the 2-year study period, 2,304 fulfilled the criteria for inclusion.

Virtually all of the women were from Sokoto township. Majority (68%) were within 20 – 29 years age group, while teenagers constituted 12.4%. In all 63% of the study group had at least primary school education and were therefore considered literate.

Table 1. Average gestational age in relation to the ethnic group of the women.

Ethnic Group	Gestational Age
Hausa-Fulani(1135)	23.04 Weeks
Igbo (396)	24.14 Weeks
Yoruba (364)	23.58 Weeks
Others (409)	23.77 Weeks
Total = 2,304	

Figures in parenthesis represent actual number of women out of the total.

Table 2. Average gestational age in relation to parity.

Parity	Gestational Age (Weeks)
Primigravidae (215)	23.08 ± 6.23
Multiparae (400)	23.82 ± 6.03
Grand Multiparae (90)	25.30 ± 5.37
Total = *705	

*Analysis limited to only patients that booked in 1996.

Table 3. Reasons advanced for booking at a particular time

Reason	Number
When affordable	231(10%)
Just relocated	184(8%)
Quickening	161(7%)
Miscellaneous	92(4%)
Non-specific	1636(71%)
Total	2,304(100%)

Discussion

The average gestational age at first antenatal attendance among the study group was 23.5 ± 6.0 weeks. This value is higher than the 18 weeks 'observed' in women at Igbo-Ora, Nigeria [3], lower than the 28 weeks found among women in Durban, South-Africa [4] but comparable to the "5th month" reported for Malaysian women [5]. Since the cardinal objectives of antenatal care include early diagnosis of abnormalities and appropriate intervention, booking for antenatal care late in pregnancy would limit such benefits. In fact, only 7% of the survey group booked within the first trimester of gestation.

The difference between the gestational age of the literate subgroup (24.2 ± 5.9 weeks) and that of the illiterate (23.6 ± 6.2 weeks) subgroup at first attendance was not statistically significant ($P > 0.05$). That all respondents were urban women may be the overriding factor but more important is the fact that majority (92%) of the spouses of the illiterate women were literate. It would appear that there is a difference between literacy per se and health education, especially in health matters. Typical effects of education on antenatal attendance were also observed in Zambia [6].

Ethnicity was not an important factor in terms of time of first attendance for antenatal care. Parity appeared to be a significant factor, although

data was limited only to 1996 respondents because of a mix-up in that of 1995. Compared with the primigravidae, the grand multiparous women tended to book later in pregnancy (23.08 ± 6.23 versus 25.30 ± 5.37, $P < 0.05$). While this is in agreement with findings from Saudi Arabia where older women were found not to be keen in attending antenatal clinics or attended late when they did because of previous successful pregnancies [7], a lot of work is still needed to validate this point.

Majority (71%) of respondents could not advance any specific reason for booking at the time they did. To the question: Why did you choose to book today? Some respondents said "Nothing" or "No reason" or "This is about the time I came to book in my last pregnancy" or "My neighbour advised me to come today". There is therefore a genuine need for health education.

In 10% of the cases, that was the time they could afford to pay the booking fees. But when the booking fees was two hundred Naira only (N200.00) in 1995, the average gestational age was 23.09 weeks which was not different from the 23.90 weeks which was not different from the 23.90 weeks obtained as the average gestational age in 1996 when the cost of booking for antenatal care was five hundred Naira (N500.00), thus casting doubt on cost as a factor in time of booking. However, the more than 100% increase in booking fees caused a significant fall in the total number of women that had antenatal care from 1,599 in 1995 to 705 in 1996. This corroborates Attah's report that: "In Nigeria, attendance at government antenatal clinics has been dropping since 1985 when medical fees were introduced" [8].

Relocation (intra-city or inter-city) was another reason given for booking late. Most of the women in this category had had some form of antenatal care elsewhere but had no medical report to give relevant information. It is suggested that service providers should develop a referral system where pregnant women that are relocating to new stations are given medical reports containing relevant information. For instance, in some primary health care centres, patients are the custodians of their case notes, hence they can relocate easily with same.

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