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Client satisfaction with antenatal care among clinic attendees in a tertiary health institution in Calabar, Cross River State, Nigeria

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Abstract

Antenatal care is an important entry point to the health system and provides access to essential obstetric care. Satisfaction with different aspects of antenatal care, has the potential to improve health. This study aimed to determine the prevalence of satisfaction with Antenatal care services and identify factors influencing client satisfaction among antenatal clinic attendees in University of Calabar Teaching Hospital Calabar (UCTH), Cross River State. A descriptive cross-sectional study was conducted among 200 pregnant women attending the ANC in UCTH. Systematic random sampling technique was used to recruit participants and the Client Satisfaction questionnaire (CSQ8) measured satisfaction. Data was analysed using bivariate (Chi-square test) and multivariate (binary logistic regression) analysis. The overall level of satisfaction recorded in this study was 92%. Reasons for dissatisfaction were long waiting time 57%, cost of services 40.3%, clinic environment 31%, doctors assigned to ANC attendees 19% and attitude of doctors 13%. Being satisfied with their previous experience in the health facility was the only significant predictor of satisfaction in this study($p<0.05$). Although a high level of satisfaction with ANC services was noted among pregnant women in UCTH, it is pertinent that waiting time, cost of services, toilet facilities and infrastructure be addressed. *(Afr J Reprod Health 2022; 26[8]: 20-29).*

Keywords: Client satisfaction, antenatal care, UCTH, Calabar, Nigeria

Résumé

Les soins prénatals sont un point d'entrée important dans le système de santé et donnent accès à des soins obstétricaux essentiels. La satisfaction à l'égard des différents aspects des soins prénatals a le potentiel d'améliorer la santé. Cette étude visait à déterminer la prévalence de la satisfaction à l'égard des services de soins prénatals et à identifier les facteurs influençant la satisfaction des clients parmi les participants à la clinique prénatale de l'hôpital universitaire de Calabar à Calabar (UCTH), dans l'État de Cross River. Une étude transversale descriptive a été menée auprès de 200 femmes enceintes fréquentant la CPN à l'UCTH. Une technique d'échantillonnage aléatoire systématique a été utilisée pour recruter les participants et le questionnaire de satisfaction du client (CSQ8) a mesuré la satisfaction. Les données ont été analysées à l'aide d'une analyse bivariée (test du chi carré) et multivariée (régression logistique binaire). Le niveau de satisfaction global enregistré dans cette étude était de 92 %. Les motifs d'insatisfaction étaient la longue attente 57 %, le coût des services 40,3 %, l'environnement clinique 31 %, les médecins affectés aux consultations prénatales 19 % et l'attitude des médecins 13 %. Être satisfait de leur expérience antérieure dans l'établissement de santé était le seul prédicteur significatif de la satisfaction dans cette étude ($p <0,05$). Bien qu'un niveau élevé de satisfaction à l'égard des services de soins prénatals ait été noté chez les femmes enceintes à l'UCTH, il est pertinent de s'attaquer au temps d'attente, au coût des services, aux installations sanitaires et aux infrastructures. *(Afr J Reprod Health 2022; 26[8]: 20-29).*

Mots-clés: Satisfaction des clientes, soins prénatals, UCTH, Calabar, Nigeria

Introduction

The need for optimum health for women and reducing maternal and childhood mortalities have remained a significant interest for the global community for decades. This special interest was demonstrated by the high priority accorded maternal and child health care in the Millennium Development Goals (MDGs), and more recently, the Sustainable Development Goals (SDGs)[1]. The maternal mortality ratio(MMR) in developing countries in 2015 was 239 per 100,000 live births as compared to 12 per 100,000 live birth in developed countries[2]. Majority of maternal (99%) and child deaths (98%) occur in low-and middle-income countries[3]. In Nigeria, the maternal mortality ratio

was 512 per 100,000 live births one of the highest in the world. With just 2.45% of the world's population, Nigeria accounts for 19% of maternal deaths[3,4]. Poor access to Health care and underutilization of reproductive health care services including ANC could be linked to the poor indices in Nigeria[4].

Antenatal care is an important entry point to the health system and has been identified as a significant predictor of pregnancy outcome[5]. The Antenatal care model proposed by the World Health Organization (WHO) aims to provide pregnant women with respectful, individualized, person centred care at every contact. ANC helps to provide basic preventive and therapeutic care, raise awareness on danger signs of pregnancy, birth preparedness and improve health-seeking behaviour of women[2,6,7]. Quality ANC in addition to essential obstetric care and family planning could contribute to the reduction of maternal mortality. However, the use of ANC service by pregnant women could be affected by the level of their satisfaction with the service provided at the health care facility.

In Nigeria ANC utilization rate is low, at 67% compared with the average of 79% for lower-middle income countries[8]. This is as reported by The National Demographic and health survey (NDHS 2018)[9]. Furthermore, the NDHS reports that the proportion of Nigerian women who receive ANC compared with those who were delivered by skilled birth attendants has remained unacceptably low. Despite the availability of basic ANC services at all levels of Nigeria's health care system, about (67%)of pregnant women had at least one ANC visit and 56.8% had the recommended four or more visits[9]. Even more worrisome is the fact that, 41% of women who utilized ANC services, did not deliver in a healthcare facility[9]. This could further explain our poor maternal outcomes of 576 maternal deaths per 100,000 live births. A previous study conducted in the same setting reported that 43.5% of women who obtained ANC, defaulted and delivered their babies in unorthodox delivery centres[10]. This was also reported by Rani and colleagues in India who linked dissatisfaction with the ANC experience to low level of institutional delivery by ANC users[11].

Several reasons have been linked to poor utilization pattern of maternal health services. These include high cost of services, cultural preferences, and attitude of health care providers. A study carried out by Okonofua and colleagues in 2017 in the six geopolitical zones in Nigeria identified dissatisfaction with services as the reason women preferred traditional rather than modern facility based maternity care. Some of sources of dissatisfaction in the study population include long waiting time, unfriendly attitudes of providers and support staff, poor attention to women in labour, and substandard facilities[5]. Similarly, Nwaeze and colleagues in south west Nigeria, also reported that negative attitude of health workers, cost of care, long waiting time spent in health facilities and poor doctor-patient communication were responsible for dissatisfaction experienced by ANC attendees[12].

Patient satisfaction is a reflection of the patient's judgment of different domains of health care, including technical, interpersonal, and organizational aspects. Literature suggests that satisfaction with different aspects of ANC improves health outcomes[13,14], continuity of care, adherence to treatment, and the relationship with the provider[15]. Client satisfaction is one indicator that can be addressed to improve the quality of maternity care and increase demand by women for these services[5] yet it has not received the desired attention. Findings from this study, could guide health policy makers identify possible provider and facility-specific factors that constitute barriers to ANC satisfaction and utilization.

This study therefore aims to determine client satisfaction identify structural, process as well as client dependent factors influencing ANC client satisfaction in UCTH, Calabar, Cross River State.

Methods

Study setting

This study was conducted in University of Calabar Teaching Hospital, Calabar, a tertiary health care facility located in Calabar Municipality Cross River State. It serves as a teaching hospital and a referral centre for primary, secondary and private health care facilities including neighbouring states.

Antenatal care services in UCTH are provided and managed by the Department of Obstetrics and Gynaecology. There are a minimum of three Consultants in each firm, senior and junior resident doctors and House Officers. ANC services are provided 4 days a week (Mondays, Tuesdays, Thursdays and Fridays) and registration of new clients is done every Wednesday. The ANC services provided are Health Education, Clinical evaluation

and birth preparedness and complications readiness planning. Other services include; Immunization, Prevention of iron deficiency anaemia, malaria and STI/HIV/AIDS as well as Prevention of Mother –to-Child transmission of HIV. After registration and the health talk, the ANC attendees are sent to the ANC side laboratory where routine investigations are carried out after which they are seen by a doctor assigned to them who assesses the general condition of the mother and baby and gives an appointment for the next visit.

Study design

Descriptive cross-sectional study.

Study population

Pregnant women accessing antenatal care services in UCTH, between July-September 2019

Eligibility criteria

Inclusion criteria

All pregnant women who presented at the antenatal clinic UCTH during the study period that gave informed consent were included in the study.

Exclusion criteria

The exclusion criteria include; Women who came for booking (first antenatal clinic visit), accessed postnatal care services and pregnant women who were on admission

Sample size determination

The sample size was calculated using the formula for single proportion (Cochran formula), an overall client satisfaction prevalence of 81.1%[16] with a precision of 0.05 was used .

Sampling method

Systematic sampling method was employed to recruit participants into the study. The sampling interval was obtained by dividing the total population (the total number of women attending ANC weekly) by the sample size (187/200 = approx. 9). The starting point was determined by balloting, thereafter, using the register as the sample frame every ninth attendee was recruited till the desired sample size was attained

Data collection

A pre-tested, interviewer administered, semi-structured questionnaire was employed for data collection. This tool was divided into sections based on the study objectives. The measure of service satisfaction adapted for use in this study, was the client satisfaction questionnaire (CSQ-8) scale[17]. The CSQ_8, a standard tool has been validated for use in this setting. The CSQ-*8* is a standard tool with a documented ***reliability*** factor, as measured by ***Cronbach's alpha*** of 0.92 and a validity factor of 0.8 on average. Satisfaction was divided into satisfied and not satisfied. The CSQ employs a four-point Likert scale with a total score of 32. A total score of <16 implied dissatisfaction while a score of≥16 implied satisfaction.

Data management

Completed questionnaires were inspected daily so as to detect errors and omissions. Questions were manually sorted out and coded before entry. Thereafter, was all data were entered into a computer for statistical analysis using Statistical Package for the Social Sciences (SPSS) version 20.0. Data collected were analysed using descriptive statistics (frequency, proportions, means and standard deviation) and charts to summarize variables. Bivariate analysis was carried out using Chi square to test for associations between various categorical variables. p value was set at ≤ 5%. Binary logistic regression was then used to identify predictors of ANC client satisfaction at <0.05 significance level.

Results

The socio-demographic characteristics of clients in the study population who accessed ANC services in UCTH, is as presented in Table 1 below. A total of two hundred (200) pregnant women were interviewed. The mean age of the respondents was 29.8±4.8 years, with majority of the respondents 82(41%) in the 25-29 age group. Majority of the respondents were married194(97%), and were of the Christians faith 194(98%). More of the ANC attendees 80(40%) did not have any children and were of the Efik and Ibibio tribes 87(43.5%).

Table 1: Socio-demographic characteristics of respondents

Variable	Frequency (n=200)	Percentage (%)
Age (years)		
≤24	23	11.5
25-29	82	41
30-34	62	31
35-39	22	11
> 40	11	5.5
Mean+SD	**29.8±4.8 years**	
Marital status		
Single	4	2
Married	194	97
Cohabiting	2	1
Religion		
Christianity	196	98
Islam	3	1.5
Traditional	1	0.5
Tribe		
Efik	44	22
Ekoi	7	3.5
Ibibio	43	21.5
Yakurr	13	6.5
Ejagham	21	10.5
Igbo	29	14.5
No of children		
0	80	40
1	64	32
>2	56	28

Table 2: Obstetric profile of respondents

Variable	Frequency (n=200)	Percentage (%)
Parity		
1st pregnancy	81	40.5
2nd pregnancy	63	31.5
3rd pregnancy	56	28
Planned pregnancy		
Yes	150	75
No	50	25
Gestational age (GA) in weeks		
<13 weeks	5	2.5
14- 26	77	38.5
>27	118	59
GA at booking		
<13 weeks	72	36
14- 26	104	52
>27	24	12
No of ANC visits		
2-4	141	70.5
5-8	53	26.5
>8	6	3
Payment for services (n=200)		
Out of pocket	185	92.5
NHIS	14	7
Free Care	1	0.5

Table 2, shows the current obstetric profile of the respondents. More ANC attendees 81(40.5%) indicated that it was their first pregnancy, were currently in their third trimester 118(59%) and had attended ANC clinic not less than twice 141(70.5%). A little above half of the ANC attendees104(52%) booked for ANC in the second trimester (14-26 weeks). Majority of the attendees 185(92.5%) paid for services throughout of pocket.

The assessment of client satisfaction using the CSQ-8 is as presented in Table 3. Dissatisfaction was derived by combining quite dissatisfied and dissatisfied. The CSQ assessment revealed that a higher proportion of respondents 44(22%) were dissatisfied because they did not get the kind of service they expected in a tertiary centre, followed by the quality of service delivered 35(17.5%) and the overall service delivery in the facility 27(15.5%). However, most women 170(85%) revealed that they would register in the same health facility in subsequent pregnancies and 173(86.5%) would recommend the clinic to someone.

The overall perceived level of satisfaction among ANC attendees is highlighted in Figure 1 revealed that majority (92%) were satisfied with ANC services provided, with a few respondents being dissatisfied (8%). Among ANC attendees who were not satisfied with ANC service, common sources of dissatisfaction include, waiting time 57%, cost of services 40.5% and the physical environment 31%, while the least reason given for dissatisfaction among the ANC attendees was attitude of nurses (10%) as shown in Figure 2.

Table 4 reports that marital status, employment status, attending more than 4 ANC visit, being a primigravida and paying out of pocket were not significantly associated with the client satisfaction. However, a significantly higher proportion of respondents, 101(95.3%) who were satisfied in their previous pregnancy/delivery were more likely to be satisfied with ANC service provision compared to 9(75.0%) who were dissatisfied with services received in the past (p=0.008). On logistic regression, a positive previous experience was the only predictor of client satisfaction in this study. Attendees who had a positive previous experience in this facility were 2.3 times more likely to be satisfied compared with attendees who did not enjoy a positive experience [95%ci 4.35- 22.53].

Table 3: Assessment of client satisfaction question (CSQ-8)

Variables	Frequency (n =200)	Percentage (%)
How would you rate the quality of service you have received in this clinic?		
Quite dissatisfied	18	9.0
Dissatisfied	17	8.5
Mostly satisfied	108	54
Very satisfied	57	28.5
Did you get the kind of service you wanted		
Quite dissatisfied	21	10.5
Dissatisfied	23	11.5
Mostly satisfied	101	50.5
Very satisfied	55	27.5
To what extent did the antenatal care meet your needs		
Quite dissatisfied	9	4.5
Dissatisfied	14	7.0
Mostly satisfied	119	59.5
Very satisfied	58	29
If a friend were in need of antenatal care, would you recommend this ANC clinic to her?		
Quite dissatisfied	15	7.5
Dissatisfied	12	6.0
Mostly satisfied	94	47.0
Very satisfied	79	39.5
How satisfied are you with the amount of care you have received in this clinic?		
Quite dissatisfied	13	6.5
Dissatisfied	16	8.0
Mostly satisfied	125	62.5
Very satisfied	46	23.0

Table 3b: Assessment of client satisfaction question (CSQ-8)

Variables	Frequency (n =200)	Percentage (%)
Has the service you have received help deal more effectively with your pregnancy?		
Quite dissatisfied	11	5.5
Dissatisfied	9	4.5
Mostly satisfied	119	59.5
Very satisfied	61	30.5
In an overall sense, how satisfied are you with the antenatal care service you have received?		
Quite dissatisfied	13	6.5
Dissatisfied	18	9.0
Mostly satisfied	113	56.5
Very satisfied	56	28
If you were to seek help again, would you come back to this clinic?		
Quite dissatisfied	14	7.0
Dissatisfied	16	8.0
Mostly satisfied	92	46
Very satisfied	78	39

Discussion

A woman's satisfaction with antenatal care service has immediate and long-term impacts on maternal and her baby's health[18]. Our study evaluated the level of satisfaction among pregnant women attending ANC in a tertiary health facility in Cross River State[19]. Previous research in Nigeria has also demonstrated a positive correlation between satisfaction and health care utilisation[16].

A vast majority of women in the present study (92%), were satisfied with the quality of antenatal care they received. This finding is similar to a recent study conducted in four northern states of Nigeria- Adamawa, Nassarawa, Benue, and Taraba, which reported that 90% of ANC attendees accessing care were satisfied with service delivery in the health facility[8]. However, the level of client satisfaction reported in Ebonyi, Oyo and Ogun states were slightly lower than observed in our study at 89.4%, 83%, and 81.4%[12, 16,20]. The lower rate recorded in these studies, may be due to the tools/methods employed to assess client satisfaction.

The reason for the high level of satisfaction reported in the present study may be linked to the perception that ANC provided in tertiary centres is better compared to care obtained at other levels of healthcare delivery. Sequel to this, it was observed in this study that the level of satisfaction was not always in tandem with willingness to access the service. This was reflected in the CSQ-8, where almost a quarter (22%) of the respondents acknowledged that they did not get the kind of service they wanted. The respondents may generally express satisfaction with the quality of antenatal services despite inconsistencies between received care and their expectations of the facility as reported in a study by Oladapo and colleagues in Ogun State, Nigeria[16,21].

Reasons for dissatisfaction

Some reasons provided by respondents for dissatisfaction they experienced while accessing

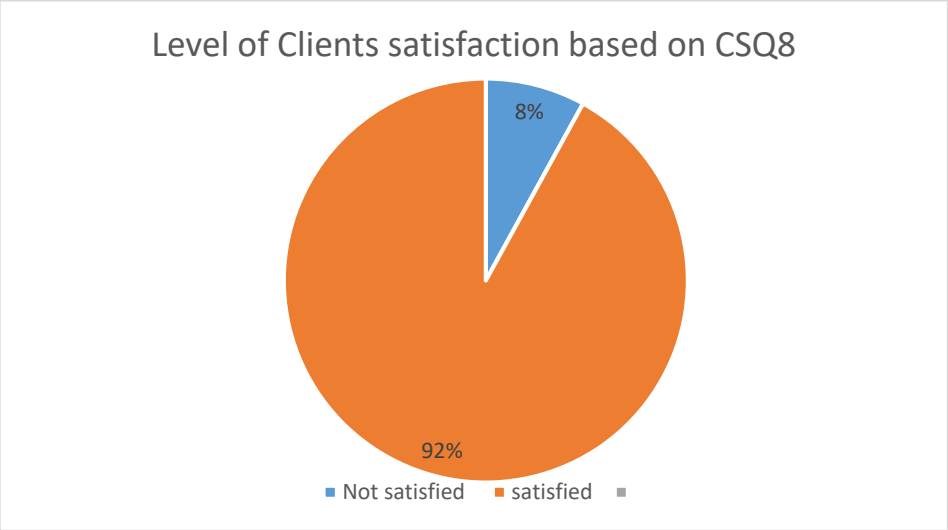

Figure 1: Assessment of Client satisfaction using the CSQ 8

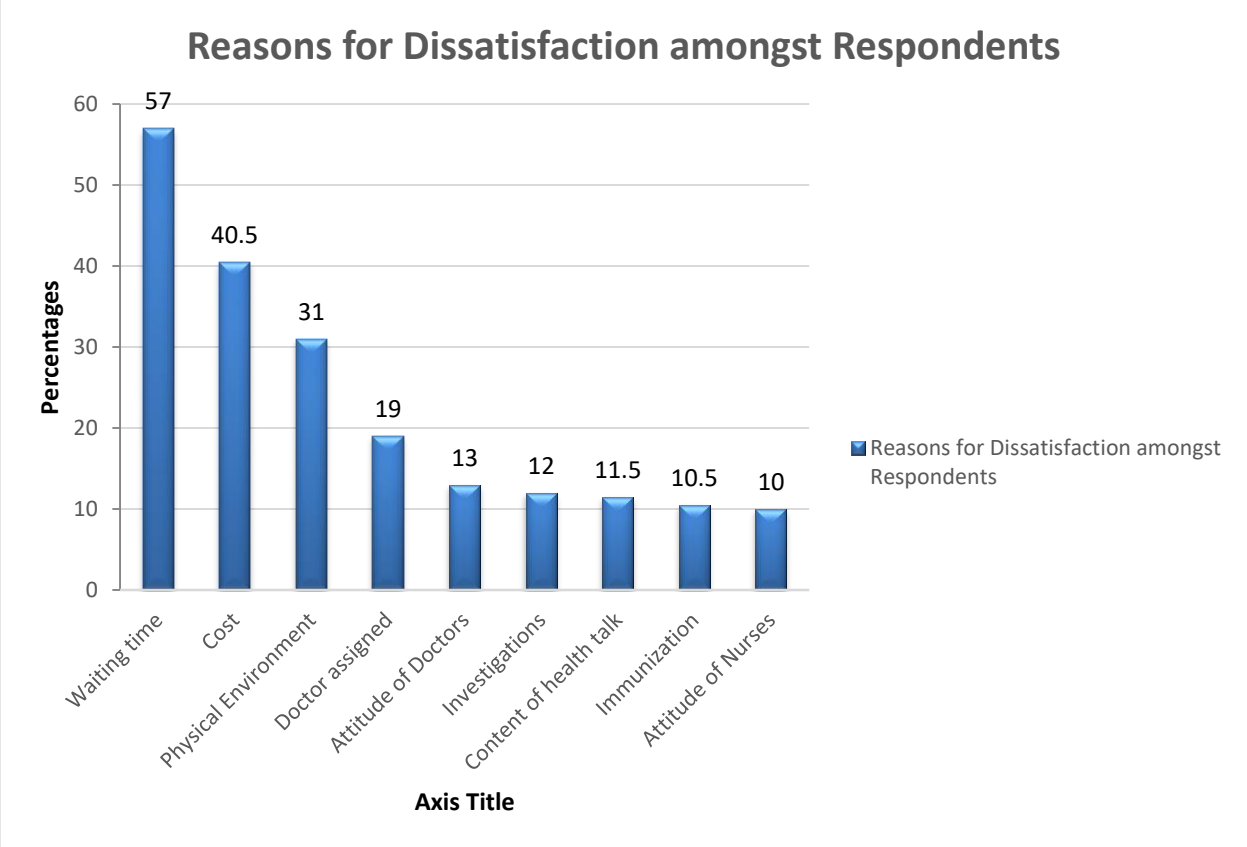

Figure 2: Reasons for dissatisfaction amongst ANC attendees, UCTH, Calabar

ANC services were long waiting time, cost, the physical environment, consultants assigned to the patients, unavailability of drugs, the attitude of doctors and nurses, and the content of health talk. This is similar to findings from Kano in Northern Nigeria[22], Ebonyi[20], Ibadan[12] and a study done by Okonofua and colleagues (2017) in secondary and tertiary hospitals across Nigeria[5]. The major reasons for dissatisfaction in those centres were poor staff attitude, long waiting time, high cost of services and

Table 4: Association between socio-demographic variables and client's satisfaction

Variable	Dissatisfied Freq (%)	Satisfied Freq(%)	Chi square (X^2)	p-value
Marital status				
Married	16(8.2%)	178(91.8%)	FET	0.463
Single	0(0.0%)	6(100%)		
Employment status				
Employed	5(10.9%)	41(89.1%)	0.668	0.414
Unemployed	11(7.1%)	143(92.9%)		
Previous experience				
Dissatisfied	3(25.0%)	9(75.0%)	FET	**0.008**
Satisfied	5(4.7%)	101(95.3%)		
ANC visits				
>4 ANC visits	7(11.9%)	52(88.1%)	1.698	0.193
2 – 4 visits	9(6.4%)	132(93.6%)		
Pregnancy status				
Primigravida	7(8.6%)	74(91.4%)	0.076	0.782
multigravida	9(7.6%)	110(92.7%)		
Planned pregnancy	5(10%)	45(90%)	0.362	0.547
Unplanned pregnancy	11(7.3%)	139(92.7%)		
Method of payment				
Out of pocket	16(8.6%)	169(9.4%)	FET	0.235
free	0(0.0%)	18(100%)		

Table 5: Predictors of client satisfaction with ANC services

Independent Variable	Odds ratio	95% confidence interval	p- value
Marital status			
Single	0.98	0.87- 3.87	0.68
Married	1		
Employment status			
Employed	0.89	0.16-5.11	0.90
Unemployed	1		
Previous experience			
Satisfied	2.34	4.35- 22.53	**0.02**
Dissatisfied	1		
ANC visits			
2-4	0.98	0.18-5.47	0.98
>4	1		
Pregnancy status			
Multi gravida	0.99	0.86-9.65	0.94
Primigravida	1		
Method of payment			
Free	0.791	0.99-1.45	0.49
Out of pocket	1		

poor state of sanitary facilities. Waiting time ranked highest as a reason for dissatisfaction as reported by a little more than half (57%) of the ANC attendees interviewed. A study conducted by Green and colleagues further confirmed that longer waiting time was linked to dissatisfaction among patients[23]. Some of the respondents identified possible reasons for the delays experienced in the ANC clinic. They include late arrival to the clinic by doctors, nurses starting the clinic late, delays in retrieving folders at the records unit, prolonged health talk and delays experienced in the laboratory. The implications of this prolonged waiting time experienced by the users could include economic losses, failure to keep clinic appointments by the ANC attendees, and subsequently lead to non-completion of the required number of ANC visits. Worse still, dissatisfied clients could discourage potential attendees from accessing health care in the facility. Punctuality on the part of doctors and other Health care providers is crucial to reducing waiting time.

Cost of services was the second reason for dissatisfaction as reported by about two- fifths (40.5%) of the ANC attendees interviewed. Out-of-

pocket payments were made at each visit, for consultation or to carry out laboratory tests in addition to the fees paid for registration. A negative association of out-of-pocket expenditure with satisfaction was observed according to Onyeajam. It was projected that a significant increase in maternal health care utilisation among the poor would occur if user fees were abolished, thus helping to achieve universal ANC coverage[8]. It was however observed that attendees registered under the National Health Insurance Scheme (NHIS) did not express any form dissatisfaction with cost of service. This is similar to a finding done in the western part of Nigeria were 84.1%of respondents, were satisfied as a result of NHIS[12]. Some respondents were of the opinion that a reduction in cost of services and establishing health insurance that is more encompassing and not just limited to staff, was a means of improving client satisfaction.

About a third of the respondents (31%) were dissatisfied with the physical environment including toilet facilities, electricity and water supply. Three quarters (74%) of these women were especially dissatisfied with the poor sanitation of the toilet facilities and is not surprising that a quarter (25.5%) of respondents also expressed dissatisfaction with the attitude of the cleaners. This is in contrast to the findings in Ibadan, were about a fifth (20.9%) of the respondents were dissatisfied with toilet facilities[12]. Overall sanitation of the hospital environment, especially the toilet facilities and ensuring pro-active attitude of the cleaners would go a long way to improve ANC services.

With respect to dissatisfaction with the consultants assigned to patient, about a quarter of respondents were dissatisfied. Many women complained of not being seen by the consultants assigned to them and when these consultants came to the clinic, they attended to relatively few clients/ patients, this led to them being seen by 'junior doctors'. The implication of this is that, the patients may resort to assessing health services in private health facility where they will be seen by the consultants or very senior and experienced doctors. Provider concern for patients' wellbeing, and effective communication during consultation is key to client satisfaction[8]. In the study carried out by Okonofua and colleagues, suggestions were made for staff re-training and re-orientation as a means to improve poor staff attitude, expansion of hospital facilities and better organization of clinical services in order to reduce delays[5].

The only significant predictor of Client satisfaction among ANC attendees in this study was a previous delivery experience. Respondents were likely to be satisfied based on a previous experience and as such, made use of the facility in a subsequent pregnancy.

As a result of the overall level of satisfaction being 92%, respondents were willing to use the facility again and recommend the facility to others. In a study done by Nwaeze *et al* (2013) in Ibadan, 83% of respondents were willing to recommend the facility to others and use the same facility in subsequent pregnancies. The finding from this study is not surprising as most of the respondents were satisfied with the services, justifying why they would recommend it to others. This reemphasizes the need for continued audit and evaluation of services at the antenatal clinic by health providers and policy makers.

Limitations

The study is a cross-sectional study and thus limits the cause-and-effect relationships to be drawn from the findings, thus further analytical and experimental studies are needed to confirm the hypothesis raised in this study.

Our sample was drawn from pregnant clients visiting and assessing the antenatal clinic more than once and excluded ANC patients on admission so findings may not be generalized to antenatal services at other centres in Calabar.

Ethical consideration

Permissions were sought and obtained from Head Dept of Obstetrics and Gynaecology as well as the matron in charge of antenatal clinic. Ethical clearance was obtained from the University of Calabar Teaching Hospital Health research and Ethics Committee.

Conclusion

Satisfaction with the quality of antenatal care services, has numerous benefits to the client and health care system. This study aimed at determining client satisfaction with ANC services,

and identified factors influencing satisfaction, among ANC attendees accessing care in UCTH. The present study revealed that majority of the respondents (92%) were satisfied with the antenatal care services. However, waiting time, cost of services, physical environment and Doctors attitude were the commonest sources of dissatisfaction experienced by attendees. The only significant predictor of Client's satisfaction in this study was a previous positive experience during their last pregnancy in UCTH. We therefore recommend that health managers and policy makers address barriers experienced in the facility which include waiting time, attitude of medical consultants, cost of services and poor sanitary facilities. In addition, the authors recommend that the hospital management ensures punctuality of health workers, and timely delivery of services to ANC attendees to reduce waiting time. Tackling these barriers could ensure a positive experience and an increased likelihood of recommending the facility to others and ultimately increased demand for services.

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Contribution of authors

We declare that this work was done by the authors named in this article and all liabilities pertaining to claims relating to the content of this article will be borne by the authors. AOO and LUG conceived, designed and coordinated the study, carried out statistical analysis and drafted the manuscript; IUA contributed by means of her competence and experience in reviewing the manuscript critically for its intellectual content and also participated in the conception and design of the study. DAI and NII participated in the design of the study, data collection and critically reviewed the manuscript. All authors read and approved the final manuscript.

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