

# Women's perception and satisfaction with the quality of antenatal care services in mission hospitals in Benin City, Nigeria

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## Abstract

Despite the vital role and availability of antenatal care, only a small proportion of Nigerian women utilise it. Women's perception and satisfaction with antenatal care is believed to improve health outcomes, continuity of care, adherence to treatment, and the relationship with the provider. The aim is to ascertain the women's perception and satisfaction with the quality of ANC services in mission hospitals in Benin City, Nigeria. This cross-sectional descriptive study was carried out among 405 pregnant women in their third trimester. Data collection was with a pretested interviewer-administered questionnaire and analysis with IBM SPSS Statistics version 21.0. Statistical significance was taken as P value <0.05. The women's perception of doctors and nurses was good for all domains assessed. Their satisfaction was highest for cleanliness of the facility 336 (83.0%) and lowest for amount paid for delivery services 168 (41.5%). The overall satisfaction for services received was high 337 (83.2%). The religion of the respondents, gestational age at ANC booking, payment for booking, the delivery fee and availability of requisite resources to cater for the women showed statistically significance with the overall satisfaction. However, only religion (AOR = 17.450, 95% CI = 3.364-90.508) and availability of requisite resources (AOR = 4.629, 95% CI = 2.426-8.832) independently influenced their satisfaction. This study showed a high level of satisfaction with the services rendered. However, making services more affordable as well as improving their quality through investment in both human and material resources to deliver essential care to all clients will drive better satisfaction among them.

## Introduction

The Sustainable Development Goal 3 is aimed at improving maternal health. To achieve this, there must be improvement in services such as Antenatal Care (ANC) that are vital to the well-being of pregnant women. ANC is the point of entry to maternal and child care services. It aims at reducing both maternal and new-born morbidity and mortality through risk evaluation and management, screening for infections and other problems and heightened informed decision-making by the woman such as seeking skilled provider and appropriate health facility for childbirth. These can be attained through education, counselling and various interventions. These interventions can improve the survival chance of the pregnant woman and her new-born.<sup>1-3</sup>

The proportion of Nigerian women that receive ANC and those that are 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, only about 67% of pregnant women had at least one ANC visit and 56.8% had the recommended four or more visits.<sup>4</sup> This falls short of the World Health Organization (WHO) recommended 90% of ANC coverage essential to reduce most deaths among mothers and their new-born.<sup>5</sup> Most ANC visits in Nigeria begin in the second or third trimester<sup>4</sup> contrary to the recommendation of within the first 3 months by the WHO.<sup>6</sup> What factors possibly account for this? Pregnant women's perception and satisfaction with the kind of care received goes a long way to influence their utilisation of that service.

Mission hospitals play substantial role in health care delivery to the people. A mission hospital attends to all who need hospital care and often serve as a link between the community and the occasionally hard to reach tertiary hospitals. They are often devoid of the huge bureaucracy in the government teaching hospitals. Conceivably central to the contribution made by mission hospitals is in the vast numbers of persons, particularly women and children, who are treated in them. They offer widespread services, including maternal care services, to a large proportion of the population. The three main mission hospitals in Benin City offer each a full coverage of care to pregnant women among other services. Consequently, assessing the antenatal services offered in these hospitals will be a huge step towards improving health care delivery to the pregnant women.

High standards of care were for many years believed to be superfluity particularly in developing countries like Nigeria where

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service coverage was largely insufficient.<sup>7</sup> Recently, more attention is been given by developing countries to assessing the quality of health care. Quality of health care is viewed as a human right and is directly related to effectiveness, compliance and continuity of care.<sup>8</sup> Quality is both technical and interpersonal and it involves structure

(input), process and outcomes (output) (Figure 1).<sup>9</sup> Women satisfaction as an outcome of care has been stressed as an important factor in improving maternal and child health care services<sup>10,11</sup> as it reflects her opinion of different areas of health care.<sup>12</sup> Women's perceptions of ANC visits expressively influence their evaluation of quality of services that are provided and hence, their level of satisfaction.<sup>13</sup> Satisfaction with different aspects of received antenatal care is believed to improve health outcomes, continuity of care, adherence to treatment, and the relationship with the provider<sup>12</sup> The WHO, therefore, recommends monitoring and evaluation of maternal satisfaction with public health care services, to improve the quality and efficiency of health care during pregnancy.<sup>14</sup> Various factors including accessibility to care giver, knowledge and skills of the care giver, attitude of staff, cost of care, time spent at the hospital and doctor communication have been found to influence patient satisfaction in previous studies.<sup>15,16</sup> Satisfied patients are likely to come back for the services and recommend services to others as well.<sup>16</sup> This study, therefore, aimed to ascertain the perception of and satisfaction with the quality of ANC services among pregnant women in mission hospitals in Benin City, Nigeria.

## Materials and Methods

This cross-sectional study was carried out between February and April 2018 in mission hospitals in Benin City, Nigeria. There are three major mission hospitals in Benin City, out of which two were randomly selected. The hospitals have an average of 500 antenatal clinic attendance per month. Antenatal services in these hospitals are given by the nurses and doctors. A cluster sampling method was used to select participants. A simple random sampling was used to select two out of the three main mission hospitals. On each antenatal clinic day, all women in their third trimester who have had at least 3 ANC visits and gave consent were selected for the study. Four hundred and five pregnant women in their third trimester participated. This afforded opportunity for these women to have had enough contact with the healthcare providers. Women who were ill or not capable of giving consent were excluded from the study.

Data collection was with a pretested interviewer-administered questionnaire that contains information on sociodemographic and obstetric characteristics of participants, characteristics of ANC services (process-related variables), perception of antenatal services and satisfaction with the various

domains (outcome related variables). Perception on the quality of health care provider was assessed on the following domains: accessibility, knowledge, skills, courtesy, respect and communication. Administration of questionnaire was by the researchers and research assistants who were trained on the study objectives and how to administer the questionnaire. Data on input related variables (infrastructure) was obtained through observation using observation check list and in-dept interview with the head matrons of the ANCs.

The data were checked for completeness and consistencies at the end of each day. Statistical IBM SPSS Statistics version 21.0 was employed for analysis.

The Ethics and Research Committee of the University of Benin Teaching Hospital gave ethical approval for this study while the heads of the various study facilities also gave permission. The study objectives and

procedures were explained to every participant and informed consent obtained. Confidentiality and privacy of the respondents were guaranteed throughout the research. The right of the participants to decline or withdraw from the research was maintained.

## Results

The mean age of participants in the study was 29.9±4.4 years with most of them (212, 52.3%) at least 30 years of age. Majority had higher education (275, 67.9%) and had skilled occupation 190 (46.9%). The participants were largely married (398, 98.3%) and were predominantly Christians 396 (97.8%). There were slightly more multiparous women (146, 36.1%). The mean gestational age of the respondents was 32.5±3.6 weeks with majority of them in

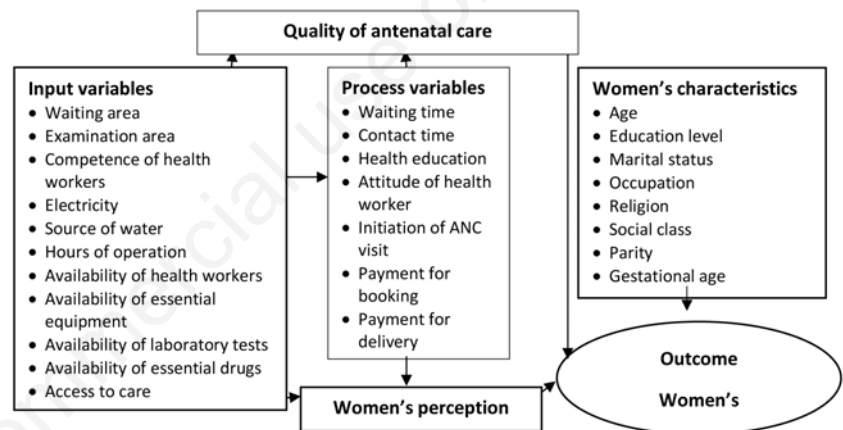


Figure 1. A modified conceptual framework of women's perception and satisfaction with quality of antenatal care.<sup>9</sup>

Table 1. Participants' perception of antenatal care services providers.

Variables	Yes n (%)	No n (%)	Don't Know n (%)
Knowledge of the kind of care a woman needs			
Doctors	383 (94.6)	0 (0.0)	22 (5.4)
Nurses	345 (85.2)	14 (3.5)	46 (11.4)
Knowledge of what to do in case of complications			
Doctors	373 (92.1)	0 (0.0)	32 (7.9)
Nurses	284 (70.1)	53 (13.1)	68 (16.8)
Easy to access			
Doctors	302 (74.6)	68 (16.8)	35 (8.6)
Nurses	372 (91.9)	33 (8.1)	0 (0.0)
Clearly pass information across			
Doctors	381 (94.1)	10 (2.5)	14 (3.4)
Nurses	368 (90.9)	37 (9.1)	0 (0.0)
Speaks to women in polite manner			
Doctors	390 (96.3)	7 (1.7)	8 (2.0)
Nurses	322 (79.5)	58 (14.3)	25 (6.2)
Treating women with respect			
Doctors	367 (90.6)	6 (1.5)	32 (7.9)
Nurses	316 (78.0)	35 (8.6)	54 (13.3)

the preterm category (338, 83.5%). Social class 2 was predominant among them 205 (50.6%) while social class 5 was least (2, 0.5%). An overall satisfaction with the service received was reported by 337 (83.2%) of the respondents.

The perception of the participants on the quality of the antenatal care providers was generally good. It was higher of the doctors across the various domains accessed except for accessibility, for which 372 (91.9%) participants said the nurses were easily accessible compared to 302 (74.6%) for doctors (Table 1).

Table 2 describes the satisfaction of respondents with items of antenatal care. They were most satisfied with the overall cleanliness of the health facility (336, 83.0%), followed by the time given by the health provider (328, 81.0%) and closely by the attitude of the health provider (325, 80.2%). The least satisfaction was recorded of the amount paid for delivery services (168, 41.5%).

The association of maternal socio-demographic and obstetric characteristics and the overall rating of satisfaction with the antenatal services is shown in Table 3. The religion of the respondent was the only characteristic that had significant association with the overall satisfaction ( $P=0.001$ ).

Table 4 illustrates the association between the characteristics of the antenatal clinic with the overall satisfaction of the participants. Majority of the women had their first medical check-up in index pregnancy by a doctor 186 (45.9%) and registered for ANC after the 1st trimester 328 (81.0%) with a mean gestational age at booking of  $15.6\pm 5.7$  weeks. The average waiting time was  $78.1\pm 44.7$  minutes with most of them having to wait during the clinic attendance for at least 60 minutes. Payment for ANC booking, and consultation were paid by most of the patient themselves 265 (65.4%). The mean amount paid for delivery was  $39000.0\pm 11000.0$  Naira. The opinion of most of the respondents was that the hospitals had all that were required to care for them till after delivery 333 (82.2%). Significant associations were found between the overall satisfaction and the gestational age at antenatal care booking ( $P=0.045$ ), amount paid for delivery fee ( $P=0.004$ ), whether the respondents think the facility has all it takes to take care of them till after delivery ( $P<0.001$ ), who paid the booking fee ( $P<0.001$ ) and consequently, whether the participants pay for consultation or not ( $P<0.001$ ).

In adjusted analysis, only the religion of the respondents and respondents' opinion about availability of requisite resources were significantly associated with the over-

all level of satisfaction (Table 5). Respondents who were Christians were more likely to be satisfied with the care received than those who were Moslems (AOR = 17.450, 95% CI = 3.364-90.508). Compared to those whose opinion was either no or do not know, those whose opinion was that the facility has all it takes to take care of them till after delivery were more than four times more likely to be satisfied with ANC (AOR = 4.629; 95% CI = 2.426-8.832).

From the observation of the health facilities and in-dept interview with the head matron, it was seen that comprehensive obstetric care services were offered in both facilities and carry out basic laboratory investigations. The basic medical equipment required for the management of pregnant women during the antepartum, intrapartum and postpartum periods and for the new-born were available at the time of data collection. Also, all childhood immunizations were offered. For health care provider

**Table 2. Satisfaction of respondents with antenatal care services.**

Variables	S n (%)	NS n (%)
Overall cleanliness of the health facility	336 (83.0)	69 (17.0)
The time given by the health provider	328 (81.0)	77 (19.0)
Attitude of the health provider towards you	325 (80.2)	80 (19.8)
ANC information received	322 (79.5)	83 (20.5)
Amount paid for consultation	276 (68.1)	129 (31.9)
Amount of money paid for ANC booking	264 (65.2)	141 (34.8)
Waiting time	255 (63.0)	150 (27.0)
Amount paid for delivery services	168 (41.5)	237 (58.5)

S, satisfied; NS, not satisfied; ANC, antenatal care.

**Table 3. Cross tabulation of overall rating of satisfaction and socio-demographic variables.**

Variables	Total, n (%)	S, n (%)	NS, n (%)	P value
Age (years)*				
<30	193 (47.7)	164 (85.0)	29 (15.0)	0.365
≥30	212 (52.3)	173 (81.6)	39 (18.4)	
Occupation				
Skilled	190 (46.9)	163 (85.8)	27 (14.2)	0.098
Unskilled	134 (33.1)	113 (84.3)	21 (15.7)	
Unemployed	81 (20.0)	61 (75.3)	20 (24.7)	
Level of education				
Without higher education	130 (32.1)	105 (80.8)	25 (19.2)	0.447
With higher education	275 (67.9)	232 (84.4)	43 (15.6)	
Marital status				
Unmarried	398 (98.3)	7 (100.0)	0 (0.0)	0.607
Married	7 (2.2)	330 (82.9)	68 (17.1)	
Religion				
Christian	396 (97.8)	334 (84.3)	62 (15.7)	0.001
Islam	9 (2.2)	3 (33.3)	6 (66.7)	
Parity				
Nullipara	117 (28.9)	90 (76.9)	27 (23.1)	0.097
Primipara	142 (35.1)	122 (85.9)	20 (14.1)	
Multipara	146 (36.1)	125 (85.6)	21 (14.4)	
Gestational age (weeks)†				
<37	338 (83.5)	278 (82.2)	60 (17.8)	0.245
≥37	67 (16.5)	59 (88.1)	8 (11.9)	
Social class				
1	59 (14.6)	50 (84.7)	9 (15.3)	0.959
2	205 (50.6)	170 (82.9)	35 (17.1)	
3	102 (25.2)	85 (83.3)	17 (16.7)	
4	37 (9.1)	30 (81.1)	7 (18.9)	
5	2 (0.5)	2 (100)	0 (0.0)	

S, satisfied; NS, not satisfied; \*mean±SD = 29.9±4.4; †mean±SD = 32.5±3.6; ‡Others include mother, mother-in-law, friend, other relative.



related data, the centres had a consultant obstetrician each assisted by medical officers and several nurses/midwives. Antenatal services hold thrice every week and emergency and delivery services offered for 24 hours every day.

## Discussion

The perception of the client towards services rendered is said to be an important factor in determining their satisfaction. The perception of the participants of nurses and doctors was high in all six domains assessed of ANC providers. The doctors and nurses were rated highly of their knowledge and attitude towards pregnant women. Similarly, about 80% of the participants were satisfied with the attitude of the health providers towards them. Every patient visiting a health care provider has expectations and the extent to which these are met goes a long way to influence his/her perception of the quality of care and consequently, satisfaction of the individual. Knowledge and attitude play a strong role in meeting such expectations. These helps foster a cordial relationship between the client and the caregiver. This relationship is said to both facilitate prompt diagnosis of problem as well as encourage client's trust on the care giver as they will refuse to disclose their anxieties and problems if they are dissatisfied with the level of knowledge and attitude of the doctor.<sup>17</sup>

Good communication is paramount to achieving client satisfaction. The perception of the participants on the communication skills of the care providers was high for both doctors and nurses. Increasingly patient demand information in an explicit manner and want their questions answered. According to Shendurnikar and Thakkar,<sup>18</sup> "Asking open ended questions, effective listening, appropriate praise, providing enough information as part of advice and finally checking their understanding, are the key areas of communication during medical interview". These, when effectively practiced during antenatal sessions, can bring about satisfaction among antenatal attendees. Accessibility was the domain the doctors recorded poorest and the nurses recorded best. A possible explanation for this may be because the nurses are line of first contact with the patients and they offer care for most of the women in the centres studied. The doctors offered care to fewer clients especially those with complaint and those considered as high risk. It is important to effectively communicate this model of shared care to the women to allay their impression of lack of access to doctors.

However, there is need for the doctors to be more accessible to the pregnant women as it will facilitate early problem identification and consequently, early institution of mitigating measures.

The overall satisfaction for the antenatal services received, in this study, was high. This is similar to findings from previous work in University College Hospital, Ibadan<sup>16</sup> and Aminu Kano Teaching Hospital, Kano<sup>19</sup> where majority of the respondents were satisfied with the antenatal services rendered in the clinic. The satisfaction recorded in this study was particularly high for overall cleanliness of the health facility, time given by the health provider, attitude of the health provider and antenatal information received. Studies in Ethiopia and Nepal among public health facilities, however revealed the contrary as the satisfaction with antenatal care services

was reported to be low.<sup>20,21</sup> The differences in the levels of satisfaction could be attributed to the variation in the way services are delivered and differences in study populations which will influence the expectations of the patients. Sociocultural variations will also play a role in these differences.<sup>22</sup>

As found in this study, the cost of antenatal care exerts a marked effect on the satisfaction of the pregnant women to the ANC services. The amount paid for delivery services was a factor most of the women were most unsatisfied with. Also, the satisfaction with the amount paid for ANC booking and consultation were poor relative to most of the domains assessed. This is expected as many people will prefer not to pay for health services. These also showed significant association with the respondents' overall satisfaction. This is different from find-

**Table 4. Cross tabulation of overall rating of satisfaction and the characteristics of the antenatal care.**

Variables	Total, n (%)	S, n (%)	NS, n (%)	P value
Gestational age at ANC booking (weeks)*				
<13	77 (19.0)	70 (90.9)	7 (9.1)	0.045
≥13	328 (81.0)	267 (81.4)	61 (18.6)	
Waiting time (minutes)†				
<60	78 (19.3)	67 (85.9)	11 (14.1)	0.078
60-119	219 (54.1)	174 (79.5)	45 (20.5)	
≥120	108 (26.6)	96 (88.9)	12 (11.1)	
Payment of booking fee				
Self	265 (65.4)	235 (88.7)	30 (11.3)	<0.001
NHIS/HMO	140 (34.6)	102 (72.9)	38 (27.1)	
Delivery fee (naira)‡				
≤39,000	125 (30.9)	114 (91.2)	11 (8.8)	0.004
>39,000	280 (69.1)	223 (79.6)	57 (20.4)	
Availability of requisite resources				
Yes	333 (82.2)	294 (88.3)	39 (11.7)	<0.001
No	8 (2.0)	5 (62.5)	3 (37.5)	
Don't know	64 (15.8)	38 (59.4)	26 (40.6)	

\*Mean+SD = 15.6+5.7; †Mean+SD = 78.1+44.7; ‡Mean+SD = 39,000.0±11,000.0.

**Table 5. Predictors of women's satisfaction with the quality of antenatal care services in mission hospitals in Benin City.**

Variables	Crude OR (95% CI)	P value	Adjusted OR (95% CI)	P value
Religion				
Christian	10.774	0.001	17.450	0.001
Islam	(2.625-44.226)		(3.364-90.508)	
Gestational age at ANC booking (weeks)				
<13	2.285	0.045	2.237	0.080
≥13	(1.001-5.215)		(0.907-5.515)	
Payment of booking fee				
Self	2.918	<0.001	1.400	0.299
NHIS/HMO	(1.714-4.968)		(0.741-2.644)	
Delivery fee (naira)				
≤39,000	2.649	0.004	2.101	0.059
>39,000	(1.337-5.249)		(0.972-4.542)	
Availability of requisite resources				
Yes	5.084	<0.001	4.629	<0.001
No/Don't know	(2.854-9.057)		(2.426-8.832)	

ings from previous studies who reported high client satisfaction with the cost of antenatal services.<sup>16,19</sup> The reasons for this variation may be due to the type of facility. Unlike the facilities in those studies which are federal government owned with several waivers because of the safety net provided by the social welfare department, the facilities in this study were privately owned. Also, the fact that women still pay from their pockets because of the poor coverage of the National Health Insurance Scheme (NHIS) and the comparatively higher charges in the hospitals studied compared to public hospitals may also be contributory factors. As seen in this study, about two-third of the respondents paid for ANC registration and consultations from their pockets. However, many clients despite their dissatisfaction with the cost, still expressed overall satisfaction. Those who paid the booking fee themselves were about twice more likely to be satisfied with the antenatal care services received compared with those that were under the social welfare scheme. This may mean that women will be ready to pay higher cost if the services are perceived as of good quality. It is also possible that there is a disparity in quality of service rendered to the fee-paying clients and the health insurance clients.

Women who registered for ANC during the first trimester were more likely to be satisfied with the antenatal services. These women had more visits with the facilities, possibly developed a better relationship with the service providers and received more antenatal information. Similar to report from the Nigerian Demographic and Health Survey (NDHS),<sup>[4]</sup> most of the respondents registered for ANC after the 1<sup>st</sup> trimester which is contrary to the recommendation by the WHO.<sup>6</sup>

When adjusted for cofounders, the religion of the respondents and their opinion on the availability of requisite resources to care for them till after delivery were the only variables that were independently associated with the overall satisfaction of the respondents. The association between religious belief of an individual and her satisfaction with healthcare has been documented in previous studies.<sup>23,24</sup> Unlike that by Osiya *et al.*,<sup>23</sup> women who were Christians were over 16 times more likely than the Moslems to be satisfied with the antenatal services received. A possible reason for this finding may be because the facilities studied were Christian missions with more inclinations towards Christian practices. The availability of medical facilities and requisite manpower has been well documented to influence clients' perception of healthcare services and therefore, their level

of satisfaction. This study showed that women who perceives that the facilities have the requisite resources to care for them till after delivery were more likely to be satisfied with the antenatal care services received.

The potential limitation of this study is the fact that it was based on the findings from just two facilities hence does not give opportunity to assess the perception of those who do not utilize any antenatal services and those who visit TBA. Despite this limitation, it gives indication to plausible factors that are indicative for client positive experience at medical facilities.

## Conclusions

Overall, the study showed a high level of satisfaction with the services rendered. We note however that the issue of payment for services showed a negative association with the level of satisfaction. There is therefore the need for a wider coverage of the social welfare scheme like the NHIS in the country to make antenatal care better affordable to most pregnant women. However, this alone will not guarantee client satisfaction as seen in this study where those who paid for their services were better satisfied. Improving the quality of services offered to these women will be a huge step towards ensuring their satisfaction with the care received. The need for adequate facility and appropriate staff to cater for the need of the pregnant women from conception till after delivery cannot be overemphasised. The pregnant women should, as part of antenatal education, be informed of the facilities available for their care and be taken on tour round the hospital as this may help improve their satisfaction since those who perceived that there were adequate facilities available for their care were more likely to be satisfied in this study.

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