

Quality of Antenatal Care: Comparison between Secondary and Tertiary Health Facilities in Ibadan, Nigeria

Oluwasomidoyin Olukemi Bello

Department of Obstetrics and Gynaecology, University College Hospital, Ibadan, Oyo State, Nigeria
Email: bellodoyin@yahoo.com

How to cite this paper: Bello, O.O. (2018) Quality of Antenatal Care: Comparison between Secondary and Tertiary Health Facilities in Ibadan, Nigeria. *Open Journal of Obstetrics and Gynecology*, 8, 559-571. <https://doi.org/10.4236/ojog.2018.86063>

Received: April 23, 2018

Accepted: June 3, 2018

Published: June 6, 2018

Copyright © 2018 by author and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Background: Patient satisfaction is related to the quality of services received and the extent to which specific needs are met. Satisfied patients are likely to come back for the health services and recommend it to others. **Objective:** To assess and compare patients' satisfaction with the quality of prenatal/antenatal care (QPC) services received at a tertiary and secondary health facility in Ibadan, Nigeria. **Methods:** A comparative cross sectional study used an interviewer administered questionnaire to assess and compare the quality of antenatal care among women who had antenatal care and delivered live baby in two government health facilities—Adeoyo Maternity Hospital (secondary health facility) and University College Hospital (tertiary health facility). A total of 500 women were interviewed within 48 hours post delivery and data obtained was analyzed with SPSS version 20. **Results:** The mean age was 29.7 (SD = 4.95) years. About half of the respondents had more than four antenatal visits, almost two-thirds (61.4%) were primipara, and 55.6% delivered per vagina. Almost all (98.4%) the women were very satisfied with the QPC received while a little above half (54.0%) received high QPC. Health facility and mode of delivery were found to be significantly associated with the satisfaction of the QPC. Factors predicting high QPC comparing the tertiary and secondary health facility are “availability” (OR = 0.341, 95%CI = 0.173 - 0.672) and “support and respect” (OR = 5.599, 95%CI = 3.621 - 8.659) of health care workers. **Conclusion:** Though the women were very satisfied with the QPC rendered barely half of them reported high quality QPC and this should be the ultimate aim. Promoting and ensuring high quality of antenatal care in our hospitals will improve the antenatal attendance and hospital deliveries with subsequent reduction in maternal morbidity and mortality.

Keywords

Quality, Antenatal Care, Satisfaction

1. Introduction

Quality of health care is the degree in the direction of which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge and evidence [1]. Quality of prenatal care (QPC) is interrelated to the health care systems and patient outcomes and this is imperative in optimizing the uptake of maternal and child health services. Good care during pregnancy is important for the health of the mother and the fetus and if inadequately it breaks a critical link in the continuum of care, and affects both or either the health of the mother and the fetus negatively.

In spite of the global efforts to improve maternal health in the developing countries including Nigeria, the present quality of maternal care as depicted by the magnitude of severe maternal morbidity and mortality require attention so as to achieve good maternal health indices [2]. In Nigeria, maternal health indices have remained poor with maternal mortality ratio of 814 death per 100,000 live births and 61% of pregnant women access antenatal care while only 38% of birth was attended by a skilled birth attendant (SBA) [3] [4]. Though, there have been an increase in the access and use of antenatal care services from 58% to 61% over a 5 years period, there is no simultaneous significant reduction in maternal morbidity and maternity [4] [5]. Nevertheless, antenatal care which is one of the pillars of Safe Motherhood is still the most accessible interventions for maternal health and fetal development and has the potential to significantly reduce maternal morbidity and mortality when properly conducted [6]. Lack of inadequate antenatal care is not only associated with maternal morbidity and mortality but with major poor fetal/infant health conditions including low birth weight (LBW), preterm birth (PTB), and neonatal and infant morbidity and mortality [3].

Prenatal/Antenatal care (ANC) service in Nigeria is patterned after the traditional “western” schedule of antenatal care of monthly visits until 28 weeks of gestation, fortnightly visits until 36 weeks and weekly thereafter until delivery is provided at the primary, secondary and tertiary levels of care in both private and public sectors of the healthcare industry [7]. However, the cost of services is relatively cheaper at the primary and secondary levels in public health facilities compared with the tertiary-level facilities. Pregnant women have options regarding where they could seek care and a significant proportion of them receives concurrent care from multiple care providers for different reasons. Reasons include age, higher education, fear of industrial strike action in government health facility, selecting a health facility promising vaginal delivery and avoiding caesarean section, avoiding human immunodeficiency virus screening, selecting a facility with affordable prices and booking in a facility where they were not known [7] [8].

With regards standards of quality of care in Nigeria, it's often set by health managers and care providers and previous studies have documented the attitude

of staff, cost of care, time spent at the hospital and doctor's communication as factors that influence patient satisfaction with health care [9] [10]. Bearing this in mind, the quality of services—general and specific will influence the coming back of patients for scheduled antenatal clinic visits and presentation in the health care facility for delivery during labor as well as recommendation of these services to others [11]. A qualitative study on quality of care received during antenatal, intrapartum and post natal period in secondary and tertiary health facilities in Nigeria reported a lot of the women were not satisfied at all with the care received and many of them had areas of dissatisfaction which included poor staffs' attitude and attention, long waiting time, high cost of services and sub-standard facilities [12]. The women in the study also identified dissatisfaction with quality of care as the reason why women preferred traditional based maternity care which has been identified to contribute to maternal and fetal morbidities and mortalities [12]. However, a quantitative study in a tertiary health facility reported high (81.1%) maternal satisfaction with QPC but majority were dissatisfied with the provided amenities, besides a similar report of high level (89.7%) of satisfaction was documented among women who received antenatal and intranatal care in primary health facility [13] [14].

Satisfaction with the QPC received by the pregnant women is important to set standards of maternal health services and reduce maternal and fetal morbidity and mortality. Therefore, it is against this background that this study is aimed at comparing patients' satisfaction and factors that predicts high QPC per selected health facility.

2. Methods

This was a comparative cross sectional study among five hundred consenting women who delivered live babies within 48 hours in a secondary health facility (Adeoyo Maternity Hospital) and tertiary health facility (University College Hospital) in Ibadan, Oyo state, Nigeria. Systematic sampling was used to select respondents in these health facilities. The only local government area (LGA) with a tertiary health facility of the 11 LGAs in Ibadan-Ibadan North LGA was purposively selected. Adeoyo Maternity Hospital was randomly selected of the 2 secondary health facilities in the LGA. Every even numbered woman aged ≥ 18 years that delivered during the study period was selected from their labor ward delivery records.

A validated 46-item quality of prenatal care questionnaire (QPCQ) designed to be completed by women after 36 weeks of pregnancy or within the first 6 weeks postpartum was used to obtain the information on the QPC [13]. Each item of the QPCQ was rated on a five-point scale (strongly disagree, disagree, neither agree nor disagree, agree, strongly agree). The QPCQ scoring method (1-2-3-4-5) was used to assess the respondents' quality of perinatal care received and for this study questions on the respondent's sociodemographic characteristics, obstetrics and gynaecological history were included. The questionnaire con-

sists of 8 sections Socio-demographic characteristics, Obstetrics and Gynaecology history, Information sharing, Anticipatory guidance, Sufficient time, Approachability, Availability, and Support and respect. Data collected was cleaned, entered and analyzed using the Statistical Package for the Social Sciences (SPSS) version 20. Cross tabulations and multivariate analysis with logistic regression was done with the level of statistical significance set at $p < 0.05$ and 95% confidence level. All randomized consenting women who delivered live babies within 48 hours at the two health facilities were included in this study while women who had twin delivery, were too ill to give consent, less than 18 years or had still birth were excluded from the study.

Ethical approval was obtained from the Oyo state ethics review committee and a written informed consent was obtained from each respondent before administering the questionnaire.

3. Results

A total of five hundred women were recruited for the study 213 and 287 from the tertiary and secondary health facilities respectively.

The respondents mean age was 29.7 (SD = 4.95) years. Majority 94.0% of the women are married with almost half (46.6%) having secondary educational status and over half (61.0%) being semi-skilled workers. Slightly over half (57.4%) of these women were booked at the secondary health facility. The mean gestational age at booking and delivery were 20.23 (SD = 7.61) and 37.97 (SD = 3.11) weeks respectively. Higher proportions (61.4%) of the respondents were primipara, about three-quarter booked the pregnancy at >14 weeks and 315 (63.0%) had spontaneous vaginal delivery. A little over half (52.2%) of them had more than four antenatal clinic visits, almost a quarter (24.2%) had less than four visits while 23.6% had exactly four visits (**Table 1**).

According to QPCQ, six factors were used in assessing the quality of antenatal care received by women which were: information sharing, anticipatory guidance, sufficient time, approachability, availability and support and respect. The mean of the factors ranged from 3.48 to 4.37. The factor with the highest mean was “approachability” and “support and respect” and the factor with the least mean was “availability” (**Table 2**).

Information sharing, approachability, availability and support and respect were factors significantly associated with the QPC received. More than half (59.2%) and a higher proportion (59.9%) of the women who delivered at the secondary health facility received high QPC regarding information sharing ($p = 0.020$) and provider’s approachability ($p = 0.001$) compared with those who delivered at the tertiary health facility. Concerning, “availability” it was significantly associated with the QPC ($p < 0.001$).

Among the 140 respondents who reported high QPC, over half (68.6%) delivered in the tertiary health facility ($p < 0.001$) and majority received high QPC as regards “support and respect”. Support and respect are also found to significant

Table 1. Socio-demographic and obstetrics characteristics.

Characteristics	Frequency (n = 500)	Percent
Age (years)		
15 - 20	19	3.8
21 - 25	84	16.8
26 - 30	190	38.0
31 - 35	145	29.0
≥36	62	12.4
Marital status		
Single	30	6.0
Married	470	94.0
Educational status		
Primary or lower	38	7.6
Secondary	233	46.6
Tertiary or higher	229	45.8
Occupation		
Skilled	156	31.2
Semi-skilled	305	61.0
Unskilled	39	7.8
Health facility		
Tertiary	213	42.6
Secondary	287	57.4
Parity		
Para 1	307	61.4
Multipara	193	38.6
Distribution of GA at booking		
Early (≤14 weeks)	116	23.2
Late (>14 weeks)	384	76.8
Mean 20.23 (SD = 7.61)		
Gestational age at delivery		
Preterm (≥37 weeks)		
Term (38 - 40 weeks)	161	32.2
Post-term (≥41 weeks)	278	55.6
Mean 37.97 (SD = 3.11)	61	12.2
Mode of delivery		
SVD	315	63.0
CS	182	36.4
AVD	3	0.6
Number of ANC attended		
<4	121	24.2
4	118	23.6
>4	261	52.2

SVD—Spontaneous vaginal delivery; CS—Caesarean section; AVD—Assisted vaginal delivery; ANC—Antenatal clinic.

factors associated with QPC ($p = 0.044$) (**Table 3**).

In this study almost all the women were satisfied with the QPC they received. 94.8% were very satisfied, 3.4% were fairly satisfied while only 1.8% were dissatisfied with the QPC. Factors found to be significantly associated with satisfaction of the QPC received were health facility, mode of delivery and overall quality of antenatal care. A higher proportion (59.3%) of the women who were very satisfied with QPC received care at the secondary health facility compared with those who received care at the tertiary health facility ($p = 0.001$). Almost two-thirds

Table 2. QPCQ factor minimum, maximum, mean and standard deviations.

Factor	Minimum	Maximum	Mean (SD)
Factor 1—Information Sharing	1.00	5.00	4.36 (0.67)
Factor 2—Anticipatory Guidance	1.00	5.00	4.05 (0.56)
Factor 3—Sufficient Time	1.00	4.40	3.83 (0.44)
Factor 4—Approachability	1.00	5.00	4.37 (0.68)
Factor 5—Availability	1.00	5.00	3.48 (0.81)
Factor 6—Support and Respect	1.00	5.00	4.37 (0.61)

Table 3. Factors determining the quality of care received by the respondents in the health facilities.

Factors	Health facility		Total	χ^2	p-value
	UCH (%)	ADEOYO (%)			
Information sharing					
High	183 (40.8)	265 (59.2)	448 (100.0)	5.406	0.020
Low	30 (57.7)	22 (42.3)	52 (100.0)		
Anticipatory guidance					
High	127 (43.8)	163 (56.2)	290 (100.0)	0.402	0.526
Low	86 (41.0)	124 (59.0)	210 (100.0)		
Sufficient time					
High	98 (40.2)	146 (59.8)	244 (100.0)	1.157	0.282
Low	115 (44.9)	141 (55.1)	256 (100.0)		
Approachability					
High	179 (40.1)	267 (59.9)	446 (100.0)	10.266	0.001
Low	34 (34)	20 (37.0)	54 (100.0)		
Availability					
High	96 (68.6)	44 (31.4)	140 (100.0)	53.637	<0.001
Low	117 (32.5)	243 (67.5)	360 (100.0)		
Support and respect					
High	186 (41.2)	266 (58.8)	452 (100.0)	4.046	0.044
Low	27 (56.3)	21 (43.8)	48 (100.0)		

*UCH—University College Hospital; Adeoyo—Adeoyo Maternity Centre.

(64.1%) of the women who reported being very satisfied with the QPC had vaginal delivery compared to those who delivered via caesarean section ($p = 0.015$). Among the women that were very satisfied with the QPC, 56.3% had a high overall QPC compared with 43.7% of the women who received low quality care but were satisfied with the quality of care ($p < 0.001$) (**Table 4**).

Of the 474 women satisfied with the quality of care, 93.5% desire to receive antenatal care during the next pregnancy in the same health facility and almost all (97.3%) would recommend the health facility to friends or family members (**Table 5**). The factors predicting the quality of care among women who received antenatal care in tertiary health facility compared with secondary health facility are “availability” and “support and respect”.

Women who received care at the tertiary health facility were about 3 times less likely than women who received care at the secondary health facility to receive high quality care as regards “availability” (OR = 0.341, 95%CI = 0.173 - 0.672). Women who received care at the tertiary health facility were about 6 times more likely than women who received care at the secondary health facility to receive high quality care as regards “support and respect” (OR = 5.599, 95%CI = 3.621 - 8.659) (**Table 6**).

Table 4. Factors associated with QPC satisfaction among the women.

Characteristics	Satisfaction		
	Very satisfied n = 474	Fairly satisfied n = 17	Dissatisfied n = 9
Age (years)			
15 - 20	18 (3.8)	1 (5.9)	0 (0.0)
21 - 25	80 (16.6)	1 (5.9)	3 (33.3)
26 - 30	182 (38.4)	5 (29.4)	3 (33.3)
31 - 35	134 (28.3)	8 (47.1)	3 (33.3)
≥36	60 (12.7)	2 (11.8)	0 (0.0)
	P-value = 0.557*		
Marital status			
Single	27 (5.7)	1 (5.9)	2 (22.2)
Married	447 (94.3)	16 (94.1)	7 (77.8)
	P-value = 0.118		
Ethnicity			
Yoruba	420 (88.6)	16 (94.1)	9 (100.0)
Others	54 (11.4)	1 (5.9)	0 (0.0)
	P-value = 0.440*		
Educational status			
Primary or lower	36 (7.6)	0 (0.0)	2 (22.2)
Secondary	222 (46.8)	8 (47.1)	3 (33.3)
Tertiary or higher	216 (45.6)	9 (52.9)	4 (44.4)

Continued

	P-value = 0.358*		
Occupation			
Skilled	147 (31.0)	7 (41.2)	2 (22.2)
Semi-skilled	290 (61.2)	9 (52.9)	6 (66.7)
Unskilled	37 (7.8)	1 (5.9)	1 (11.1)
	P-value = 0.875		
Health facility			
Tertiary	193 (40.7)	14 (82.4)	6 (66.7)
Secondary	281 (59.3)	3 (17.6)	3 (33.3)
	P-value = 0.001		
Parity			
Para 1	295 (62.2)	9 (52.9)	3 (33.3)
Multipara	179 (37.8)	8 (47.1)	6 (66.7)
	P-value = 0.162		
Gestational age at delivery			
Preterm	154 (32.5)	5 (22.2)	2 (22.2)
Term	263 (55.5)	8 (47.1)	7 (77.8)
Post-term	57 (12.0)	4 (23.5)	0 (0.0)
	P-value = 0.373*		
Mode of delivery			
VD	304 (64.1)	6 (35.3)	8 (88.9)
CS	170 (35.9)	11 (64.7)	1 (11.1)
	P-value = 0.015		
Number of ANC attended			
<4	114 (24.1)	6 (35.3)	1 (11.1)
4	109 (23.0)	4 (23.5)	5 (55.6)
>4	251 (53.0)	7 (41.2)	3 (33.3)
	P-value = 0.163*		
Overall quality of antenatal care			
High	267 (56.3)	2 (11.8)	1 (11.1)
Low	207 (43.7)	15 (88.2)	8 (88.9)
	P-value <0.001*		

*=Fisher's exact test.

Table 5. Decisions of women satisfied with the QPC.

Variable	Frequency (n = 474)	Percent
Desire to receive ANC in same health facility during next pregnancy		
Yes	443	93.5
No	31	6.5
Would you recommend health facility to friends/family members?		
Yes	461	97.3
No	13	2.7

Table 6. Predictors of QPC received in the health facilities.

Factors	ODDS Ratio	95% CI	P-value
Information sharing			
High	0.498	0.238-1.043	0.064
Low (ref)	-	-	
Approachability			
High	0.914	0.402-2.077	0.830
Low (ref)	-	-	
Availability			
High	0.341	0.173-0.672	0.002
Low (ref)	-	-	
Support and respect			
High	5.599	3.621-8.659	<0.001
Low (ref)	-	-	

4. Discussion

The overall quality of care received by the women in this study is high with relatively high mean subscale scores of the QPC factors which are similar to that reported by Sword *et al.*, in Australia using the QPCQ [15]. Predictors of high QPC were found to be “availability” and “support and respect” by the health care workers.

In the study, majority of the women booked at >14 weeks gestational age which is late according to the WHO recommendation of booking after the 2nd missed period [3]. This could be because they felt they have no serious problem or perhaps it is too early to book during the first trimester and this is similar to the patterns in previous studies in the country [7] [16]. However, this was not expected of the study population because a higher proportion was primiparous and ought to be enthused about their babies and becoming a mother.

Most of the respondents had more than 4 antenatal clinic visits and their experiences at each visit could be used to describe the QPC received. This number of antenatal clinic visits consolidates findings from studies in this region [16] [17].

As regards “availability” only few of the women received high QPC. Women who received care at the tertiary health facility were about 3 times less likely than women who received care at the secondary health facility to report high quality care in regards to availability of their antenatal care provider. This finding is comparable to that of Okonuofa *et al.*, although they conducted a focus group discussion [12].

In addition, high QPC as per “support and respect” was reported by majority of the women in this study, however those who received care at the tertiary health facility were about 6 times more likely than women who received care at the secondary health facility to receive high quality care as regards “support and

respect". This is however important because previous studies have identified poor attitude of health care providers as a major reason for absenteeism from antenatal clinic or barriers to delivering in the health facility [17]. Therefore, health care providers should be encouraged to provide necessary support and respect and have positive attitude towards all pregnant women in the best professional way. This has also been emphasized by the WHO as one of the critical role of health care providers in making pregnancy safer [18].

Generally, the respondents reported being very satisfied with QPC at the two facilities, especially the women who received antenatal care at the secondary health facility. This corroborates findings from several studies [13] [19] [20] [21]. Furthermore, more women were very satisfied with the QPC in relation to those that reported high QPC which could be due to some differences between the women's expectations and the QPC received. However, it was not in keeping with a study done in the South western and North western geographical zones in Nigeria in which only a few of the women studied were satisfied with the QPC though it was a qualitative study conducted among both antenatal and post-natal clinics attendees in secondary and tertiary health facilities [12].

The women in this study were so satisfied that almost all desire to receive antenatal care in the same facility during the next pregnancy and would also recommend the health facility to their friends and relatives. This is impressive and also consistent with findings by Fawole *et al.* [20]. On the other hand, this is not unexpected since the quality of care received is high indicating that the challenges of meagre antenatal care are not really a public health challenge in these facilities.

Factors associated with the women's satisfaction were type of health facility, mode of delivery, and the overall quality of care. Higher proportions of the women were very satisfied with the level of care received care at the secondary health facility. This was surprising, as a tertiary health facility has available amenities/facilities, high tech equipments with more trained and experienced health care providers including specialist as regards maternal health care services. However, this could be probably due to the cost of service in the two health facility with the secondary health facility cheaper than the tertiary health facility studied.

In this study a significant relationship exists between the mode of delivery and patient satisfaction with QPC. It was not unexpected that women who were very satisfied with the quality of care were majorly those who had vaginal delivery. This childbirth satisfaction must have met their personal expectations because other studies in the same environment have shown aversion and displeasure of the women to caesarean delivery based on their culture and beliefs [22]. However, there was no statistically significant association found between the socio-demographic and obstetric characteristics including mode of delivery with the overall satisfaction of care.

Concerning the recommended numbers of antenatal clinic visits, only a few of the respondents in this study had less than four visits depicting antenatal care

was optimally utilized. This reflects improvement on antenatal clinic attendance when compared to the WHO report in 2014 with only 57% pregnant women having at least 4 visits between 2006 and 2013 despite free antenatal care in most parts of Nigeria [23]. Satisfaction was not based on the numbers of ANC visits as observed in this study.

The strengths in the study are the use of a standardized QPCQ which is highly reliable, used in quality assurance and for development of improvement initiatives and this makes the study valid and reproducible besides the inclusion of both the secondary and tertiary health facility which also strengthens it. However, the study did not explore the women's expectation which could have been compared with their exact experience and this may possibly help assess and define what precisely determined their satisfaction of QPC and the high QPC. But it is good to note that the women's expectation is influenced by their culture, beliefs and previous antenatal care experience which may not be a true reflection of the standard QPC. On the other hand, the process of sampling selection and validated questionnaire which measured the women's satisfaction and the level of QPC make the study valid and reflect a true state of the QPC offered in the two health facilities.

5. Conclusion

There was a high level of utmost satisfaction of QPC received; however, more women who received antenatal care from the secondary health facility had high QPC compared to those who did at the tertiary health facility. The likely predictors of high QPC observed were availability of service provider and support and respect which are paramount to delivering quality care and crucial in making pregnancy safe so as to reduce pregnancy complications and improve maternal and fetal outcome.

Conflict

There is no conflict of interest.

Support

No financial support was received for this research study.

Questionnaire

The Quality of Prenatal Care Questionnaire is licensed under a Creative Commons Attribution © Copyright 2013. Sword W., Heaman M., and the QPCQ Research Team. McMaster University. Available at

<http://milo.mcmaster.ca/questionnaires/request-for-a-quality-of-prenatal-care-questionnaire-qpcq>.

References

- [1] Institute of Medicine (2001) Crossing the Quality Chasm: A New Health System for

the 21st Century. National Academy Press, Washington, DC.

- [2] Pattinson, R.C., Buchmann, E., Mantel, G., Schoon M. and Rees, H. (2003) Can Enquiries into Severe Acute Maternal Morbidity Act as a Surrogate for Maternal Death Enquiries? *BJOG*, **110**, 889-893.
- [3] World Health Organization (WHO) (2007) Maternal Mortality in 2005. Estimates Developed by the World Health Organisation, United Nations Children's Fund, United Nations Population Fund and the World Bank.
- [4] Nigeria Demographic Health Survey (NDHS) (2013) NDHS Final Report. <http://dhsprogram.com/publications/publication-fr293-dhs-final-reports.cfm#sthas.h.V67EQ1mm.dpuf>
- [5] Nigeria Demographic and Health Survey (NDHS) and ICF Macro (2009) National Population Commission (NPC) [Nigeria]. Abuja, Nigeria. <http://www.nigerianstat.gov.ng/nada/index.php/catalog/27/download/91>
- [6] Cochet, L., Pattinson, R.C. and MacDonald, A.P. (2003) Severe Acute Maternal Morbidity and Maternal Death Audit: A Rapid Diagnostic Tool for Evaluating Maternal Care. *South African Medical Journal*, **93**, 700-702.
- [7] Adeoye, S., Ogbonnaya, L.U. and Umeorah, O.U. (2005) Concurrent Use of Multiple Antenatal Care Providers by Women Utilizing Free Antenatal Care at Ebonyi State University Teaching Hospital, Abakaliki. *African Journal of Reproductive Health*, **9**, 101-106. <https://doi.org/10.2307/3583466>
- [8] Nwogu-Ikojo, E.E., Okafor, I.I. and Ezegwui, H.U. (2010) Multiple Antenatal Bookings among Pregnant Women in Enugu, Nigeria. *Journal of Obstetrics and Gynaecology*, **30**, 244-247. <https://doi.org/10.3109/01443610903383382>
- [9] Ofovwé, C.E. and Ofili, A.N. (2005) Indices of Patient Satisfaction in an African Population. *Public Health*, **119**, 582-586. <https://doi.org/10.1016/j.puhe.2004.10.012>
- [10] Osariemen, A.G. (2011) Theoretical Issues in the Understanding of Maternal Health Services Utilization in Lagos State, Nigeria. *European Journal of Social Sciences*, **22**, 431.
- [11] Zaky, H.H., Khattab, H.A. and Galal, D. (2007) Assessing the Quality of Reproductive Health Services in Egypt via Exit Interviews. *Maternal and Child Health Journal*, **11**, 301-306. <https://doi.org/10.1007/s10995-006-0167-y>
- [12] Okonofua, F., Ogu, R., Agholor, K., Okike, O., Abdus-salam, R., Gana, M., Randawa, A., Abe, E., Durodola, A., Galadanci, H. and the WHARC WHO FMOH MNCH Implementation Research Study Tea (2017) Qualitative Assessment of Women's Satisfaction with Maternal Health Care in Referral Hospitals in Nigeria. *Reproductive Health*, **14**, 44. <https://doi.org/10.1186/s12978-017-0305-6>
- [13] Nwaeze, I.L., Enabor, O.O., Oluwasola, T.A.O. and Aimakhu, C.O. (2013) Perception and Satisfaction with Quality of Antenatal Care Services among Pregnant Women at the University College Hospital, Ibadan, Nigeria. *Annals of Ibadan Postgraduate Medicine*, **11**, 22-28.
- [14] Emelumadu, O.F., Onyeonoro, U.U., Ukegbu, A.U., Ezeama, N.N., Ifeadike, O.O. and Okezie, O.K. (2014) Perception of Quality of Maternal Healthcare Services among Women Utilising Antenatal Services in Selected Primary Health Facilities in Anambra State, Southeast Nigeria. *Nigerian Medical Journal*, **55**, 148-155.
- [15] Sword, W., Heaman, M., Biro, M., Homer, C., Yelland, J., Akhtar-Danesh, N. and Bradford-Janke, A. (2015) Quality of Prenatal Care Questionnaire: Psychometric Testing in an Australia Population. *BMC Pregnancy and Childbirth*, **15**, 214. <https://doi.org/10.1186/s12884-015-0644-7>

-
- [16] Ndidi, E.P. and Oseremen, I.G. (2011) Reasons Given by Pregnant Women for Late Initiation of Antenatal Care in the Niger Delta, Nigeria. *Ghana Medical Journal*, **44**, 47-51. <https://doi.org/10.4314/gmj.v44i2.68883>
- [17] Roberts, J., Sealy, D., Marshak, H.H., Manda-Taylor, L., Gleason, P. and Mataya, R. (2015) The Patient-Provider Relationship and Antenatal Care Uptake at Two Referral Hospitals in Malawi: A Qualitative Study. *Malawi Medical Journal*, **27**, 145-150.
- [18] World Health Organization (2004) Making Pregnancy Safer: The Critical Role of the Skilled Attendant. A Joint Statement by WHO, ICM, and FIGO. Geneva. <http://whqlibdoc.who.int/publications/2004/9241591692.pdf>
- [19] Oladapo, O.T., Iyaniwura, C.A. and Sule-Odu, A.O. (2008) Quality of Antenatal Services at the Primary Care Level in Southwest Nigeria. *African Journal of Reproductive Health*, **12**, 71-92.
- [20] Fawole, A.O., Okunlola, M.A. and Adekunle, A.O. (2008) Clients' Perceptions of the Quality of Antenatal Care. *Journal of the National Medical Association*, **100**, 1052-1058. [https://doi.org/10.1016/S0027-9684\(15\)31443-7](https://doi.org/10.1016/S0027-9684(15)31443-7)
- [21] Edie, G., Obinchemti, T., Tamufor, E., Njie, M., Njamen, T. and Achidi, E. (2015) Perceptions of Antenatal Care Services by Pregnant Women Attending Government Health Centres in the Buea Health District, Cameroon: A Cross Sectional Study. *Pan African Medical Journal*, **21**, 45.
- [22] Oladapo, O.T. and Osiberu, M.O. (2009) Do Socio-Demographic Characteristics of Pregnant Women Determine Their Perception of Antenatal Care Quality. *Maternal and Child Health Journal*, **13**, 505-511. <https://doi.org/10.1007/s10995-008-0389-2>
- [23] World Health Organization (WHO) (2014) World Health Statistics 2014. http://apps.who.int/iris/bitstream/10665/112738/1/9789240692671_eng.pdf