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Responsiveness of primary health care services in Nigeria: The patients' perspective

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Abstract

Health system responsiveness reflects the extent national health systems meet the legitimate expectations of patients. This study assessed the responsiveness of primary health care services in Nigeria from the clients' perspective. A cross-sectional survey of 379 participants were randomly selected from 7 centers from a sample frame of 20 primary healthcare centers. Descriptive results were presented in frequencies and percentages. The associations between the importance and performance ranking were examined using the Spearman's ranked correlation coefficient. Multivariate logistic regression was used to identify predictors of responsiveness with p -values ≤ 0.05 considered statistically significant. There were equal proportion of respondents aged <30 years and ≥ 30 years but more were female (95%), had attained less than the tertiary level of schooling (60.9%), and currently married (92.3%). The highest proportion of patients reported good responsiveness for dignity (81.8%) and least proportion for the choice of care provider (53.8%). Patient-level predictors of good responsiveness in relation to autonomy were younger age ($p = 0.003$) attainment of tertiary level of education ($p = 0.001$); tertiary education was associated with confidentiality ($p = 0.009$) and those who are not married with prompt attention ($p = 0.027$). Dignity, confidentiality, and prompt attention were identified as priority areas to focus in improving the responsiveness of primary healthcare services in Rivers State.

Keywords

Responsiveness, primary health care, patient-centered care, patient experience, patients' perspective, Nigeria

Background

The goal of any health system is not only to improve the health status of the population but also guarantee a fulfilling experience for clients' who interact with the system.^{1,2} Most health systems around the globe invest great efforts in meeting non-health factors which equally affect the well-being of the population they serve.³ The recent emphasis on responsiveness transcends the experience of personal health services delivered to individual patient to encompassing the entire interactions between the health system and those served by this system.²

The framework for measuring health systems' performance published about two decades ago was underpinned by the need to track improvements in health status, responsiveness, and fairness in financing of national health systems.² The aspect of responsiveness indicates the

extent the health system meets the population expectations for the non-health enhancing aspects of the system.² In this regards, countries are expected to develop strategies to improve the level and distribution of responsiveness as a means of achieving quality and equity in healthcare delivery.^{3,4,5}

The two domains that define the construct of responsiveness are respect for persons and client orientation. While the former comprises dignity, confidentiality and autonomy, the latter encompasses prompt attention, access to social support, choice of provider, and quality of basic amenities.³

Responsiveness comprises seven elements: *dignity* (the right to be treated as persons in their own right), *confidentiality* (the right to determine who has access to one's personal health information), *autonomy* (the right to participate in choices about one's health, helping to choose what

treatment to receive or not to receive), *prompt attention* (the right for immediate attention in emergencies and reasonable waiting time for non-emergencies), *social support* (the right for support from family and friends when receiving care), *basic amenities* (the right for cleanliness, space, and hospital food) and *choice of provider* (the right for specialist care and second opinions).^{3,6}

Primary health care systems over the years have undergone series of reforms designed to making the service more patient-centric and thus, improving its relevance and utilization by the population. Health System Responsiveness (HSR) entails the provision of services that meet the patients' preferences and are provided to satisfy their legitimate expectations.^{7,8} HSR is of interest to researchers since it measures the performance of the health systems in meeting the needs of clients and other stakeholders.^{5,9,10}

Where objective and structured mechanisms for effective monitoring of the performance of the local health systems are lacking especially in resource-constrained settings, assessing the perception of patients becomes a useful means of identifying system weaknesses and level of responsiveness.¹¹ Such assessments can provide useful insights into the quality of treatment, clients' dignity and role in decision making about care. It can also assess the clarity of communication, assurance on confidential, staff behavior. These are all possible because the health care environment influences patients' interaction with the healthcare facilities and their overall experience.³

There is growing evidence from developed and developing countries alike that when health systems are responsive to the needs, priorities, and expectations of patients, the patients become more adherent to treatment, are more willing to provide relevant information to their health care provider and increase their patronage of the available services.¹¹⁻¹⁶ It is therefore pertinent to align health services to the need and preferences of the health consumers which defines the level of responsiveness of the system.^{3,5}

While Primary Health Care (PHC) aims to assure access, quality and equity in the distribution of healthcare resources to the population.¹⁷ These ideals still elude a substantial proportion of the population in resource-constrained settings like Nigeria.^{18,19} Furthermore, would-be beneficiaries are often not involved in the design and implementation of healthcare interventions – a situation that is exacerbated by the high level of ignorance amongst users of their rights to accessing quality healthcare.²⁰ The persisting imbalance in supply and demand for PHC services have negative implications on health system's goals of improving health and responsiveness. Since PHC systems are designed to meet the needs and expectations of the users, exploring patients' perspective of the system's

responsiveness can provide useful insights into gaps that can be remedied by stakeholders. This study examined the patients' perspective of the responsiveness of PHC services in Obio-Akpor local government area of Rivers state.

Methods

Study area

This study was conducted in the Obio-Akpor local government area, Rivers State Nigeria. Obio-Akpor is a major center of the economic boom in Nigeria, and a part of the Niger Delta, located in Rivers State. The local Government Area covers 260km² and a census done in 2006 counted a population of 878,890. The headquarters of Obio-Akpor is at Rumuodomaya. The indigenous inhabitants of the area are the Ikwerre people.

Obio-Akpor is located between latitudes 4⁰ 45¹N and 4⁰60¹N and longitudes 6⁰50¹E and 8⁰00¹E. It is bounded by Oyiabo to the east, Emohua to the west, Port Harcourt (local government area) to the south, and Ikwerre to the north. The local government has 20 functional Primary Health Centers, several private health facilities, secondary health facilities, and a federal tertiary hospital.

Study Design

This descriptive cross-sectional study assessed the responsiveness of primary health care services amongst users in Obio-Akpor Local Government Area using the World Health Organization responsiveness framework.

Study Population

The study population consisted of adult PHC users in Obio-Akpor Local Government. Clients who were included in this study if they received ambulatory care at the primary health centers. Those who were extremely ill at the time of the survey, first-timers to the health center, or those who refused to give their consent to participate in the study were excluded.

Sampling

The sample size was determined using Fischer formula²¹

$$n = \frac{z^2 pq}{d^2}$$

Where: n = desired sample size; z = the standard normal deviate, usually set at 1.96 which corresponds to 95% confidence interval; p = estimated proportion (55.3%) of patients who considered the services in a tertiary health facility responsive in Enugu, South East Nigeria.²²

Simple random sampling by ballot was used to select 7 centers from a sample frame of the 20 primary health care centers in Obio-Akpor Local Government Area. All eligible population who attended the health care center on each day of our data collection were eligible for selection.

Data collection instrument and variables

The survey mode was a self-administered questionnaire. The investigators, however, administered the questionnaire to those who could not independently fill it out, (for example, due to illiteracy). The WHO devised the key-informant survey study containing sections specifically designed to measure responsiveness.⁶ Although, this was designed for collecting data in any country, some minor modifications such as the addition of a question to elicit the respondent’s ethnic group were made to make it more applicable to the Nigerian context. The wording and order of the questions were kept as close to the original as possible to maintain a high level of validity.

The questionnaire comprised of three sections with the first used to elicit participants ‘socio-demographic characteristics’. The second is a multi-item scale to assess their experiences on each of the six domains used to measure responsiveness. The third asked them to rank the importance of the 6 domains based on the priority of each to them.

The second and third parts of the questionnaire have different questions in order to capture the respondent’s opinion on the various domains of responsiveness.² The response options were: ‘always’, ‘usually’, ‘sometimes’, and ‘never’. However, the response options in assessing their overall opinion on each domain were ‘very good’, ‘good’, ‘poor’, and ‘very poor.’

Data Analysis

The data obtained were analyzed with the statistical package for social science (SPSS) version 21.²³

The suitability of the questionnaire used was assessed based on its acceptability which was estimated by the questionnaire and item response rates. The reliability of the questionnaire was assessed by the Cronbach’s alpha which measured the internal consistency between variables. The internal consistency was assumed with Cronbach’s alpha coefficient >0.7. The socio-demographic characteristics were analyzed by calculating the frequency and relative frequency of each socio-demographic characteristic.

The respondents’ experiences of the items and domains representing the construct of responsiveness were analyzed by calculating the frequency and relative frequencies of the various responses. The importance ranks assigned to the domains were reverse such that 6 represented the highest rank and 1 the lowest. The median and interquartile ranges of the domain ranking on the importance and perceived performance were computed. The associations between these variables were assessed by the Spearman’s ranked correlation coefficient. The correlation coefficient (r_s) which can assume any value between +1 to -1 represents the strength and direction of their linear relationship. As the dependent variable (responsiveness) is dichotomous, the relationship between the domains of responsiveness and socio-demographic characteristics was analyzed using multivariate logistic regression with categorical predictors. The logistic regression equation for predicting the dependent variable from the independent variable was

$$\log \left(\frac{p}{1 - p} \right) = b_0 + b_1 * x_1 + b_2 * x_2 + \dots + b_n * x_n$$

Where p is the probability of a positive feedback on the domains of responsiveness, b_0 is the constant and b_1, b_2, \dots, b_n are the coefficient of the various predictor variables. A p-value ≤ 0.05 was considered statistically significant. The multivariate model showed the increase or decrease in the predicted log odds of responsiveness = 1 that would be predicted by the shift from the referent category to the other category of an independent variable keeping the other independent variables constant.

Results

Overall, a total of 379 out of the 399 participants who accepted to participate in this study provided valid responses which gave a response rate of 90.2%. The Cronbach’s alpha for the 24-item responsiveness scale was 0.69. There are about an equal proportion of respondents below the age of 30 years and 30 years and above. Most of the respondents were female (95%), with less than the tertiary level of schooling (60.9%) and currently married (92.3%) as shown in Table 1.

From Table 2, more of the respondents reporting consistent good experiences in relation to assurance with the privacy provided during their interaction with the health workers (60.2%), assurance that their clinical

Table 1. Socio-demographic characteristics (n = 379)

Characteristics	Category	Frequency (n)	Percentage (%)
Age	<30	192	50.7
	≥30	187	49.3
Sex	Female	360	95.0
	Male	19	5.0
Education	Less than tertiary	231	60.9
	Tertiary	148	39.1
Marital status	Currently married	350	92.3
	Not currently married	29	7.7

information will be treated with confidentiality (54.6%), respect by clinical staff (48.8%) and respect by other staff in the facility (48.2%). The least consistent good experiences were reported with the chance to choose specific health providers (15.6%) and cleanliness of the toilets in these facilities (16.6%).

The proportion of the respondents reporting good experiences of the various responsiveness domains were highest for dignity (81.8%), confidentiality (77.1%) and autonomy (73.6%). The least was the choice of care provider (53.8%) as shown in Table 3.

Table 4 shows that the highest median importance ranking of 5 out of a range of 1 to 6 was observed with dignity and the least of 3 was shared by autonomy, quality of basic amenities, and chance to choose providers. The level of dispersion was highest with dignity, autonomy, and quality of basic amenities. The median performance rating of these domains was similar at 3 out a range of 1 to 4. The strength of the association between the importance and performance rating was observed to be weak and statistically insignificant except for dignity ($p = 0.012$) and confidentiality ($p = 0.013$).

The percentage of correct predictions of the multivariate logistics regression models in Table 6 ranged from 56.5% (choice of providers) to 81.8% (dignity). Significant associations with good responsiveness were found for age and marital status for autonomy, educational status with confidentiality and marital status with prompt attention. In this regard, respondents <30 years of age were 2 times more likely to report good autonomy compared to those ≥ 30 years (OR: 2.07, 95% CI: 1.28, 3.35; $p=0.003$). The odds of reporting good experience of autonomy (OR: 0.42, 95% CI: 0.25 – 0.70; $p=0.001$) or confidentiality (OR = 0.49; 95%CI: 0.29 – 0.84; $p = 0.009$) among patients with less than tertiary level of schooling is significantly less than the odds reported in those who had attained at least tertiary education. Those not currently married were about three times more likely to report experiencing prompt attention (OR = 2.91; 95%CI: 1.13 – 7.50; $p = 0.027$) than those who are married.

Table 2. Respondents experiences of the Responsiveness sub-domains (n = 379)

Responsiveness Components	Always n (%)	Usually n (%)	Sometimes n (%)	Never n (%)
Dignity				
Treated respectfully by clinical staff	185(48.8)	113 (29.8)	74 (19.5)	7 (1.8)
Treated respectfully by other workers	183 (48.3)	96 (25.3)	95 (25.1)	5 (1.3)
Privacy during treatment	228 (60.2)	91(24.0)	52 (13.7)	8 (2.1)
Autonomy				
Information on alternative treatments	132 (34.8)	111 (29.3)	115 (30.3)	21 (5.5)
Involvement in decision making	131 (34.5)	95 (25.1)	127 (33.5)	26 (6.9)
Sought consent before testing or treating	164 (43.3)	90 (23.7)	98 (25.9)	27 (7.1)
Confidentiality				
Confidential with patient information	207 (54.6)	78 (20.6)	74 (19.5)	20 (5.3)
Privacy during consultation	183 (48.3)	94 (24.8)	86 (22.7)	16 (4.2)
Quality Of Basic Amenities				
Cleanliness of the health center	123 (32.5)	207 (54.6)	36 (9.5)	13 (3.4)
Access to clean water in the health center	87 (23.0)	229 (60.4)	51 (13.5)	12 (3.2)
Maintenance of the center’s building	106 (28.0)	214 (56.5)	42 (11.1)	17 (4.5)
Adequacy of furniture in the center	100 (26.4)	217 (57.3)	52 (13.7)	10 (2.6)
Cleanliness of toilets in the health center	63 (16.6)	206 (54.4)	82 (21.6)	28 (7.4)
Prompt Attention				
Reasonable waiting time before treatment	90 (23.7)	118 (31.1)	146 (38.5)	25 (6.6)
Quick access to emergency care	109 (28.8)	98 (25.9)	135 (35.6)	37 (9.8)
Waiting above appointed time	74 (19.5)	105 (27.7)	153 (40.4)	47 (12.4)
Choice Of Care Provider				
Opportunity to choose health provider	59 (15.6)	75 (19.8)	109 (28.8)	136 (35.9)
Chance of seeing preferred provider	77 (20.3)	97 (25.6)	145 (38.3)	60 (15.8)

Table 3. Respondent's overall experiences on domains of responsiveness (n = 379)

Responsiveness domains	Very good/good Freq (%)	Moderate/bad Freq (%)
Dignity	310 (81.8)	69 (18.2)
Autonomy	279 (73.6)	100 (26.4)
Confidentiality	292 (77.0)	87 (23.0)
Quality of basic amenities	257 (67.8)	122 (32.2)
Prompt attention	228 (60.2)	151 (39.8)
Choice of the care provider	204 (53.8)	175 (46.2)

Table 4. Association between respondents' rating of importance and performance of responsiveness domains

Domains	Importance (range 1 -6)	Performance (range 1 -4)	Association	p-value
	Median (IQR)	Median (IQR)	r	
Dignity	5 (3)	3 (1)	0.13	0.012
Autonomy	3 (3)	3 (2)	-0.05	0.360
Confidentiality	4 (2)	3 (1)	0.13	0.013
Quality of basic amenities	3 (3)	3 (1)	0.03	0.580
Prompt attention	4 (2)	3 (1)	0.04	0.410
Choice of care	3 (2)	3 (1)	0.05	0.383

r- Spearman's rho correlation coefficient, IQR – interquartile range

Discussion

Patients gave positive ratings on the level of privacy and confidentiality. The lowest ratings were on their chance of choosing healthcare providers and the state of the toilets in the PHC facilities. Younger patients and those with higher level of education gave higher rating on autonomy while those with higher level of education reported significantly higher odds of being happy with the level confidentiality in the handling of their health records. The unmarried patients were significantly more pleased with the promptness in receiving attention from the health workers.

The rating of respect for the dignity of clients/patients emerged the highest among the six elements of responsiveness assessed in this study. This corroborates previous findings from South Africa, where respect for the dignity of individuals was reported among the top 3 areas of responsiveness.^{4,24} Furthermore, respect for clients' privacy topped the chart of the three items analyzed under dignity. Patients were more pleased with the level of privacy than the degree of respectfulness shown by health care providers. The consideration of respect for persons, however, scored lower in a study done in Qatar, where it came third in the hierarchy.²⁵ An earlier qualitative exploration of patients' expectations from PHC in Nigeria revealed that respect and show of courtesy to the patient

by health workers generated a conducive atmosphere for communication, enhanced treatment outcome and improved patient experiences.²⁶

From the WHO Key Informant Survey in 2000, the poorer patients gave lower responsiveness ratings in countries surveyed because of some level of discrimination by health workers against persons from lower social classes and those from certain races.² Although respondents in this study gave a high rating on respect for patients by health workers, the non-disaggregation of the data along wealth strata of the patients made it impossible to demonstrate if patients were indeed treated equally well irrespective of their economic status.

Confidentiality was the second topmost responsive elements behind dignity and this corroborates earlier reports^{4,27} Patients rating on confidentiality was highest among the domains of responsiveness assessed in an Ethiopian⁸ and an earlier Nigerian study.²⁸ This earlier Nigerian study was done among insured patients.²⁸ The preponderance of the patients in this setting pay for their healthcare at the point of access because of the low coverage of private and social health insurance.^{29,30} It was inferred that countries or areas that performed best in confidentiality probably lack private insurance which expects providers to divulge confidential information on their patients to third parties.² While the validity of the high rating on privacy can be appreciated from fact that

patients are aware of the setting where consultations are held. Indeed, most consultations in PHC are conducted in cubicles and consulting rooms and not in the open space. The patient assessment of confidentiality is different from that of privacy as patients may not be aware of how their health records are managed. This situation is even worse with the predominantly used paper-based records where those who accessed patient confidential information cannot be effectively tracked.

Primary health centers were observed to perform poorly in the provision of prompt attention to clients. While this attribute of responsiveness only surpassed the poorer rating on choice of care provider, it corroborates findings from studies on health system responsiveness from other settings. Studies in South-Africa and Qatar for example, reported poor ratings for prompt attention.^{24,25} There are instances where patients have to wait several hours before getting attention because of the unavailability of the health workers on duty.^{31,32} It is not uncommon for patients to experience delays when they seek care from public health facilities as most of these facilities do not run an appointment system. Without an appointment, most patients will arrive at the health facility about the same time and earlier than the time of commencement of daily consultation.²⁶ The delay caused by inefficient patient flow management is compounded by the relatively few health workers available to attend to them.

There is an inverse relationship between duration of waiting time and patient level of satisfaction.^{26,33} However, such delays are not the only causes of patient dissatisfaction at the first level of care. Other reported causes of patients' dissatisfaction include the feeling of being ignored, the manner services are delivered and the payment process.^{2,34,35}

The privilege of choosing care providers was poorly rated among the elements of responsiveness in this and several other studies.^{11,25,27,36} This is apparent from the low density

of the health workforce in developing countries, the attitude of some workers and the poor supervisory systems in health organisations. These factors have been reported to strongly correlate with health outcomes and coverage for essential health interventions.³⁸ While most PHC patients in resource-constrained settings desire consult with physicians or be able to talk privately to health providers, it is still considered a luxury to see a doctor of choice as obtainable in wealthier settings.^{25,26} Similarly, the choice of providers received low importance ranking based on patients' realization of the insufficient availability of caregivers for the numerous seekers of PHC services – a situation that also limits the rights of patients to demand to see specific providers.

It is not surprising that many patients were unhappy with the state of the toilet in the health centers as an earlier assessment of the structural quality of PHC in this setting reported that 78% of health centers have poor toilet facilities. Additionally, many PHC facilities experience inadequate supply of water and electricity which are essential amenities to guarantee clean and safe toilets in health centers.^{38,39} Improving this scenario will require attention being given to the structural quality of PHC systems, decentralization of management and provision of line budget for the maintenance of PHC centres.

Age, educational level, and marital status significantly predicted good responsiveness for autonomy, confidentiality, and prompt attention. An earlier study in Nigeria showed educational and marital status to be significantly associated with health system responsiveness.²⁸ While the study conducted by Baharvand²⁷ showed a significant association between age groups and two dimensions of responsiveness, and that is social support and dignity, our present study only showed a significant association of age groups with autonomy (Table 5).

Table 5. Socio-demographic factors (SDC) associated with good responsiveness in PHC using multivariate logistic regression (n = 379)

Independent Variable	Responsiveness Domains					
	Dignity	Autonomy	Confidentiality	Quality of basic amenities	Prompt attention	Choice of the care provider
	OR (p-value)	OR (p-value)	OR (p-value)	OR (p-value)	OR (p-value)	OR (p-value)
Age - ≥30yrs	1	1	1	1	1	1
<30yrs	1.58 (0.093)	2.07 (0.003)*	1.54 (0.087)	1.48 (0.084)	1.21 (0.386)	1.15 (0.518)
Sex – male	1	1	1	1	1	1
-Female	0.96 (0.940)	1.05 (0.929)	0.97 (0.951)	0.38 (0.138)	1.36 (0.539)	0.88 (0.790)
Edu – tertiary	1	1	1	1	1	1
<tertiary	0.76 (0.328)	0.42 (0.001)*	0.49 (0.009)*	1.38 (0.157)	1.47 (0.077)	1.33 (0.180)
Marital - mar	1	1	1	1	1	1
Not married	0.65 (0.346)	1.70 (0.307)	0.87 (0.765)	1.39 (0.056)	2.91 (0.027)*	1.23 (0.605)

*Statistically significant (p<0.05); OR – Odds Ratio; Edu – Level of Education; Mar - Married

This study did not demonstrate a significant relationship between sex of the patient and the dimensions of responsiveness, which was consistent in earlier studies conducted by Baharvand,²⁷ Fazaeli et al⁴⁰ and Rashidian,⁴¹ but contrast with the findings of Mohammadi,⁴² Sajjadi⁴³ and Ughasoro.²² One of these latter studies reported association between the sex of the patients and key domains of responsiveness - and autonomy, prompt attention, quality of basic amenities and prompt attention.²² While this study had a disproportionate representation of male respondents with respect to the national population structure,⁴⁴ this skewed pattern reveals the demographic characteristics of users of PHC in this setting.

Respondents with tertiary education were twice more likely to report good autonomy and good confidentiality. The finding from a multi-country study⁵ and another from Iran⁴³ corroborated our finding of a direct relationship between the population level of education and feedback on the responsiveness of the health system. Although, this study included only frequent users of PHC services, it remains unclear if the observed relationship between education and perceived performance of the PHC system on autonomy and confidentiality mainly reflects their perception and not evidence of a discriminatory attitude of health care providers to their patients based on their socioeconomic status.

The demographics differentiation by gender and marital status shows that female and the unmarried reported better experience of receiving prompt attention during visit to the health center. Patient experience is commonly seen as a product of the individual's value system and the entirety of his/her interaction with the system. The reported pattern indicates that the married women with higher burden of domestic and other engagements may benefit more from the introduction of patient appointment system that will significantly reduce the time they spend in the health center and subsequently improve their experience.

Strengths and limitations of the study

This study measured a poorly recognized yet critically important aspect of healthcare in this setting. The observed gender asymmetry among the study population may limit the generalization of the findings. The paucity of literature on responsiveness of PHC systems in this setting to compare with the findings of this study, makes this study a useful addition. A common limitation in studies like this is that the subjective rating of a system's attributes is value-laden and often influenced by personal and external factors. Finally, the cross-sectional nature of the study limits making causal inferences on statistical association reported from the data analyses.

Implications of the findings

There are important implications of the findings of this study for future research, policy, and practice. Patient-reported experience after encounter with healthcare is a valid way of diagnosing problems and refocusing healthcare delivery to the needs and preferences of the patient. The estimation of gaps in responsiveness of local PHC system is useful to practitioners and decision-makers who require such baselines for service design, improvement and innovation. It is also pertinent for policy and decision-makers to institutionalize periodic survey of health system responsiveness as a prelude to continuous improvement in the social relevance of the PHC systems to attain universal health coverage. This imperative is borne out of the fact that patients' expectations like most other needs change with the vagaries and vicissitude of life. The need to improve the responsiveness of PHC is critically important in Nigeria because a large proportion of the population access healthcare from primary health centers.

Conclusions

The most important aspects of responsiveness from the patients' perspective were dignity and confidentiality. The most positive feedback on responsiveness was in relation to privacy during consultations while the worst was the chance to choose their health care providers. It is pertinent to align PHC systems to users' expectations; as such, policymakers and practitioners should accept this challenge to making PHC services more responsive to the needs, preferences, and expectations of the users.

Conflict of interest

None declared.

Authors' contributions

All authors were involved in the conceptualization, planning, and implementation of the study. All authors contributed to the interpretation of the results, read, and approved the final manuscript.

References

1. World Health Organization. A vision for health care in the 21st Century. Vol. 46, World Health Organization. 1999. Available from: http://www.who.int/docs/default-source/primary-health/vision.pdf?sfvrsn=c3119034_2
2. World Health Organization. The world health report 2000 – Health systems: improving performance. Vol. 78, Bulletin of the World Health Organization. 2000.
3. Darby C, Valentine N, De Silva A MC. World Health Organization (WHO): strategy on measuring responsiveness. GPE Discussion Paper Series no. 23, 2003. Available from:

- <https://www.who.int/responsiveness/papers/paper23.pdf>
4. Luo Q, Wang Q, Lu Z, Liu J. Evaluation of Responsiveness of Community Health Services in Urban China: A Quantitative Study in Wuhan City. *PLoS One*. 2013;8(5):e62923.
 5. Robone S, Rice N, Smith PC. Health systems' responsiveness and its characteristics: A cross-country comparative analysis. *Health Serv Res*. 2011;46(6 PART 2):2079–100.
 6. Mirzoev T, Kane S. What is health systems responsiveness? Review of existing knowledge and proposed conceptual framework. *BMJ Glob Heal*. 2017;2(4):1–11.
 7. Campbell SM, Roland MO, Buetow SA. Defining quality of care. *Soc Sci Med*. 2000;51(11):1611–25.
 8. Fan VS, Burman M, McDonell MB, Fihn SD. Continuity of care and other determinants of patient satisfaction with primary care. *J Gen Intern Med*. 2005;20(3):226–33.
 9. Liabsuetrakul T, Petmanee P, Sanguanchua S, Oumudee N. Health system responsiveness for delivery care in Southern Thailand. *Int J Qual Heal Care*. 2012;24(2):169–75.
 10. Atun R, Jaffar S, Nishtar S, Knaul FM, Barreto ML, Nyirenda M, et al. Improving responsiveness of health systems to non-communicable diseases. *Lancet*. 2013;381(9867):690–7.
 11. Yakob B, Ncama BP. Measuring health system responsiveness at facility level in Ethiopia: Performance, correlates and implications. *BMC Health Serv Res*. 2017;17(1):263.
 12. Aharony L, Strasser S. Patient satisfaction: what we know about and what we still need to explore. *Med Care Rev*. 1993;50(1):49–79.
 13. Ware JE, Snyder MK, Wright WR, Davies AR. Defining and measuring patient satisfaction with medical care. *Eval Program Plann*. 1983;6(3–4):247–63.
 14. Murante AM, Seghieri C, Vainieri M, Schäfer WLA. Patient-perceived responsiveness of primary care systems across Europe and the relationship with the health expenditure and remuneration systems of primary care doctors. *Soc Sci Med*. 2017;186:139–47.
 15. Bleich SN, Ozaltin E, Murray CJL. How does satisfaction with the health-care system relate to patient experience? *Bull World Health Organ*. 2009;87(4):271–8.
 16. Kapologwe NA, Kibusi SM, Borghi J, Gwajima DO KA. Assessing health system responsiveness in primary health care facilities in Tanzania. *BMC Health Serv Res*. 2020;20(1):104.
 17. Hall JJ, Taylor R. Health for all beyond 2000: The demise of the Alma-Ata Declaration and primary health care in developing countries. *Med J Aust*. 2003;178(1):17–20.
 18. Abdulraheem I. S. Primary health care services in Nigeria: Critical issues and strategies for enhancing the use by the rural communities. *J Public Heal Epidemiol*. 2012;4(1):5–13.
 19. Oladapo OT, Iyaniwura CA, Sule-Odu AO. Quality of antenatal services at the primary care level in southwest Nigeria. *Afr J Reprod Health*. 2008;12(3):71–92.
 20. Haddad S, Fournier P. Quality, cost and utilization of health services in developing countries. A longitudinal study in Zaïre. *Soc Sci Med*. 1995;40(6):743–53.
 21. Araoye MO. Research methodology with statistics for health and social sciences. Ilorin: Nathadex Publisher. 2003 Mar;115(9):25-120.
 22. Ughasoro MD, Okanya OC, Uzochukwu BSC, Onwujekwe OE. An exploratory study of patients' perceptions of responsiveness of tertiary health-care services in Southeast Nigeria: A hospital-based cross-sectional study. *Niger J Clin Pract*. 2017;20(3):267–73.
 23. SPSS I. IBM SPSS statistics version 21. Boston, Mass: International Business Machines Corp. 2012;126.
 24. Peltzer K. Patient experiences and health system responsiveness in South Africa. *BMC Health Serv Res*. 2009;9:117 – 29.
 25. Ali FMH, Nikoloski Z, Reka H. Satisfaction and responsiveness with health-care services in Qatar-evidence from a survey. *Health Policy (New York)*. 2015;119(11):1499–505.
 26. Ogaji D, Asuquo E, Ordinioha B. What does quality mean to the patient? An exploration of the expectations of patients for primary health care in Nigeria. *The Nigerian Health Journal*. 2016; 16(4): 257 – 276.
 27. Baharvand P. Responsiveness of the health system towards patients admitted to west of Iran hospitals. *Electron J Gen Med*. 2019;16(2):1–7.
 28. Mohammed S, Bermejo JL, Souares A, Sauerborn R, Dong H. Assessing responsiveness of health care services within a health insurance scheme in Nigeria: Users' perspectives. *BMC Health Serv Res*. 2013;13(1):502.
 29. Ogaji D, Brisibe SF. The Nigerian Health Care System: Evolution, contradictions and proposal for future debates. *Port Harcourt Medical Journal*. 2015; 9(Suppl): 79 – 88.
 30. Adesina AD, Ogaji DS. Out-of-pocket payment for healthcare and implications for households: situational analysis of Yenagoa, Bayelsa State. *Journal of Community Medicine and Primary Health Care*. 2020; 32(1): 1-16
 31. Akin JS, Hutchinson P. Health-care facility choice and the phenomenon of bypassing. *Health Policy Plan*. 1999;14(2):135–51.
 32. Asekun-Olarinmoye EO, Bamidele JO, Egbewale BE, Asekun-Olarinmoye IO, Ojofeitimi EO. Consumer assessment of perceived quality of antenatal care services in a tertiary health care institution in Osun State, Nigeria. *J Turkish Ger Gynecol Assoc*. 2009;10(2):89–94.

33. Ogaji DS, Mezie-Okoye MM. Waiting time and patient satisfaction: Survey of patients seeking care at the general outpatient clinic of the University of Port Harcourt Teaching Hospital. *Port Harcourt Med J* 2017;11:148-55.
34. Valentine N, Darby C, Bonsel GJ. Which aspects of non-clinical quality of care are most important? Results from WHO's general population surveys of "health systems responsiveness" in 41 countries. *Soc Sci Med.* 2008;66(9):1939–50.
35. Ogaji DS, Giles S, Daker-White G, Bower P. Findings and Predictors of Patient-Reported Experience of Primary Health Care in Nigeria. *Journal of Patient Experience.* 2016 Sep;3(3):69-80
36. Adesanya T, Gbolahan O, Ghannam O, Miraldo M, Patel B, Rishi Verma RV, et al. Exploring the responsiveness of public and private hospitals in Lagos, Nigeria. *J Public health Res.* 2012;
37. Anyangwe, S. C., & Mtonga, C. (2007). Inequities in the global health workforce: the greatest impediment to health in sub-Saharan Africa. *International journal of environmental research and public health*, 4(2), 93-100
38. Mohammed A, Idowu I, Kuyinu Y. Structure of primary health care: lessons from a rural area in South-West Nigeria. *Niger J Clin Med.* 2010;3(1):17-24.
39. Ogaji DS. Patient-focused quality improvement in primary health care: Opportunities with the Patient Evaluation Scale. *Journal of Community Medicine and Primary Health Care* 2017; 29 (2):84 – 96
40. Fazaeli S, Yousefi M, Banikazemi SH, Ghazizadeh Hashemi SAH, Vakilzadeh AK, Hoseinzadeh Aval N. Importance of Client Orientation Domains in Non-Clinical Quality of Care: A Household Survey in High and Low Income Districts of Mashhad. *Glob J Health Sci.* 2015; 8(7):228 – 234.
41. Rashidian A, Kavosi Z, Majdzadeh R, Pourreza AG, Pourmalek F, Arab M, et al. Assessing health system responsiveness: A household survey in 17th district of Tehran. *Iran Red Crescent Med J.* 2011;
42. Mohammadi A, Kamali K. Patients' Perspectives on Responsiveness in Outpatient Clinics of Hospitals at Zanzan University of Medical Sciences. *Prev Care Nurs Midwifery J.* 2015;5(1):80–92.
43. Sajjadi F, Moradi-Lakeh M, Nojomi M, Baradaran HR, Azizi F. Health system responsiveness for outpatient care in people with diabetes Mellitus in Tehran. *Med J Islam Repub Iran.* 2015;29(1):1136–49.
44. National Population Commission. National census report. Abuja, Nigeria: National Population Commission; 2006.