ARTICLE

Clients' Perception of Quality of Antenatal Care Provided by Midwives in Health Care Settings in Osun State, Nigeria

Perception de la clientèle à l'égard de la qualité des soins prénatals offerts par les sages-femmes dans des milieux de soins de santé de l'État d'Osun, au Nigéria

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ABSTRACT

Introduction: Uptake of antenatal care improves maternal and child health, which has been found to increase with improved quality, antenatal care thereby reducing the number of complications with maternal and child health. Antenatal care (ANC) provides an opportunity for midwives to screen, perform routine examinations, counsel, and help pregnant women have a successful pregnancy and delivery. This study assessed the quality of services provided by midwives during ANC in selected health facilities in Osun State, Nigeria.

Methods: This study used a descriptive research design and applied the Donabedian model of quality of care. Sample size was determined using the Cochran formula. A multiple stage sampling method was used to select 420 pregnant women from 22 primary, 4 secondary, and 1 tertiary health facilities in Osun state. Data were collected with a semistructured questionnaire administered over a period of 12 weeks. Data analysis was done using Statistical Product and Service Solutions (SPSS) version 23.

Results: The study found that 61.2% of the pregnant women were between the ages of 21 to 30 years, and 63.6% had less than 4 antenatal contacts. Services rendered by the midwives showed that all the components of ANC are in place. The quality of ANC was rated adequate by 64.8% of the respondents due to poor process and structure of care that affect the productivity of the midwives.

Discussion/Conclusion: This study concluded that the quality of ANC was adequate, but there was lack of standard guidelines and equipment.

KEYWORDS

antenatal care, pregnant woman, midwife, health care facility

This article has been peer reviewed.

RÉSUMÉ

cun bénéficie d'une couverture sanitaire efficace. Il est obligatoire d'instaurer une politique solide qui mette en évidence le rôle des sages-femmes dans les pays dont les taux de morbidité et de mortalité maternelles et périnatales sont élevés. Lors de la planification des ressources humaines, les besoins actuels et futurs doivent tenir compte non seulement de la disponibilité des soins, mais aussi de leur accessibilité, de leur acceptabilité et de leur qualité.

MOTS-CLÉS

Main-d'œuvre, pratique sage-femme, santé sexuelle et reproductive, cadre de réglementation, Amérique latine et Caraïbes, compétences

Cet article a été évalué par un comité de lecture.

INTRODUCTION

Pregnancy, though a normal physiological process, can have a lifelong effect on the health of the pregnant woman before, during, and after pregnancy and of her baby, since newborn survival is inextricably linked to the health of the mother.[1] Antenatal care (ANC) has led to improvement in maternal and newborn health globally, prompting recommendations for an increase in ANC.[2] Skilled attendants providing ANC play significant roles in reducing maternal and newborn deaths, and it is critically important that pregnant women utilize the services provided by midwives, who are expected to be qualified, competent, responsible, and accountable.[3] Globally, 81% of pregnant women access ANC at least once with skilled health personnel,[4] and in Nigeria, about 51%–57% of pregnant women receive the minimum recommended ANC visits from skilled health care providers.[5] Nevertheless, despite the increase in the number of ANC and skilled attendants, maternal and perinatal mortality remains high.[5,6]

In recent years, improving the quality of care in both developed and developing countries has dominated maternity strategies[7] as midwives and other maternity care providers increasingly focus on quality of health care. The concept of ANC quality focuses on effective, efficient, accessible, acceptable, patient-centred, equitable, and safe services.[7] The International Confederation of Midwives declared that midwives are to provide high-quality ANC to maximize health during pregnancy through early detection and treatment or referral of selected complications.[8] Quality care is measured by the quantity, distribution, and accessibility of the care rendered. Midwives are trained to provide quality ANC to the pregnant women and are seen as trustworthy health care providers for crucial support;as important and reliable sources of information;[9,10] and the personnel best equipped to provide appropriate and cost-effective care because they understand women's concerns and preoccupations and can thus identify, prevent, and treat diseases or complications.[11]

Studies have assessed various constructs that can be used to measure the quality of ANC. These include ANC and pregnancy outcomes,[12,13] patients' satisfaction[14,15] (which may be dependent on other factors outside the availability of quality services), content, timing, adherence, and comprehensiveness.[15] However, it is increasingly difficult to ignore how the procedures carried out by midwives bring together the components of the quality of ANC in terms of improving the individual pregnant woman's health and pregnancy outcomes. This necessitated an examination of the antenatal services provided and the client's perception of the quality of the care provided by midwives.

METHODS

The study was descriptive; thus, assertions cannot be made concerning cause and effect. The questionnaire method assumed that the respondents answered each question truthfully. However, this assumption may not hold in all cases.

Sample Size and Sampling Technique

The sample size for the study was determined using the Cochran formula, as follows:

$$N = \frac{Z^2 \times pq}{d^2}$$

where N = required sample size; Z^2= standard normal value at 95% confidence set at 1.96; p = proportion of ANC attendance by the pregnant women (51%);[16] q = 1-p; and d^2 = margin error assumption at 5%.

$$N = \frac{[1.96]^2\,[0.51]\,[1-0.51]}{[0.05]^2}$$

$$N = 376.476 \approx 380$$

Possible nonresponse rate was factored into the sample (10%), to make a total sample of 420 pregnant women. Inclusion criteria for the study were pregnant women in all the three trimesters of pregnancy receiving ANC at selected primary, secondary, and tertiary levels of health care facilities during the course of this study. Also, pregnant women who could understand the purpose of the study and expressed willingness to participate in the study were selected.

Research Instrument, Procedure for Data Collection, and Analysis

The instruments used for data collection were standardized semistructured questionnaires adapted from the World Health Organization (WHO)[1] and the Quality of Antenatal Care Questionnaire (QPCQ).[17] The QPCQ has a total of 46 items; 40 items

> Skilled birth attendance is a key strategy for averting maternal and perinatal deaths.

were considered relevant to the study.

The questionnaire consisted of three major sections: Section A was the sociodemographic characteristics and reproductive history of respondents. Section B consisted of 20 items adapted from WHO, assessing ANC services available in the health care facilities.[1] Section C adapted the QPCQ.

On-the-spot editing of the questionnaires was done from the field. Questionnaires were sorted, arranged serially, and coded. The data generated were subjected to computer analysis, using Statistical Product and Service Solutions (SPSS) Statistics version 23.0 (IBM, Armonk, NY). Frequency table and correlation statistics were used to present the data at a significance level of $p < .05$.

Ethical approval to conduct the study was obtained from the Health Research and Ethics Committee of the Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife (ERC/2019/10/11); the Osun State Primary Health Care Development Board (DPRS/OSHREC/PRS/569T/153); and the Osun State Hospital Management Board (OSSHMB/538/Vol.1/333). Voluntary participation, confidentiality, and anonymity were ensured, and it was emphasized that persons had the right to take part in the study or to terminate their participation at any time.

Limitations

Provision of antenatal care is perceived as mere routine by many in our environment. The study is not free from limitations because it did not cover all the health facilities and local government areas in the state. The study may have been affected by social desirability where the pregnant women may have responded in a way that would please the service providers or responded due to their interest and previous relationships with the service providers. Despite all these limitations, this study has contributed to existing research on quality of ANC in Nigeria

RESULTS

The age of the respondents ranged from 16 to 45 years; 61.2% of them were within 21–30 years of age; 80.7% were married; and 75.2% were salary/wage earners, 60.2% of whom earned less than 30,000 naira (equivalent to US$55) per month, which is the minimum wage in Nigeria. About half (51.2%) of the respondents had one to three living children, 63.6% had fewer than four ANC visits, and 35.7% lived 6–10 km from the health facilities.

The antenatal services provided to pregnant women cover appropriate assessment, screening, preventive, and therapeutic intervention. More than half (57.8%) of the respondents reported that tetanus toxoid, malaria prophylaxis, and hematinics were usually part of their ANC; 64.2% had their blood group, genotype, rhesus factor, blood pressure, and urine evaluated. Also, 79.6% of respondents reported weight and height monitoring, and ultrasound scans were part of the care they received; 77.6% had blood samples taken for packed-cell volume estimation and serology and were examined for weight and checked for pallor, and edema; 74.1% spent about1 hour at the health facility while waiting for consultation or treatment; and 76.5% had screening done for communicable diseases such as AIDS or hepatitis B during the ANC visit. In regard to counselling, 82.8% claimed they were counselled about the consequences of

violence on a pregnant woman and fetus; 92.4% were counselled about nutrition, breastfeeding, hygiene, and sex during pregnancy; and 86.1% maintained that the education they received was adequate and that they were always encouraged to ask questions about diseases, treatment, and care.

The majority of respondents (87.6%) observed that respect was always shown for their desires for privacy during treatment and examination, 79.4% reported that they were usually consulted about their preferences concerning treatment options, and 82.8% revealed that their consent was sought before testing or the start of treatment. The majority of respondents (64.8%) felt that the services provided by midwives are adequate, whereas 55.0% had positive feelings about the quality of ANC services.

Overall, 51.1% of respondents attending primary health care centres (PHCs), 68.0% attending secondary facilities, and 61.8% attending tertiary health facilities reported the availability of good antenatal services.

DISCUSSION

Sociodemographic Data of Participants

As shown in Table 1, the majority of the respondents were from 21 to 30 years of age. This was expected, as this age group has a high fertility rate and coincides with the reproductive age of women in Nigeria.[18] It is about the best period in which to conceive.[19] About half of the respondents were multiparous women (2–7 pregnancies). Sobotka argues that although the total fertility rate has dropped to below three births per woman globally, sub-Saharan Africa is the exception.[20] According to the United Nations Population Division, the annual number of pregnancies has increased by 50% in Africa between 2015-2020.[21] The total fertility rate of Osun state is 4.7.[22]

Available Antenatal Services

Antenatal care, which is available at all the levels of health facilities, is a means of providing sexual and reproductive health functions[23] such as health promotion, screening and diagnosis, and disease prevention while providing "opportunity to communicate with and support women, families and communities at a critical time in the course of a woman's life."[24] As shown in Table 2 , two-thirds of the pregnant persons rated the antenatal services they received as adequate. Findings showed that physical examinations were not thoroughly done, due to the number of pregnant persons that the few midwives attended to, and this was confirmed by 6.2% of the pregnant persons. A full general physical examination includes the following maternal and fetal assessments: blood pressure, height, and weight at each prenatal contact, and fetal heart rate later in the pregnancy.[3] Some examinations–such as weight measurement, auscultation of the fetal heart, palpation, taking blood pressure, and urine testing–were done regularly. However, some of the routine tests recommended by WHO–such as blood grouping, serology, cardiotocography, ultrasound, and screening for HIV and hepatitis B–are not performed in most facilities.[25,26]

Quality of Antenatal Services

Health education was mostly face-to-face in the native language. Due to the lack of flyers, models, and audiovisual aids, all the pregnant persons were grouped together, which may have hindered the identification of pregnant persons who needed teaching. (This was also observed in Uganda by Nankumbi and Ngabirano; women were grouped together with no consideration for special characteristics such as age or parity.[27]) Health promotion and education are considered among the most important activities that midwives perform with pregnant persons as advocates for health and well-being rather than as managers of diseases.[17] Of all the components of ANC, information sharing is the only one that can be provided with little or no supplies or equipment,[28] but it still needs to be improved upon. No standard guideline was being followed in all the facilities, but some topics (such breastfeeding, nutrition, family planning, birth preparedness, and danger signs in pregnancy) were scheduled for some days of the week to guide the personnel providing the health education.

Of the 22 PHCs, only four have a partially functional laboratory that runs a very few laboratory investigations. Most pregnant persons patronize private settings for their laboratory investigations, as corroborated by Arsenault and Jordan, who

Table 1. Respondents' Sociodemographic Characteristics

Variable	Frequency (*N* = 420)	Percentage
Age Range (yrs)		
16–20	63	15.0
21–25	107	25.5
26–30	150	35.7
31–35	61	14.5
36–40	28	6.7
41–45	11	2.6
Marital Status		
Single	66	15.7
Married/cohabiting	339	80.7
Divorced/separate/widowed	15	3.6
Highest Level of Education		
No formal education	9	2.1
Primary	35	8.3
Secondary	164	39.0
Tertiary	212	50.5
Occupation		
Not working	81	19.3
Salary/wage earner	316	75.2
Farming	8	1.9
Self-employed	15	3.6
Total Number of Pregnancies		
1–2	260	61.9
3–4	106	25.2
≥ 5	54	12.9
Total Number of Living Children		
0	184	43.8
1–3	215	51.2
≥ 4	21	5.0
Distance (km)		
0–5	92	21.9
6–10	150	35.7
11–15	112	26.7
≥ 16	66	15.7
Number of Visits		
< 4	267	63.6
5–10	150	35.7
≥ 11	3	0.7

found that many simple investigations were not available in the facilities they studied.[29] This has negative effects, as some women will not carry out any investigation until they are in labour or complications arise. These laboratory investigations are essential for the timely detection of certain illnesses and complications[5,30] and for the control and treatment of chronic and sexually transmitted diseases.[31]

Specialist care and emergency services are mainly available in the secondary and tertiary facilities. Most PHCs had to rely on distant private, secondary, and tertiary health facilities.

Concern for quality care is as old as the nursing profession.[32] Every pregnant person should receive quality care throughout pregnancy, childbirth, and the postnatal period.[1] More than half of the respondents rated the care they received as of good quality [Figure 1]. There may be reasons for the respondents' rating despite the suboptimal quality of care, such as their personal relationships with caregivers or, as opined by Ibrahim et al., because pregnant women tend to be "relatively uncritical, and accept as appropriate whatever care they receive."[33] Quality ANC can be a guide to the ability of the caregiver to address issues around pregnancy. Ntiamoah reported the dimensions focused on by WHO as "efficiency, effectiveness, safety, technical competence, interpersonal relationship and accessibility."[34] The majority of respondents rated the care received as adequate. As noted by Nimrod, the quality of care can be measured by the quantity, distribution, and accessibility of the care provided.[16]

Table 2: Services Provided by Midwives During Antenatal Care

Variable	Always (%)
Tetanus toxoid, malaria prophylaxis, and hematinics	23.3
Evaluation of blood group, genotype, and rhesus factor	29.0
Measurement of blood pressure and urine testing	49.8
Weight and height monitoring, pelvimetry, and ultrasound	47.4
Packed-cell volume estimation and serology	43.1
Physical examination	61.9
Reasonable time for consultation/treatment	51.7
Screening for communicable diseases	38.8
Confidentiality of information and medical records	69.3
History of previous and current pregnancies	64.0
Warning against consequences of violence on a pregnant person and fetus	60.7
Education on nutrition, breastfeeding, hygiene, sex during pregnancy, etc.	72.9
Adequacy of content of education received	64.0
Education on merits of institutional deliveries and risks of home deliveries	68.6
Birth preparedness and micro plan	45.0
Encouragement to discuss concerns	58.6
Encouragement to ask questions about diseases, treatment, and care	62.9
Respect and privacy during treatment and examinations	62.1
Preferences over treatment options	48.3

CONCLUSION AND RECOMMENDATIONS

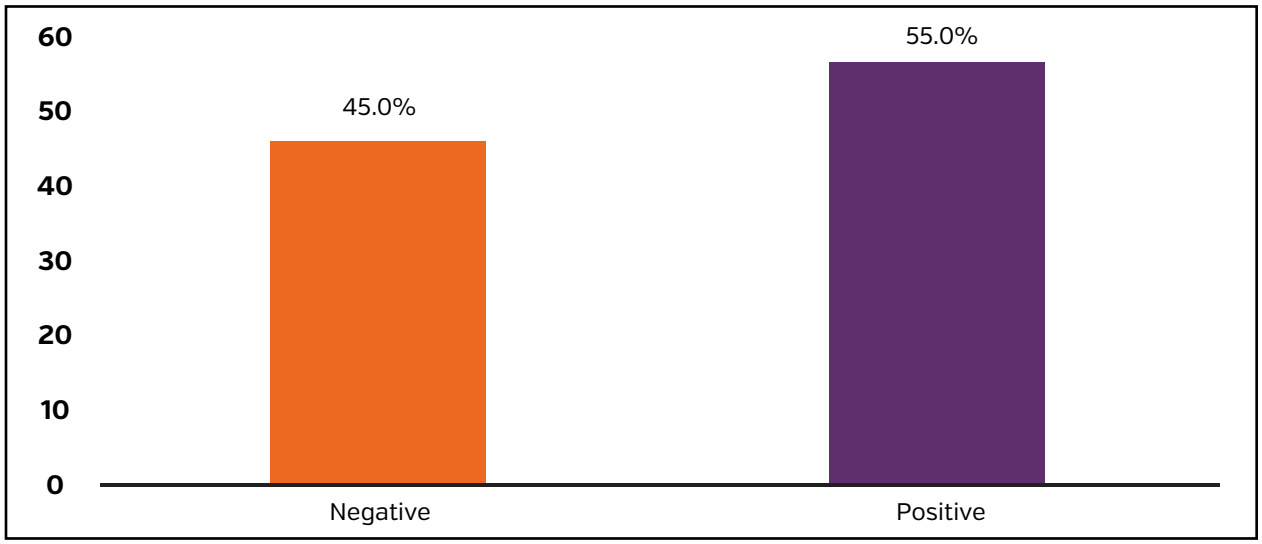
This study revealed that the quality of antenatal care (ANC) in Osun State, Nigeria, was rated adequate by pregnant people. However, in comparison with the WHO standard,[1] it is inadequate, especially at the primary levels of care. This can be linked to a reported lack of adequate resources and standard guidelines for midwives at the primary and secondary levels of care. The quality of ANC at different levels of care urgently need improvement so that all pregnant people will receive the quality services necessary to prevent, identify, and manage complications of pregnancy.

Antenatal service should not be assumed to be comprehensively utilized when pregnant persons merely report to health facilities, but rather when they maximally benefit from standard outlined services.

Based on the findings of the study and the reviewed literature, we recommend the following:

- Improvement in the process of antenatal care at all levels of care, including physical examination, vaccination, counselling, and laboratory investigations that will align with WHO standards, taking into consideration a uniform national guideline for maternity care based on WHO guidelines.
- Strengthening of community partnership programmes and outreach health education services that target people in the communities in order to improve the access, use, and quality of ANC at different levels of care.

Figure 1. Respondents' Perceptions of Quality of Antenatal Care Provided by Midwives



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