



## Knowledge, Perception and Satisfaction with the Quality of Care among Medical and Surgical Outpatient Clinics Attendees in a Nigerian Tertiary Hospital

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### ABSTRACT

**Introduction:** Improving the quality of healthcare remains a critical need in developing countries. Donabedian's quality of care model provides a framework to evaluate healthcare outcomes, with patient satisfaction being a key indicator. Understanding patients' perceptions, knowledge, and satisfaction is essential for enhancing healthcare delivery.

**Objective:** This study aimed to assess patients' perceptions, knowledge, and satisfaction with the quality of care provided at a tertiary hospital in Ibadan, Nigeria.

**Method:** A total of 401 individuals were recruited, and data was collected using a self-administered questionnaire. Data were coded, cleaned, and analyzed using SPSS version 20. Descriptive statistics were summarized in frequency tables and figures, while Chi-square tests were used to test hypotheses at a significance level of  $p < 0.05$ .

**Result:** Out of 350 valid responses, 86% of respondents demonstrated substantial knowledge about the quality of care. However, 57.1% expressed dissatisfaction with the treatment received, while 56.6% maintained a positive perception of the hospital's services. A significant relationship was found between knowledge of healthcare quality and perception ( $\chi^2 = 11.1$ ,  $df = 1$ ,  $p < 0.05$ ). On the other hand, the duration of hospital stay did not significantly affect overall satisfaction ( $\chi^2 = 0.69$ ,  $df = 2$ ,  $p = 0.708$ ).

**Conclusion:** The findings highlight the need to enhance patient satisfaction in healthcare services. Periodic investigations into patient perspectives are essential for informed decision-making and continuous quality improvement in healthcare delivery.

**Keywords:** outpatient, perception, quality of care, satisfaction

## Introduction

Quality of care refers to the extent to which healthcare services are provided to individuals and patient populations to improve desired health outcomes through a safe, effective, timely, efficient, equitable, and people-centered healthcare system (IOM, 2014; AHRQ, 2022; WHO, 2024). Measuring patient satisfaction provides critical performance data, enabling the development of overall quality management strategies (Karaca & Durna, 2019; Nguyen, 2023; Amankwah, Choong, & Boakye-Agyeman, 2024). Satisfied patients are more likely to adhere to medically prescribed regimens, contributing to favorable health outcomes (Yan et al., 2022; Alharbi et al., 2023). Furthermore, they are more inclined to recommend the hospital to family and friends (Karaca & Durna, 2019).

According to Dikmen and Yilmaz (2016), patients' expectations regarding the scientific, administrative, and behavioral aspects of health institutions vary based on factors such as age, gender, education level, socio-cultural characteristics, and previous experiences with healthcare institutions. Patient perceptions of the services they receive are measured through their opinions or assessments of both the service delivery process and the care outcomes. Donabedian's quality of care model highlights that patient perceptions are shaped by their experiences, whether during a single episode of care or over time. As emphasized by Donabedian (1988) and Dikmen and Yilmaz (2016), patients' views are influenced by their expectations and personal experiences.

Quality of care is a crucial component of the right to health. Delivering high-quality healthcare services is essential to achieving universal health coverage (World Health Organization [WHO], 2017). Moreover, the quality of nursing care significantly affects patients' overall satisfaction with treatment, underscoring the need to focus on client satisfaction with nursing services (Gishu et al., 2019; Alharbi, Alzahrani, Almarwani, Asiri, & Alhowaymel, 2023).

Numerous studies highlight the importance of ensuring patient satisfaction. In their study involving 400 inpatients in Jeddah City, Alhussin et al. (2024) reported that the highest satisfaction levels (mean 2.31, SD 1.33) were related to the coordination of care after discharge, particularly nurses' efforts to meet patients' needs post-hospitalization. However, a study conducted at Mpigi Health Centre IV, Mpigi District, Uganda, found that 58% of participants were only moderately satisfied with the services received (Omona et al., 2021).

In Nigeria, public health institutions are often perceived as providing poor-quality services, with some describing them as "mere consulting clinics." Healthcare providers themselves express dissatisfaction with the quality of care and have long advocated through professional associations for increased government support for the health sector (Allagoa et al., 2020; Ndibuagu, Omotowo, & Chime, 2020).

Several factors influence patients' perceptions and satisfaction with the quality of care, including age, gender, nationality, marital status, educational level, length of hospital stay, and perceived health status. Research suggests that education level is a strong predictor of patient satisfaction. Suman et al. (2021) found that patients with higher education levels have greater expectations for quality care compared to those with lower education levels, with healthcare providers' attitudes significantly affecting satisfaction. Sharkiya (2023) and Abeid, Omar, Eltarhuni, & Mustafa (2024) observed that healthcare providers' courtesy and respect had the greatest impact on patient satisfaction, followed by effective communication and clear explanations. Conversely, dissatisfaction was linked to a lack of continuity in care and the high

cost of services (Lautamatti, Sumanen, Raivio, et al., 2020; Liang et al., 2022; Ghanbari-Jahromi et al., 2024).

Gathering patient opinions is essential to improving the quality of care. However, there is limited research on this topic in the Nigerian context. Therefore, this study aims to examine the perceptions and satisfaction of outpatients at the University College Hospital (UCH) regarding the quality of care they received. The findings will provide scientific evidence to inform managerial decisions aimed at improving healthcare services at UCH and across Nigeria.

Studying patients' perceptions of quality care is essential, as it significantly influences their level of satisfaction. When patients have a positive perception of the care they receive during hospitalization, it contributes to their recovery and overall well-being. This study is particularly important because it highlights gaps in the quality of care provided to patients. Identifying and addressing these gaps can lead to improved healthcare services. However, the lack of adequate information and research on patient satisfaction and perceptions of care quality in many Nigerian healthcare institutions underscores the absence of a solid foundation for improving care from the patient's perspective.

### **Objective**

This study aimed to assess patients' perceptions, knowledge, and satisfaction with the quality of care provided at a tertiary hospital in Ibadan, Nigeria.

### **Method**

#### ***Study Design and Setting***

This study adopted a descriptive cross-sectional design conducted at the medical and surgical outpatient clinics of the University College Hospital, Ibadan. This location was selected due to its large size and high volume of patient visits.

#### ***Target Population***

Approximately 2,000 patients are seen monthly at the selected outpatient clinics, addressing a wide range of medical and surgical cases, including renal, psychiatric, pulmonary, and cardiac conditions, among others.

#### ***Study Population and Sample Size***

The study recruited 350 participants out of an average of 3,727 outpatient clinic attendees who visit the targeted clinics monthly. Only patients who were not critically ill were included. The sample size was determined using Taro Yamane's formula (Yamane, 1967, as cited in Limjaroen, 2012).

$$n = \frac{N}{1 + N(e)^2}$$

Parameters;

n= required sample size

N= estimated population of out- patients at the medical and surgical out-patient clinics; (3727)

e =level of error tolerance 5%,

$$n = \frac{3727}{1+3727(0.05)^2}$$

$$n = \frac{3727}{1 + 9.3175}$$

$$n = \frac{3727}{10.3175}$$

$$n = 361$$

#### Adjusting the sample size for 10% non – response

$$nf = \frac{n}{1- Nr}$$

$$nf = \frac{361}{1 - 0.1}$$

$$nf = \frac{361}{0.9}$$

$$nf = 401$$

Approximately, 401 respondents were employed for the research (with consideration for attrition).

#### ***Sampling technique***

The participants were recruited purposively because they were in the best position to describe the quality of care received during the period of their hospitalisation in the past. They were recruited in the Outpatient Clinics through their daily registers with the permission of the nurses and record officers.

#### ***Inclusion criteria***

Adult patients who were attending the Outpatient clinics for follow-up appointments participated in the study

#### ***Exclusion criteria***

The adult patients who were eligible but did not participate due to the chronicity of their disease condition, cognitive impairment, and communication impairment.

#### ***The instrument for data collection***

A self-developed questionnaire was designed to elicit information from the patients. It contains items that were generated from the literature review based on the specific objectives set for the study. The questionnaire was in four parts, including, questions on the demographic data of the patient, knowledge on quality of care, perception about the quality of care, satisfaction about the quality of care, and various factors influencing patients' satisfaction.

#### ***Validity of the instrument***

Face and content validity was ensured. The contents of the questionnaire covered all the variables to be measured in the study, as stated in the title and the study objectives. The patients at the geriatric clinics were asked to rate how relevant and important each item on

the test is for measuring the desired construct, after which grammatical errors and duplications were eliminated. It was also scrutinised by research experts for its adequacy.

### ***Reliability of the instrument***

To find out if there is any consistency in the items of the instrument and to ascertain the suitability of the instrument for the study, it instrument was test-retested among 40 patients at the geriatric clinics of the hospital. Data from the respondents were collected once and were coded, scored, and analysed. The instrument administered were subjected to reliability test using Cronbach Alpha reliability analysis to determine the reliability estimate of the instrument. The Cronbach's alpha internal consistency of 0.82 was obtained for the instrument, and was considered high enough to be used for the study.

### ***Data collection procedure***

Data were collected after satisfying the ethical requirements for data collection. Permission was taken from the Head of the Department in charge of the clinics after which informed consent stated in the questionnaire was given and the importance of the study was explained to the respondents. The data were retrieved immediately after their completion for data analysis. The Researchers assisted those who needed an explanation of how to go through it. This took place between the space of January and May, 2018.

### ***Data analysis***

Data obtained were coded and entered into a spreadsheet. Analysis was done using the statistical package for the social sciences version (SPSS 20.0) software. Descriptive responses were summarised and presented in frequency tables, and charts. The mean, and standard deviations were determined.

- For objective 1, the section of the instrument containing nine items was used to determine the knowledge about quality of care, the responses were scored with the maximum score of 7 and minimum of '0'. Scores between 5 and 9 were considered as high knowledge of care quality, while the scores of 4 and below were considered as low knowledge of care quality.
- In objective 2, the section of the instrument containing seven items measuring patients' perception of care was used. Each item attracts a maximum score of '1'. Scores between 4 and 7 were categorised as good perception, while the scores of 3 and below were considered poor patients' perception of care quality.
- In objective 3, the satisfaction of with care received by patients was measured with seven items. the minimum score was '0' while the maximum score was '7'. A high level of satisfaction was accrued to scores between 4 and 7, scores between 1 and 3 were categorised as low level of satisfaction with care quality.
- In objective 4, of the instrument which was developed to measure the factors influencing satisfaction with quality of care, the responses were presented in frequency table.

Meanwhile, the hypotheses were tested using the Chi-square test, to investigate the relationship among the variables at 0.05 level of significance. The research hypotheses tested include:

- There is no significant association between out-patient knowledge of the quality of care and perception of care.
- There is no significant association between out-patient perception of care received and satisfaction with care received.

## **Result**

The study was conducted between January and May 2018, achieving a total of 350 completed responses, corresponding to an 87.3% response rate. The findings of the research objectives are presented using simple tables and charts.

### ***Answering Research Questions***

The results revealed that 265 respondents (75.7%) were female, and 74% identified as Christians. Approximately three-quarters (73%) were single and had attained university-level education. Additionally, about 85% of the participants reported hospital stays of up to 30 days.

To assess the quality of care received, participants rated their experiences on a scale of 1 to 10. About 62% of respondents rated the quality of care as “average or below,” while only 38% rated it as “above average.” All participants provided their ratings, with scores ranging from a minimum of 1 to a maximum of 9. The mean score was calculated to be 5.91 (approximately 6), with a standard deviation of 1.53.

Participants reported the highest satisfaction with the consultancy aspect of care (32.3%), while lower satisfaction levels were associated with pharmacy services (20.3%), the National Health Insurance Scheme (NHIS) (10.9%), medical records (10.9%), registration (6.3%), accounts section (2.5%), and other areas such as reception, nursing, and neurology (16.8%).

Finally, 60% of respondents expressed their intention to continue patronizing the hospital in the future (Table 1).

The results also revealed that about 86% of the participants agreed that providing safe health care delivery to minimise risk and harm indicates quality care. About 69% of the participants denied the fact that coordination and integration of care for patients are parts of the quality of care. About 78% of them agreed that quality of care should involve their family and friends in care, and also that involving smooth transition and continuity of care as indicators of quality care (84%). Up to 60% of them mentioned that provision of timely and non-delayed health care services should not be considered an indicator of the quality of care. In addition to that, 79% responded that delivering equitable services without partiality to all patients is an indicator of quality care. Lastly, 83% responded positively that quality of care involves respect for patient’s values, preferences, and expressed needs (Table 2).

Table 1: Sociodemographic characteristics of respondents N = 350

Characteristics	Levels	Frequency	Percentage
<b>Age (in years): 19<math>\pm</math>13.04</b>			
Gender	Male	85	24.3
	Female	265	75.7
Marital Status	Single	255	73.1
	Married	90	25.8
	Widowed	2	0.6
	Separated	3	0.9
Highest Educational Level	Primary	6	1.8
	Secondary	46	13.7
	Not University	39	11.6
	University	244	72.9
Hospital Stay	No response	15	4.3
	Planned	96	35.6
	Unplanned	147	60.7
	Others	9	3.7
<b>Days Spent in Hospital: 25.03 <math>\pm</math> 35.77</b>			
Duration of Stay	Up to 30 days	298	85.14
	30 – 60 days	35	10
	Above 60 days	17	4.86
Rating the quality of care on a scale of 1-10 ( <b>5.91 <math>\pm</math> 1.53</b> )	Average and below (1-5.9)	217	62
	Above average (6-10)	133	38
Satisfaction in various aspects of care	Consultancy	113	32.3
	Pharmacy	71	20.3
	National Health Insurance scheme	38	10.9
	Medical records	38	10.9
	Registration	22	6.3
	Account section	9	2.5
	Others (reception, nursing, neurology, etc.)	59	16.8
Willingness for subsequent patronage	Yes	210	60
	No	140	40

Table 2: Knowledge on quality of care N = 350

Statements	Yes	No	Don't know
Quality of care involves safe health care delivery which minimises risk and harm	303 (86.6%)	32 (9.14%)	15 (4.29%)
Quality of care does not entail coordination and integration of care for the patient	66 (18.86%)	239 (68.89%)	45 (12.86%)
Quality of care involves the provision of services based on scientific knowledge and evidence-based guidelines	285 (81.4%)	28 (8.0%)	37 (10.6%)

Quality of care does not involve the provision of physical comfort, emotional support, and relief of fear and anxiety	94 (26.9%)	232 (66.3%)	24 (6.8%)
Quality of care entails the involvement of family and friends in the care	274 (78.3%)	50 (14.3%)	26 (7.4%)
Quality of care involves smooth transition and continuity of care	295 (84.3%)	24 (6.8%)	31 (8.9%)
Quality of care does not involve providing timely health care services without delay	113 (32.3%)	211 (60.3%)	26 (7.4%)
Quality of care involves delivering equitable services without partiality to all patients	277 (79.1%)	40 (11.4%)	33 (9.5%)
Quality of care involves respect for patient's values, preferences, and expressed needs	292 (83.4%)	26 (7.5%)	32 (9.1%)

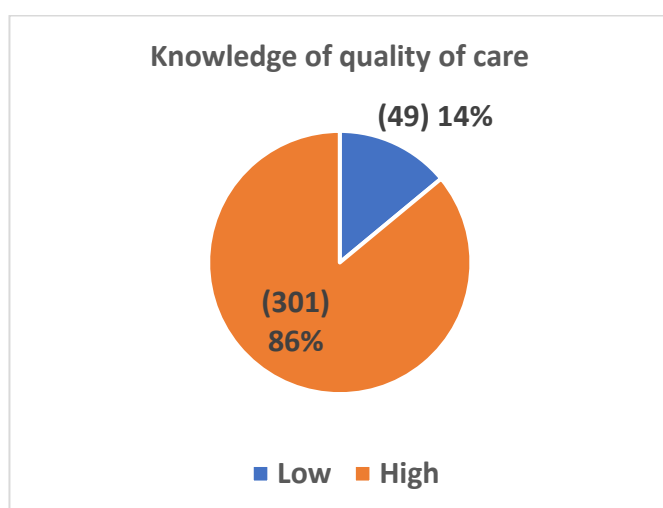


Figure 1. Knowledge of quality of care



Figure 2. Perception of the quality of care

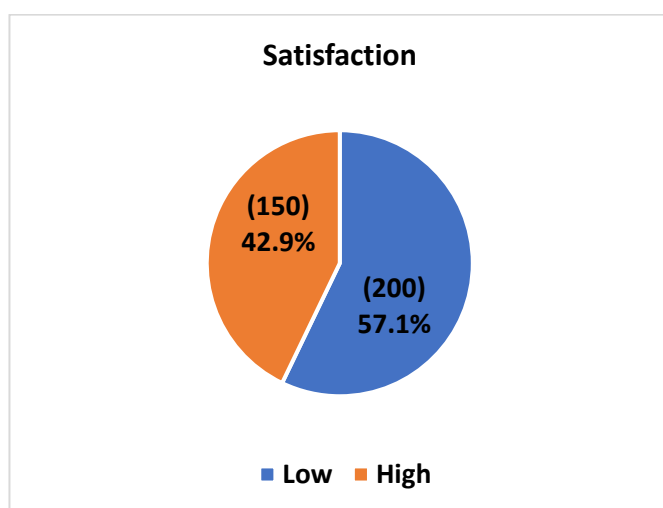


Figure 3. Satisfaction with the quality of care



Table 3. Perception on quality of care received N = 350

<b>Statements</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Undecided</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
Doctors and Nurses are kind, friendly, gentle, and courteous when delivering care to patients.	81 (23.1%)	168 (48.0%)	53 (15.1%)	31 (8.9%)	17 (4.9%)
Doctors and Nurses listen to patients patiently	62 (17.7%)	184 (52.6%)	43 (12.3%)	42 (12.0%)	19 (5.4%)
Doctors and Nurses provide psychological care for patients	63 (18.0%)	144 (41.1%)	67 (19.2%)	48 (13.7%)	28 (8.0%)
Doctors and Nurses are not biased when treating patients of any disease condition	81 (23.1%)	123 (35.1%)	66 (18.9%)	53 (15.2%)	27 (7.7%)
Health care professionals work dutifully and are not in a hurry to complete their shift	52 (14.9%)	108 (30.9%)	81 (23.1%)	78 (22.2%)	31 (8.9%)
Patients do not spend more time waiting before they are attended to by the doctors and nurses	48 (13.7%)	58 (16.6%)	40 (11.4%)	106 (30.3%)	100 (28.6%)
Doctors and nurses provide adequate privacy when treating the patients	78 (22.2%)	201 (57.4%)	38 (10.9%)	26 (7.4%)	7 (2.0%)
Doctors and nurses communicate with patients in a polite manner	75 (21.4%)	149 (42.6%)	65 (18.6%)	43 (12.3%)	18 (5.1%)
Instruments used in providing care are of low quality	47 (13.4%)	58 (16.6%)	125 (35.7%)	84 (24.0%)	36 (10.3%)
Equipment for care is always available	28 (8.0%)	114 (32.6%)	81 (23.1%)	98 (28.0%)	29 (8.3%)
Drugs and other items are always available	43 (12.3%)	109 (31.1%)	85 (24.3%)	79 (22.6%)	34 (9.7%)

Table 4. Patient satisfaction with care received N = 350

Statements	Not very Satisfied	Not Satisfied	Undecided	Satisfied	Very Satisfied
Experience of care during the period of admission to the hospital	62 (17.7%)	124 (35.3%)	48 (13.7%)	98 (28%)	18 (5.3%)
Interactions and behaviour of nurses and doctors	43 (12.3%)	134 (38.3%)	39 (11.1%)	110 (31.4%)	24 (6.9%)
Explanation of procedures of treatment to patients	31 (9.3%)	92 (27.5%)	53 (15.9%)	126 (37.7%)	32 (9.6%)
All the aspects of care (Pharmacy, NHIS, Medical Records, and Account)	36 (10.3%)	121 (34.6%)	84 (24%)	84 (24%)	25 (7.1%)
Cleanliness of the waiting area and clinic environment	37 (10.6%)	70 (20.0%)	48 (13.7%)	150 (42.9%)	45 (12.8%)
Adequacy of the consulting room	47 (13.4%)	72 (20.6%)	68 (19.4%)	134 (38.3%)	29 (8.3%)
Listen patiently to patients and provide psychological care	30 (8.6%)	117 (33.4%)	55 (15.7%)	121 (34.6%)	27 (7.7%)
Care received concerning the cost of care	51 (14.6%)	87 (24.9%)	73 (20.9%)	110 (31.4%)	29 (8.2%)
Competence and skills of doctors and nurses	30 (8.6%)	74 (21.1%)	32 (9.1%)	163 (46.6%)	51 (14.6%)

Table 5: Perceived factors influencing satisfaction N = 350

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
The attitude of Nurses and Doctors to care	66 (18.9%)	221 (63.1%)	42 (12.0%)	16 (4.6%)	5 (1.4%)
Nurses and Doctors are more interested in caring than social activities while on duty	49 (14.0%)	163 (46.6%)	69 (19.7%)	41 (11.7%)	28 (8.0%)
Nurses and Doctors are not skilled and not competent	24 (6.9%)	27 (7.7%)	55 (15.7%)	134 (38.3%)	110 (31.4%)
The cost of care is very high hence discouraging me from subsequent patronage	64 (18.9%)	82 (24.3%)	52 (15.4%)	71 (21.0%)	69 (20.4%)
Health providers-client interaction in the hospital is very poor	59 (16.9%)	100 (28.6%)	63 (18.0%)	51 (14.6%)	77 (22.0%)
Health providers in hospitals are not patient to listen to patients' complaints or properly explain information on health conditions	44 (12.6%)	85 (24.3%)	69 (19.7%)	72 (20.5%)	80 (22.9%)

Long waiting hours to see doctors and nurses discourages me from using health facilities	157 (44.9%)	106 (30.3%)	37 (10.6%)	28 (8.0%)	22 (6.2%)
The kind of routine care received does not worth the cost of care	37 (10.6%)	92 (26.3%)	72 (20.5%)	73 (20.9%)	76 (21.7%)
The distance to access health services encourages subsequent patronage	66 (18.9%)	100 (28.6%)	73 (20.8%)	46 (13.1%)	65 (18.6%)

Overall, the proportion of respondents with low level of knowledge about quality of care was 49(14%), while 301(86%) had high level of knowledge about quality of care (Figure 1). Concerning patients' perception of the quality of care, findings from the study also revealed that about 71% of the participants generally claimed that Doctors and Nurses are kind, friendly gentle, and courteous when delivering care to patients. Not more than 50% of the study participants agreed that healthcare professionals perform their work dutifully. Only 30% of the participants affirmed that patients do not spend more time waiting before they are attended to in the clinics. Up to 79% of the respondents consented that Doctors and Nurses provide adequate privacy when treating patients. About 64% of the patients responded to agree that Doctors and Nurses are polite in their communication. Less than half (41%) responded and claimed that care equipment is always available. Conclusively, about 43% of the participants mentioned that drugs and other items are always available (Table 3).

In summary, more than have 198 (56.6%) of the respondents perceived the quality of care received as being good, while 152 (43.4%), concluded that the received the quality of care was poor (Figure 2). As seen in table 4, not more than 33% of the participants affirmed the assertion that they had a satisfactory experience of care during the period of admission to the hospital in the past. About 38% of them were satisfied with the interactions and behaviours of nurses and doctors. About 56% of the participants revealed that they had a satisfactory feeling toward the cleanliness of the waiting area and clinic environment. Not more than 39% were satisfied with the care received concerning the cost of care. About 61% of the participants were satisfied with the competence and skills of doctors and nurses. In all, the majority 200 (57.1%) of the respondents had low satisfaction with the quality of care, meanwhile, 150 (42.9%) of them were highly satisfied with the quality of care (Figure 3)

From table 5, this study found that about 82% of the participants agreed that the attitude of nurses and doctors to care is a factor that influences their satisfaction with health care services received. About 43% reported that the high cost of care influences their subsequent patronage. About 45% of the participants generally agreed that there is a very poor health provider-client interaction in the study setting. Not more than 36% of the participants agreed that health providers listen to patients' complaints or properly explain information on health conditions. Up to 75% of the participants mentioned that long waiting hours to see doctors discourage them from using health services.

Table 5. Association between knowledge and perception of healthcare quality

Variables	Good Perception	Poor Perception	$\chi^2$ value	df	p-value
High Knowledge	181	120	11.10	1	0.001
Low Knowledge	17	32			

Table 6. Perception and level of satisfaction with care

Variables	High Satisfaction	Low Satisfaction	$\chi^2$ value	Df	p-value
Good Perception	118	80	52.16	1	0.000
Poor Perception	32	120			

The finding showed a significant association between out-patient knowledge of the quality of care and perception of care. Since the obtained p-value is less than 0.05, it implies that the statement of the null hypothesis is rejected. Hence, the conclusion can be made that knowledge of the quality of care by patients is associated with their perception of the quality of health received (see table 6).

Further test showed that there is a significant association between out-patient perception of care received and satisfaction with care received. Since the obtained p-value is less than 0.05, this implies that the statement of the null hypothesis will be rejected. Hence, the conclusion can be drawn that patients' perception of care received is associated with their satisfaction with the quality of health received (see table 7).

## Discussion

This study found that the respondents had good knowledge about healthcare quality. This confirmed what was found in a study conducted in Oman (Al-Jabri, Turunen, and Kvist, 2021). Concerning patients' perception of the quality-of-care results from this study revealed that patients perceived that doctors and nurses listen to them patiently, communicate politely, provide adequate privacy during patients' handling, provide psychological care for them and that they are not biased with the care. Al-Jabri, Turunen, and Kvist, (2021) reported that courtesy and respect of healthcare providers impact more on patient satisfaction. On the contrary, the respondents ascertained that they spent more time waiting to be attended to by doctors and nurses. This is similar to the findings of *Biya, Gezahagn, Birhanu, et al. 2022; Shin, Lee, Kim, et al., 2024*) where the major dissatisfaction in an out-patient department was found to be the long waiting time and overcrowded registration. Moreover, the respondents agreed with the assertion that healthcare professionals performed their work dutifully to some extent, the instruments used in providing care are of low quality, and drugs and other items are always available. In all, the participants had a positive perception of the healthcare received in the study setting. This finding is corroborating what Al-Jabril et al., (2021), reported in their cross-sectional study conducted among 367 patients in Oman where the overall patients' perceptions of quality of care were high, with professionalism being rated the highest, and cognition of physical needs and human resources rated the lowest.

This study also revealed that some of the patients expressed satisfaction in the care they received during the period of admission to the hospital, interactions and behaviours of nurses and doctors, explanation of procedures and care protocols, and in all aspects of care especially, at the Pharmacy, NHIS, Medical Records, and the cost of care, which is similar to the findings in Nigerian's study where out of 121 patients, 63.6% of them were satisfied with the care provided. Furthermore, more than half of the respondents revealed that they had a satisfactory feeling toward the cleanliness of the waiting area and clinic environment and the competence and skills of doctors and nurses (*Babatola, Popoola, Olatubi, and Adewoyin, 2022*). Another similar study conducted among 238 patients in Saudi-Arabia revealed relatively high reported levels of overall patient satisfaction with nursing care, provided care, and provided information (Alharbi, Alzahrani, Almarwani, Asiri, and Alhowaymel, 2023). Other similar findings were found in research conducted among approximately 100 COVID-19 patients in Riyadh, Saudi Arabia, where high satisfaction with nursing care was reported (Alhowaymel et al., 2022).

The respondents agreed that the attitude of nurses and doctors to care could influence their satisfaction with health care services received, nurses and doctors' interest in caring than social activities while on duty also impacts their satisfaction level. Some of the factors which have less influence on participants' level of satisfaction include; high cost of care, very poor health provider-client interaction, healthcare providers' impatience in listening to patient's complaints or not properly explaining information on health conditions, and long waiting hours to see doctors. This could be compared to the findings of a study where the major dissatisfaction among the 422 participants in Southwest Ethiopia was the long waiting time and overcrowded registration (Biya, et al., 2022).

In addition to the above, the researchers found that the respondents' perception of care quality was significantly influenced by their level of knowledge. Finally, further findings showed that participants' perception was a determinant of their level of satisfaction with the quality of care received. Patients may not have the clinical judgment of physicians and often judge quality based on the practitioner's concern and demeanor, among other things. This is similar to what Ferede, Wettergren, Erlandsson, Gezie, Lindgren, and Geda, (2023) found in their study in Ethiopia that there was a positive correlation between patients' perceptions of nurse caring behaviours (total CBI-16) and satisfaction with care (total PSI). Patient satisfaction is an important measure of healthcare quality as it offers information on the provider's success at meeting clients' expectations and is a key determinant of patients' perspectives and behavioural intentions (Kalaja, 2023).

### ***Implications of findings***

The results of this study revealed that a good number of patients have high knowledge of quality of care and a positive perception of quality of care when health providers (nurses) rendered to them. Regardless of the commendation, frantic efforts should be made by the healthcare providers, healthcare facility administrators, and policy-makers to sustain this and ensure its continuous improvement as patients are becoming more aware of their rights. They will be more satisfied if they participate in evaluating the healthcare quality. Also, the need for continuing education programs for healthcare personnel (especially nurses) cannot be overemphasised even while in practice, this will help keep them abreast of the latest innovations in healthcare quality and patients' perspectives of care.

### ***Limitations of the study***

Conducting this kind of study in only one healthcare facility reduces its power of generalisation, therefore, future studies should be more extensive and intensive. Also, to better understand the consumers' judgment on the quality of care received, a qualitative approach could be used to collect data, which is one of the shortcomings of the current study.

### **Conclusion**

Patient satisfaction surveys are the main qualitative measure of the patient perspective. Though, patients may not have the clinical judgment of physicians and often judge quality based on the practitioner's concern and demeanour. The participants of the current study exhibited low satisfaction with the quality of care they received, including the prolonged waiting time to be attended to. It is expected that this study will serve as a means for self-assessment and evaluation which should lead to changes in practice where necessary. Therefore, there is a need for periodic evaluation of healthcare quality (structure, process, and outcomes).

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### ***Authors' contribution***

The authors made significant contributions to the study. DTA, IOK, and CMN were responsible for the conception and design of the study as well as the analysis and interpretation of the data. All three authors participated in drafting the article and revising it critically to ensure its intellectual rigor and relevance. Furthermore, DTA, IOK, and CMN collectively provided final approval of the version to be published, ensuring the integrity and accuracy of the work.

### ***Conflict of interest***

The researchers stated that there is no conflict of interest related to the implementation and publication of the results of this research. The entire research process, from planning, data collection, analysis, to report preparation, was carried out independently without any influence or pressure from any third party. A commitment to research ethics is upheld throughout the research process, ensuring transparency, accuracy and honesty in reporting results. Respondents' participation was voluntary with informed consent, and their confidentiality and privacy were maintained in accordance with applicable research ethics standards. With this statement, researchers hope that the research results can be trusted and used as a valid reference for the development of science and health practices related to ethnomedicine and reproductive health.

### **Ethical consideration**

The study protocol was prepared and submitted to UI/UCH Ethical committee for review. The necessary corrections were attended to, based on the reviewers' observations and suggestions. Permission was obtained from the UI/UCH ethical committee with the IRB number: UI/EC/17/0430. After which the institutional approval was also obtained through the Chairman Medical Advisory Committee. An informed consent form also obtained from the participants after providing information on the essence of the study. The researchers adhered to the ethical principles which are the principles of informed consent, respect for persons, beneficence, nonmaleficence, and justice. All these were done to ensure that the participation was voluntary and that respondents were aware of confidentiality and anonymity.

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