Women's Perception of Quality, and Satisfaction with Maternity Care Services Offered at the University of Port Harcourt Teaching Hospital

Helen, Ijeoma Asoluka[1*], Meredith, Chiwenkpe Asuru[2]

[1]Department of Public Health, University of Port Harcourt School of Public Health

[2]Department of Epidemiology, University of Port Harcourt School of Public Health

***Corresponding Author**

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ABSTRACT

Quality healthcare is an important denominator for overall health outcomes. It is thus pertinent that the quality of maternity care comprising antenatal, delivery and postnatal care services remains high so as to mitigate the negative outcomes associated with pregnancy. However, maternity care services have been reported to be sub-optimal, especially in low-middle-income countries like Nigeria. This study thus assessed pregnant women perception of quality and their satisfaction with maternity care services offered at the University of Port Harcourt Teaching Hospital. A descriptive cross-sectional design was utilized to systematically recruit 114 pregnant women. Analysis of data collected using a structured interviewadministered questionnaire was conducted using IBM SPSS version 26. Frequency, percentage, mean, standard deviation, and standard error were used to describe data while a multiple and multinomial logistic regression analysis were employed to ascertain the predictors of perception and satisfaction respectively. The mean age of women was 31.25±4.95 years with 62 (54.4%) being < 30 years. Women's overall perception of the quality of maternity care services was 5.36/7.00 being highest in the domain of assurance (5.53/7.00) and lowest in the domain of responsiveness (5.16/7.00). Notably, 40 (35.1%) of women were very satisfied with the quality of maternity care services. A multivariate logistic regression revealed that being aged ≥ 31 years, earning between ₦51,000 - ₦100,000 or ₦101,000 - ₦300,000, being multiparous, and receiving delivery services significantly predicted higher overall perception ($p < 0.05$). Similarly, being aged ≥ 31 years, and earning > ₦300,000 significantly predicted higher satisfaction levels ($p < 0.05$). It is evident that pregnant women's perceptions of quality of maternity care services are positive. However, a substantial proportion of them remain unsatisfied with maternity care services alluding to the fact that multiple factors ranging from socioeconomic to healthcare are implicit in driving perception and satisfaction levels.

keywords: Maternity Care Services, Quality, Perception, Satisfaction, Predictors.

INTRODUCTION

Maternity care services comprise preventive and curative healthcare services relevant to women of reproductive age (Nnebue et al., 2014). Due to its aim of reducing morbidity and mortality, it integrates high quality multisectoral services needed to guarantee a state of social, physical, spiritual and mental well-being of mothers and their offspring (Onyeonoro et al., 2014). The importance of high quality cannot be overemphasized as quality of care has been documented to be a significant determinant of health outcomes (Banke-Thomas & Ameh, 2019; Fagbamigbe & Idemudia, 2015).

Traditionally, quality of care is assessed in three domains including structure, process, and outcome (Santana et al., 2018). However, current frameworks now assess quality across domains of reliability, responsiveness, empathy, assurance, and tangibility. While reliability refers to a firm's ability to effectively and accurately perform a service, assurance is built on workforce capability to imbibe trust in users, tangible takes into

cognizance the personnel, communication artefacts, physical structures, and working apparatus, empathy refers to the organisation's attention and priority given to the needs and requests of users, and responsiveness concerns an organisation's capacity and eagerness to help users and deliver service as promptly as promised (Park et al., 2018; Potluri & Angiating, 2018; Yarimoglu, 2016). Notably, quality of care is often viewed from the community lens with focus on access to maternal care facilities, respectful and timely treatment, tradition-fostered practices and indigenous language use, hygienic and properly-equipped facilities, transportation fare, and free consultations/services (Chris et al., 2019).

From the foregoing, it is evident that quality maternal care should be inclusive and of high quality. It is in the light of this that health systems across the globe are continuously strengthening existing strategies and integrating evidence-based interventions to drive a reduction in adverse health outcomes for women of childbearing age. However, the literature on maternity care highlights that the quality of maternity healthcare is inadequate across several indicators, especially in low-middle income countries.

At the University of Port Harcourt Teaching Hospital (UPTH), some indices for quality of care, as regards maternity services is threatening. For example, the perinatal mortality rate and maternal mortality ratio were documented to be 331.7/1000 births and 4654.8/100,000 respectively among un-booked patients and 41.0/1000 births and 133/100,000 among booked patients (John & Alegbeleye, 2016). Also, waiting time is reported to be high among many women receiving maternity services offered at UPTH. According to Jeremiah et al. (2013), 42.4%, and 29.9% of patients reported waiting for over 3 – 4 hours before receiving antenatal services. With regards to delivery, prolonged waiting results in adverse outcomes like uterus rupture which was documented to be a cause of 17 deaths among 3 un-booked women and 1 death among booked women (John & Alegbesleye, 2016). Another issue of concern that has been shown to hamper the quality of maternity services at UPTH is the regular strike actions healthcare providers embark on (Okagua & Obikwu, 2017). The Aftermath of strike action is discontinued antenatal, delivery, and postnatal care services which in turn drives morbidity and mortality among women and their children (Okagua & Obikwu, 2017).

The overarching effect of inadequate/poor quality maternity care services is increased morbidity and mortality rate, as evident in Nigeria where the maternal mortality rate is documented to be 512/100,000 live births (National Population Commission & ICF, 2019). Aside from negative maternal outcomes, poor maternity care services also have negative effects on neonatal outcomes. For example, in Nigeria, perinatal mortality for first pregnancies is documented at 64 deaths per 1,000 pregnancies, and 65 deaths per 1000 pregnancies among women delivering their second child in < 15 months following the first (National Population Commission & ICF, 2019).

It is thus important to strengthen healthcare systems across the globe, especially in developing countries as a step towards improving healthcare services for better maternity outcomes. The current study will thus assess women's perception of quality and their satisfaction with maternity care services offered at the University of Port Harcourt Teaching Hospital.

METHODS

Study Site

The study was conducted at the University of Port Harcourt Teaching Hospital—one of the few tertiary hospitals in multi-ethnic Rivers State. Commissioned in 1985, it is located along the East-West Road, between coordinates 4°53'58'N and 6°53'43'E. The hospital is room to 755 bed spaces attending to over 400,000 out-patients, and 10,000 in-patients per annum. Also, over 3000 surgeries are performed at the hospital per annum. The obstetrics and gynaecology department has 163 (21.6%) bed occupancy. It serves both urban and rural residents outside and within the state. In the antenatal, postnatal, un-booked, first stage room, second stage room, and private/semiprivate rooms, there are 30, 40, 40, 13, 4, and 8 beds respectively. Due to the high delivery rate, the hospital is the top-ranked delivery centre in Rivers State.

Study Design

An institution-based descriptive cross-sectional study design was utilised for the current research as it assessed

women's perception of quality, and satisfaction of maternity healthcare services offered at the University of Port Harcourt Teaching Hospital.

Study Population

The study comprised women aged 15 – 49 years utilising antenatal, delivery or postnatal care services at the University of Port Harcourt Teaching Hospital

Sample Size

The Fischer's formula for cross-sectional studies as documented in Charan & Biswas (2013) was used to estimate the sample size

$$(n = \frac{(Z_{1-\alpha/2})^2 \times P(1-P)}{d_2})$$

Where: n = minimum sample size

Z = 1.96 (standard normal deviate at 95% confidence interval)

p = 0.682 (proportion of women who reported good knowledge of maternal healthcare services (Nnebue et al., 2014)) δ = 0.05 (level of precision).

Imputing these figures into the formula, sample size was approximately 333.

However, owing to the fact that the estimated number of women who would be receiving antenatal, delivery and postnatal services during the period of the data collection was lower than 10,000, the sample size correction formula for finite population shown below was applied.

$$(n = \frac{n_0}{1+(\frac{n_0-1}{N})})$$

n = minimum sample size n_0 = 333 (calculated sample size)

N = 150 (population size)

Imputing these figures into the formula, sample size was 104 women.

Assuming a 10% non-response rate, n = 114 women

Sampling Procedures

Following stratification of women utilising maternity healthcare services at the University of Port Harcourt into antenatal, delivery, and postnatal stratum, a systematic sampling technique was employed to recruit women from each stratum. A proportionate approach was employed to recruit 67, 32, and 15 women receiving antenatal, delivery, and postnatal services respectively.

Data Collection Procedures

Data collection was carried out by the researchers. Before collection, consent was sought from women receiving services at the hospital, and only consenting women were asked questions contained in the study questionnaire. Women who were receiving antenatal and postnatal services were approached at the exist of the obstetric and gynaecological department after they had received services while those who were receiving delivery services were approached in the post-natal wards 24 – 48 hours after delivery.

Study Instruments

A structured interviewer administered questionnaire was utilized for the study. The tool consisted of a section for sociodemographic characteristics like age, residence, educational level, monthly income, marital status, parity, geopolitical region, and religion, and a section to assess satisfaction. For perception of the quality of maternity care services, the SERVQUAL questionnaire consisting of 22 items on a 7-point Likert scale (1 = strongly disagree, 2 = moderately disagree, 3 = slightly disagree, 4 = Neutral, 5 = slightly agree, 6 = moderately agree, 7 = strongly agree) was utilized (Ogaji et al., 2017). It assessed quality along five dimensions: Reliability, assurance, tangibles, empathy, and responsiveness.

Data analysis

Data was cleaned, coded, and analysed using IBM SPSS version 26. Sociodemographic characteristics was described using frequency and percentage or mean and standard deviation if data is categorical or continuous respectively. Mean ± Standard error scores were calculated for women's perception of quality of maternity care services across all elements and domains (tangible, reliability, responsiveness, assurance, and empathy) of SERVQUAL scale. Women satisfaction level was described using frequency and percentages. A multiple logistic regression and multinomial logistic regression analysis was used to ascertain independent predictors associated with women's perceptions of quality and satisfaction with maternity care services. Variables established at $p < 0.05$ were documented as significant. In building the model, the researchers included all independent variables albeit insignificance in a univariate model on the assumption that masked effects existed.

RESULTS

All responses collected were included in the final analysis, giving a 100% response rate.

Sociodemographic Profile

As described in Table 1, the mean age of women receiving maternity care services at the University of Port Harcourt Teaching Hospital was 31.25 ± 4.95 with 62 (54.4%) aged ≤ 30 years, and 100 (87.7%) residing in an urban area. Also documented is that 97 (85.1%), 44 (38.6%), 103, (90.4%), 75 (65.8), 74 (64.9%) and 112 (98.2%) had tertiary education, earned < ₦30,000 monthly, were married, had more than one child, was from the South-South region, and were members of the Christian religion.

Table 1: Socio-demographic characteristics of diabetes patients receiving care at UPTH

VARIABLE		FREQUENCY (n = 114)	PERCENT (%)
AGE	≤ 30 years	62	54.4
	≥ 31 years	52	45.6
	Mean ± SD	31.25 ± 4.95	
RESIDENCE	Urban	100	87.7
	Rural	14	12.3
EDUCATION	Secondary	17	14.9
	Tertiary	97	85.1
MONTHLY INCOME	< ₦30,000	44	38.6
	₦30,000 - ₦50,000	27	23.7
	₦51,000 - 100,000	28	24.6
	₦101,000 - 300,000	11	9.6
	≥ ₦301,000	4	3.5
MARITAL STATUS	Single	11	9.6
	Married	103	90.4
PARITY	Primiparous	32	28.1
	Multiparous	75	65.8
	Grand Multiparous	7	6.1

GEOPOLITICAL ZONE	South-South	74	64.9
	South-West	10	8.8
	South-East	26	22.7
	North-West	2	1.8
	North-Central	2	1.8
RELIGION	Christian	112	98.2
	Islam	2	1.8

Perception of Maternity Care Services Quality

As described in Table 2, the perception of women varied across attributes with the lowest perception being recorded for staff prompt action (an element of the reliability domain) at 4.87, and the highest perception score being recorded for staff appearance (an element of the tangible domain) at 5.89. The score range of 4.87 – 5.89 on a scale of 7.00 highlights that all attributes describing quality of maternity care services was perceived as good by women receiving services.

Table 2: Women's perception of quality of maternity care services

ITEMS	**Mean Perception**	**Standard Error**
Tangibles		
Up to date equipment	5.16	0.19
Attractive facility	5.39	0.18
Well-dressed staff	5.89	0.11
Physical facilities match services provided	5.24	0.17
Reliability	4.87	0.19
Staff act promptly		
Staff are sympathetic and reassuring	5.10	0.18
Adequate information received	5.60	0.13
Confident receiving care here	5.96	0.11
Records kept correctly	5.81	0.15
Responsiveness	5.23	0.17
Staff inform me of service performance time		
Get prompt service	4.97	0.19
Staff always willing to help	5.44	0.15
Staff respond to request promptly	5.02	0.17
Assurance	5.68	0.13
Trust staff here		
Staff always respect privacy	5.75	0.12
Staff are polite to me	5.32	0.16
Think staff have support for excellent job	5.36	0.15
Empathy	5.04	0.17
Staff provide individualised medical attention		
Staff always show understanding	5.44	0.12
Treated with warm and caring attitude	5.44	0.15
Staff understand my specific needs	5.15	0.16
Centre operates at a time suitable for me	5.01	0.19

Table 3 shows that all domains of quality of maternity care services (reliability, empathy, tangible, assurance, and responsiveness) were positive plus high across all domains with a mean of over 5.00 on a scale of 7. The overall quality of maternity care services as perceived by women receiving services at the University of Port Harcourt Teaching Hospital is documented to be positive and high at 5.36 on a scale of 7.00

Table 3: Women perception of quality of maternity care services across domain

DIMENSION	Mean Perception	Standard Error
Tangibles	5.42	0.12
Reliability	5.46	0.1
Responsiveness	5.16	0.13
Assurance	5.53	0.1
Empathy	5.22	0.11
Overall Service	5.36	0.89

Predictors of women's perception of quality of maternity care services

A multiple logistic regression as shown in Table 4 revealed that the quality of maternity care services was perceived as higher by women who were ≥ 31 years (B = 0.74; 95% CI = 0.39, 1.09; p = < 0.001). In comparison to single women, married women had lower perception of quality of maternity care services (p = 0.011; B = 0.76; 95% CI = -1.34, -0.18). Regarding parity, multiparous women perceived the quality of maternity care services to be higher when compared to primiparous women (B = 0.50; 95% CI = 0.13, 0.87). Women who earned ₦51,000 - ₦100,000 (p = 0.004; B = 0.63; 95% CI = 0.20, 1.06), and ₦101,000 – ₦300,000 (p = 0.018; B = 0.69; 95% CI = 0.12, 1.26) had a greater perception of maternity care services quality than women who earned < ₦30,000. Religion significantly predicted perception of maternity care services quality with Muslim women having lesser perception (B = -1.27; 95% CI = -2.42, -0.13; p = 0.030). Regarding services received, women who received delivery services had higher perception of quality of maternity care as compared to women who received antenatal care (p = 0.005; B = 0.55; 95% CI = 0.17 – 0.93).

Table 4: A multiple logistic regression of predictors of women's perception of the quality of maternity care

Patient Variable		Perception	
	B Coefficient	95% CI	p-value
Constant	**5.12**	**4.47, 5.78**	**0**
AGE	ref		
≤ 30 years			
≥ 31 years	0.74	0.39, 1.09	< 0.001
RESIDENCE	ref		
Urban			
Rural	-0.29	-0.87, 0.28	0.316
EDUCATION	ref		
Secondary			
Tertiary	-0.28	-0.76, 0.21)	0.261
MONTHLY INCOME	ref		
< ₦30,000			
₦30,000 - ₦50,000	0.19	-0.23, 0.61	0.38
₦51,000 - ₦100,000	0.63	0.20, 1.06	0.004
₦101,000 - 300,000	0.69	0.12, 1.26	0.018
> ₦300,000	1.23	-0.10, 2.55	0.069
MARITAL STATUS	ref		
Single			
Married	-0.76	-1.34, -0.18	0.011
PARITY			
Primiparous	ref		
Multiparous	0.5	0.13, 0.87	0.009
Grand Multiparous	0.22	-0.60, 1.04	0.598
GEOPOLITICAL ZONE	ref		
South-South			
South-West	-0.81	-1.48, -0.15	0.017

South-East	0.36	-0.07, 0.79	0.098
North-West	-1.03	-2.91, 0.85	0.279
North-Central	0.33	0.03, 0.98	0.288
RELIGION	ref	-	-
Christian			
Islam	-1.27	-2.42, -0.13	0.030
SERVICE RECEIVED	ref		
Antenatal			
Delivery	0.55	0.17, 0.93	0.005
Postnatal	0.6	0.04, 1.15	0.595

Satisfaction with maternity care services

According to Table 5, of the 114 women receiving maternity care services at the University of Port Harcourt Teaching Hospital, 101 (88.6%) were satisfied while 13 (11.4%) were dissatisfied. Regarding future attendance of maternity care services at the centre while 13 (11.4%) would not receive future maternity care at the centre, 101 (88.6%) would receive future maternity care at UPTH. The majority 103 (90.4%) of the women would recommend the centre to other women for maternity care services while 11(9.6%) would not.

Table 5: Women's satisfaction with maternity care services

VARIABLE	FREQUENCY (N = 114)	PERCENT (%)
Overall Satisfaction Level		
Satisfied	101	88.6
Dissatisfied	13	11.4
Possibility of receiving future maternity care at UPTH		
Yes	101	88.6
No	13	11.4
Possibility of recommending UPTH to other women		
Yes	103	90.4
No	11	9.6

UPTH = University of Port Harcourt Teaching Hospital

Predictors of satisfaction with maternity care services

As shown in Table 6 women who were aged ≥31 years were 1.32 times more likely to be satisfied with the quality of maternity care offered at the Teaching Hospital of the University of Port Harcourt. Similarly, women who earned ≥ ₦301,000 were 2.77 times more likely to be satisfied with the quality of maternity care offered at the Teaching Hospital of the University of Port Harcourt. However, women who resided in rural regions possessed 40% less probability to be satisfied with maternity care services quality offered at the Teaching Hospital of the University of Port Harcourt.

Table 6: Multinomial logistic regression of predictors of satisfaction with quality of maternity care services.

VARIABLES	B	aOR (95% CI)	P-VALUE
AGE			
≤ 30 years	ref		
≥ 31 years	0.442	1.32 (0.11 - 2.45)	0.047
RESIDENCE			
Urban	ref		
Rural	-3.112	0.60 (0.01 - 1.98)	0.013
EDUCATION			
Secondary	ref		
Tertiary	2.11	2.44 (1.02 - 3.33)	0.886

MONTHLY INCOME			
< ₦30,000	ref		
₦30,000 - ₦50,000	2.31	0.33 (0.01 - 0.99)	0.972
₦51,000 - ₦100,000	0.21	1.08 (0.22 - 3.55)	0.235
₦101,000 - 300,000	0.13	2.11 (1.02 - 2.89)	0.086
> ₦300,000	2.33	2.77 (1.11 - 5.68)	0.002
MARITAL STATUS			
Single	ref		
Married	1.01	1.58 (0.14 - 4.22)	0.178
PARITY			
Primiparous	ref		
Multiparous	1.33	0.23 (0.01 - 3.22)	0.21
Grand Multiparous	-0.22	0.82 (0.24 - 2.33)	0.11
GEOPOLITICAL ZONE			
South-South	ref		
South-West	-1.22	3.10 (1.55 - 5.43)	0.212
South-East	3.22	0.87 (0.02 - 1.44)	0.492
North-West	1.19	2.12 (1.02 - 3.47)	0.064
North-Central	2.12	0.92 (0.03 - 3.47)	0.233
RELIGION			
Christian	ref		
Islam	-1.12	0.66 (0.11 - 1.11)	0.713
SERVICE RECEIVED			
Antenatal	ref		
Delivery	1.22	2.00 (0.77 - 4.21)	0.075
Postnatal	1.41	0.26 (0.00 - 1.46)	0.977

aOR = adjusted odds ratio

DISCUSSION

Services for maternity care are provided to women with the goal of ensuring positive maternity outcomes for them. Nevertheless, excellent maternity care services are required for the expected results. Tertiary healthcare facilities ought to uphold the highest standards of quality because they are seen as role models.

Women's perception of maternity care quality

According to the current research the quality of maternity care services offered at the University of Port Harcourt Teaching Hospital as perceived by women receiving care at the facility was good. Quality of care scores ranged from 5.22 to 5.53, indicating high-quality maternity care services across the domains of measurement i.e., the tangible domains (which is comparable to structure) and the assurance, responsiveness, empathy, and reliability domains (which are comparable to service delivery procedures). This supports a 2013 study by Nwaeze et al. that found 81.1% of women thought the antenatal care they received at University College Hospital Ibadan was good. Also, it is in agreement with the report of Ogaji et al. (2017) which highlighted that women receiving prenatal care in Primary Health Centres in Rivers State perceived both the overall quality of health to be good (ranging from 4.22 to 4.38 on a scale of 5). It however differs from the report of Amoah et al. (2022) which revealed that service quality in Ghana varied by domain, with the quality of the assurance, empathy, and responsiveness being bad and the reliability and tangible domains being good. A likely factor prompting the report of good quality among women is the fact that majority of them were multiparous possibly having their first pregnancies at the facility as evident in their willingness to return to the facility for future maternity care and recommend the facility to other women. It should however be noted that despite the report of good quality, continuous improvement is need to maintain standard, as a lag has the potential to worsen service quality and downsize patronage of maternity services.

Satisfaction with maternity care services

Over 3/4th of women was satisfied with maternity care services offered at the university of Port Harcourt Teaching Hospital, and were willing to return to the facility for future maternity care or recommend the facility to other women. This is in agreement with the report of Ogaji et al. (2017), which showed that 76.5% of women were satisfied with antenatal care services and that 79.3% and 77.5% of women would return for more ANC and suggest other women, respectively. Other similar research also revealed that a significant proportion of women would return to the same health centre or refer other women to the institutions where they are currently receiving care (Nwaeze et al., 2013; Ogaji & Etokidem, 2012). The studies mentioned indicate that a significant number of patients express satisfaction with their healthcare providers, as evidenced by their willingness to return to the centres. The study's conclusions demonstrated that clients' expectations were generally high and that there was a moderate but substantial correlation between those expectations and how well they thought their services were provided. An investigation carried out in Zambia likewise revealed that users had high expectations (Tuncalp et al., 2015). Expectation, as a cognitive and affective activity, is thought to significantly act in determining client's experience and happiness (Tuncalp et al., 2015). It is OK for users to have high standards for the quality of service they desire. PHC management must be conscious of this, though, and make sure that their plans for service delivery meet or even exceed the expectations of their users. This may have a very favourable impact on the degree of satisfaction, general impression, and use of ANC services by clients in the PHCs. Predictive factors must therefore be continuously determined in order to create strategies for reducing their influence.

Predictors of Women's Perception of Quality and Satisfaction with Maternity Care Services

It was discovered that factors such as age, monthly income, marital status, place of residence, parity, geopolitical zone, religion, and kind of service obtained had an impact on clients' opinions of the quality of the services they received. Age has also been found in prior research to affect clients' perceptions of health (Ogaji, 2016). The current study found that only having a monthly income of ₦31,000–₦100,000 and ₦101,000–₦300,000 was predictive of a higher perception of maternity care services quality, despite the argument that clients' economic status influences their views on health care. Clients/women who receive any kind of income (daily, weekly, or monthly) or remunerable employment possess a higher likelihood of providing positive evaluations concerning health care service. The outcomes of this study are understandable when viewed within the social and demographic characteristics of women who seek care at the University of Port Harcourt Teaching Hospital. Elements such as age, marital status, parity, and religious background naturally shape expectations and influence how women judge the care they receive. For instance, women with previous childbirth experience or those who are older often rely on past encounters with the health system when forming opinions about current services. Likewise, individuals who enjoy stable family support may approach maternity care with reduced anxiety, which can lead to more positive interactions with staff. Differences in residence and geopolitical origin also matter; women who come from areas with fewer health resources may perceive the structured environment of a teaching hospital as superior, making favourable assessments more likely. Also, economic circumstances further help explain the pattern seen in the study, especially the link between certain income ranges and higher ratings of service quality. Women who earn between ₦31,000 and ₦300,000 monthly may have greater financial confidence, and this sense of security can influence how they interpret their care experiences. A dependable source of income whether daily, weekly, or monthly can reduce the stress associated with accessing maternity services, including transportation, waiting times, and incidental costs. This financial comfort often translates into a greater willingness to engage with health workers and participate more actively in their care. In a tertiary facility like UPTH, where many women come from varied economic backgrounds, such differences in income can significantly shape perceptions, making the study's findings both reasonable and aligned with the lived conditions of its clients.

As regards satisfaction with the maternity care services received a number of characteristics, including higher income, living in a rural area, and being older were significant predictors. This is consistent with a report by Ayalew et al. (2021) showing that Ethiopian women's contentedness with prenatal care services standard was significantly predicted by age. The current findings are consistent with other European investigations (Tocchioni et al., 2018) that demonstrate the predictive power of age and nationality on satisfaction. Therefore, while formulating policy, it is imperative that these Predictors be taken into account. The observation that older women, higher-income earners, and those coming from rural communities expressed greater satisfaction with their

maternity care is understandable when considered in the context of the University of Port Harcourt Teaching Hospital. Women with more life experience or previous contact with health services often approach maternity care with clearer expectations and may therefore appreciate well-coordinated or respectful care more readily than younger clients. Likewise, women who travel from rural areas frequently compare their experience at a tertiary facility with the limited resources available in many local clinics, making the services at UPTH appear more comprehensive and reassuring. These influences help clarify why age and residence emerged as meaningful factors in shaping satisfaction levels. Also, the role of income in predicting satisfaction also fits with the everyday realities of seeking care in a large referral hospital. Women with a stable or higher income tend to face fewer financial pressures related to transport, laboratory tests, or other costs that may accompany maternity care. With money being less of a concern, they are better positioned to focus on the quality of interactions with staff and the overall care process. They may also feel more comfortable raising concerns and participating actively in decisions, which can heighten their sense of being well cared for. In this context, it is understandable that economic stability contributes to more favourable evaluations of maternity services among clients receiving care at UPTH

Strengths And Limitations

The study although employing a probabilistic sampling approach and using standardized questionnaire (SERVQUAL questionnaire) for measuring quality is rigged with several limitations like the use of a crosssectional design which limits the cause-effect relationships outlined by logistic regression models. Also, the study included only a singular facility therefore limiting the generalizability of the report.

RECOMMENDATIONS

Following the outcome of the current research, hospital management should implement training for workers in maternity care to improve their promptness and responsiveness in attending to women utilizing services. Also, management should ensure staff improve in areas of information (record) management and other aspects like showing empathy vis-à-vis treating women with a warm and caring attitude and understanding women's specific needs to increase their trust and confidence in receiving care at the facility. Accordingly, the government should allocate more funds for research, and the revitalisation and upgrade of equipment and tools needed for proper maternity care. In furtherance, the government should develop and implement policies that front monitoring and evaluation of service quality, and foster healthcare worker improvement of their caring behaviours.

CONCLUSION

The quality of maternity care services as perceived by women was generally positive and is reflected in women's high levels of satisfaction with the care they received. The consistency between how women perceive care and how satisfied they feel suggests that many aspects of service delivery such as respectful communication, attentiveness of staff, and overall professional conduct are functioning well within the current system. These outcomes point to a maternity care environment that is largely meeting the expectations and needs of its users. Even with these encouraging results, maintaining and improving the quality of maternity care remains essential. Continuous efforts to strengthen supportive practices, remove barriers that limit access, and ensure that women receive care that is both equitable and responsive will help sustain the trust demonstrated in this study

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Authors Contribution

Helen, Ijeoma Asoluka: Conceptualization, data collection, article drafting Meredith, Chiwenkpe Asuru: Data analysis, interpretation, and article review and update

Conflict Of Interest

The researchers declare no conflicting interest

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Ethical Considerations

The research was approved by the University of Port Harcourt Teaching Hospital Research Ethics Committee (UPTH/ADM/90/S.II/VOL.XI/1721). Also, permission was sought from the Head of the Obstetrics and Gynaecology Department. Consent was sought from participants before data collection commenced. Privacy and confidentiality of participants information were ensured by using code numbers rather than personal identifying information, and storing data in password protected systems and locked cabinets. Also, the study accounted for beneficence, and participants were aware of the voluntariness of the participation.

Data Availability

Data is not publicly available due to participants consent criterion

REFERENCES

1. Amoah, V., Opoku, D. A., Ayisi-Boateng, N. K., Osarfo, J., Apenteng, G., Amponsah, O. K. O., OwusuDabo, E., Issah, S., & Mohammed, A. (2022). Determinants of maternal satisfaction with the quality of childbirth services in a university hospital in Kumasi, Ghana: A cross-sectional study. BioMed Research International, 2022(1), e9984113. https://doi.org/10.1155/2022/9984113
2. Ayalew, M. M., Nebeb, G. T., Bizuneh, M. M., & Dagne, A. H. (2021). Women's satisfaction and its associated factors with antenatal care services at public health facilities: A cross-sectional study. International Journal of Women's Health, 13, 279–286. https://doi.org/10.2147/IJWH.S2937251.
3. Banke-Thomas, A., & Ameh, C. A. (2019). WHO's quality of maternal and newborn care framework: is harmonisation of tools best? The Lancet Global Health, 7(7), e841. https://doi.org/10.1016/S2214109X(19)30203-7
4. 4 Charan, J., & Biswas, T. (2013). How to calculate sample size for different study designs in medical research? Indian Journal of Psychological Medicine, 35(2), 121–126. https://doi.org/10.4103/02537176.116232
5. Chris, A. O., James, G., & Okoduwa, S. I. R. (2019). Attitude towards Access and Utilisation of Maternal
6. Health Services by Women at Sabon-Gari Local Government Area, Kaduna, Nigeria. International Journal of Women's Health Care, 4(1). https://doi.org/10.33140/ijwhc.04.01.01
7. Fagbamigbe, A. F., & Idemudia, E. S. (2015). Assessment of quality of antenatal care services in Nigeria: Evidence from a population-based survey. Reproductive Health, 12(1), 1–9. https://doi.org/10.1186/s12978-015-0081-0
8. Jeremiah, I., Kasso, T., & Oriji, V. K. (2013). Patients' perception of antenatal care at the University of Port Harcourt Teaching Hospital. Nigerian Journal of Medicine, 21(1), 66 69.
9. John, C. O., & Alegbeleye, J. O. (2016). Pregnancy outcome in un-booked mothers at a tertiary health institution, South-South, Nigeria. Nigerian Journal of Medicine, 25(3), 294–300. https://doi.org/10.4103/1115-2613.279409
10. National Population Commission, & ICF. (2019). Nigeria Demographic Health Survey 2018. In The DHS Program. https://dhsprogram.com/publications/publication-fr359-dhs-final reports.cfm 9. Nnebue, C. C., Ebenebe, U. E., Adinma, E. D., Iyoke, C. A., Obionu, C. N., & Ilika, A. L. (2014). Clients' knowledge, perception and satisfaction with quality of maternal health care services at the primary health care level in Nnewi, Nigeria. Nigerian Journal of Clinical Practice, 17(5), 594–601. https://doi.org/10.4103/1119-3077.141425

11. Nwaexe, I. L., Enabor, O. O., Oluwasola, T. A. O., & 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(1), 22-28.
12. https://doi.org/10.4314/aipm.v11i1.
13. Ogaji, D. S. (2012). Setting agenda for quality improvement in a public hospital in Nigeria using the consumers' judgement. IOSR Journal of Business and Management, 1(4), 1–6. https://doi.org/10.9790/487x-0140106
14. Ogaji, D. S., Erugoh, I. C., Nkwogbo, E. I., Izuchukwu, O. I., & Mezie-Okoye, M. M. (2017). Perceived gaps in quality of antenatal care at some primary health centres in Obio Akpor, Nigeria. Niger Delta Medical Journal, 1(2), 19–31. https://pdfs.semanticscholar.org/22d9/a584b71c3cac6f52a90af4c94d5ae11fc3a6.pdf
15. Okagua, J., & Obikwu, U. (2017). Morbidity and mortality pattern of neonates admitted into the Special Care Baby Unit of University of Port Harcourt Teaching Hospital, Nigeria. East African Medical Journal, 94(4), 259–265.
16. Onyeonoro, U., Ukegbu, A., Emelumadu, O., Ezeama, N., Ifeadike, C., & Okezie, O. (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(2), 148. https://doi.org/10.4103/0300-1652.129653
17. Park, S., Yi, Y., & Lee, Y. (2018). Heterogeneous dimensions of SERVQUAL. Total Quality Management & Business Excellence, 1–27. https://doi.org/10.1080/14783363.2018.1531700
18. Potluri, R. M., & Angiating, G. (2018). A study on service quality and customer satisfaction in Nigerian healthcare sector. International Journal of Industrial Distribution & Business, 9(12), 7–14.
19. Tocchioni, V., Seghieri, C., De Santis, G., & Nuti, S. (2018). Socio-demographic determinants of women's satisfaction with prenatal and delivery care services in Italy. International Journal for Quality in Health Care, 30(8), 594–601. https://doi.org/10.1093/INTQHC/MZY078
20. Yarimoglu, E. K. (2016). A review on dimensions of service quality models. Journal of Marketing Management, 2(2), 79–93.