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# Patients' satisfaction with surgical services in a tertiary hospital: A cross-sectional analytical study

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## ABSTRACT

*Patients' satisfaction with health services is partly shaped by the prevalent quality of such services in that locality, cultural values, and the year in health service development. The aim of this study was to evaluate the degree of patients' satisfaction with the surgical services rendered at the Surgery Department of the Rivers State University Teaching Hospital in February of year 2024.*

*A cross-sectional analytical study was carried out among all consenting patients who access surgical services at the Rivers State University Teaching Hospital. There were 220 (56.4%) male respondents and 170 (43.6%) females, with a mean age of 43.2±16.3 years. Majority of the respondents were satisfied (average, good and excellent) with the core surgical services (94.1%) and surgical support services (100%). The cumulative overall patients' satisfaction for both core surgical and surgical support services was 99.2%. A statistically significant positive relationship was found between the degree of satisfaction with core surgical services and technical competencies of staff, respect and good handling, ease of access, good services, and cost of surgical services.*

*An overall above average level of patients' satisfaction is reported in this study, and some areas of improvement were identified. The cost of surgical services, technical competencies of staff, and respect and good handling, were the most dominant reasons that shaped patients' satisfaction.*

**Keywords:** Patient's Satisfaction, Surgical Services, Port Harcourt, Nigeria.

## Introduction

Although the concept of customer satisfaction with services has always been around, it started to attract serious attention within the last 50 years.[1] The recognition of the importance of customer satisfaction in business/service delivery has led to the concept that the customer is "king", "always right", supreme.[2,3,4] However, some writers have had to challenge these assertions.[5,6,7] The American Customer Satisfaction Index (ACSI) regards customer satisfaction as "a strategic company asset that should be optimized, not maximized, and certainly not ignored" to enable them thrive in such changing environment over time.[8] While "everyone" seems to know what customer satisfaction is, defining it academically has been reported to be associated with inconsistencies in terms of whether it is a response - emotional or cognitive; involving a particular focus - expectations, product, consumption experiences; or timing of such experience – before consumption, after choice, based on accumulated experience, etc.[9] Essentially however, it is the cumulative verdict of a customer or consumer about a product or services that determines further or subsequent usage or patronage, thereby shaping market response to that product or services.

In the health sector, the customer is the public, consumer, client, or patients who access services at the hospital. Patients' satisfaction with health services is partly shaped by the prevalent quality of such services in that locality, cultural values, and the year in health service development. Hence the same quality of services offered in a community setting may elicit different levels of patients' satisfaction if provided in township setting, and satisfaction level may vary with countries or continents from the same services. In Africa, survey of patients' satisfaction with surgical services had yielded varying degrees of overall satisfaction, reported from 67.43% in Rwanda to 98.1% in Gondar hospital north-west Ethiopia.[10,11,12,13] In Nigeria, an overall perioperative patient satisfaction of 86.85% was reported at University of Uyo Teaching Hospital.[14] The result of a survey of waiting time and patients' satisfaction at the general outpatient clinic of the University of Port Harcourt Teaching Hospital was reported in 2017 showing 93% satisfaction with time spent in doctors' consultation.[15]

Institutional and government efforts are ongoing in terms of resources and human capital to expand the scope of services rendered in our health facility to meet the triune expectations for training, research and service delivery, as expected of a budding Teaching Hospital. It is pertinent therefore that we evaluate the quality of our services at the Surgery Department of the hospital. Cardinal to any planned improvement in quality of medical or surgical services is patients' satisfaction with the offered services.[16,17,18] The aim of this study therefore, was to evaluate the degree of patients' satisfaction with the surgical services rendered at the Surgery Department of the Rivers State University Teaching Hospital in February of year 2024.

## Materials and Methods

***Research Design:*** A cross-sectional analytical study was carried out.

***Study Area:*** The study was done in Port Harcourt at The Rivers State University Teaching Hospital,

a tertiary healthcare facility in Port Harcourt, the capital of Rivers State, South-South of the Federal Republic of Nigeria.

***Study Sites:*** The sites of study were the surgery clinics, and the surgical wards of the Surgery Department at the Rivers State University Teaching Hospital.

***Study Population:*** All consenting patients who accessed surgical services at the Surgery Department in the month of February 2024 were included.

***Sampling Method:*** Total population of consenting patients was targeted.

***Study Instrument:*** An interviewer-administered questionnaire was used for data collection.

***Validity/Reliability of Instrument:*** The study data was scrutinized by all the authors for authenticity or otherwise, and pre-tested before use. The Cronbach alpha test was done and yielded 0.854.

***Bias:*** Some of the respondents were patient relatives (and not patients). We deliberately included this category because they often have the most contact with the different parts of the hospital in the course of caring for their patients, from the experience in our practice. Hence, they have knowledge of the positive and the negative aspects of our practice that could help in improvement.

***Study Variables:*** The study variables were socio-demographic data, degree of satisfaction with core surgical services (using the five Likert scale), degree of satisfaction with surgical support services (using the five Likert scale); etc.

***Data Analysis:*** The obtained data was analysed using the Statistical Package for the Social Sciences (SPSS) version 20.0. The correlation between respondents' degree of satisfaction with core-surgical services and the reasons for satisfaction was done with Spearman rank correlation ratio.

## Results

There was a total of 390 respondents involved in the study.

Table 1: Socio-demographic characteristics of respondents (n = 390)

| Variables | Number | Percentage |
|---|---|---|
| *Sex* | | |
| Male | 220 | 56.4 |
| Female | 170 | 43.6 |
| *Age (mean=43.17±16.3 years)* | | |
| ≤ 20 years | 25 | 6.4 |
| 21 - 40 years | 164 | 42.1 |
| 41 - 60 years | 140 | 35.9 |
| > 60 years | 61 | 15.6 |
| *Marital Status* | | |
| Single | 141 | 36.2 |
| Married | 245 | 62.8 |
| Widow/Widower | 4 | 1.0 |
| *Religion* | | |
| Christianity | 385 | 98.7 |
| Islam | 5 | 1.3 |
| *Occupation* | | |
| Civil Servant | 39 | 10.0 |
| Public Servant | 41 | 10.5 |
| Business/Trader | 128 | 32.8 |
| Artisan | 53 | 13.6 |
| Student | 61 | 15.6 |
| Farmer/Fisherman | 21 | 5.4 |
| Retired | 39 | 10.0 |
| Unemployed | 8 | 2.1 |

Table 1 shows the socio-demographic characteristics of respondents involved in the study. There were 220 (56.4%) male respondents and 170 (43.6%) females. The mean age was 43.17±16.3 years. Two hundred and forty-five (62.8%) were married and 385 (98.7%) were Christians. The

dominant occupation was business/training (n = 128; 32.8%) followed by students (n = 61; 15.6%), and artisan (n = 53; 13.6%).

Table 2: Degree of satisfaction with core-surgical services (n = 390)

| Variables | | | | | | |
|---|---|---|---|---|---|---|
| Professional Surgical Care | No Idea | Very bad | Bad | Average | Good | Excellent |
| | Number (%) | Number (%) | Number (%) | Number (%) | Number (%) | Number (%) |
| Surgical outpatient clinic | 72 (18.5) | 10 (2.6) | 0 (0.0) | 78 (20.0) | 216(55.4) | 14 (3.6) |
| Surgical ward admission care | 118 (30.3) | 10 (2.6) | 0 (0.0) | 40 (10.3) | 179(45.9) | 43 (11.0) |
| Surgical operating theatre Care | 134 (34.4) | 12 (3.1) | 10 (2.6) | 65 (16.7) | 120(30.8) | 49 (12.6) |
| Physical Facilities | | | | | | |
| State of the surgical clinics | 63 (16.2) | 10 (2.6) | 0 (0.0) | 75 (19.2) | 181(46.4) | 61 (15.6) |
| State of the Accident and Emergency (A/E) unit | 192(49.2) | 0 (0.0) | 35 (9.0) | 40 (10.3) | 86(22.1) | 37 (9.5) |
| State of the surgical wards | 103 (26.4) | 12 (3.1) | 5 (1.3) | 50 (12.8) | 127(32.6) | 93 (23.8) |
| State of the surgical operating theatre | 108 (27.7) | 0 (0.0) | 0 (0.0) | 65 (16.7) | 178(45.6) | 39 (10.0) |
| Staff Behavior | | | | | | |
| Behavior/Attitude of surgeon | 84(21.5) | 0 (0.0) | 27 (6.9) | 24 (6.2) | 225(57.7) | 30 (7.7) |
| Attitude of Medical Officer/ Resident Doctors | 18 (4.6) | 12 (3.1) | 0 (0.0) | 41 (10.5) | 285(73.1) | 34 (8.7) |
| Attitude of House Officers | 4 (1.0) | 0 (0.0) | 24 (6.2) | 57(14.6) | 261(66.9) | 44(11.3) |

Table 2 shows the degree of satisfaction of respondents with core-surgical services. Majority of respondents asserted "good" to the "attitude of medical officer/resident doctors" at work (n = 285; 73.1%), "attitude of house officers" (n = 261; 66.9%), and "behaviour/attitude of surgeon" (n = 225; 57.7%). The variables show that the greater number of respondents recorded their degree of satisfaction in the excellent range were "state of the surgical wards" (n = 93; 23.8%), "state of the surgical clinics" (n = 61; 15.6%), surgical operating theatre care (n = 49; 12.6%), attitude of house officers (n = 44; 11.3%) in decreasing order. The total score of the degree of satisfaction for A/E Department (based on average, good, excellent) was less than half of respondents (n = 163; 41.9%). Some respondents reported the state of the Accident and Emergency Department (n = 35; 9%) and the attitude of some surgeons (n = 27; 6.9%) as bad.

Table 3: Degree of satisfaction with surgical support services (n = 390)

| Variables | | | | | | |
|---|---|---|---|---|---|---|
| | No Idea Freq (%) | Very bad Freq (%) | Bad Freq (%) | Average Freq (%) | Good Freq (%) | Excellent Freq (%) |
| General environmental hygiene of the hospital | 0 (0.0) | 0 (0.0) | 0 (0.0) | 43 (11.0) | 20853.4) | 139 (35.6) |
| The Intensive care unit care | 205 (52.6) | 0 (0.0) | 0 (0.0) | 79 (20.3) | 98 (25.1) | 8 (2.1) |
| Surgical Records Services | 38 (9.7) | 0 (0.0) | 33 (8.5) | 104 (26.7) | 213 (54.6) | 2 (0.5) |
| Nursing Care services | 3 (0.8) | 0 (0.0) | 35 (9.0) | 63 (16.2) | 260 (66.7) | 29 (7.4) |
| Laboratory services | 0 (0.0) | 12 (3.1) | 18 (4.6) | 57 (14.6) | 248 (63.6) | 55 (14.1) |
| Radiologic services | 79 (20.3) | 0 (0.0) | 11 (2.8) | 76 (19.5) | 200 (51.3) | 24 (6.2) |

Table 3 shows patients' degree of satisfaction with surgical support services and environment. More than half of the respondents (minimum n = 200, 51.3%; maximum n = 260, 66.7%) rated the surgical support services as "good". Few surgical support services were rated as excellent, and the general environmental hygiene of the hospital attracted the highest rating (n = 139; 35.6%). The only area reported as "very bad" by a minority of respondents (n = 12; 3.1%) was laboratory services. However, laboratory services were rated as excellent by 55 (14.1%) respondents.

Table 4: Degree of satisfaction with attitude of categories of surgical support staff (n = 390)

| Variables | | | | | | |
|---|---|---|---|---|---|---|
| | No Idea | Very bad | Bad | Average | Good | Excellent |
| | Freq (%) | Freq (%) | Freq (%) | Freq (%) | Freq (%) | Freq (%) |
| Attitude of Nursing staff | 16 (4.1) | 0 (0.0) | 22 (5.6) | 92 (23.6) | 231(59.2) | 29 (7.4) |
| Attitude/Behavior of Anesthetist | 98 (25.1) | 0 (0.0) | 8 (2.1) | 59 (15.1) | 185(47.4) | 40 (10.3) |
| Attitude of Laboratory Staff | 3 (0.8) | 13 (3.3) | 49 (12.6) | 103(26.4) | 193(49.5) | 29(7.4) |
| Attitude of Radiology staff | 68 (17.4) | 0 (0.0) | 38 (9.7) | 78 (20.0) | 206(52.8) | 0 (0.0) |
| Attitude of Record Staff | 6 (1.5) | 0 (0.0) | 13 (3.3) | 224(57.4) | 119(30.5) | 28 (7.2) |
| Attitude/Behavior of Security staff | 0 (0.0) | 0 (0.0) | 88 (22.6) | 42 (10.8) | 231(59.2) | 29 (7.4) |

Table 4 shows the respondents' degree of satisfaction with the attitude of different categories of surgical support staff. More than half of the respondents reported the attitude of all of the support staff to be "good". A few of the respondents rated the attitude of staff as excellent and they include: the anaesthetists (n = 40; 10.3%), medical record (n = 28; 7.2%), and nursing, laboratory & security staff (n = 29; 7.4% respectively). Thirteen patients (3.3%) rated laboratory staff attitude as very bad.

Table 5: Respondents' opinion on surgical specialties whose services they are most satisfied with (n = 390)

| Variables | | | | | |
|---|---|---|---|---|---|
| Specialty | Don't Know | Strongly Disagree | Disagree | Agree | Strongly Agree |
| | Freq (%) | Freq (%) | Freq (%) | Freq (%) | Freq (%) |
| Neurological | 275 (70.5) | 10 (2.6) | 13 (3.3) | 66 (16.9) | 26 (6.7) |
| General Surgery | 55 (14.1) | 28 (7.2) | 27 (6.9) | 166 (42.6) | 114 (29.2) |
| Orthopedic Surgery | 233 (57.7) | 27 (6.9) | 64 (16.4) | 41 (10.5) | 25 (6.5) |
| Pediatric Surgery | 251 (64.4) | 13 (3.3) | 39 (10.0) | 66 (16.9) | 21 (5.4) |
| Burns, Plastic and Reconstructive surgery | 239 (61.3) | 39 (10.0) | 24 (6.2) | 88 (22.6) | 0 (0.0) |
| Urology | 248 (63.6) | 13 (3.3) | 42 (10.8) | 50 (12.8) | 37 (9.5) |

Table 5 shows the respondents' opinion on surgical specialties whose services they were most satisfied with. Majority of the respondents did not have an opinion on this interrogation. However, the highest recorded number of "strongly agree" rating goes to General Surgery Specialty.

Table 6: Reasons for patient's satisfaction in the surgical services (n = 390)

| Variables | | | | | |
|---|---|---|---|---|---|
| | Don't Know | Strongly Disagree | Disagree | Agree | Strongly Agree |
| | Number (%) | Number (%) | Number (%) | Number (%) | Number (%) |
| Cleanliness | 50 (14.4) | 52 (13.3) | 24 (6.2) | 154(39.5) | 110 (28.2) |
| Technical competencies of staff | 39 (10.0) | 30 (7.7) | 14 (3.6) | 210 (53.8) | 97 (24.9) |
| Respect and good handling | 14 (3.6) | 28 (7.2) | 22 (5.6) | 202 (51.8) | 124(31.8) |
| Ease of access | 69 (17.7) | 27 (6.9) | 26 (6.7) | 192(49.2) | 76(19.5) |
| Promptness of service | 46 (11.8) | 40 (10.3) | 71 (18.2) | 180(46.2) | 53 (13.6) |
| Good services | 40 (10.3) | 28 (7.2) | 48 (12.3) | 177 (45.4) | 97 (24.9) |
| Cost of surgical services | 17 (4.4) | 19 (4.9) | 31 (7.9) | 236(60.5) | 87 (22.3) |

Table 6 shows the reasons for respondents' satisfaction with surgical services. Respondents rated their reasons for satisfaction with surgical services, and more than half "Agree" that cost of surgical services (n = 236; 60.5%), technical competencies of staff (n = 210; 53.8%), and respect and good handling (n = 202; 51.8%) accounted for their satisfaction. However, the variable to which the highest number of respondents "Strongly Agree" to as being responsible for their degree of satisfaction was "Respect and good handling" (n = 124; 31.8%), followed by environmental "cleanliness" (n = 110; 28.2%).

Table 7: Patients' opinion on waiting time at the surgical outpatient clinics (n = 390)

| Variables | Number | Percentage |
|---|---|---|
| *Waiting time on first visit (mean= 2.69±1.6 hours, min=15mins, max=8hrs)* | | |
| Less than 1hour | 24 | 6.2 |
| 1-2 hours | 169 | 43.3 |
| 3-5 hours | 155 | 39.7 |
| More than 5hours | 24 | 6.2 |
| Don't know | 18 | 4.6 |
| *Waiting time on last visit* | | |
| Less than 1hour | 13 | 3.3 |
| 1-2 hours | 228 | 58.5 |
| 3-5 hours | 98 | 25.1 |
| More than 5hours | 18 | 4.6 |
| This is my First Visit | 33 | 8.5 |

Table 7 shows respondents' opinion on waiting time at the surgical outpatient clinics. The mean waiting at first visit was 2.69±1.6 hours, while that on last visit was 2.27±1.5 hours.

Figure 1: Patients' degree of satisfaction with core surgical services

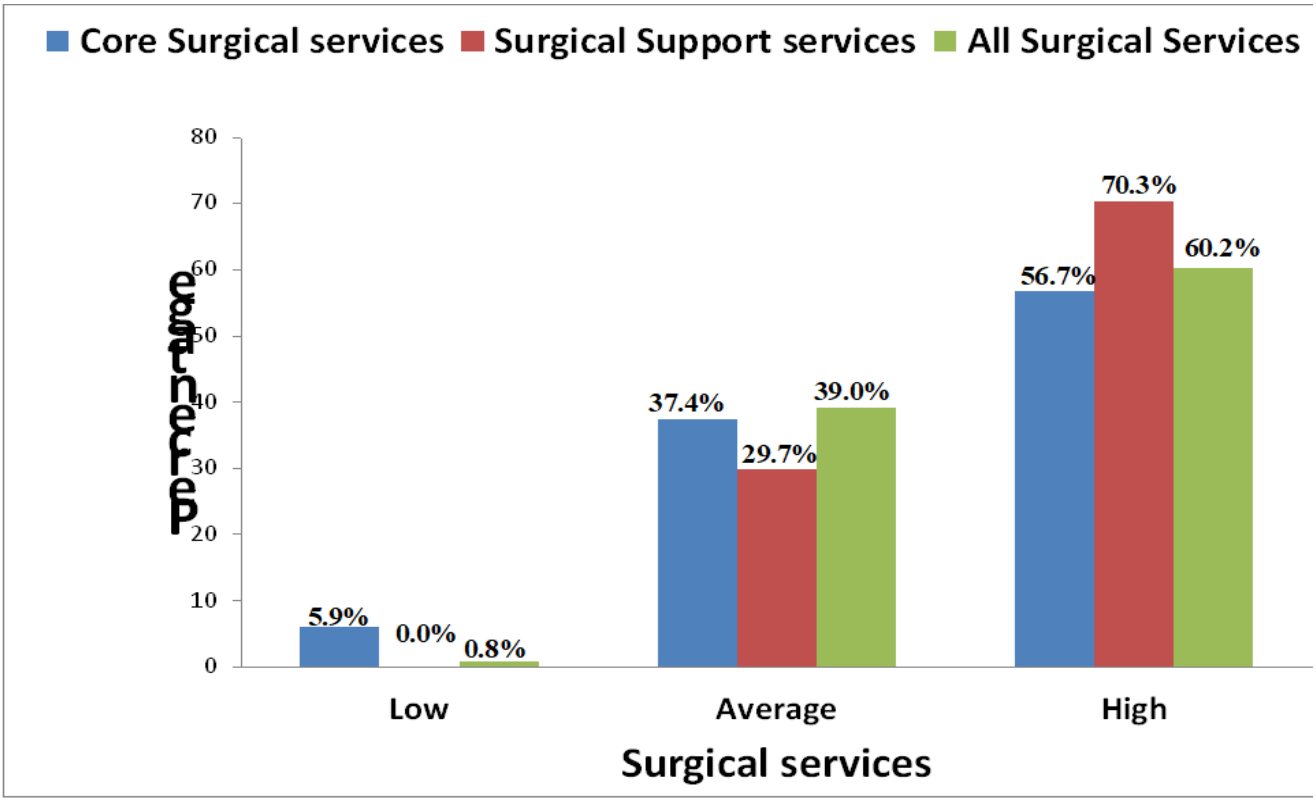


Figure 1 shows the summary of the degree of satisfaction with surgical services. The overall patients' satisfaction with core surgical services (average and high) was 94.1%. One hundred percent of patients were satisfied (average and high) with surgical support services. The cumulative score for all surgical services was 99.2%.

Table 8: Degree of satisfaction with core surgical services and reasons for satisfaction/gender of respondents

| Variables<br>Reasons for satisfaction | Degree of satisfaction with core surgical services |
|---|---|
| Cleanliness | r= 0.064; P>0.05 (P= 0.207) |
| Technical competencies of staff | r= 0.143; P<0.05 (P= 0.005) |
| Respect and good Handling | r= 0.408; P<0.01 (P= 0.000) |
| Ease of access | r= 0.208; P<0.01 (P= 0.000) |
| Promptness of service | r= 0.072; P>0.05 (P= 0.159) |
| Good services | r= 0.183; P<0.01 (P= 0.000) |
| Cost of Surgical services | r= 0.104; P<0.01 (P= 0.000) |

| | Degree of Satisfaction with core surgical service | | | | | |
|---|---|---|---|---|---|---|
| Gender | Low | Average | High | Total | ($X^2$) | P-Value |
| Male | 16 (7.3%) | 82 (37.3%) | 122(55.5%) | 220 | | |
| Female | 7 (4.1%) | 64 (37.6%) | 99 (58.2%) | 170 | 1.753 | 0.416 |
| Total | 23 | 146 | 221 | 390 | | |

The correlation between respondents' degree of satisfaction with core-surgical services and the reasons

for satisfaction is shown in Table 8. A positive statistically significant relationship is demonstrated between the degree of satisfaction with core surgical services and technical competencies of staff, respect and good handling, ease of access, good services, and cost of surgical services. Although female respondents displayed higher satisfaction than the male respondents, this relationship was not statistically significant (P>0.05).

## Discussion

Confidence in one's self or one's services is a good virtue to be cherished, however, knowing the infallibility of man, warrants any organisation that wishes to improve to value the opinion of its critics or umpire. Such is the case with the opinion of the opposition party in a sane democracy (who like the "common man" feels the effect of the government in power); the opinion of the referee or video assisted referee in a game of soccer; and of course, the opinions of patients/the public in surgical services delivery. This philosophy partly forms the theoretical basis for this study that sought the opinions of our patients (patients' perspective) to achieve desired improvement in surgical services. There were more male respondents than females (male to female ratio of 1.83:1), and their mean age was 43.17±16.3 years. This mean age is higher than the value of 33.7 ± 17.2 years reported in Ibadan as mean age among surgical emergency patients.[19] However, our study evaluated all categories of surgical patients inclusive of non-emergent cases. Our finding is also higher than the mean age of 38.63 years in Kigali Rwanda were study of patients' satisfaction with surgical services was also done.[10] It is however, relatively similar to the mean age 40.9 years reported in a similar study in Port Harcourt among patients in General out Patient clinics.[15]

Waiting time is a key quality that partly determines patients' satisfaction with services.[20] The mean waiting time, in the opinion of the respondents was 2.7±1.6 hours at first visit, and 2.3±1.5 hours on last visit. This time covers from patients' arrival at the hospital to the point of having access to see the surgical personnel for first timers and follow up visits. This finding is less than the 274 minutes (approximately 4½hours) reported in Port Harcourt 2017 for general outpatient consultation,[15] where the waiting time was found to affect patients' satisfaction. Most studies in Nigeria reported waiting time that vary from 2 to 4 hours.[21] Our study is also similar to the observation of overall 168.4 minutes (2.8 hours) reported in a study in Sokoto Northern Nigeria at the General Outpatient Department of a Teaching Hospital.[22] The computerization/digitization of patients' payments/registration along with other administrative implementations in our centre would have been responsible for the improved waiting time.

The background hospital environment in which surgical services are offered affects the perception or opinion of the patients about the services. This is partly psychological as a high-quality surgical service in a poor hospital environment may not have the same patient satisfaction as such services found in a good quality environment, because the first example erodes the trust from the patients. This concept is partly highlighted in studies that emphasize environmental variables/tangibility factors and patient satisfaction for quality improvement.[23,24,25] In our study, the state of the surgical wards, surgical clinics, surgical operating theatre care, and the attitude of the most junior medical doctors were rated in the excellent range in decreasing order. It is reassuring that the efforts of the Rivers State Government in improving health

through infrastructural upliftment, and the institutional and departmental administrative input are beginning to make some impact.

Majority of the respondents were highly satisfied (good and excellent) with the core surgical services, and cumulatively 94.1% of respondents were satisfied (average and high) with the core surgical services. Our finding is higher than the observation for surgical services evaluation study in Delta State where patients' satisfaction with the "technical quality" of services was rated 82.6%.[26] The only variable among the core surgical services in which less than half of the respondents were satisfied was the emergency surgical service access point. The total rating of the degree of satisfaction (average, good, excellent) for the Emergency Department (ED) was less than half (41.9%). Additionally, almost a tenth of respondents opined that the state of the Accident and Emergency Department was "bad". The ED is that part of the hospital where emergency surgical (and medical) patients gain access to be attended to by the surgical teams. Our value of 41.9% is very low compared to 75%/95% patients' satisfaction at the ED/surgical assessment unit in a study in Ireland.[27] However, our value of 41.9% is limited to the "state of the Accident and Emergency Department", and not necessarily a summation of the surgical services rendered at the Department. In a South-Western Nigeria study, 90.5% of participants indicated their satisfaction with emergency care services rendered at the centre, which is higher than finding in our study.[28]

The attitude exhibited by the health care staff while rendering services to the public should be welcoming enough to partly allay the anxiety of the patients, among others. This concept is emphasized in a study on Hospital Service Quality in Nigeria, as one of the eight dimensions of service quality.[29] More than half of the respondents positively asserted to the attitude of the core surgical care personnel. The rating for patients' satisfaction (combined average, good, and excellent) with surgical personnel's attitude was 71.6% for surgeons, 92.3% for Medical Officer/Resident Doctors, and 92.8% for House Officers, giving a cumulative average of 85.6%. This study recorded a low in the attitude of some surgeons, as few respondents described their attitude as "bad". The cumulative rating of the attitude of core surgical staff in this study is less than that reported by Ekpe and Peter in Akwa Ibom State Nigeria where 91.1% (satisfied and very satisfied) was observed.[14] Although majority of the respondents did not have an opinion on the surgical specialty whose services was more satisfying, General Surgery Specialty had the highest recorded number of "strongly agree".

Our core surgical overall finding of 94.1% patient satisfaction (averagely satisfied 37.4%, highly satisfied 56.7%) is higher than the 86.57% reported for overall patients' satisfaction with surgical services at the University of Uyo Teaching Hospital in year 2016.[14] Although these two studies were done about 8 years apart, some structural and administrative changes prevalent at our centre may have accounted for the difference in these findings. Our finding is also higher than the overall patient satisfaction of 75.8% reported in the middle-belt of Nigeria,[30] and 63.1% reported for a tertiary health facility in Delta State.[26] However, it is lower than the overall patient satisfaction of 98.1% for surgical services in Gondar-Ethiopia.[13]

One hundred percent (100%) of patients were satisfied (both average and high) with surgical support services. Although laboratory services were rated excellent by more than a tent of respondents, a few

scored the services as very bad. This implies that some individuals had some experiences about our laboratories that were below their expectations. Irrespective of these, all the patients were still averagely / highly satisfied with the surgical support services. The general environment hygiene and ambience of the hospital which was score highest must have contributed to this observation. The impressive role of certain categories of surgical support staff - anaesthetists, medical record, nursing, laboratory staff, and security staff which earned the accolades of the respondents in the excellent range is another possible explanation for the 100% patient satisfaction observed with surgical support services.

The cost of surgical services, technical competencies of staff, and respect & good handling were the triune factors that accounted for the satisfaction of more than half of the respondents using the affirmation "agree", out of which "respect & good handling" in the "strongly agree" category. In a systematic review of the determinants of patients' satisfaction with health services, the quality of the health providers' interpersonal care was found to be key among others.[31] The findings of other studies also emphasized the importance of this interaction with patients.[32,22,24] It is therefore not surprising that patients in the index study valued "respect and good handling" as revealed in our study. The emphasis on cost of surgical services is also not surprising bearing in mind the current economic situation of Nigeria. Our finding is in agreement with other researchers on this subject.[35,36,37] It is rather not surprising therefore that the technical competencies of staff, respect and good handling of patients, ease of access to surgical services, good services, and cost of surgical services in this study, all had statistically significant relationship with respondents' degree of satisfaction with core surgical services.

Study Limitations: Not all the respondents involved in this study passed through the whole services offered by the Surgery Department, and hence may not have had first-hand personal opinion across board. This implies that the information provided by this category of patients/respondents in this study may represent what they know about our services from the pool of public opinion. Additionally, not all aspects of patient satisfaction were covered in our study.

## Conclusion

Above average patient satisfaction was rated by majority of surgical patients for core surgical services rendered, and a similar rating applies for surgical support services. The general environmental hygiene of the hospital attracted an excellent score by more than a third of the respondents. The attitude/behaviour of surgical and non-surgical staff was rated above average by more than half of respondents. The cost of surgical services, technical competencies of staff, and respect & good handling were the most dominant reasons that shaped patients' satisfaction, and all these factors and ease of access to surgical services were found to have statistically significant positive relationship with patient satisfaction with core surgical services. Although an overall high level of patient satisfaction is reported in this study, there are still identified areas of improvement. These areas include the state of the Accident and Emergency Department, the attitude of some staff, and laboratory services.

**Recommendations:** The surgeons and other surgical support staff should make extra effort to enhance interpersonal relationship with patients in

the interest of humanity. Effort should be channeled to improve the state of the Accident and Emergency Department of the hospital. The current cleanliness of the hospital and other result-oriented measures should be sustained.

## Other Information

**Acknowledgement:** We acknowledge the contributions our Dr Emeka Uzoma, Miss Faith Ezere, and Surgery Departmental Unit House Officers for their pain-staking efforts in assisting patients to obtain data used for this study.

**Ethical Considerations:** The approval of the Research Ethics Committee of the Rivers State University Teaching Hospital was obtained.

**Source of Funding:** The study was self-funded by the researchers.

**Conflict of Interest:** None declared.

## Appendices

Institutional Research Ethics Committee approval
Study Questionnaire

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