

## Client Perception of Antenatal Care Services at Primary Health Centers in an Urban Area of Lagos, Nigeria

<sup>1</sup>O.O. Sholeye, <sup>2</sup>O.A. Abosede and <sup>3</sup>O.A. Jeminusi

<sup>1</sup>Department of Community Medicine and Primary Care,  
Olabisi Onabanjo University Teaching Hospital, Sagamu, Nigeria  
<sup>2</sup>Institute of Child Health and Primary Care, Lagos University Teaching Hospital,  
Idi-Araba, Lagos /College of Medicine, University of Lagos, Nigeria  
<sup>3</sup>Sagamu Community Centre / Obafemi Awolowo College of Health Sciences,  
Olabisi Onabanjo University, Sagamu, Nigeria

**Abstract:** Maternal morbidity and mortality has remained unacceptably high in sub-Saharan Africa, including Nigeria, despite concerted efforts at its reduction, by various stakeholders and development partners. A major determinant of pregnancy outcome is the quality of care received during pregnancy and the utilization of available services by pregnant women. This study assessed the perception of clients accessing antenatal care services at the Primary Health Care Centres (PHCs) in Mushin Area of Lagos State. About 300 pregnant women were selected through systematic random sampling from three PHCs offering full maternal health services in Mushin. Data was collected with the aid of interviewer-administered, semi-structured questionnaires. Data analysis was done using SPSS 14.00. The mean age of respondents was  $30.68 \pm 6.74$  years. Most respondents (42.5%) were aged between 20 and 29 years. About 92.0% of respondents perceived the environmental conditions of service delivery as good; 52.2% felt the record retrieval system was good, while 1.7% who felt it was poor. The health education sessions were perceived as being good by 84.3%, while only 1.0% felt it was poor. The obstetric examinations were perceived as being good by 66.6% of respondents, while 3.0% felt the service was poor. Improved funding of health services at the local government / district level as well as continuous health education, will help to optimize the quality and utilization of antenatal care services at the PHCs in developing countries, like Nigeria.

**Key words:** Antenatal Care • Client • Perception • Primary Health Care

### INTRODUCTION

All over the world, childbearing is an important and sensitive issue, viewed from a variety of perspectives including culture, religion, beliefs, law and social class differentials [1]. Over the years, maternal health indices in many developing countries, particularly those in sub-Saharan Africa, including Nigeria, have remained poor [2]. The Millennium Development Goals (MDGs) recognize the crucial role health plays in national development and improvement of the quality of life of population groups. Specifically the fifth goal addresses the need for a significant reduction in Maternal Mortality

Rates around the world by the year 2015 [3]. Maternal Mortality Ratio (MMR) has been accepted as an important index of health status of a population. It also depicts the status of women and children. Maternal Mortality Rates remained high in sub-Saharan Africa at the close of the twentieth century, with many governments unable to achieve the goals of the Safe Motherhood Initiative. This has been of great and considerable concern to governments and development partners, who have invested greatly to reduce the magnitude of this problem [4]. Data from developing countries show that lack of antenatal care is an important risk factor for poor pregnancy outcomes [5-7].

The Nigerian Demographic and Health Survey (NDHS) conducted in 2008, showed that only 58% of Nigerian women received some form of antenatal care from a skilled provider and a wide disparity exists between regions of the country with only 31% of pregnant women in the north-west accessing services, compared with 87% in the south west and south east zones [8]. Service utilization has been linked to the clients' perception of the adequacy and quality of the service provided [9]. The present quality of maternal health services in Sub-Saharan Africa, as depicted by the magnitude of severe maternal morbidity and mortality makes it doubtful, if the millennium development goal on maternal health will be attained by 2015 [10-12]. In view of the many limitations of client satisfaction surveys, researchers agree that knowledge of how a client feels about a service is important. Some researchers therefore advocate for studies on client perception, rather than client satisfaction, because of the various technical issues associated with measurement of the latter, including the seeming disagreement on the criteria constituting client satisfaction with health services [13].

Lagos State Government has made several attempts at revitalization of Primary Health Care services, across the entire state. Emphasis has been placed on community participation in PHC delivery as prescribed by the Ward Health System, earlier adopted by the Federal Government. This study therefore assessed the perception of clients accessing antenatal care services at the selected PHCs in Lagos state and also determined factors associated with client perception.

## MATERIALS AND METHODS

**Description of Study Area:** Mushin Local Government Area is one of the twenty (20) LGAs in Lagos State. It is on the mainland area of the state. It is a densely populated area with over 1.3 million people. It has a boundary with Oshodi-Apapa expressway (now a part of the newly-created Oshodi-Isolo LGA) in the North and Surulere LGA in the South. Three Primary Health Centres offering full maternal health services were selected by simple random sampling. The antenatal clinics are run only once a week at the selected PHCs. All three health facilities have an average monthly attendance of 200 pregnant women.

**Study Design:** A cross-sectional descriptive study was carried out among pregnant women attending antenatal clinics at selected Primary Health Care facilities in Mushin LGA.

**Sample Size Determination:** Using a Formula for descriptive studies,

$$\begin{aligned}n &= Z^2pq/d^2 \\n &= (1.96)^2 \times 0.81 \times 0.19 / (0.05)^2 \\n &= 236.5.\end{aligned}$$

This calculated sample size was rounded off to 300.

**Sampling Technique:** Three hundred (300) pregnant women were selected for participation in the study by systematic random sampling, between June and August 2012. Using the background information on the average monthly attendance at the three PHCs and considering that data will be collected over a period of ten weeks, a sampling interval of 5 was then used in the final selection of 100 women in each PHC. The first respondents were selected by simple random sampling technique.

**Ethical Issues:** Ethical approval was obtained from the Health Research and Ethics Committee of Lagos University Teaching Hospital, Idi -Araba, Lagos. An official permission was also obtained from the Office of the Chairman, Mushin LGA, through the Medical Officer of Health and the Chief Nursing Officer-in-Charge at the LGA headquarters. Informed consent was obtained from study participants. Participation was voluntary, with no form of coercion. All information collected was treated with strict confidentiality.

**Data Management:** Data was collected by trained interviewers, with the aid of interviewer-administered semi-structured questionnaires. These were vetted weekly and analyzed using the Statistical Package for Social Sciences (SPSS 14.00). Frequencies and proportions were calculated and presented in Tables and prose. Bivariate analysis was done and also reported in relevant sections. Fisher's exact test was reported, with P values set at <0.05.

## RESULTS

**Socio-Economic Data:** As stated in the methodology, all respondents were definitely women, aged between 17 and 49 years. Only 5.0% of respondents were aged less than 20 years and 11.7% were aged between 40 and 49 years. 42.5% of clients were aged between 20 and 29 years; while 40.8% were aged between 30 and 38 years. The mean age of the women studied was  $30.68 \pm 6.74$  years (as highlighted in Table 1).

Table 1: Respondents' Socio-demographic data.

Age Group (Years)	Frequency (n = 299)	Percentage (%)
Less Than 20	15	5.0
20 – 29	127	42.5
30 – 39	122	40.8
40 – 49	35	11.7
<b>Marital Status</b>		
Single	29	9.6
Married	252	84.6
Divorced	10	3.4
Seperated	2	0.7
No Response	5	1.7
<b>Educational Status</b>		
Completed Primary	30	9.6
Some Secondary	29	9.9
Completed Secondary	148	50.7
Tertiary	65	22.3
No Formal Education	25	7.5

Most of the respondents (84.6%) were married; 9.6% were single; 3.4% were divorced and 0.7% was separated. About half (50.7%) of respondents had completed their secondary education; 22.3% had tertiary education; 9.9% had some form of secondary education while 9.6% had completed primary education. Of all women studied, only 4 (1.1%) were primi-parous; 20.6% were carrying their second pregnancies; 35.6% had two previous pregnancies; 26.0% had three previous pregnancies. Others were grand multi-parous women, with 12.1% carrying their fifth pregnancies; 4.35 their sixth; and 0.4% their eighth pregnancies.

**Previous Antenatal Care Site:** About 3% of respondents had not accessed antenatal care anywhere before utilizing the study sites. Traditional Birth Attendants were patronized by 8.1% of respondents in their previous pregnancies; 27.1% utilized the services of maternity homes; 18.6% utilized the PHC system; 22.0% utilized private hospitals while 21.1% accessed ANC at the state's General Hospitals.

**Reason for Choice of ANC Facility:** For a large proportion (45.0%), distance was the main reason for which the PHCs, selected as study sites, were chosen by respondents for antenatal care. About 10.0% chose the PHCs because of the cost of accessing care. Only 8.8% chose the facilities because of the flexibility of timing of maternal and child health services at the PHC level. Previous experience was the reason why 15.7% of clients chose their present ANC sites. However, 20.7% of respondents based their choices on other clients' recommendations.

**Distance of between Health Facility and Respondents' Homes:**

Almost 70% of respondents lived within 5km of the health centre, while 27.6% lived between 5km and 10km away from the health centre where they accessed services. Only 3% lived more than 10km away

**Perception of the Adequacy of Client-Provider Interactions:**

Most clients (94.6%) felt they had enough time to discuss health issues with the service providers; 4.0% felt the time was inadequate for proper client-provider interactions. Only 1.4% of respondents were undecided on the adequacy or otherwise of the consultation time.

**Clients' Involvement in the Decision Making Process:**

Most respondents (87.0%) felt they were properly involved in the decision making process concerning their care; 3.0% did not feel well involved in the decision making process. However, 10.0% of clients could not precisely take a stand on their involvement in decision making concerning their antenatal care.

**Perception of Various Aspects of Care Received (Table 2):**

Most respondents (92%) perceived the environmental conditions of service delivery as good, while 0.7% felt it was poor; 52.2% felt the record retrieval system was good, as opposed to 1.7% who felt it was poor (Table 2). The health education sessions were perceived as being good by 84.3%, while only 1.0% felt it was poor. The obstetric and physical examinations were perceived as being good by 66.6% of respondents and 3% felt the service was poor. The clinical consultations were rated as "good" by 58.2%; 42.8% felt the Laboratory services were good, while 33.8% and 23.4% felt they were just fair and poor respectively.

**Provider Attitudes:** The healthcare providers' attitudes were perceived to be good by 66.3% of respondents; 25.7% of clients felt providers' attitudes were fair, while 8.0% felt healthcare providers had poor attitudes.

**Factors Associated with Clients' Perception of Antenatal Care:**

A statistically significant association was observed between clients' previous ANC site and their perception of services received (Fisher's exact test = 39.215, df = 10, p= 0.000). There was a statistically significant association between waiting time and client perception (Fisher's exact = 67.151, df = 10, p= 0.000). There was a statistically significant association between time spent at the health centre and client perception (Fisher's exact test = 69.552, df = 10, p= 0.000).

Table 2: Respondents' perception various of service aspects.

Service Areas	Good (%)	Fair (%)	Poor (%)	Total (%)
Environmental Conditions	275 (92)	22 (7.4)	2 (0.7)	299 (100)
Record Retrieval System	156 (52.2)	138 (46.2)	5 (1.7)	299 (100)
Health Education Sessions	252 (84.3)	44 (14.7)	3 (1.0)	299 (100)
Clinical Consultations	174 (58.2)	123 (41.1)	2 (0.7)	299 (100)
Laboratory Services	128 (42.8)	101 (33.8)	70 (23.4)	299(100)
Pharmaceutical Services	152 (50.8)	106 (35.5)	41 (13.7)	299 (100)
Referral Services	150 (50.2)	132 (44.1)	17 (5.7)	299 (100)
Physical Examination	199 (66.6)	91 (30.4)	9 (3)	299 (100)

There was a statistically significant association between expectation and client perception of service. (Fisher's exact = 2.719, df = 10, p= 0.000).

### DISCUSSION

The mean age of respondents was 30.68 ± 6.74 years. Most respondents (42.5%) were aged between 20 and 29 years, closely followed by clients aged between 30 and 39 years (40.8%). Only 5% of respondents were aged less than 20 years. About half (50.7%) of the respondents completed their secondary education, while 22.3% had tertiary education. Less than 8% of respondents had no formal education.

Perception of services received by respondents varied according to the aspect of service being investigated. More than 90% of respondents felt the clinic environment was good enough, while 0.7% felt it was poor. Perception of the health education sessions was also quite impressive as more than 80% of clients felt they were good and only 1% perceived them as being poor. The record retrieval system, an important determinant of client waiting time in many health facilities, was perceived to be good by just a little above half of the respondents, while about 2% felt this aspect of antenatal service delivery was poor in the health facilities utilized. This is comparable to results obtained in Kano where 30% of clients complained about missing folders and its associated long waiting time [14]. Almost 60% of respondents rated the clinical consultations as being good and a higher proportion (66.6%) felt the physical examinations carried out were good. These agree with findings from southern Africa where clients perceived antenatal care services to be good, noting that midwives consciously created an enabling environment for better patient-provider interactions [15].

The poor perception of services reported by 3% of clients for the physical examination and less than 1% for clinical consultations could be due to poor provider attitudes. In the course of the study, a few respondents expressed reservations about the attitudes of some

healthcare providers. This is similar to the findings from a South African study where patients claimed to have been insulted by midwives and therefore perceived the antenatal services provided in the province poorly [16]. The perception of pharmaceutical services by respondents as good (50.8%), fair (35.5%) and poor (13.7%) could be explained by the fact that anti-malarial drugs are dispensed free of charge to pregnant women in State-owned public facilities. However, some drugs like haematinics may not be available in some facilities, particularly where a drug revolving fund is non-existent. Also, not all PHCs have pharmacy technicians in attendance or patent medicine stores nearby, making the pharmaceutical services sub-optimal.

In this study clients' perception was found to be significantly associated with the following type of health facility where antenatal care was accessed in previous pregnancies; time spent at the health facilities and; clients' waiting time. These findings are somewhat similar to findings from Enugu, where waiting time was associated with client satisfaction. However, unlike what was obtained from the study in Enugu where the number of ANC visits and cost considerations affected clients' perception of ANC services, those factors were not significantly associated with clients' perception [17]. Respondents' perception of the ANC services in this study is comparable to findings from Ibadan, where 65% of clients perceived ANC services to be good [18].

Educational status was not significantly associated with clients' perception of ANC services, unlike what has been reported in literature, even though it is important for effective communication of the necessity of ANC [19]. This could be due to the fact that over 50% of the respondents had completed secondary education and were thus enlightened. It could also be as a result of the increased campaign for utilization of maternal and child health services, made available at little or no cost to clients in Lagos State public health facilities.

The focused antenatal care package emphasizes individual counseling sessions and a patient-centered approach to care. The increased emphasis on middle level

manpower makes research into client perception of nursing and midwifery services at the PHC level important. The unique experiences of individual patients; timeliness of nursing staff's response to clients concerns; character and even informal explanations given by providers greatly impact client perception and eventual satisfaction with maternal health services [20, 21].

### CONCLUSIONS

Client perception of the antenatal care provided at the PHC level in Mushin, was generally good for most aspects of care. Environmental conditions, health education sessions, physical examination and clinical consultations were better perceived than Laboratory services, pharmaceutical services, referral services and record retrieval systems. Type of ANC facility accessed in previous pregnancies; time spent at the health facility; clients' prior expectation of care; and waiting time, were associated with client perception of the services received. Provider attitudes were good on the whole, even though 8.0% of the respondents were of the opinion that healthcare providers' attitudes need to improve.

**Recommendations:** Health workers need to be trained periodically on the concepts of total quality management and Client-Oriented Provider Efficient (COPE) for effective and efficient service delivery. An attitudinal re-orientation is necessary for all healthcare workers.

Laboratory services, pharmaceutical services, referral services and record retrieval systems need to be improved promptly, as they were the aspects with the poorest perception in this study. Improved funding of health services at the local government / district level as well as continuous health education, will help to optimize the quality and utilization of antenatal services at the PHCs in developing countries, like Nigeria.

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