Patient satisfaction with services at a tertiary hospital in south-east Nigeria

Ikechukwu E Obi, Anne C Ndu, Kenneth A Agu, Babatunde I Omotowo, Chuka C Agunwa, Arthur C Idoko

Faculty of Medical Sciences, College of Medicine, University of Nigeria Nsukka/University of Nigeria Teaching Hospital, Enugu

Abstract

Background
Patients’ views of the services they receive in a healthcare service help identify critical areas that may need improvement. This survey set out to determine patients’ satisfaction with quality of general services and specifically with staff attitude and the hospital environment, while on admission at a teaching hospital in Enugu, south-east Nigeria.

Methods
This was a descriptive cross-sectional study using a structured self-administered questionnaire on 170 patients (54% females and 46% males, aged between 20 and 65 years), post admission, selected by multistage sampling.

Results
Less than half (47.3%) of the patients were satisfied with care received on admission. More than half of them (51.8%) were satisfied with the cleanliness of the hospital environment and how power supply was maintained in the hospital (62.4%). Doctors (90%), nurses (64.1%) and records staff (60.6%) were considered courteous and professional. Most patients were satisfied with the level of privacy given to them in their course of hospital stay (67.6%) and with the cost of laboratory investigations (51.8%).

Conclusion
Despite more than half of the surveyed patients being satisfied with some specific aspects of services given while on admission, those satisfied with the overall experience were less than half. Therefore, periodic patient satisfaction surveys should be institutionalized in this facility to provide feedback for continuous quality improvement.

Keywords: patient satisfaction, tertiary facility, healthcare, Nigeria

Introduction
Health, according to the World Health Organization, is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Thus, a health facility should be a place that strives to help patients return to health as defined. Patient satisfaction has gained recognition as a measure of the quality of service delivery. This recognition is not lost on the health sector as the recognition as a measure of the quality of service delivery.

The sample size was determined using the Cochran's formula $n = \frac{Z^2 \times p(1-p)}{e^2}$ (Where $n$ is the sample size, $Z^2$ is the abscissa of the normal curve that cuts off an area $\alpha$ at the tails; $(1 - \alpha)$ equals the desired confidence level, 95%; $p$ is an estimated proportion of patients satisfied with clinical services from a health care provider and or service; $e$ is the desired level of precision, 0.05; $p$ is an estimated proportion of patients satisfied with clinical services from a hospital system is working, offering insight into areas that need changes and providing useful information that assists management to close gaps between the way things are being run and the way things should be run.

Patient satisfaction is the degree to which the patient's desired expectations, goals and or preferences are met by the health care provider and or service. Such a report from physicians, nurses and other relevant sources in a health care facility is posited to represent the level of the patients' satisfaction with the care received, even though evidence suggests that the survey data generated can be underutilized by staff. Poor patient satisfaction has been related to some undesirable details as stated in a recent article; that a patient who complains means that 20 more may have been silent though unhappy and their grievances may never be known; 70 percent of dissatisfied patients may never return; 75 percent of dissatisfied patients will discourage up to 9 family members or friends. Such figures should make a hospital's management uncomfortable. The aim of this survey was to determine patients’ overall satisfaction with quality of general services and specifically with staff attitude and hospital environment while on admission to a teaching hospital in Enugu, Southeast Nigeria.

Methods
The study was conducted at the University of Nigeria Teaching Hospital (UNTH), located between Iruku and Ozalla towns of Enugu, south-east Nigeria, between September and December 2015. It is a 500-bed facility having outpatient clinics and wards that cover most clinical specialties of medicine while being a noted cardiothoracic centre of excellence. It serves as a referral center for tertiary care to over 3 million citizens of the state and more from other states in the south-east region of the country.

The sample size was determined using the Cochran's formula $n = \frac{Z^2 \times p(1-p)}{e^2}$ (Where $n$ is the sample size, $Z^2$ is the abscissa of the normal curve that cuts off an area $\alpha$ at the tails; $(1 - \alpha)$ equals the desired confidence level, 95%; $p$ is an estimated proportion of patients satisfied with clinical services from a hospital system is working, offering insight into areas that need changes and providing useful information that assists management to close gaps between the way things are being run and the way things should be run.)
previous study in this population\(^2\), 0.94; and q is 1-p). The value for Z is as found in statistical tables which contain the area under the normal curve, here Z = 1.96 for 95% level of confidence. To the resulting sample size of 86.6, 10% was added to take care of possible nonresponse giving 95.7. However, 239 questionnaires were prepared with 170 filled; a 71.1% response rate. Utilizing a descriptive cross-sectional study design and by multistage sampling (first a simple random sample of hospital departments, followed by a proportionate sampling of patients discharged from male and female wards of the selected departments), an estimated sample of 239 adult patients was given a self-administered structured questionnaire. This questionnaire had been developed by the authors using information obtained during literature review. A pilot test was conducted in the nearby state-owned teaching hospital. It obtained information on patients’ socio-demographic data, satisfaction with the hospital environment, admission processes and services received from the staff at different service points related to admission (clinic, records, laboratory, pharmacy and the ward) and satisfaction with their overall experience while on admission. Ethical clearance was obtained from the hospital’s ethical review committee, while verbal and written consent was sought and obtained from each patient after a detailed explanation of the purpose of the study was given. The Statistical Package for the Social Sciences (SPSS) version 20 23 was used to analyze the data collected, presented in tables as frequencies and percentages with one chart showing the proportion of patients that were generally satisfied with the care they had received.

**Results**

The patients interviewed were adult patients between the ages of 20 and 65 years. There were 170 respondents who consented, out of the 239 exit interviews initiated, a response rate of 71%. There were 54.1% females and 45.9% males in all that participated in the study. They were mostly civil servants (47.6%), those engaged in business/trading (27.1%) and unemployed/students (25.3%). Most of the respondents were educated to the tertiary level (48.3%). All were incidentally Christians and mostly from the Igbo tribe (94.7%), Table 1. For overall care, fewer than half (47.3%) of the respondents expressed satisfaction with the care they received while on admission, 29.6% were not satisfied and 23.1% of them were uncertain. (Figure 1) More than half of the respondents agreed that the hospital environment was clean (51.8%) and that there was a fairly constant power supply in the hospital (62.4%). Less than half of the respondents, expressed satisfaction with other aspects of the hospital environment, like availability of potable water (18.8%), cleanliness of bathrooms and toilets (14.7%), availability of good and affordable food (32.9%) and comforts provided to accommodate their relatives (14.1%). (Table 2) Doctors were considered courteous and professional by a good number of the respondents (90%). Doctors always listened to their complaints (90.6%) and always explained the reasons for the tests they ordered (74.1%). More than half of the respondents considered the nurses (64.1%) and the records department staff (60.6%) courteous and professional as well. A similar number of respondents was also satisfied with the level of privacy provided in the course of their stay in the hospital (67.6%). Fewer respondents, however, expressed satisfaction with the pharmacy (41.8%) and the medical laboratory staff (43.5%). (Table 2)

**Table 1: Socio demographic characteristics of respondents**

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-30 years</td>
<td>65</td>
<td>38.2</td>
</tr>
<tr>
<td>31-40</td>
<td>50</td>
<td>29.4</td>
</tr>
<tr>
<td>&gt;40</td>
<td>55</td>
<td>32.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>78</td>
<td>45.9</td>
</tr>
<tr>
<td>Female</td>
<td>92</td>
<td>54.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Unemployed/students</th>
<th>Business/traders</th>
<th>Civil servants</th>
<th>Married</th>
<th>Single</th>
<th>No response</th>
<th>Religion</th>
<th>Christianity</th>
<th>Tribe</th>
<th>Igbo</th>
<th>Yoruba</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>43</td>
<td>46</td>
<td>81</td>
<td>107</td>
<td>63</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>25.3</td>
<td>27.1</td>
<td>47.6</td>
<td>62.9</td>
<td>37.1</td>
<td>1.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Highest level of education</th>
<th>First school leaving certificate</th>
<th>WASSCE</th>
<th>B.sc/ HND</th>
<th>Others</th>
<th>No response</th>
<th>Religion</th>
<th>Christianity</th>
<th>Tribe</th>
<th>Igbo</th>
<th>Yoruba</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>23</td>
<td>44</td>
<td>82</td>
<td>19</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>13.5</td>
<td>25.9</td>
<td>48.3</td>
<td>11.2</td>
<td>1.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 1: Overall patient satisfaction**

https://dx.doi.org/10.4314/mmj.v30i4.10
Table 2: Patient's overall satisfaction and with hospital environment, health worker attitude and services

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Frequency (%)</th>
<th>Satisfied</th>
<th>Not Satisfied</th>
<th>Uncertain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hospital Environment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The hospital environment is clean</td>
<td>88 (51.8)</td>
<td>53 (31.2)</td>
<td>29 (17.1)</td>
<td></td>
</tr>
<tr>
<td>Potable water is readily available</td>
<td>32 (18.5)</td>
<td>86 (50.6)</td>
<td>52 (30.6)</td>
<td></td>
</tr>
<tr>
<td>The bathrooms and toilets are clean</td>
<td>25 (14.7)</td>
<td>83 (48.8)</td>
<td>62 (36.5)</td>
<td></td>
</tr>
<tr>
<td>There is affordable and good food</td>
<td>56 (32.9)</td>
<td>47 (27.6)</td>
<td>67 (39.4)</td>
<td></td>
</tr>
<tr>
<td>There is fairly constant power supply</td>
<td>106 (62.4)</td>
<td>29 (17.1)</td>
<td>35 (20.6)</td>
<td></td>
</tr>
<tr>
<td>Patients relatives are comfortable</td>
<td>24 (14.1)</td>
<td>87 (51.2)</td>
<td>59 (34.7)</td>
<td></td>
</tr>
<tr>
<td><strong>Health Worker Attitude</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doctors are courteous and professional</td>
<td>153 (90)</td>
<td>3 (1.8)</td>
<td>14 (8.2)</td>
<td></td>
</tr>
<tr>
<td>Doctors always listen to complaints</td>
<td>154 (90.6)</td>
<td>5 (2.9)</td>
<td>11 (6.5)</td>
<td></td>
</tr>
<tr>
<td>Doctors always explain reasons for tests</td>
<td>126 (74.1)</td>
<td>26 (15.3)</td>
<td>18 (10.6)</td>
<td></td>
</tr>
<tr>
<td>Patient satisfied with level of privacy given</td>
<td>115 (67.6)</td>
<td>44 (25.9)</td>
<td>11 (6.5)</td>
<td></td>
</tr>
<tr>
<td>Nurses are courteous and professional</td>
<td>109 (64.1)</td>
<td>39 (22.9)</td>
<td>22 (12.9)</td>
<td></td>
</tr>
<tr>
<td>Pharmacists are courteous and professional</td>
<td>71 (41.8)</td>
<td>37 (21.8)</td>
<td>62 (36.5)</td>
<td></td>
</tr>
<tr>
<td>Laboratory scientists are courteous and professional</td>
<td>74 (43.5)</td>
<td>55 (32.4)</td>
<td>41 (24.1)</td>
<td></td>
</tr>
<tr>
<td>Record department staff are courteous and professional</td>
<td>103 (60.6)</td>
<td>30 (17.6)</td>
<td>37 (21.8)</td>
<td></td>
</tr>
<tr>
<td><strong>Hospital Services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital admission processes are not stressful</td>
<td>46 (27.1)</td>
<td>80 (47.1)</td>
<td>44 (25.9)</td>
<td></td>
</tr>
<tr>
<td>Clinic waiting time is fair</td>
<td>76 (44.7)</td>
<td>58 (34.1)</td>
<td>36 (21.2)</td>
<td></td>
</tr>
<tr>
<td>Equipment are available and functional</td>
<td>50 (29.4)</td>
<td>76 (44.7)</td>
<td>44 (25.9)</td>
<td></td>
</tr>
<tr>
<td>Laboratory waiting time is fair</td>
<td>54 (31.8)</td>
<td>62 (36.5)</td>
<td>54 (31.8)</td>
<td></td>
</tr>
<tr>
<td>Laboratory results are promptly available</td>
<td>69 (40.6)</td>
<td>61 (35.9)</td>
<td>40 (23.5)</td>
<td></td>
</tr>
</tbody>
</table>

About half of the respondents were satisfied with the cost of laboratory investigations (51.8%), while fewer expressed satisfaction with other aspects of hospital services; admission process (27.1%), clinic waiting time (44.7%), availability and functionality of equipment (29.4%), laboratory waiting time (31.8%), promptness of laboratory results (40.6%), in-stock status of drugs (45.9%) and pharmacy waiting time (42.9%).

Discussion

This descriptive cross-sectional study in a teaching hospital assessed, using a questionnaire, patient satisfaction with general services received and specifically with the hospital environment and with staff attitude. In case of general services, less than half of the patients were satisfied. More than half were satisfied with the cleanliness of the hospital environment and with power supply. Doctors, nurses, and records staff were considered courteous and professional. Most were also satisfied with the level of privacy given and with the cost of laboratory investigations. Patient satisfaction with hospital services is a concept initially thought to be difficult to measure24-26. The process provides information on problems or successes with service areas, exposing them for improvement or continuity27-29. There is no single universal method for measuring this concept28-30 as a myriad of tools to measure it have been developed and utilized. However, like has been utilized in this study, the tool most frequently cited in literature to measure patient satisfaction is a survey22-27 using questionnaires16,38-42. This study assessed patient satisfaction with services in general within the study teaching hospital and less than half of the respondents were satisfied with overall services received while on admission. This finding agrees with that of an earlier study in the same hospital32 that focused on eye care services where it was found that, like in this study, fewer than half (45.6%) of the respondents would recommend the hospitals services to another. Another assessment in the same year of pediatric services in this same hospital33 elicited an overall assessment of satisfaction from more than half of respondents, (51.2%). It is interesting to note that the average of the proportions of patients from these two studies that examined individual departments of the same hospital is similar (<50%) to the finding in this study which examined a sample of all the departments. One other study 44 revealed overall patient satisfaction among 56.4% of respondents for services received at a Federal Medical Centre in Makurdi, Benue State. In India Sreenivas45, observed that few patients were satisfied with the services received from three hospitals studied simultaneously. Iliyasu et al46, in Kano Nigeria, observed patient satisfaction overall with teaching hospital services from a good number (83%) of patients. In Anambra state, Nigeria, Emelumadu et al47 also observed satisfaction overall with services in the general outpatient department of the Nnewi teaching hospital from a good number (79%) of patients. Patient satisfaction surveys of hospital services, in general, can go either way, thus this should be carried out intermittently as a management tool to assess patients' perception of quality of services. The result of this study should thus call the attention of the hospital's management to issues around patient care examined here.

Looking at specific aspects of care, for the environment, a good number of the respondents in this study were satisfied with the level of cleanliness of the hospital environment. The study by Ezegwui et al48 also observed satisfaction with the cleanliness of the eye clinic in UNTH among patients. This is similar to figures reported by Adeniyi et al in Lagos 48 and Sreenivas et al in India45. Satisfaction, however, did not extend to other and more critical aspects of the hospital environment, for concerning the availability of potable water for drinking and washing up, not up to half of the patients were satisfied while others were either not satisfied or undecided. Concerning cleanliness of bathrooms and toilets, this study found that not much may have changed in the year preceding the study which focused on eye care services22. This is a finding similar to results observed by Seetesh et al in India49. Patients, while on admission, are usually served with food and are made as comfortable as possible. However, this was not the case for patients' relatives. The number of respondents satisfied with the availability of good and affordable food (for relatives) was low, and it was the same with availability of facilities to accommodate patients' relatives. Patients' relatives provide physical and emotional support while on admission, thus this finding underscores the observation by Adamson et al that to ensure patients have emotional

https://dx.doi.org/10.4314/mmj.v30i4.10
support is to improve patient satisfaction with hospital services. They went ahead to suggest that organizational effort at understanding components of emotional support in hospital care will lead to actions that ensure that basic comforts are provided for patients’ relatives which will potentially improve patient satisfaction scores and, in turn, the overall perception of quality of patient care. A good number of the respondents in this study also expressed satisfaction with the fairly constant power supply while on admission. These findings indicate that beyond services, aspects of the hospital environment contribute to the overall perception of satisfaction with hospital services.

It has been noted in the literature that even though patients expect competence, they will only give a neutral satisfaction rating in response to competence. Competence and courtesy will get a satisfactory rating, while in the presence of competence, courtesy, and compassion, patients will be very satisfied. The attitude of the clinical staff (doctors and nurses) and the records staff was satisfactory to a good number of respondents in this study, more than could be said for laboratory and pharmacy staff. Other studies have also reported varying levels of overall satisfaction with staff attitudes and thus the services they provide. Iliyasu et al., Yadav et al. and Seetesh et al. have reported satisfaction with clinical staff while Ezegwui et al., Eke et al. and Emelumadu et al. observed dissatisfaction with other staff also. Conversely, Jeremiah et al. and Yawson et al. in Ghana reported dissatisfaction with clinical staff and in Benin Oparah et al reported dissatisfaction with pharmacists and pharmacy services. These findings may draw attention to the issue of patient satisfaction in relation to health worker attitude in developing countries. An observed trend of satisfaction with clinical staff and contrasting dissatisfaction with attitude and treatment by non-clinical staff may imply that this cadre of health workers may present a weak link in the perception of quality of health care delivery in this and other hospitals in the study country.

On hospital services in general, a good number of respondents in this study expressed satisfaction with the costs of laboratory investigations, while few were satisfied with admission processes, clinic, laboratory and pharmacy waiting times, drugs not being in stock and the unavailability or poor functioning of hospital equipment. Iliyasu et al. in Kano indicated dissatisfaction with waiting time and cost of treatment. Yadav et al. observed satisfaction with diagnostic services among patients in a multi-specialist tertiary hospital in northern India. Seetesh et al in India observed patients satisfied with the admission process and with the beds provided. For another study in India, it was low patient satisfaction with the outpatient services in a hospital and research center. As it has been shown here, other studies also show that in a hospital, patient satisfaction can vary for different components of care as well as with the overall measure of patient satisfaction for services, at different times.

Conclusion
Despite the satisfactory rating for certain separate aspects of services given by more of the patients in the survey, the overall experience while on admission did not get this satisfactory rating from the most. Aspects of service that need to be maintained are the cleanliness of the hospital environment and provision of power and aspects needing improvement are the cleanliness of bathrooms and toilets, availability of potable water, decent/affordable food and provision of facilities to accommodate relatives. Effect of staff attitude on satisfaction is varied; while the attitude of doctors, nurses, and records staff was commended, the attitude of pharmacy and medical laboratory staff needed to be addressed at the time of the study. Admission processes, clinic, laboratory and pharmacy waiting times, promptness of laboratory results and availability of functional equipment and drugs also need, as a feedback from the survey, to be reviewed.

Recommendation
The utility of patient satisfaction surveys in examining the quality of services in a hospital is recognized here, thus the findings of this survey will be used for advocacy to the hospital’s medical advisory committee in favor of the institution of such surveys periodically as a quality improvement tool.

Limitations
Patient interviews (one-on-one or as group interviews) may have provided a deeper understanding of the patient’s perspectives on hospital services than the self-administered structured questionnaire utilized.

The authors also recognize that, despite the pilot testing of the questionnaire, patients could still have misunderstood some of the questions or been reluctant to answer honestly without ample opportunity for clarification with the study instrument used.

Acknowledgments
Data collection was made possible through the assistance of four fifth-year medical students of the institution. We would like to acknowledge the following persons who participated in the data collection exercise: Chisomebi W. Eze, Izuochukwu S. Eze, Kingsley C. Eze and Emmanuel O. Igata. The authors would like to kindly acknowledge the patients for granting us permission to seek further information from them even after being discharged. This study did not receive any funding.

Conflicts of interest
The authors declare that they have no conflicts of interest related to this study.

References

https://dx.doi.org/10.4314/mmj.v30i4.10


