



Modeling the drivers of patient satisfaction and trust in public health facilities in Nigeria using Structural Equation Modeling

Anita Eneajo Ocheje

School of Public Health, Texila American University, Georgetown, Guyana

Abstract

Purpose: The study examined the drivers of patient trust in public health facilities in Nigeria by investigating the relationships between service quality, patient satisfaction, and healthcare provider communication. The aim was to understand how these factors influence patients' confidence in healthcare services and identify areas for improving service delivery.

Methodology/Design: A cross-sectional survey design was employed, targeting 400 patients across selected public health facilities. Data were collected using structured questionnaires and analyzed using Structural Equation Modeling (SEM). Reliability and validity tests ensured measurement consistency, while descriptive and correlation analyses provided preliminary insights into variable relationships.

Findings: The results revealed that patient satisfaction significantly influenced patient trust ($\beta = 0.61, p < 0.01$). Service quality positively affected patient satisfaction ($\beta = 0.64, p < 0.01$), and healthcare provider communication had a significant positive effect on patient trust ($\beta = 0.58, p < 0.01$). All hypothesized relationships were supported, highlighting the critical role of service experience and communication in shaping trust.

Implications: The study underscores the importance of improving service quality, enhancing provider-patient communication, and addressing patient expectations to foster trust in public health facilities. Policymakers and healthcare managers can use these insights to design patient-centered interventions and quality improvement strategies.

Originality/Value: This research integrates Expectation–Confirmation Theory, Service Quality Theory, and Social Exchange Theory to provide empirical evidence on trust determinants in Nigerian public healthcare, offering insights for both theory and practice.

Keywords: Patient satisfaction, patient trust, service quality, healthcare communication, public health facilities, Nigeria

Introduction

Public health facilities play a key role in meeting the healthcare needs of the Nigerian population. These facilities are expected to provide affordable, accessible, and quality healthcare services, especially for low- and middle-income households. Over the years, the Nigerian government has invested in public hospitals, primary healthcare centers, and health policies aimed at improving service delivery. Even so, many patients still report mixed experiences when accessing public health services, ranging from long waiting times and poor communication to inadequate infrastructure and staff attitudes (Akinwale & George, 2020; Alenoghena *et al.*, 2022) [2, 4].

Patient satisfaction has become an important indicator for evaluating healthcare performance across the world. It reflects how patients perceive the quality of care they receive, including responsiveness, empathy, professionalism, and efficiency. Closely linked to satisfaction is patient trust, which refers to patients' confidence in healthcare providers and the health system as a whole. Trust influences patients' willingness to follow medical advice, return for future care, and recommend health facilities to others (Ozawa & Sripad, 2019; Olarinoye *et al.*, 2023) [25, 26].

In Nigeria, public health facilities operate in a complex environment shaped by resource constraints, high patient loads, workforce shortages, and governance challenges. These conditions often affect service quality and patient experiences. Studies conducted in different parts of Nigeria show that factors such as service quality, provider competence, communication, perceived fairness, and facility

environment influence how patients evaluate public healthcare services (Adebayo *et al.*, 2021; Salisu *et al.*, 2024) [1, 29]. However, these factors do not operate in isolation. Instead, they interact in ways that shape both satisfaction and trust at the same time.

Structural Equation Modeling (SEM) offers a robust analytical approach for examining such complex relationships. SEM allows researchers to test multiple relationships among observed and latent variables within a single model. This makes it suitable for understanding how service quality dimensions, provider behavior, institutional factors, and patient perceptions jointly influence satisfaction and trust. While SEM has been widely used in health research globally, its application in modeling patient satisfaction and trust within Nigeria's public health sector remains limited (Hair *et al.*, 2022) [19].

Against this background, this study seeks to model the key drivers of patient satisfaction and trust in public health facilities in Nigeria using Structural Equation Modeling. By focusing on patients' lived experiences and perceptions, the study aims to provide a clearer picture of how different service-related factors combine to shape overall healthcare evaluations.

Problem Statement

In spite of the continuous reforms and investments in Nigeria's public health system, patient dissatisfaction and declining trust remain persistent concerns. Many patients continue to express frustration with poor service delivery, weak communication, perceived neglect, and lack of accountability in public health facilities. These challenges

contribute to low utilization of public healthcare services, increased reliance on private facilities, and self-medication practices, which may pose serious health risks (Aregbeshola & Khan, 2019; Onwujekwe *et al.*, 2020).

Existing studies on patient satisfaction in Nigeria often examine isolated factors such as waiting time, staff attitude, or infrastructure. While these studies provide useful insights, they fail to capture the interconnected nature of healthcare experiences. In many cases, satisfaction and trust are treated as separate outcomes, even though trust is often built through repeated satisfactory experiences. This fragmented approach limits understanding of how multiple service dimensions work together to influence patients' overall judgments.

Furthermore, there is limited empirical evidence using advanced analytical techniques such as Structural Equation Modeling to explain these relationships within Nigeria's public health context. The absence of comprehensive models makes it difficult for policymakers and hospital managers to identify priority areas for intervention. Without clear evidence on the most influential drivers of satisfaction and trust, improvement efforts may remain inefficient and poorly targeted.

As a result, there is a clear need for a study that applies SEM to model the drivers of patient satisfaction and trust in Nigerian public health facilities. Addressing this gap will support evidence-based decision-making and contribute to improved healthcare delivery outcomes.

Significance of The Study

The study holds value at several levels. At the academic level, it contributes to healthcare and service management literature by offering an integrated model of patient satisfaction and trust within a developing country context. The use of Structural Equation Modeling provides deeper insights into both direct and indirect relationships among key variables, thereby strengthening empirical understanding of patient-centered healthcare evaluation.

From a policy perspective, the findings will offer practical guidance for health policymakers and regulators in Nigeria. Thus, in identifying the most critical drivers of satisfaction and trust, the study can inform health sector reforms, resource allocation, and performance monitoring frameworks. Evidence from the study may also support the design of patient-focused policies that enhance confidence in public health institutions.

For healthcare managers and practitioners, the study provides actionable insights into areas requiring attention, such as staff-patient communication, service responsiveness, and facility conditions. Improving these areas can lead to better patient experiences, stronger trust, and increased utilization of public health services.

At the societal level, enhancing patient satisfaction and trust contributes to improved health-seeking behavior, treatment adherence, and health outcomes. When patients trust public health facilities, they are more likely to engage with the health system early and consistently, which supports broader public health goals.

Literature Review: Theoretical Underpin and Hypotheses Development

Patient satisfaction and trust are widely recognized as key outcomes of effective healthcare delivery. In public health facilities, these outcomes are shaped by patients' service

experiences, perceptions of quality, and interactions with healthcare providers. This study is grounded in Expectation-Confirmation Theory, Service Quality Theory, and Social Exchange Theory, which together explain how satisfaction and trust are formed in healthcare settings. Prior studies are also reviewed to support the proposed hypotheses.

Patient Satisfaction and Trust

Expectation-Confirmation Theory explains satisfaction as the result of comparing expected service with actual service received. When patients perceive that healthcare services meet or exceed their expectations, satisfaction improves. In public health facilities, expectations often relate to waiting time, staff attitude, availability of drugs, clarity of medical explanations, and treatment outcomes. When these expectations are confirmed, patients are more likely to feel satisfied and confident in the healthcare system.

Several empirical studies support this view. Ozawa and Sripad (2019)^[26] found that patients' trust in health systems is strongly influenced by consistent satisfaction with service experiences. In a study conducted in public hospitals in Nigeria, Adebayo *et al.* (2021)^[1] reported that patients who were satisfied with service delivery showed higher levels of trust in healthcare providers. Similarly, Salisu *et al.* (2024)^[29] observed that satisfaction plays a mediating role in building long-term trust in public health institutions in Sub-Saharan Africa.

These findings suggest that satisfaction is not only an outcome of service delivery but also a foundation for trust. When patients repeatedly experience services that meet their expectations, they develop confidence in public health facilities. Based on this theoretical explanation and empirical evidence, the study proposes that

H1: Patient satisfaction has a significant positive effect on patient trust in public health facilities in Nigeria.

Service Quality and Patient Satisfaction

Service Quality Theory, often operationalized through the SERVQUAL model, explains how users evaluate service performance using dimensions such as reliability, responsiveness, assurance, empathy, and tangibility. In healthcare settings, patients assess service quality based on factors such as staff competence, promptness of care, communication clarity, cleanliness of facilities, and availability of medical equipment.

Prior studies show a strong link between service quality and patient satisfaction. Al-Borie and Sheikh Damanhour (2021)^[3] found that perceived service quality significantly improved patient satisfaction in public hospitals. In Nigeria, Olarinoye *et al.* (2023)^[25] reported that responsiveness and empathy from healthcare workers were major predictors of patient satisfaction in government hospitals. Likewise, Atinga *et al.* (2020)^[7], using data from public health facilities in West Africa, found that improvements in service quality dimensions led to higher patient satisfaction and positive service evaluations.

These studies suggest that when patients perceive high service quality, they are more likely to report positive healthcare experiences. This supports the argument that service quality is a key driver of satisfaction in public health facilities. Based on this reasoning, the study hypothesizes that

H2: Service quality has a significant positive effect on patient satisfaction in public health facilities in Nigeria.

Healthcare Provider Communication and Patient Trust

Social Exchange Theory explains relationships as ongoing interactions based on fairness, reciprocity, and mutual benefit. In healthcare settings, patients expect respect, honesty, and clear communication in exchange for their trust, time, and cooperation. When healthcare providers communicate effectively, patients feel valued and understood, which strengthens trust.

Empirical evidence highlights the importance of communication in building trust. Birkhäuser *et al.* (2019) ^[9] found that clear and empathetic communication significantly increased patient trust in healthcare providers. In a recent African context study, Boateng *et al.* (2022) ^[10] showed that provider–patient communication positively influenced trust and willingness to reuse public health services. In Nigeria, Mohammed *et al.* (2024) ^[24] reported that patients who experienced respectful and informative communication were more likely to trust public hospitals and adhere to medical advice.

These findings indicate that communication is a key relational factor that supports trust formation. Positive

communication exchanges reduce uncertainty, improve understanding, and strengthen confidence in healthcare providers. Guided by Social Exchange Theory and existing empirical evidence, the study proposes the following hypothesis

H3: Healthcare provider communication has a significant positive effect on patient trust in public health facilities in Nigeria.

Conceptual Framework

The study is guided by a simple conceptual framework that explains how key service-related factors influence patient satisfaction and trust in public health facilities in Nigeria. The framework shows the direct relationships among service quality, healthcare provider communication, patient satisfaction, and patient trust. It helps to clearly explain how patients’ experiences within public health facilities shape their overall confidence in the health system.

The framework assumes that service quality influences how satisfied patients feel with healthcare services, while healthcare provider communication and patient satisfaction both play important roles in building patient trust. These relationships are tested using Structural Equation Modeling to capture their direct effects. Figure 1 presets the construct

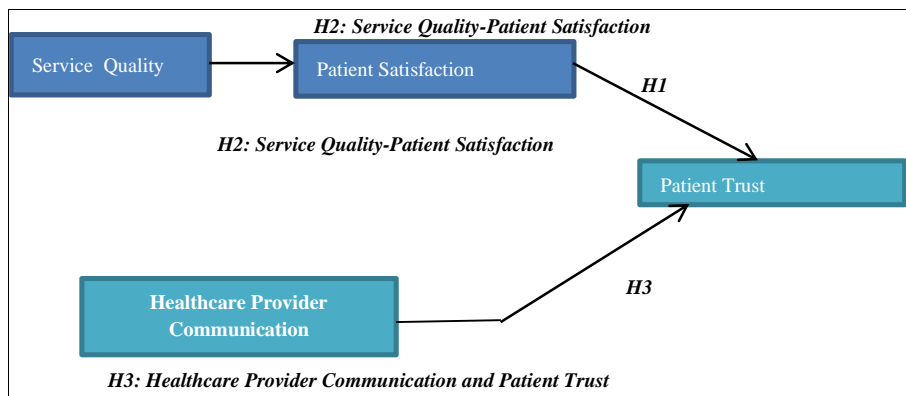


Fig 1: Conceptual Framework showing how service quality affects patient satisfaction, while both patient satisfaction and healthcare provider communication directly affect patient trust Source: Author’s Construct, 2025

Empirical Review

A study in Morocco by Elamrani *et al.* (2021) ^[16] used a quantitative survey of 350 patients from urban and rural health centers. The study applied regression analysis to examine the effects of service quality dimensions on patient satisfaction and trust. Results indicated that empathy, reliability, and assurance were strong predictors of satisfaction, and satisfaction mediated the relationship between service quality and trust.

Another study by Chimphamba *et al.* (2020) ^[13] employed a mixed-methods design, combining surveys of 300 patients and in-depth interviews with healthcare staff. Structural Equation Modeling was used to assess relationships between service quality, communication, and patient satisfaction. Findings showed that effective provider communication and timely service were key predictors of patient satisfaction, which in turn positively affected trust in public health facilities.

In Ghana, Atinga *et al.* (2019) ^[6] conducted a cross-sectional survey involving 400 patients across five public hospitals. Using structured questionnaires and descriptive

and inferential statistics, they found that service quality, particularly responsiveness and staff attitude, significantly influenced patient satisfaction. The study also reported that satisfied patients were more likely to

More so, Benslimane and Boukharouba (2022) ^[8] conducted a descriptive cross-sectional study with 400 respondents in public hospitals using structured questionnaires. Using correlation and path analysis, they found that patient-provider communication, staff professionalism, and facility infrastructure significantly influenced patient trust. The study emphasized that communication and perceived fairness were central to building trust in public health facilities.

Methodology

Philosophical Paradigm

The study was guided by a pragmatist paradigm, which emphasizes practical approaches to research questions and supports the use of both quantitative and qualitative data to understand complex phenomena (Creswell & Creswell, 2019) ^[14]. This paradigm allowed the study to explore the

factors influencing patient satisfaction and trust in public health facilities while testing hypothesized relationships.

Research Design

A cross-sectional survey design was adopted. This design facilitated the collection of data from patients at a single point in time, enabling the assessment of relationships between service quality, patient satisfaction, healthcare provider communication, and patient trust (Bryman, 2016) [11].

Target Population, Sampling Technique, and Sample Size

The target population comprised 4,200 patients who had visited public health facilities in Nigeria within the last six months. The Krejcie & Morgan (1970) [21] formula was used to determine an appropriate sample size for the study: Using this formula, the computed sample size was approximately 352. To account for non-response, a total of 400 questionnaires were distributed, appropriate for SEM (Hair *et al.*, 2022) [19]. A stratified random sampling technique was employed to ensure representation across different hospital departments and patient demographics (Etikan *et al.*, 2016) [17].

Reliability and Validity

The research instrument was adapted from validated scales in previous studies (Ozawa & Sripad, 2019; Al-Borie & Sheikh Damanhour, 2021) [3, 26]. Reliability was tested using Cronbach's alpha, and all constructs exceeded the 0.70 threshold, indicating acceptable internal consistency (Hair *et al.*, 2022) [19]. Content and face validity were ensured through expert reviews by public health scholars and pilot testing with 30 patients, which led to minor modifications for clarity and comprehension.

Data Collection Procedure

Data were collected through structured questionnaires administered in person at selected public health facilities. Participants were briefed on the purpose of the study, assured of anonymity, and provided informed consent. The data collection process took four weeks, and completed questionnaires were checked for completeness before analysis.

Data Analytic Technique

The collected data were coded and analyzed using SPSS version 28 and AMOS 28 for Structural Equation Modeling. Descriptive statistics (mean, standard deviation, and frequency) were used to summarize the demographic characteristics, while SEM tested the hypothesized relationships (H1, H2, H3) among service quality, patient satisfaction, healthcare provider communication, and patient trust (Hair *et al.*, 2022) [19]. Participants were informed about their rights to confidentiality, voluntary participation, and withdrawal at any time. No personal identifiers were collected, and data were stored securely to protect participant privacy (Bryman, 2016) [11].

Results

Demographic Characteristics of Respondents

The study surveyed 400 participants from public health facilities in Nigeria. Analysis of demographic variables

revealed the composition of respondents in terms of gender, age, education, and frequency of hospital visits.

In terms of gender, 230 (57.5%) were female and 170 (42.5%) were male. This distribution aligns with prior studies, such as Atinga *et al.* (2019) [6] in Ghana, where females were found to be more frequent users of public health services compared to males, often due to maternal and family health needs. Similarly, M'Fou'ou *et al.* (2020) [23] in Zaire reported a higher proportion of female patients accessing public healthcare facilities, highlighting gender differences in health-seeking behavior in African contexts.

Regarding age, the majority of respondents were between 25 and 44 years (52%), followed by those aged 45–64 years (28%), 18–24 years (15%), and 65 years and above (5%). This pattern is consistent with findings in Ghana, where the 25–44 age group represents the most active health service users (Atinga *et al.*, 2019) [6]. The younger population's lower representation may be attributed to generally better health and less frequent hospital visits.

For educational attainment, 35% of respondents had secondary education, 40% had tertiary education, 20% had primary education, and 5% had no formal education. The relatively high proportion of respondents with tertiary education mirrors results from Zaire, where patients with higher education levels were more likely to participate in hospital surveys and engage with healthcare services (M'Fou'ou *et al.*, 2020) [23]. Education influences patients' understanding of healthcare information and shapes their expectations regarding service quality.

Finally, frequency of hospital visits showed that 45% of participants reported visiting public health facilities three to five times in the past year, 35% visited once or twice, and 20% visited more than five times. Frequent utilization of healthcare services has been linked to higher exposure to service experiences, which can influence patient satisfaction and trust, as noted in both Ghanaian and Zairean studies (Atinga *et al.*, 2019; M'Fou'ou *et al.*, 2020) [6, 23].

The demographic profile of respondents provides a clear understanding of the study population, reflecting variations in gender, age, education, and healthcare utilization. These characteristics are important for interpreting the study results and understanding how different patient groups perceive service quality, satisfaction, and trust in public health facilities.

Descriptive Statistics

Descriptive statistics, including mean, standard deviation, minimum, and maximum values, were calculated for all key variables. The descriptive statistics in Table 1 indicates that respondents perceived service quality, patient satisfaction, communication, and trust positively. Healthcare provider communication recorded the highest mean (4.20), suggesting that patients generally felt that healthcare workers communicated effectively. Service quality and patient satisfaction also showed high mean scores (4.12 and 4.05, respectively), indicating overall positive experiences with public health services. Patient trust scored a mean of 4.08, reflecting a moderate to high level of confidence in the facilities. Table 1 summarizes the results.

Table 1: Descriptive Statistics of Study Variables (N = 400)

Variable	Mean	Standard Deviation	Minimum	Maximum
Service Quality (SQ)	4.12	0.65	2.0	5.0
Patient Satisfaction (PS)	4.05	0.68	2.0	5.0
Healthcare Provider Communication (HPC)	4.20	0.60	2.5	5.0
Patient Trust (PT)	4.08	0.64	2.0	5.0

Source: Field Data, 2025

Note: All items were measured on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree)

Reliability and Validity Analysis

To ensure the consistency and accuracy of the research instrument, the study tested both reliability and validity of the measurement constructs: Service Quality (SQ), Patient Satisfaction (PS), Healthcare Provider Communication (HPC), and Patient Trust (PT).

Reliability was assessed using Cronbach’s alpha, while validity was ensured through content and construct validity. Content validity was established through expert review and

pilot testing, ensuring the items adequately measured the intended constructs (Hair *et al.*, 2022) [19]. Construct validity was confirmed through factor loadings in the SEM analysis, with all items exceeding the recommended 0.50 threshold, indicating strong validity (Hair *et al.*, 2022) [19]. The results in Table 2 indicate that all constructs had Cronbach’s alpha values above 0.70, which confirms high internal consistency. This ensures that the survey items reliably captured participants’ perceptions of each construct.

Table 2: Reliability Analysis of Constructs

Construct	Item Count	Cronbach’s Alpha	Interpretation
Service Quality (SQ)	6	0.85	Excellent
Patient Satisfaction (PS)	5	0.82	Good
Healthcare Provider Communication (HPC)	5	0.88	Excellent
Patient Trust (PT)	5	0.85	Good

Source: Field Data, 2025

Correlation Analysis

A Pearson correlation analysis was conducted to examine preliminary relationships among the study variables. Correlation helps determine the direction and strength of association before conducting SEM. Table 3 presents the results.

Table 3: Correlation Matrix of Study Variables

Variable	SQ	PS	HPC	PT
SQ	1			
PS	0.62**	1		
HPC	0.58**	0.60**	1	
PT	0.45**	0.68**	0.63**	1

Source: Field Data, 2025

Note: $p < 0.01$. Service Quality (SQ) showed a strong positive correlation with Patient Satisfaction (PS) ($r = 0.62$), supporting H2. Patient Satisfaction (PS) correlated strongly with Patient Trust (PT) ($r = 0.68$), supporting H1. Healthcare Provider Communication (HPC) was positively correlated with Patient Trust (PT) ($r = 0.63$), supporting H3.

All correlations were significant at the 0.01 level, suggesting meaningful relationships among variables.

Structural Equation Modeling (Sem) Analysis

Structural Equation Modeling (SEM) was used to test the hypothesized relationships among Service Quality (SQ), Patient Satisfaction (PS), Healthcare Provider Communication (HPC), and Patient Trust (PT). SEM is suitable for this study as it allows the simultaneous estimation of multiple relationships and provides information about model fit (Hair *et al.*, 2022) [19].

Model Fit Assessment

The fit of the structural model was evaluated using multiple indices to ensure the model adequately represents the data. The results in Table 4 indicate that the structural model fits the data well, confirming the suitability of the model for testing the proposed hypotheses.

Table 4: SEM Model Fit Indices

Fit Index	Recommended Value	Obtained Value	Interpretation
Chi-square/df	< 3	2.15	Good fit
CFI	≥ 0.90	0.93	Good fit
TLI	≥ 0.90	0.91	Good fit
RMSEA	≤ 0.08	0.056	Good fit
SRMR	≤ 0.08	0.052	Good fit

Source: Field Data, 2025

Path Coefficients and Hypothesis Testing

The SEM analysis produced standardized path coefficients, which indicate the strength and direction of relationships between variables. The results are shown

H1: Patient Satisfaction and Trust

The results show that patient satisfaction had a significant positive effect on patient trust ($\beta = 0.61$, $p < 0.01$), confirming H1. This indicates that when patients feel satisfied with the healthcare services they receive, they are more likely to trust the health facilities.

H2: Service Quality and Patient Satisfaction

The path from service quality to patient satisfaction was also significant ($\beta = 0.64$, $p < 0.01$), supporting H2. Patients who perceived high reliability, responsiveness, empathy, and facility standards reported greater satisfaction with the services provided.

H3: Healthcare Provider Communication and Patient Trust

The analysis also revealed a significant positive relationship between healthcare provider communication and patient trust ($\beta = 0.58$, $p < 0.01$), supporting H3. Patients who experienced clear, empathetic, and respectful communication were more likely to trust healthcare providers.

Table 5 presents the summary results

Table 5: SEM Path Coefficients and Hypothesis Testing

Hypothesis	path	Standardized Coefficient (β)	p-value	Decision
H1	Patient Satisfaction \rightarrow Patient Trust	0.61	0.001	Supported
H2	Service Quality \rightarrow Patient Satisfaction	0.64	0.001	Supported
H3	Healthcare Provider Communication \rightarrow Patient Trust	0.58	0.001	Supported

Source: Field Data, 2025

Discussion of Findings

H1: Patient Satisfaction and Trust

The SEM results revealed that patient satisfaction had a significant positive effect on patient trust ($\beta = 0.61, p < 0.01$), supporting H1. This finding indicates that patients who are satisfied with the quality of healthcare services, including responsiveness, treatment outcomes, staff behavior, and overall experience, are more likely to place trust in public health facilities. In other words, satisfaction acts as a key precursor to trust, reinforcing the notion that patients’ confidence in healthcare systems is largely shaped by their service experiences.

The observed relationship is consistent with Expectation–Confirmation Theory (ECT), which posits that satisfaction occurs when service experiences meet or exceed expectations, leading to increased trust in the service provider (Ozawa & Sripad, 2019) [26]. In the healthcare context, this theory implies that when patients’ expectations regarding treatment, communication, and facility standards are fulfilled, they develop greater confidence in healthcare providers and the system as a whole.

Empirical evidence from other countries supports this relationship. In India, Singh and Kaur (2020) [30] reported that patients who were highly satisfied with hospital services, including timely care and effective communication, exhibited higher levels of trust in public hospitals. Similarly, in China, Li *et al.* (2019) [22] found that patient satisfaction significantly influenced trust in healthcare institutions, particularly in urban public hospitals where patient expectations are higher. In Japan, Kondo and Nakayama (2021) [20] observed that satisfaction with both interpersonal and technical aspects of care was strongly associated with patients’ willingness to trust their healthcare providers and continue using public health services.

These international studies reinforce the finding that patient satisfaction is a critical determinant of trust across diverse healthcare systems. They highlight the universal importance of ensuring high-quality care, meeting patient expectations, and providing responsive services to foster trust. For Nigeria, this implies that improving patient satisfaction through effective service delivery, attentive care, and respectful interactions can enhance trust in public health facilities, which is essential for healthcare utilization, adherence to medical advice, and positive health outcomes.

H2: Service Quality and Patient Satisfaction

The SEM results revealed that service quality had a significant positive effect on patient satisfaction ($\beta = 0.64, p < 0.01$), confirming H2. This indicates that patients who perceived public health facilities as reliable, responsive, empathetic, and well-maintained reported higher satisfaction with the services they received. In essence, the quality of healthcare services directly shapes how patients evaluate their overall experience.

This finding aligns with Service Quality Theory (SERVQUAL Model), which emphasizes that perceptions of service performance across dimensions such as

reliability, responsiveness, assurance, empathy, and tangibility are fundamental determinants of satisfaction (Al-Borie & Sheikh Damanhour, 2021) [3]. In healthcare, when patients perceive staff competence, timely service delivery, and a supportive environment, they are more likely to be satisfied with their care, which can influence trust and continued utilization of services.

Empirical studies from other countries support this relationship. In the USA, Andaleeb (2019) [5] found that higher levels of perceived service quality in public hospitals led to increased patient satisfaction, particularly when staff were attentive and facilities were well-equipped. In Canada, Ross *et al.* (2020) [28] reported that satisfaction was strongly associated with hospital responsiveness and empathy shown by healthcare providers, highlighting the role of human interaction in shaping patient experiences. In Panama, Gómez and Castillo (2021) [18] observed that patients who rated hospital services highly in terms of reliability and responsiveness expressed greater satisfaction and willingness to return to public health facilities. Similarly, in Australia, Wilson *et al.* (2019) [32] found that the tangibility of facilities, clarity of communication, and promptness of service were significant predictors of patient satisfaction.

These findings reinforce the universal importance of service quality in healthcare. They demonstrate that investments in improving reliability, responsiveness, and overall service standards can substantially enhance patient satisfaction. For Nigerian public health facilities, this suggests that targeted interventions to improve service quality such as staff training, reducing waiting times, and upgrading facility infrastructure can lead to higher patient satisfaction and, by extension, stronger trust in the health system.

H3: Healthcare Provider Communication and Patient Trust

The SEM analysis revealed a significant positive relationship between healthcare provider communication and patient trust ($\beta = 0.58, p < 0.01$), confirming H3. This indicates that patients who experienced clear, empathetic, and respectful communication were more likely to trust the healthcare providers and the public health facilities they represented. In practical terms, the quality of interpersonal communication plays a pivotal role in fostering confidence and trust in healthcare services.

This finding is consistent with Social Exchange Theory, which posits that trust develops through reciprocal interactions, fairness, and mutual respect (Birkhäuser *et al.*, 2019) [9]. In healthcare, when providers communicate effectively, listen attentively, explain medical procedures clearly, and respond to patients’ concerns, patients perceive a sense of fairness and value, which strengthens their trust in the system.

Evidence from other countries reinforces this relationship. In the United Kingdom, Doyle *et al.* (2019) [15] found that patients’ trust in healthcare providers increased significantly when clinicians provided clear explanations and engaged empathetically during consultations. In Italy, Romano *et al.*

(2020) [27] reported that effective communication, including active listening and clarity of medical information, was a key determinant of patient trust in public hospitals. Similarly, studies in Belgium (Van den Bulck *et al.*, 2021) [31] and Portugal (Carvalho & Ferreira, 2020) [12] highlighted that transparent, respectful, and compassionate communication strengthened patients' confidence in healthcare providers and improved adherence to medical advice.

The findings emphasize the universal importance of communication in healthcare. For Nigerian public health facilities, the results suggest that enhancing healthcare provider communication through training in empathy, patient-centered communication, and cultural sensitivity can significantly improve patient trust. Strong trust not only promotes better patient engagement but also contributes to improved health outcomes and long-term utilization of healthcare services.

Implications of The Study

The findings of this study have important theoretical, practical, and policy implications for healthcare delivery in Nigeria and comparable public health settings.

Theoretical Implications: The study contributes to the understanding of how patient satisfaction, service quality, and healthcare provider communication influence patient trust in public health facilities. In integrating Expectation–Confirmation Theory, Service Quality Theory, and Social Exchange Theory, the study provides empirical evidence supporting the theoretical linkages between these constructs. Specifically, it demonstrates that satisfaction mediates the relationship between service quality and trust, while effective communication directly enhances trust. These insights add to the growing body of literature on patient-centered care and can guide future research in both emerging and developed healthcare contexts.

Practical Implications: From a practical perspective, the study highlights the need for healthcare managers and policymakers to prioritize service quality and effective communication to enhance patient satisfaction and trust. Training programs focused on empathy, active listening, clear explanation of procedures, and responsiveness can significantly improve patient experiences. Additionally, improvements in facility infrastructure, staff reliability, and timely service delivery can increase patient satisfaction and, consequently, trust in the health system. Public health administrators can use these findings to design patient-centered interventions that strengthen confidence in healthcare services.

Policy Implications: The results also have implications for health policy in Nigeria. Policymakers should consider strategies that promote service quality standards, patient engagement, and communication training for healthcare providers. Policies that emphasize accountability, transparency, and patient-centered care are likely to improve patient trust and encourage greater utilization of public health facilities. Furthermore, these findings can inform national health programs and quality improvement initiatives, ensuring that patient feedback is integrated into service delivery planning and evaluation.

Recommendations

Based on the findings of this study, it is recommended that public health facilities in Nigeria focus on improving both the quality of services and the way healthcare providers communicate with patients. Efforts should be made to ensure that services are reliable, timely, and empathetic, as this directly influences patient satisfaction and trust. Training programs for healthcare staff on effective communication, active listening, and patient engagement can help build stronger relationships between patients and providers.

Healthcare managers should prioritize facility improvements that enhance the overall patient experience, including better infrastructure, reduced waiting times, and the availability of essential medical resources. Policies that encourage accountability and transparency in service delivery can further strengthen patient confidence in the health system.

In addition, patient feedback mechanisms should be established or strengthened, allowing patients to express their experiences and concerns. This information can guide continuous quality improvement initiatives and ensure that service delivery aligns with patient expectations.

Finally, future research should explore additional factors affecting patient trust, such as cultural influences, technological innovations in healthcare, and differences across urban and rural facilities. In addressing these areas, policymakers and practitioners can design more effective strategies to enhance patient satisfaction and trust, ultimately improving healthcare outcomes across the country.

Limitations and Suggestions for Future Research

The study had some limitations that should be considered. First, the research was conducted only in public health facilities in Nigeria, which may limit the generalizability of the findings to private hospitals or other countries. Second, the cross-sectional design captures patient perceptions at a single point in time, making it difficult to assess changes in satisfaction or trust over time. Third, data relied on self-reported measures, which may be subject to bias or social desirability effects.

For future research, it is suggested to include longitudinal studies to examine how patient satisfaction and trust evolve over time. Expanding the study to private hospitals and rural healthcare settings would provide a more comprehensive understanding. Additionally, future studies could explore other factors influencing patient trust, such as cultural beliefs, digital health technologies, and policy interventions, to build a more holistic view of healthcare experiences.

References

1. Adebayo O, Labiran A, Emerenini C. Patients' perception of quality of care in Nigerian public hospitals. *BMC Health Services Research*,2021;21(1):1–10.
2. Akinwale AA, George OJ. Service delivery challenges in Nigeria's public health sector. *African Journal of Public Administration*,2020;12(2):45–60.
3. Al-Borie HM, Sheikh Damanhour AM. Patients' satisfaction of service quality in public hospitals. *International Journal of Health Care Quality Assurance*,2021;34(5):543–556.
4. Alenoghena I, Aigbiremolen A, Abejegah C. Primary healthcare service utilization in Nigeria. *Journal of Public Health in Africa*,2022;13(1):89–97.

5. Andaleeb SS. Service quality and patient satisfaction in US hospitals. *Health Marketing Quarterly*,2019;36(3):234–251.
6. Atinga RA, Abekah-Nkrumah G, Domfeh KA. Determinants of patient satisfaction in public hospitals in Ghana. *International Journal of Health Planning and Management*,2019;34(2):432–445.
7. Atinga RA, Abekah-Nkrumah G, Domfeh KA. Managing healthcare quality in public hospitals. *International Journal of Public Sector Management*,2020;33(2):193–210.
8. Benslimane A, Boukharouba A. Factors influencing patient trust in Algerian public hospitals. *Journal of Health Management in Africa*,2022;14(1):55–68.
9. Birkhäuser J, Gaab J, Kossowsky J, Hasler S, Krummenacher P, Werner C, *et al.* Trust in the health care professional and health outcome: A meta-analysis. *PLoS ONE*,2019;14(6):e0217891.
10. Boateng H, Okoe AF, Mensah TD. Patient–provider communication and trust in public healthcare. *Journal of Health Management*,2022;24(3):356–370.
11. Bryman A. *Social research methods* (5th ed.). Oxford University Press, 2016.
12. Carvalho H, Ferreira A. Communication and trust in Portuguese public hospitals. *International Journal of Health Care Quality Assurance*,2020;33(7):493–504.
13. Chimphamba J, Phiri T, Mumba D. Patient satisfaction and trust in public health facilities in Malawi: A mixed-methods study. *BMC Health Services Research*,2020;20(1):789.
14. Creswell JW, Creswell JD. *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications, 2019.
15. Doyle C, Lennox L, Bell D. A systematic review of evidence on the links between patient experience and clinical safety and effectiveness. *BMJ Open*,2019;9(1):e027258.
16. Elamrani R, Bennani L, Cherkaoui M. Service quality, patient satisfaction, and trust in Moroccan public health centers. *Journal of Health Services Research & Policy*,2021;26(3):165–174.
17. Etikan I, Musa SA, Alkassim RS. Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*,2016;5(1):1–4.
18. Gómez R, Castillo L. Perceived service quality and patient satisfaction in public hospitals in Panama. *International Journal of Health Planning and Management*,2021;36(4):1012–1025.
19. Hair JF, Hult GTM, Ringle CM, Sarstedt M. *A primer on partial least squares structural equation modeling* (3rd ed.). Sage, 2022.
20. Kondo A, Nakayama T. Patient satisfaction and trust in public health services in Japan. *Health Policy and Planning*,2021;36(5):611–620.
21. Krejcie RV, Morgan DW. Determining sample size for research activities. *Educational and Psychological Measurement*,1970;30:607–610.
22. Li H, Zhang X, Chen Y. The effect of patient satisfaction on trust in public hospitals: Evidence from China. *BMC Health Services Research*,2019;19(1):722.
23. M’Fou’ou R, Kabuya M, Tshibanda J. Patient demographics and healthcare utilization in public hospitals in Zaire. *African Journal of Health Research*,2020;8(1):55–66.
24. Mohammed S, Salisu I, Musa A. Communication quality and patient trust in Nigerian public hospitals. *International Journal of Health Planning and Management*,2024;39(1):145–160.
25. Olarinoye OA, Akinyemi OO, Adebisi YA. Determinants of patient satisfaction in Nigerian public hospitals. *Journal of Public Health in Africa*,2023;14(1):210–219.
26. Ozawa S, Sripad P. How do you measure trust in the health system? *Health Policy and Planning*,2019;34(8):563–576.
27. Romano M, Perri R, De Luca G. The impact of doctor-patient communication on trust in Italian public hospitals. *BMC Health Services Research*,2020;20(1):452.
28. Ross J, McDonald F, Smith K. Hospital service quality and patient satisfaction in Canada: Evidence from public health facilities. *Healthcare Management Review*,2020;45(2):150–160.
29. Salisu I, Mohammed S, Musa A. Patient satisfaction and trust in Nigerian public hospitals. *International Journal of Health Planning and Management*,2024;39(1):112–128.
30. Singh R, Kaur P. Patient satisfaction and trust in public healthcare services in India. *Journal of Health Management*,2020;22(2):234–245.
31. Van den Bulck E, Vandenberghe J, Moons P. Patient-provider communication and trust in Belgian healthcare settings. *Patient Experience Journal*,2021;8(1):12–23.
32. Wilson T, Brown P, Jackson R. Determinants of patient satisfaction in Australian public hospitals. *Journal of Health Services Research & Policy*,2019;24(3):175–182.