PERCEPTION AND SATISFACTION WITH QUALITY OF ANTENATAL CARE SERVICES AMONG PREGNANT WOMEN AT THE UNIVERSITY COLLEGE HOSPITAL, IBADAN, NIGERIA

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ABSTRACT:

Background: **Antenatal care is an important health service which detects and sometimes reduces the risk of complications among pregnant women. The quality of care is likely to influence effective utilization and compliance with interventions.**

Objectives: **This study evaluated clients' perception of antenatal care quality at the University College Hospital (UCH), Ibadan and determined levels of client satisfaction.**

Methods: **Women presenting for antenatal care at the study centre were interviewed in a cross-sectional design using a structured questionnaire. Items in the questionnaire included sociodemographic and obstetric variables, assessment of quality of amenities, waiting time and level of satisfaction. Data analysis was done using frequency tables, Chi-square cross tabulations and logistic regression. The p-value was set at P<0.05.**

Results: **There were 239 participants; 74% percent of the women were aged 25-34 years; majority of the respondents (86%) had tertiary education while 49.4% were skilled workers or professionals. In 57.7% of women, the gestational age was between 13 and 27 weeks while 66.1% were Para 1-4. Amenities and water supply were regarded as unsatisfactory in 60.7% and 61.9% respectively. The clinic services were regarded as good in 81.1% of respondents; the only significant association with patient satisfaction was the desire to register in the same facility in the next pregnancy.**

Conclusion: **There is a high overall level of satisfaction with antenatal services among pregnant women in UCH. Policy makers and health providers should however address improvement of amenities, reduction of waiting time and ensure that health interventions are available for all clients.**

Keywords: Antenatal care, Perception, Satisfaction, Ibadan, Pregnancy

INTRODUCTION:

Antenatal care (ANC) is an important part of preventive medicine and professionals providing this service can reduce the risk of complications through education, counseling and various interventions. The proportion of Nigerian women that receive antenatal care and those that are delivered by skilled birth attendants has however remained far from acceptable[1].

For many years, high standards of care were considered a luxury particularly in developing countries where service coverage was largely inadequate [2, 3]. Quality of health care is seen as a factor closely related to effectiveness, compliance and continuity of care particularly for ethical reasons[4]. Women's perceptions of antenatal visits significantly influence their assessment of quality of services that are provided[5]. As a result of this new focus, measurement of customer satisfaction has become equally important in assessing system performance.

Patient satisfaction has traditionally been linked to the quality of services given and the extent to which specific needs are met. Satisfied patients are likely to come back for the services and recommend services to others[6]. Various factors including attitude of staff, cost of care, time spent at the hospital and doctor communication have been found to influence patient satisfaction in previous studies[7-9]. The study objective was to ascertain

the perception of and satisfaction with the quality of ANC services among pregnant women at the UCH, Ibadan. The study also sought to correlate patient's satisfaction with future use of maternity services in the institution.

MATERIALS AND METHODS

This cross sectional study was conducted at the antenatal clinic of the UCH, Ibadan, a tertiary institution in South-Western Nigeria. In 2009, clinic attendance was 13,932 (daily average of 82 women) and 8,811(daily average of 55 women) in 2010. There are three antenatal clinics per week, 1 booking and postnatal clinic on Wednesday and Friday respectively. The clinic usually commences with an interactive health talk co-ordinated by a qualified community health nurse which usually lasts for at least 45minutes.

The health talk usually covers various topical issues including nutrition, diet, personal hygiene, danger signs in pregnancy, the labour experience, care of the newborn, exclusive breast feeding and immunization.

Other health issues such as hypertension, diabetes mellitus, malaria, anaemia, HIV/AIDS and family planning are also discussed. Routine services following the health talk include weight and height measurement, blood pressure estimation, urinalysis, haemoglobin estimation and multivitamin supplementation. Thereafter, patients are called individually to see their doctors for clinical examination and treatment.

In this study, study participants were selected by convenience sampling following their written consent. Women attending booking and post-natal clinics were excluded. The instrument for the study was an interviewer administered questionnaire which was divided into sections: Socio-demographic and obstetric characteristics, Services/procedures, Amenities, Content of health information & education, Cost implication, Attitude of health personnel, Waiting time/total time spent, Effective communication and Overall rating of antenatal care services. Each questionnaire took 10-15 minutes to complete. Total time spent was defined as time spent from arrival to the end of the clinic consultation by the obstetrician waiting time was defined as time spent from the end of the health talk to the beginning of the clinic consultation; these values were obtained from the patient. The interviewers were research assistants who were trained to administer the questionnaire in English language. Translation to native languages was done in cases where the respondents were uneducated. The questions were closed and open ended and written in simple language. Sample size calculation was done using the Kish formula for cross sectional studies; an overall client satisfaction prevalence of 81% with a precision of 0.05 was used [10].

The data was collected, coded and entered into a computer using SPSS v.15.0. The data was then cleaned and analysis carried out using descriptive statistics and frequency tables. Cross tabulation was done between socio-demographic variables and client satisfaction and significant variables were entered into a logistic regression model to identify predictors. The level of significance was <0.05.

RESULTS

There were 239 respondents and most of them were between 25 and 29 years old (37.2%); 36.8% were in the 30-34years age group. Most of the women were married (94.6%) and in monogamous unions. There were 187(78.2%) Yoruba women while 86% had tertiary education. Skilled workers or professionals

Table 1: Socio-demographic characteristics of respondents

Characteristic	Frequency (n)	Percentage (%)
Age		
20-24	24	10.1
25-29	89	37.2
30-34	88	36.8
≥35	38	15.9
Total	**239**	**100**
Marital status		
Single	13	5.4
Married	226	94.6
Total	**239**	**100**
Occupation		
Unemployed	57	23.8
Unskilled	16	6.7
Semi-skilled	48	20.1
Skilled/Professionals	118	49.4
Total	**239**	**100**
Education		
None	1	0.4
Primary	5	2.1
Secondary	28	11.7
Post- secondary	205	85.8
Total	**239**	**100**
Ethnicity		
Yoruba	187	78.2
Ibo	34	14.2
Hausa	9	3.8
Others	9	3.8
Total	**239**	**100**

accounted for 49.4% of respondents while 82% lived in urban areas (Table 1).

Majority of the respondents (57.7%) were between 13 and 27 weeks of gestation while 26.8 % (64) were less than or equal to 12 weeks; gestational age was 28 weeks and above in 15.5% (37). Sixty five respondents were nulliparous (27.2%) while majority were Para 1-4(66.1%); in 16 women (6.7%), parity was ≥5 (Table 1).

Table 2: Services provided at antenatal facility

Service Provided n=239	Yes N (%)	No N (%)
Registration	234(97.9)	5(2.1)
Blood Pressure	235(98.3)	4(1.7)
Height	232(97.1)	7(2.9)
Urine Test	236(98.7)	3(1.3)
Packed Cell Volume	237(99.2)	2(0.8)
Blood Group	228(95.4)	11(4.6)
Haemoglobin Genotype	218(91.2)	21(8.8)
VDRL	200(83.7)	39(16.3)
Retroviral Screening	184(77.0)	55(23)
Tetanus	188(78.7)	51(21.3)
Malaria	205(85.8)	34(14.2)
Iron and Folic Acid Tablet	187(78.2)	52(21.8)
Ultrasound Scan	194(81.2)	45(18.8)
Physical Examination	214(89.5)	25(10.5)
Appointment for next visit	220(92.1)	19(7.9)

The commonest investigation/procedure done at the clinic was packed cell volume (PCV) estimation (99.2%). Human immunodeficiency virus (HIV) screening was done in 77% of respondents. Sitting arrangements were regarded as satisfactory in 97.9% of women. Toilet, bathroom facilities and water supply were regarded as unsatisfactory in 60.7% and 61.9% respectively. Two hundred and nineteen (91.6%) of respondents reported that diet and nutrition related topics were more discussed during the interactive session than other topics. However, prevention of cervical cancer was the least discussed topic (65.7%) (Tables 2&3). The perception of attitude of health care providers is highlighted in table 5. One hundred and thirty seven respondents (85.6%) rated the attitude of nurses at the clinic as good and were satisfied with the antenatal services. Conversely, of the 79 respondents who rated the nurses' attitude as poor, 57(72.2%) were satisfied with the antenatal care service which was significant ($p<0.05$). A hundred and ninety respondents(84.4%) who expressed satisfaction with

Table 3: Assessment of amenities and health topics discussed at facility

Amenities (n=239)	Satisfied(n/%)	Not satisfied(n/%)
Water supply	148(61.9)	91(38.1)
Hygiene(toilet & bathroom)	145(60.7)	94(39.3)
Electricity supply	189(79.1)	50(20.9)
Ventilation	201(84.1)	38(15.9)
Sitting arrangement & spacing	234(97.5)	5(2.5)
General environmental sanitation	227(95.0)	12(5.0)
Health information & Education	224(93.7)	15(6.3)
Health topics(n=239)	**Yes(n/%)**	**No(n/%)**
Diet & Nutrition	219(91.6)	20(8.4)
Danger signs of pregnancy	203(84.9)	36(15.1)
Child care and breast feeding	211(88.3)	28(11.7)
Family planning and child spacing	168(70.3)	71(29.7)
Prevention of malaria in pregnancy	211(88.3)	28(11.7)
Prevention of sexually transmitted infections	194(81.2)	45(18.8)
HIV/AIDS information & counselling	217(90.8)	22(9.2)
Prevention of cervical cancer	157(65.7)	82(34.3)
Breast self-examination	168(70.3)	71(29.7)

Table 4: Determinants of patients' satisfaction *(Overall Rating)*

Sociodemographic/Obstetric variables	*Not satisfied* n(%)	*Satisfied* n(%)	*Significance*
Age			
20-24	3(12.5)	21(87.5)	p>0.05
25-29	21(23.6)	68(76.4)	
30-34	25(28.4)	63(71.6)	
≥35	6(18.8)	32(81.2)	
Marital Status			
Single	5(38.5)	8(61.5)	p>0.05
Married	41(18.1)	185(81.9)	
Parity			
Nulliparous	8(12.3)	57(87.7)	p>0.05
Para 1-4	18(11.4)	140(88.6)	
Para ≥5	2(12.5)	14(87.5)	
Gestational Age(wks)			
<12	19(29.7)	45(70.3)	p>0.05
13-27	28(20.3)	110(79.7)	
≥28	7(18.9)	30(81.1)	
Occupation			
Unemployed	9(15.8)	48(84.2)	p>0.05
Unskilled	5(33.3)	10(66.7)	
Semi-skilled	7(15.9)	37(84.1)	
Skilled/Professionals	4(3.5)	109(96.5)	
Education			
Secondary and below	2(8.8)	31(91.2)	p>0.05
Post-secondary	42(20.5)	163(79.5)	
Socio-economic class			
Lower	3(12.7)	55(87.3)	p>0.05
Upper	35(19.4)	145(80.6)	
Place of residence			
Urban	43(20.9)	163(79.1)	p>0.05
Rural	9(27.3)	24(72.7)	
Distance from ANC			
Close	11(15.9)	58(84.1)	p>0.05
Moderate	22(23.9)	70(76.1)	
Far	11(15.1)	62(84.9)	

ANC services described the doctor's attitude towards them as good while 57.1% of them who had a contrary opinion of the attitude of doctors were still satisfied with ANC; this was also significant($p<0.05$).

The mean time spent during each clinic visit was 3.8±1.5hours (range: 1-7hours). About 94.9% of respondents who spent within 3hours at the clinic expressed satisfaction while 35.1% of respondents who thought they spent too long at the antenatal clinic were dissatisfied ($p<0.05$) (table 5).

The overall rating was classified into poor and good. Most respondents were satisfied with the services given at the clinic; 81.1% rated the services as good while 18.9% were not satisfied and stated that service was

Table 5: Cross tabulation of overall rating of antenatal services and socio-demographic variables

Evaluation of ANC	*Not satisfied* n (%)	*Satisfied* n (%)	*Significance*
Health information			
Yes	42(17.9)	193(82.1)	p>0.05
No	1(25.0)	3(75.0)	
Time taken to see doctor			
<3hrs	25(15.4)	137(84.6)	p>0.05
>3hrs	19(24.7)	58(75.3)	
Total time spent at ANC			
<3hrs	3(5.1)	56(94.9)	p<0.05
>3hrs	15(14.6)	88(85.4)	
Too long	27(35.1)	50(64.9)	
Nurses' attitude			
Poor	22(27.8)	57(72.2)	p<0.05
Good	23(14.4)	137(85.6)	
Doctors' attitude			
Poor	6(42.9)	8(57.1)	p<0.05
Good	35(15.6)	190(84.4)	
Paid for ANC			
Yes	37(19.0)	158(81.0)	p>0.05
No	7(15.9)	37(84.1)	
Cost of registration			
Expensive	31(15.6)	168(84.4)	p>0.05
Not expensive	10(25.0)	30(75.0)	
Cost of other ANC services			
Expensive	23(16.5)	116(83.5)	p>0.05
Not expensive	17(17.0)	83(83.0)	
Register at facility again			
No	13(52)	12(48)	p<0.05
Yes	41(19.2)	173(80.8)	
Recommend facility to somebody else			
No	6(54.5)	5(45.5)	p<0.05
Yes	38(16.7)	190(83.3)	

poor. Most women (83.3%) revealed that they would register in the same health facility in subsequent pregnancies and would recommend the clinic to someone else. Following cross tabulation with the ÷-square test(tables 4&5), only total time spent, nurses' attitude, doctors' attitude, desire to register again at the facility and deciding to recommend the facility to someone else were significant. These were entered into the logistic regression model. (Table 6). The only significant association was between desire to register in the facility in a future pregnancy and satisfaction (p<0.05).

Table 6: Logistic regression analysis - predictor variables of client satisfaction

Variable	OR (CI)	P
Time		
Less than 3hrs (ref)		
More than 3hrs	0.73(0.03-16.79)	0.84
Too long	0.19(0.01-2.96)	0.23
Doctors' attitude		
Poor (ref)		
Good	0.50(0.04-6.30)	0.59
Nurses' attitude		
Poor (ref)		
Good	4.58(0.78-27.05)	0.09
Register again in the facility		
No (ref)		
Yes	36.50(3.89-341.65)	0.00
Recommend the facility		
No (ref)		
Yes	4.22(0.33-53.76)	0.27

DISCUSSION

Our study evaluated the perception of patients and their level of satisfaction with antenatal care. Previous research has revealed positive correlation between patients' satisfaction and health care utilization[10, 11]. Majority of the women were satisfied with the quality of antenatal care they received and would recommend the facility to friends. The participants were also willing to use the same facility in subsequent pregnancies. It was however observed that the level of satisfaction was not always in tandem with willingness to access the services. An earlier survey suggested that women may generally express satisfaction with the quality of antenatal services despite inconsistencies between received care and their expectations of the facilities[10]. Other authors have stated that client satisfaction may only indicate low expectations from health care services or a desire to please the interviewer, avoid anxieties about provider bias or express feelings driven by cultural perceptions[12, 13]. Oladapo and Osiberu found that socio-demographic and obstetric characteristics were not associated with the overall satisfaction with antenatal care quality[14]. There was a similar finding in this study as they are seen to have limited impact on their perception of antenatal care.

Specifically, a significant proportion of clients viewed waiting time as long. This is similar to findings from Kano in Northern Nigeria[15]. Another study demonstrated that customer satisfaction is affected not just by waiting time but by customer expectations or attribution of causes for waiting. [16]. Consequently, one of the issues in queue management is not only the actual amount of time the customer has to wait but also the customer's perceptions of that wait [17]. The views of the clients' about waiting time may be related to the hospital's location in the most populous part of the state with numerous referrals from different levels of care.

The high level of satisfaction with the cost of antenatal care obtained in this study may have resulted from the safety net provided to some respondents by the National Health Insurance Scheme (NHIS), waivers for staff of the UCH and for People Living with HIV/AIDS (PLWHA). In spite of this, a good number of patients who paid for their antenatal care which they mostly perceived as expensive still expressed satisfaction. Clients may be willing to accept higher costs if they believe that services are of high quality. This has been observed in Indonesia where clients were willing to pay reasonable fees for quality antenatal and post-natal care; other research has found that ill and poor people by passed free or subsidized services in facilities they perceived to be offering low quality[18].

The attitude of health personnel was a significant determinant of patients' perception and satisfaction with antenatal care in this study; this was a similar pattern in some studies and a contrast with others[15, 19, 20]. Good provider-patient relationships are therapeutic and have been described as the single most important component of good medical practice, not only because it identifies problems quickly and clearly, but it also defines expectation and helps establish trust between the clinician and patient [21, 22]. Supervision of antenatal care and the contributions of ancillary bodies such as SERVICOM may have played a role in the patient's perception of the health personnel's attitude. The availability and level of utilization of such services was observed to be higher than other similar studies in this environment.[11, 23, 24]. This may be attributable to a recent upgrade of facilities at the clinic by the hospital management. The perception of patients to HIV screening might be associated with understanding of the counseling process as HIV screening is established as a mandatory test in the study centre. An unfortunate finding was the relatively infrequent discussion of cervical cancer prevention during antenatal clinic sessions; cervical cancer remains a significant cause of mortality among women in developing countries and this needs to be urgently addressed by policy makers. Our study included women irrespective of the number of antenatal clinic visits; this may limit interpretation because some women may not have had enough exposure to the clinic to enable them make concrete judgments on perception and satisfaction. Other

possible influences on our study outcomes include selection of subjects without randomization and recall bias. Findings from the logistic regression confirm that continued utilization of antenatal services is directly linked to the satisfaction of the clients. This re-emphasizes the need for continued audit and evaluation of services at the antenatal clinic by health providers and policy makers.

CONCLUSION

In conclusion, among pregnant women receiving prenatal care at the Antenatal Clinic, UCH, Ibadan, levels of satisfaction were high. Most respondents were willing to recommend antenatal care at this facility to relatives and friends. Periodic feedback from clients by policy makers and hospital managers should be instituted as part of antenatal care evaluation. Larger prospective studies and focus group interviews may provide more information on what women think about antenatal care services and changes that they would expect in their health facility.

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