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Research Article

Patient satisfaction with health services in public and private Hospitals in South-South Nigeria

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ABSTRACT

To assess and compare patients' satisfaction with the quality of care in public and private hospitals in South-South Nigeria. This was a questionnaire-based, cross-sectional survey of outpatients from five hospitals in Akwa Ibom State, Nigeria, between October, 2014 and March, 2015. Reliability of the scale was 0.89; subscale internal reliability ranged from 0.40 to 0.76. Patient satisfaction with health services was generally high (73.4%), with significantly higher overall satisfaction reported by those who attended private hospitals ($p < 0.001$). Satisfaction with the domains of care was higher in the private hospitals. The accessibility/ convenience domain had the least mean satisfaction score – 3.42 ± 0.75 and 2.69 ± 0.48 in private and public hospitals respectively. Multiple linear regression analysis indicated that marital status, monthly income and occupation predicted satisfaction in government hospitals ($p < 0.001$, $R^2 = 0.07$), whereas gender, marital status and education predicted satisfaction in private hospitals: ($p< 0.001$, $R^2 = 0.108$).
Healthcare managers particularly in public hospitals, should institute measures that will ensure that the waiting time of patients at different service windows is shortened.

Key words: *Patient satisfaction; Aspect of care; Public hospitals; Private hospitals; Nigeria.*

INTRODUCTION

Patient satisfaction is the extent to which the patients feel that their needs and expectations are being met by the services provided.[1] It can be defined as a subjective evaluation of the service received as compared to the individual's expectations.[2] Surveys of patient satisfaction are useful in evaluating provider services and facilities, and also in predicting consumer behaviour such as the use of services.[3] According to Hall and co-workers,[4] satisfied patients are more likely to adhere to treatment recommendations by their care providers**;** they are also more likely to return for additional care when necessary, and may be more willing to pay for services. Patients who are not satisfied with their health care on the other hand, change providers more often; they more frequently disengage from prepaid health plans and usually have poor level of adherence to treatment regimens.[5] Thus, patient satisfaction may be considered one of the most important goals and desired outcomes of health care, even an element in health status itself.[6,7] Although **s**atisfaction with health services is influenced by a combination of characteristics of the clients and others, the quality of service itself is the major factor responsible for determining satisfaction.[1]

Patient satisfaction surveys are therefore instrumental in continuous monitoring and evaluation of the quality of different domains which constitute health care in health facilities.

Several nomenclatures have been given to the domains constituting the major sources of satisfaction (and dissatisfaction) with care – art of care, technical quality of care, empathy, accessibility/convenience, finances, physical environment where care is provided, availability (of care providers as well as care facilities), continuity, interpersonal manner, efficacy/outcomes of care,[3,6] and so on. An expression of satisfaction or dissatisfaction is usually the patient's judgment on the quality of care in all its aspects.[6] Thus, the degree to which patients feel that their needs and expectations would be, or are being met by one or more of these aspects of care could, in part, determine where a patient goes for health care.

The poor perception of service quality in public hospitals compared to private hospitals[8] can be adduced to explain the relative underutilization of public hospitals,[9] particularly by those belonging to the high socio-economic class. This perception has led to poor public confidence in health care and made the government hospitals unattractive to the consumers of hospital services.[10] Nevertheless, a great majority of people (mostly the middle and lower class) continue to visit such public hospitals as compared to private health facilities. This is evident by long queues seen in waiting areas and other service windows in government hospitals of some developing countries.

Several studies have compared satisfaction with care received in public hospitals and private hospitals in some developing countries[11-14] and however, such comparative studies are sparse in Nigeria. Thus, this study sought to answer the following questions: Are the users of public hospitals satisfied with the quality of services they receive as compared to services rendered in the private hospitals? What are the likely aspects of care contributing to satisfaction (or dissatisfaction) in public and private hospitals? Are there specific characteristics of the patient that are related to satisfaction?

METHODS

This was a prospective cross sectional research carried out in five purposively selected secondary healthcare facilities: two private hospitals (Premier Medical Services and St. Luke's Hospital) situated on the outskirts of the state capital, and three public hospitals (General Hospitals located in Eket, Ikot Ekpene and Oron Local Government Areas respectively). These public hospitals which are major secondary hospitals run by the State government, cater for the health needs of a great majority of the people in these areas and the environs. Akwa Ibom State is located in the South-South Zone of Nigeria. The main spoken languages, apart from English, are Ibibio, Annang, Eket and Oron which are all closely related.

The minimum sample size was estimated using the formula described by Yamane.[15] Considering a non-response rate of 10% and possible error in filling the instrument, a convenience sample of 600 respondents was eventually surveyed. Participants included in the study were adult outpatients who were willing to participate by giving informed oral consent; critically ill patients were excluded.

The instrument used for data collection included items from a previously validated patient satisfaction questionnaire,[16 and] modified to suit the objectives of this study. The 24-item questionnaire was sub-divided into 7 subscales: technical quality, interpersonal manner, accessibility/convenience, communication, time spent with doctor, cleanliness and safety of environment, and financial aspect of care, including a global satisfaction item. The global satisfaction item was used because of the assumption that ratings of particular domain of care ought to correlate with global ratings of overall service quality if they measure what they purport to measure.[17] Satisfaction was assessed using Likert's five rating scale (strongly disagree, disagree, neutral, agree, strongly agree). Demographic data of respondents were also obtained. Data collection was done between October 2014 and March 2015.

The data collected were analysed using Statistical Package for Social Sciences (SPSS) Window version 16.0. Descriptive statistics was used to summarize patients' demographic data as well as response distribution. Scores were assigned to each Likert response so that higher scores reflected higher satisfaction. Items within the same subscale were then averaged to create the 7 subscale scores for both hospital types; the summated scale score was also computed. The Cronbach's α statistic was calculated to determine the internal consistency of the instrument. Tests for skewness and kurtosis of scale scores were performed to determine the extent of deviation from a normal distribution. Independent sample T- test was done to compare the mean scores of the subscales as well as the overall satisfaction in both types of hospitals and for gender; while one-way ANOVA was conducted for the other demographic variables. Finally, multiple linear regression analysis was done to determine the demographic predictors of general satisfaction in both public and private health facilities studied. For all analyses, statistical significance was defined as a ρ value less than or equal to 0.05.

Ethical approval for this study was obtained from the Ministry of Health, Akwa Ibom State; permission was granted by the Hospital Management of the hospitals used.

RESULTS AND DISCUSSION

Five hundred and fifty questionnaires out of the 600 distributed to patients were filled and returned yielding a response rate of 91.7%. However, 15 were not included in the analysis as they were incorrectly filled.

The 24-item questionnaire had an overall scale internal reliability of 0.89 and subscale reliability values of 0.76, 0.56, 0.54, 0.63, 0.40, 0.73 and 0.62 for technical quality, interpersonal manner, communication, financial, time spent with doctor, accessibility/convenience, and cleanliness and safety of environment respectively. These subscales were all significantly correlated with the global satisfaction item ($\rho<0.001$).

A summary of patients' demographic information is given in **Table 1**: majority (70.8%) of the patients in the study were females; only 44 (8.2%) fell into the age group of 50-59 years. Forty five (8.4%) indicated that they had no formal education. Majority of the study population (69.9%) were married. More than half (57.0%) were self-employed while those whose monthly income is less than ₦30,000 predominated in this study.

Table 1: Demographic characteristics of patients

Socio-Demographic Factors	Public Hospital		Private Hospital		Total	
	Frequency	(%)	Frequency	(%)	Frequency	(%)
Gender						
Female	180	69.5	199	72.1	379	70.8
Male	79	30.5	77	27.9	156	29.2
Age (years)						
Below 30	97	37.5	102	37.0	199	37.2
30 – 39	59	22.8	102	37.0	161	30.1
40 – 49	40	15.4	37	13.4	77	14.4
50 – 59	31	12.0	13	4.7	44	8.2
60 and above	32	12.4	12	8.0	54	10.1
Education						
None	40	15.4	5	1.8	45	8.4
Primary	67	25.9	20	7.2	87	16.3
Secondary	99	38.2	73	26.4	172	32.1
Tertiary	53	20.5	178	64.5	231	43.2
Marital Status						
Single	55	21.2	55	19.9	110	20.6
Married	175	67.6	199	72.1	374	69.9
Widowed	26	10.0	21	7.6	47	8.8
Divorced	3	1.2	1	0.4	4	0.7
Occupation						
Civil servant	39	15.1	87	31.5	126	23.6
Self-employed	171	66.0	134	48.6	305	57.0
Retired	7	2.7	13	4.7	20	3.7
Student	42	16.2	42	15.2	84	15.7
Monthly Income (₦)*						
Less than 30,000	183	70.7	108	39.1	291	54.4
30,000 – 70,000	29	11.2	92	33.3	121	22.6
Above 70,000	11	4.2	40	14.5	51	9.5
Unsalaried	36	13.9	36	13.0	72	13.5

*****_NGN; 1 USD = 350 NGN_

Overall (summated) mean satisfaction was 3.67 (73.4%), whereas the global satisfaction item yielded a slightly higher mean score of 3.99 (79.8%). However, both summated satisfaction scores and global satisfaction item scores had a strong correlation.

The mean scores of each item on the patient satisfaction questionnaire as shown in **Table 2** indicated that the items tapping the accessibility and convenience domain had the least scores in particular, the items which had to do with waiting time (in the waiting area [2.40 ± 1.14], before the pharmacist dispenses prescribed drugs [2.78 ± 1.21], before laboratory tests are performed [2.87 ± 1.16]) and the ease of retrieving laboratory test results (2.83 ± 1.14).

Table 2: General assessment of patient satisfaction (*n* = 535)

S/N	Dimension of Care	Mean	SD
	Technical quality		
1	I think this hospital has almost everything needed to provide complete medical care.	4.02	0.96
2	The doctors are very competent and well-trained.	4.23	0.77
3	I have some doubts about the ability of the doctors who treat me.	3.90	0.90
	Interpersonal manner		
4	The doctor treats me in a very friendly and courteous manner.	4.20	0.76
5	Doctors act too business-like and impersonal toward me.	3.83	0.82
6	Other staff in the hospital are friendly and helpful to me.	3.63	1.03
	Communication		
7	The doctor always explains what I want to know	4.07	0.85
8	Doctors are good about explaining the reasons for medical tests.	4.07	0.82
9	Doctors sometimes ignore what I tell them.	3.62	0.97
10	Staff do not take the time to explain charges/payment to me.	3.36	1.14
11	The pharmacist takes enough time to explain how my drugs should be taken.	3.97	0.89
	Financial aspects		
12	I am satisfied with the amount I pay for medical services/drugs in this hospital.	3.31	1.22
13	I am satisfied with the method of cash payment in this hospital	3.86	1.03
	Time spent with doctor		
14	Doctors sometimes hurry too much when they treat me.	3.83	0.93
15	The doctor usually takes enough time with me.	3.94	0.91
	Accessibility and Convenience		
16	I am able to get medical care whenever I need it	3.85	1.00
17	I find it difficult to find where to go in this Hospital	3.65	1.01
18	People have to wait too long in the waiting room/area before they are attended to.	2.40	1.14
19	People do not have to wait too long for tests to be performed.	2.87	1.16
20	Retrieving laboratory tests results is usually easy.	2.83	1.14
21	I always have to wait a long time before the pharmacist gives me my drugs.	2.78	1.21
	Cleanliness & Safety		
22	This hospital is very neat and clean.	4.08	1.09
23	The waiting areas/rooms are comfortable and safe.	4.03	1.01
	General satisfaction		
24	Overall, I am very satisfied with the treatment I receive in this hospital	3.99	1.17

The overall mean satisfaction score was significantly higher in the private hospitals than the public hospitals (ρ<0.001; 95% CI, 0.27 to 0.44). Patient satisfaction was significantly higher in private hospitals with regards to the technical quality of care (ρ = 0.001; 95% CI, 0.08 to 0.32), interpersonal manner (ρ<0.001; 95% CI, 0.18 to 0.39), time spent with doctor (ρ<0.001; 95% CI, 0.24 to 0.48), communication (ρ<0.001; 95% CI, 0.14 to 0.32) and accessibility and convenience (ρ<0.001; 95% CI, 0.27 to 0.44); while financial aspects (ρ = 0.051; 95% CI, -0.00 to 0.33) and cleanliness and safety of environment (ρ = 0.21; 95% CI, -0.05 to 0.25), though still higher in the private hospitals, did not reach statistical significance. Accessibility and convenience had the least score of 3.42 ± 0.75 and 2.69± 0.48 for the private and public hospitals respectively. **Figure 1** provides the mean satisfaction for the different dimensions of care in both types of hospitals

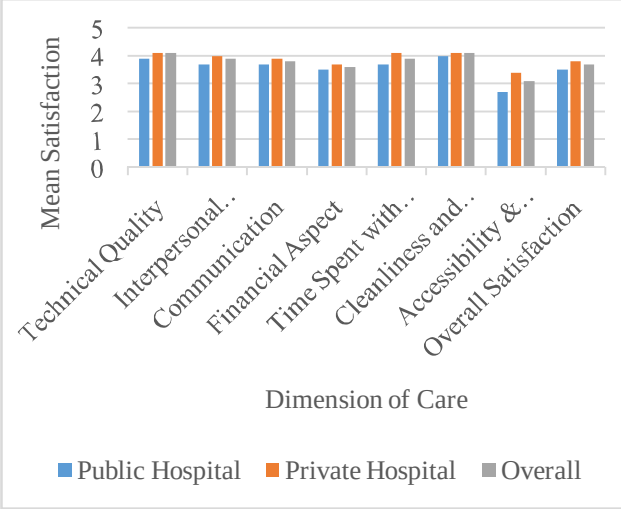

Figure 1: Mean satisfaction with dimensions of care

In the present study, females generally expressed higher levels of satisfaction than men, notably in the private setting. Patients with tertiary education expressed greater overall satisfaction with care relative to those with lower or no formal education. Single respondents expressed lower satisfaction with health care in this study than the married or widowed; while students and those without any source of income (i.e. the unsalaried) generally expressed lower satisfaction with health care than respondents who earned an income. A summary of the results of multiple regression analysis is given in **Table3.** In the bivariate analyses, all the socio-demographic variables studied had significant effects on the overall satisfaction of the respondents.

Table 3: Mean scores of overall satisfaction by socio- demographic variables

Socio-Demographic Factors	Public Hospital		Private Hospital	
	Mean	SD	Mean	SD
Gender				
Female	3.49	0.41	3.92	0.56
Male	3.47	0.36	3.62	0.59
Age (years)				
Below 30	3.52	0.39	3.85	0.63
30 – 39	3.44	0.35	3.88	0.56
40 – 49	3.46	0.46	3.81	0.61
50 – 59	3.38	0.45	3.65	0.56
60 and above	3.57	0.35	3.74	0.40
Education				
None	3.62	0.23	3.67	0.33
Primary	3.47	0.36	3.76	0.57
Secondary	3.39	0.42	3.63	0.67
Tertiary	3.57	0.45	3.94	0.53
Marital Status				
Single	3.45	0.40	3.59	0.62
Married	3.46	0.41	3.92	0.57
Widowed	3.70	0.23	3.75	0.42
Divorced	3.51	0.39	4.00	0.00
Occupation				
Civil servant	3.53	0.46	3.93	0.58
Self-employed	3.49	0.40	3.85	0.58
Retired	3.35	0.25	3.74	0.50
Student	3.43	0.32	3.63	0.57
Monthly Income (₦)*				
< 30,000	3.44	0.41	3.75	0.65
30,000 – 70,000	3.65	0.26	3.97	0.54
> 70,000	3.96	0.30	3.94	0.42
Unsalaried	3.44	0.32	3.66	0.55

**NGN: 1 USD = 350 NGN, SD = Standard Deviation*

However, results of multiple linear regression using forward deletion indicated that type of hospital, gender, occupation, monthly income and marital status significantly predicted patient satisfaction in the final model (p< 0.001, R^2 = 0.174]; age and education did not. While marital status was a common predictor of satisfaction in both public and private hospitals, gender and education were additional predictors in private health facilities (p< 0.001, R^2 = 0.108); monthly income and occupation additionally predicted satisfaction in government hospitals (p < 0.001, R^2 = 0.07). (**Table 4)**.

Table 4: Multiple regression analysis of overall Satisfaction and socio-demographic variables

Patient Variable	Public Hospitals		Private Hospitals	
	B	***ρ* value**	**B**	***ρ* value**
Gender	—	—	-0.17	**0.004**
Age (Years)	—	—	—	—
Education	—	—	0.17	**0.007**
Marital Status	0.18	**0.008**	0.14	**0.026**
Occupation	-0.21	**0.011**	-0.10	0.09*
Monthly Income	0.31	**0.000**	—	—

*Bold figures are significant at $p \leq 0.05$; —Not included in final model; *Non-significant predictor in the final model.*

The overall patient satisfaction level recorded in this study is lower than that reported by Iliyasu and colleagues[18] but higher than some earlier studies.[10,19] The statistically significantly higher satisfaction levels in private hospitals is consistent with previous studies.[13,20,21] Overall satisfaction in this study was related to all patient characteristics studied in bivariate analyses; multiple regression, however, indicated that age and education did not predict such satisfaction. The findings that estimated monthly income, marital status and respondents' occupation predicted overall satisfaction in public hospitals contradicts an earlier report[13] that no patient variables predicted overall satisfaction with health care in public hospitals. This discrepancy could have been due to differences in study settings. In contrast to the report[22] which indicated higher satisfaction levels by the males, this study corroborates the findings of Birhanu and co-workers[23] who reported that females were generally more satisfied than males in the private hospitals studied. In line with an earlier study,[20] respondents with tertiary education in the private hospitals of this study were more satisfied with health care than those having no or lower levels of education. This, however, contradicts other studies.[24,25] The present report might be due, in part, to the fact that majority of the study sample with tertiary education attended private hospitals where, according to this study, satisfaction with health care was higher. In addition, respondents with higher educational level would likely earn higher income – a factor which is associated with higher satisfaction in this study. Because this group of people are more enlightened, they are also likely to comprehend and follow instructions better than those of lower educational attainment.

Respondents' occupation was shown to predict patient satisfaction only in public hospitals in this study. A similar finding indicated this factor as a predictor of overall patient satisfaction, but in the private hospitals surveyed.[13] Civil servants expressed higher satisfaction with the care they received as compared to the self-employed, the retired and students. Similarly, the unsalaried and those who earned an estimated monthly income of less than ₦30,000 expressed less satisfaction with health care than the groups who earned an income of more than ₦30,000. This finding contradicts an earlier report[24] of higher satisfaction by patients who earned lower income in a public hospital surveyed.

As reported in previous studies,[23-25] singles in this study had the least satisfaction level with care. The general psychological satisfaction with life and the (social) support one gets from their spouse and/or children may be adduced, in part, to explain this trend. Thus, the married, divorced and widowed all reported higher satisfaction than singles both in the public and private hospitals surveyed.

The effects of various aspects (dimensions) of care on satisfaction were also evaluated. Interpersonal relationship and technical quality of care are two major (interrelated) elements in the performance of medical practitioners.[6] This study showed that the overall mean values for both dimensions were significantly higher in private health facilities. Similarly, the interpersonal manner and technical quality were reported to be significantly higher in private hospitals by Sharma and Kamra[21] and Khattak and co-workers[14] respectively. This could be due to the fact that private hospitals are usually smaller in size (and thus easier to manage) and tend to focus on satisfying their patients in a bid to retain them and thus, maximise profits,[26] whereas public hospitals are widely considered as under-resourced[27] and mismanaged facilities with poor of health care services.[26] Another likely reason may be the fact that health care providers in the private sector consciously try to please patients for fear of being fired by their employers. Staff retention, emolument and promotion in private hospitals are based on their performance (usually rated by patients' feedback), whereas in public hospitals (like other public sectors) these are based on one's number of years in service, and are usually automatic. Consequently, patient satisfaction may not be viewed as a topmost priority in the minds of staff of the public sector.

In contrast to an earlier report,[14] satisfaction with time spent with the doctor in private hospitals was significantly higher than that of the public hospitals. Similarly, the communication domain indicated that patients were more satisfied with the private hospitals than the government hospitals, in line with earlier studies.[14,21] A likely reason for these could be the relatively fewer number of patients seen in private hospitals. There seem to be a balance in the ratio of health care providers to patients – a major problem in public hospitals which have been described as being overcrowded and understaffed.[27] Thus, health care providers in the private setting may not be as overworked as those in public facilities, and would tend to spend more time with clients, and in effective communication.

The effectiveness of communication between the

practitioner and the patient is strongly influenced by the inter personal manner[6] which in this study, was appreciably higher in private hospitals. Also, lack of incentives and (regular) feedback on staff performance in public hospitals may contribute to the lower satisfaction expressed in these domains of care by respondents attending such hospitals.

Accessibility and convenience is a system-related dimension involving all the factors required in arranging to receive care in the hospital.[3]This dimension had the least level of satisfaction in both public and private hospitals surveyed. Patients were highly dissatisfied with the long waiting times to be attended to, for laboratory tests to be performed and for the pharmacists to dispense their drugs. Respondents also indicated that retrieving laboratory results was usually difficult. Studies have shown that patients who waited longer to be attended to expressed dissatisfaction with health services.[18,19,27-29] Doctors arriving late[29] and lack of a time-specific appointment system have been adduced for long waiting times in public health facilities in developing countries like Nigeria[30] where healthcare providers usually have to see disproportionately large numbers of patients. This dissatisfaction expressed towards waiting time may be attributed to patient-related factors such as clash of outpatient hours with patient's usual work hours, late arrival as a result of long distance of residence as well as long and poorly managed queues[31] at various points of services in the hospitals. The long waiting time for drugs to be dispensed to patients may be due to the relatively few pharmacists available in most secondary public hospitals. Apart from the relatively few laboratory scientists and facilities to a large number of patients, particularly in public hospitals, waiting too long for laboratory tests to be performed could also be due to erratic electricity supply. The difficulties respondents expressed in retrieving laboratory results could be attributed in part, to poor documentation and retrieval system leading to frequently missing or mislaid results.

RECOMMENDATIONS AND CONCLUSION

Employing more health providers, particularly in public hospitals to ensure a balance (or near balance) of the ratio of patients to care providers will go a long way towards reducing the waiting time (which is the major area of dissatisfaction expressed by respondents in this study) of patients. Also, the health care system should ensure a complete transition from paper to electronic health records which are more organized and allow for easier and more efficient retrieval of laboratory results or other documents pertaining to the patient.

To guarantee continuous improvement in the quality of care renderedto patients, periodic assessment of patient satisfaction should be done and feedback from such surveys utilized to correct, or at worst reduce to the barest minimum, the deficiencies and lapses identified in the health system.

Limitations of Study

This study should be interpreted in the light of some limitations: The study was limited to outpatients attending the various hospitals. Because patients on admission were not surveyed, information on satisfaction as regards the state of the wards, treatment received from staff in the ward, and other variables that are peculiar to those on admission were not obtained. Thus, the results may not be generalizable to inpatients. Also, other factors such as patient health status and expectations that might influence patient satisfactionwere not measured in this survey; this might have potential influence on the results of the study.

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Conflicts of Interest: None declared.

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