Original Article

Patients' Satisfaction with the Healthcare Services at a North Central Nigerian Tertiary Hospital

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ABSTRACT
BACKGROUND: This study sought to determine the level of satisfaction of patients with the healthcare services at Federal Medical Centre, Bida (FMCB) Nigeria and the factors associated with patients' satisfaction.
METHODS: The study utilized exit interview of 480 patients, sampled at the 9 service points of the Centre. The questions covered socio-demographic factors and the 3 core elements of healthcare service delivery namely quality, access and interpersonal issues. The evaluation of satisfaction on the 5 point Likert scale were categorized into dissatisfied {very dissatisfied, dissatisfied and Neutral}and satisfied {satisfied and very satisfied}, setting the threshold for satisfaction at a relatively higher level.
RESULTS: On the overall, 78.5% of them were satisfied with the hospital services and 78.3% had their expectations met. Satisfaction was lowest (72.7%) at the revenue section and highest (96.1%) at the maternity section. Nine of every 10 respondents (91.7%) would recommend the facility to a friend. The patients' satisfaction had significant positive correlation with promptness of staff, communication level of staff, staff relationship with patients, environmental cleanliness and comfort facilities. Cost of services and delay in obtaining services had negative but relatively weak correlation with satisfaction.
CONCLUSION: The observed level of patients' satisfaction at FMC Bida is high. This can be maintained and enhanced by improvement in waiting time, sustenance of the satisfactory hospital ambiance and staff attitude/aptitude. However, enlightenment of the hospital patients on the status of the hospital and the nature of services offered is necessary.**KEY WORDS:** patient satisfaction; quality of healthcare; tertiary hospital; Nigeria

INTRODUCTION
The concept of patient satisfaction is generally agreed to be a valuable tool for quality improvement of healthcare services. [1-4] Though not a new concept in healthcare system, it has over the years gained increasing prominence in this era of client-oriented care. A survey of patient satisfaction is capable of yielding high quality data that can be of great benefit to the health practitioners, the individual patient as well as the community. To the practitioners, it can help identify areas for improvement, assist in the re-designing of care process as necessary and serve as incontrovertible evidence to external reviewers of the quality of service provided to patients[5]. To the patients and community, expected benefits include enhancing patient satisfaction through improved communication, greater provider sensitivity towards patients, enhanced community awareness about the quality of service and overall better use of services in the healthcare system[4].

Opinion has been expressed that the patient has no technical skill to evaluate his or her healthcare practitioner.[6] The patient is a consumer that has legitimate expectation and concerns each time he/she visits the hospital. Recognizing and meeting these expectations and concerns will form an integral part of any service improvement program. Studies done to determine patient satisfaction is thus an important component of creating a high quality service culture.
Realistic expectation on the part of the patient is dependent on correct identification of the type of health facility being accessed. Moreover, the concerns and expectation of the patients are related more to the inter-personal aspects of care and these are shaped by their values, which in turn is dependent on their socio-cultural, economic and personal experiences and status. The influence of these latter factors/variables on the submissions on their satisfaction needs to be explored. However inaccurate or erroneous the rating of the quality of healthcare by the patients might be, the fact remains that patient's evaluation of healthcare are correlated to patient's overall satisfaction, rating/assessment of quality of healthcare and intentions of clients to recommend and return to the same hospital[7].

Therefore, the level of utilization of a healthcare facility may be a reflection of the quality of service offered (i.e. medical, administrative, technical and social skills of the workforce) and the acceptance by the community.

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Respect for the patient's right to privacy, dignity, beliefs and choices, and the offering of prompt, courteous, effective and affordable healthcare services are two of the core values of Federal Medical Centre, Bida (FMCB)[8]. But recent issues bothering on patient satisfaction and perception seem to question the adherence of staff to these values.

This survey therefore seeks to determine the level of satisfaction of FMCB patients with the services and the factors associated with patient satisfaction by exploring the three core elements of healthcare service delivery which are: the provision of quality healthcare, the accessibility of such care and the treatment of patients with courtesy and respect.

METHODS
The Federal Medical Centre Bida (FMCB) is a 200 bed government hospital in a suburban location in Nupeland. It has been offering tertiary healthcare services to the over 2 million people in its catchment area of Niger State, north central Nigeria and its environs for about a decade with modest achievements. The hospital in the last six years has undergone remarkable transformation in its human and material resources, particularly its physical infrastructure/facilities.

This was a descriptive cross-sectional, questionnaire-based survey of patients in the FMCB from June to August 2008. The pre-tested questionnaires were administered at exit from any of the 9 service points of the hospital. It consisted of 17 structured items and 3 unstructured items, which were selected after reviewing literatures on patient satisfaction. Information obtained include bio-demographic data (age, gender, tribe, educational status and occupation), knowledge of the patient about the hospital (status and services), evaluation/rating of the services at the various service points as well as the overall assessment of the hospital. The questionnaire adequately covered the three core issues in healthcare service delivery which are quality issues, access issues and interpersonal issues. The questions on evaluation were based on the (five) 5point Likert scale with responses 1(very dissatisfied), 2 (dissatisfied) and 3 (Neutral) considered as dissatisfied while responses 4(satisfied) and 5(very satisfied) were considered as satisfied. This was done to set the threshold of satisfaction at a relatively high level.
The sample size was calculated using the formula, $n = [\mathbf{Z}^2(1-\alpha/2)] \ \mathbf{pq} \ /\mathbf{d}^2$; where $[Z^2(1-\alpha/2)] = 1.96$ at 95% confidence; p = prevalence of patient satisfaction, q = 1-p ; d = absolute allowable error. For this study, maximum variability was presumed, hence p = 0.5; q = 0.5; d =5%. The calculation yielded 384. Adding 40% for incomplete answers, the sample size calculated was 540. In order to have equal representation of all (nine) service points, an estimate of averagely 60 participants per service point was calculated.

The study group was all adult patients who consecutively accessed services at any of the service points in the hospital between 8:00 a.m. and 4:00 p.m. on weekdays for outpatients, and those on admission for more than 24 hours for inpatients. The service points are: General Outpatient Department (GOPD), Specialist Outpatient Department (SpOPD), Maternity section, Accident & Emergency (A & E), Pharmacy, Laboratories, Revenue section, General wards and Health Information Management (HIM). Exclusion criteria include children, psychometrically unstable patients either due to emergency or mental illness and all staff of FMCB.

Anonymity and strict confidentiality was maintained throughout the study and informed verbal consent was obtained from each respondent after due information about the objectives and other details of the study. The attending hospital staffs were basically kept unaware of the process.

Analysis of data was done by the use of SPSS statistical software version 17.0. Association between variables was based on Spearman Rho correlation.

ETHICAL APPROVAL
An ethical approval of the study was obtained from the Ethics Review Committee of FMCB, ascertaining the ethical soundness of the study.

RESULTS
A total of 480 patients adequately completed the questionnaire for analysis (response rate of 88.9%). Most of the patients were in the third and fourth decades of life (37.5% and 22.5% respectively) and the male to female ratio was 1.1:1.

Table I shows that a total of 369 (76.9%) of the patients had some form of western education, while 53 (11.0%) had Quranic education. The number with tertiary education was 202 (42.1%).

The duration of attendance/patronage of FMCB among the patients was a year and below for 161 (33.5%) and more than 1 year for 185 (38.5%). More than a quarter (28.0%) did not indicate their duration of patronage of the hospital.

As seen in table I, most patients (435, 90.6%) know that FMCB is a government hospital, while only 225(46.9%) know that FMCB provides tertiary level of healthcare services. Even among the graduate patients, only 115 of them (56.9%) know the correct level of healthcare services expected from FMCB.

Table 1: Educational status Vs knowledge of type of hospital and level of health facility

		None	Primary	Secondary	Tertiary	Quranic	No response	Total
				Educational status				
Type of Hospital	Government*	21	45	98	195	47	29	435
	Private	0	1	5	3	2	0	11
	I dont know	8	6	7	3	4	0	28
	No response	0	1	4	1	0	0	6
	Total	29	53	114	202	53	29	480
Level of health facility	Primary	1	3	1	6	4	1	16
	Secondary	5	7	12	34	6	5	69
	Tertiary*	6	20	42	115	27	15	225
	I dont know	17	18	46	36	15	3	135
	No response	0	5	13	11	1	5	35
	Total	29	53	114	202	53	29	480

* Right response

The analysis of ethnic group indicated that non-Nupe (non indigenes) accounted for 37.5% of the respondents.

Table II however shows that the socio-demographic factors and length of patronage of the patients of the centre had no correlation with the outcome variables;

Table II: Test of association between biodata variables and satisfaction indices (outcome) variables

Independent Biodata Variables	Correlation Coefficient & Significance	Satisfaction with quality of service	Expectation Met	Overall satisfaction
Age	r	-0.041	-0.060	-0.083
	p	0.381	0.201	0.080
Educational Status	r	0.001	-0.079	-0.009
	p	0.980	0.084	0.838
Duration of patronage	r	0.064	-0.072	-0.057
	p	0.235	0.183	0.294

* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

Table III: SATISFACTION RATING OF STAFF -RELATED FACTORS AND THEIR CORRELATION WITH OVERALL SATISFACTION

Variables	Satisfaction N=480						Spearman Rho Correlation Value & Significance
	VSatis	Satis	Neutral	Unsatis	VUnsatis	Undecided	
Promptness of Staff							
Excellent	98	62	4	0	0	9	**r= 0.502****
Good	41	128	16	1	1	13	**p 0.001**
Fair	5	38	31	2	0	4	
Poor	1	3	11	4	0	0	
Very poor	0	0	1	1	1	1	
Undecided	0	1	1	0	0	2	
Communication of Staff							
Very satisfactory	90	37	0	0	0	8	**r=0.534****
Satisfactory	48	160	25	3	0	9	**p= 0.001**
Fair	4	33	32	2	1	7	
Not satisfactory	1	0	4	3	0	2	
Poor	1	0	3	0	1	0	
Undecided	1	2	0	0	0	3	
Staff relationship							
Very friendly	95	44	3	0	0	10	**r=0.482****
Friendly	39	143	19	3	1	10	**p= 0.001**
Fair	7	32	26	1	0	3	
Not friendly	1	9	15	4	0	0	
Hostile	0	2	1	0	1	1	
Undecided	3	2	0	0	0	5	

V = very   Satis= satisfied
* Correlation is significant at the 0.05 level (2-tailed)   ** Correlation is significant at the 0.01 level (2-tailed)

namely satisfaction with quality of service at service point, expectation met and overall satisfaction with the hospital services.

Tables III and IV show the patients' ratings of the factors related to staff, ambiance of service facility and services at the centre measured on a 5-point Likert scale. A high proportion of the patients consider the staff to be prompt in attending to them (77.7%), friendly (76.5%) and listen as well as provide useful information to their concerns (79.2%).
The ambiance of the hospital facility was rated as satisfactorily clean by 92.7% and the comfort facilities were satisfactory to 76.5% of the patients. Furthermore, the cost of services in the hospital was satisfactory to 61.7% of the patients while it was considered expensive by 34.2% of them. About half of the patients (50.8%) indicated a delay (long waiting time) in accessing

service but most of them (84.9%) were still satisfied with the service at the oints. Tables III and IV also show that there were consistent statistically significant positive correlations between the service outcome (satisfaction) and the following: promptness of staff (**r**= 0.502, p= 0.001); communication level of staff (**r**= 0.534, p=0.001); staff relationship with patients (**r**= 0.482, p= 0.001); environmental cleanliness (**r**= 0.481, p= 0.001) and comfort facilities (**r**= 0.480, p= 0.001). Delays in obtaining services and cost of services had negative but relatively weak correlation with satisfaction [**r**= -0.215, p=0.001; **r**= -0.104, 0.022].

The patients' rating shows that 78.3% had their expectations well met and 84.8% were satisfied with the quality of the hospital services. Figure 1 shows the percentage satisfaction with the quality of service at each service point, with a lowest of 72.7% at the revenue section and the highest of 96.1% at the maternity section.

Table IV: SATISFACTION RATING OF AMBIANCE AND ACCESS FACTORS AND THEIR CORRELATION WITH OVERALL SATISFACTION
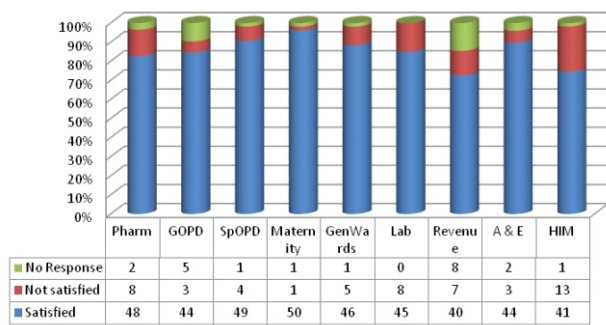
Variables	Satisfaction N=480						Spearman Rho Correlation Value & Significance
	VSatis	**Satis**	**Neutral**	**Unsatis**	**VUnsatis**	**Undecided**	
Environment							
Very clean	133	111	12	4	0	14	**r= 0.481****
Clean	12	111	35	2	0	11	**p 0.001**
Fair	0	7	14	2	1	2	
Not clean	0	3	3	0	0	0	
Dirty	0	0	0	0	1	0	
Undecided	0	0	0	0	0	2	
Comfort facilities							
Excellent	83	39	3	0	0	6	**r=0.480****
Good	50	152	20	1	1	12	**p= 0.001**
Fair	7	33	31	5	0	6	
Poor	2	4	7	1	0	2	
Very poor	0	4	3	1	1	1	
Undecided	3	0	0	0	0	2	
Cost of services							
Very expensive	21	17	8	2	0	4	**r= -0.104***
Expensive	23	60	20	2	0	7	**p= 0.022**
Average	42	112	29	3	0	4	
Cheap	33	27	5	1	0	4	
Very cheap	20	10	2	0	1	3	
Undecided	6	6	0	0	1	7	
Delay in service							
Yes	54	113	53	8	1	15	**r= -0.216****
No	91	113	11	0	1	9	**p= 0.001**
Undecided	0	6	0	0	0	5	

V = very   Satis= satisfied
* Correlation is significant at the 0.05 level (2-tailed)   ** Correlation is significant at the 0.01 level (2-tailed)

On the overall, 78.5% of the patients rated their experience in the hospital as satisfactory while nine out of every 10 patients (91.7%) would recommend FMCB to a friend. About half (49.4%) of the patients could not pinpoint any problem accessing the services. The few problems listed include poor service point layout (29.0%), inadequate manpower (8.5%) and high cost of service (1.0%). Only 51.7% of the patients gave recommendations to help improve their experiences at the hospital, with increased manpower and improved service point layout and service delivery process as the two most listed (19% and 15.8% respectively).

Figure 1 - Satisfaction with quality of service at service points

	Pharm	GOPD	SpOPD	Matern ity	GenWa rds	Lab	Revenu e	A & E	HIM
No Response	2	5	1	1	1	0	8	2	1
Not satisfied	8	3	4	1	5	8	7	3	13
Satisfied	48	44	49	50	46	45	40	44	41

DISCUSSION

In this study, a sizeable proportion of the respondents were well educated and they were from diverse ethnic/socio-cultural backgrounds. The referral services which the hospital renders to its patients from within the state and the neighbouring states might explain these findings.

The knowledge of the respondents in this study of what FMCB represents and hence the level of healthcare services rendered was less than average. This might imply a group of patients with inappropriate expectations. Public enlightenment and advocacy bordering on the hospital status and services/expertise available will help address this wrong perception.

The findings/ratings in this study are very high despite setting the satisfaction threshold at a relatively higher level by taking the mid-value as dissatisfaction. Many of the studies on patient satisfaction ratings that utilized 5-point Likert scale categorize the mid-value (average) as positive or satisfaction[9,10], while a few such as by Abdosh in Ethiopia[11] adopted our setting. This indicates that our findings are more solid and not a fluke.

In our study the overall level of patients' satisfaction was excellent (78.5%) and the patients' expectations were excellently satisfied (78.3%), comparable to studies by Iliyasu et al in Kano Nigeria which reported 83%.[9] The result in our study is against the backdrop that most of the service quality, ambience of facility and staff related factors were rated highly and had significantly strong positive correlation with patient satisfaction. The environment had the highest rating as clean and comfortable. This is expected considering the efforts of the hospital management at upgrading the hospital infrastructures and creating and maintaining a pleasant hospital ambiance and landscape. This finding is similar to that in the Kano study and in a chronic disease clinic where physical condition of facilities was rated highly among other factors.[9,10]

Our study found that the prompt, friendly attitude and satisfactory communication of staff with their patient has the strongest correlation with high level of satisfaction. This is remarkable and commendable given that similar studies in Nigeria and other African countries reported low ratings in this aspect.[11,12,13] However, there is the need to reiterate that this culture has to be sustained for the hospital to maintain or improve on this feat. Physicians and other healthcare service providers can promote higher rates of satisfaction by improving the way they interact with their patients, according to literature[14]. A study, among many others, have shown that effective communication with patients in the clinic setting improves compliance with treatments, ability to cope with serious illnesses and overall quality of life[10]. It must be noted that most aspects of the staff and facility related factors had very good or excellent ratings by most respondents.

Analysis also shows that none of the socio-demographic characteristics significantly relates with patients' satisfaction in this study. This might suggest the universality of man's expectations and demands on health facilities which are apparently independent of these socio-demographic factors. However, the results of studies examining the influence of socio-demographic characteristics on patients' satisfaction are varied. A meta-analysis study stated that patients' demographics are a minor factor in their satisfaction, [15] while another (two-level analysis) study concluded that it represents 90 - 95% of the variance in rates of satisfaction[16]. Another study however found that individuals of lower socioeconomic status and less education tend to be less satisfied with their health care[6].

Delays (long waiting time) in accessing services had negative but relatively weak correlation with satisfaction, though the average waiting time was not quantified in this study. The long waiting time however, is a common finding in most patient satisfaction surveys.[12,17-20]. While not justifying the necessity for the delay, it must be put in proper perspective; as this

hospital is a tertiary health facility that operates on a system that allows all cadres of physicians from the Intern to Consultant to have direct and indirect input into the patients' care. This system has the inherent risk of an increased time spent in hospital but at the same time increasing the quality of care rendered to the patient; the perceived delay thus pales to insignificance.[21] This assertion is strengthened by the observation that patients still rated the quality of service received highly and admitted that their expectations were met; promising to recommend the hospital to others. Utilization of triage system, utilization of the waiting time and area to provide health education to the patients[22] and the suggestion by patients for an increase in manpower (number of staff) may also help address the delay. The cost of services in the hospital was rated as average or cheap by most of the respondents, while about a third rated it as expensive. This is against the milieu of the prevailing low socio-economic status of the people as in most typical sub-urban northern Nigerian community and the fact that most of the referral cases have spent a lot of money at other health and unorthodox medical facilities and therefore strapped. These, coupled with the need for immediate payment for service may make the cost of services seem expensive even if reasonable. This is because affordability is a function of what is available at hand. Moreover, only 1% of the respondents listed high cost of service as a problem encountered in accessing services, while 49.3% have no problem listed. Improved service point lay-out and processes were recommendations of the patients and these are invaluable to achieving excellence in service delivery.

CONCLUSION
The observed patient satisfaction in FMC Bida is high despite setting the satisfaction threshold at a relatively higher level, implying a solid finding and not a fluke.

To sustain and further improve the high patient satisfaction, there is the need to promote the positive staff and facility related factors which engender satisfaction and mitigate those that engender dissatisfaction, particularly the delay in service. However, there is the need to enlighten the patients on the status of the hospital and the nature of services offered in order to promote realistic expectations from them. The patients recommended increased manpower and improved service point layout and service delivery process as measures that can further improve their experience at the FMCB.

LIMITATIONS
The personality, sensibility and probably the frame of mind of the patients might have influenced their responses to the questions.

Acknowledgements

REFERENCES
1. Carr-Hill RA The measurement of patient satisfaction. *J Public Health Med*. 1992; 14**(3)**:236-49
2. Verbeek J, van Dijk F, Räsänen K, Piirainen H, Kankaanpää E, Hulshof C Consumer satisfaction with occupational health services: should it be measured? *Occup Environ Med*.2001;58**(4)**:272-8
3. Stamps PL, Finkelstein JB Statistical analysis of an attitude scale to measure patient satisfaction with medical care. *Med Care*. 1981;19**(11)**:1108-35
4. Shaikh BT, Rabbani F. Health management information system: a tool to gauge patient satisfaction and quality of care. *East Mediterr Health J*. 2005;11**(1-2)**:192-8
5. Epstein KR, Laine C, Farber NJ, Nelson EC, Davidoff F Patients' perceptions of office medical practice: judging quality through patients' eyes. *Am J Med.Qual*. 1996; 11**(2)**:73-80.
6. Thiedke CC. What do we really know about patient satisfaction? *Fam Pract Manag*. 2007;14**(1)**:33-36
7. Rubin HR Can patients evaluate the quality of hospital care? *Med Care Rev*. 1990l; 47**(3)**:267-326
8. Our core values. In: 5-year strategic development plan 2007 2011, FMCB publication Dec 2006:6
9. Iliyasu Z, Abubakar IS, Abubakar S, Lawan UM, Gajida AU Patients' satisfaction with services obtained from Aminu Kano Teaching Hospital, Kano, Northern Nigeria *Nig. J Clin. Pract*. 2010; 13**(4)**:371-378
10. Joseph C, Nicholas S. Patient satisfaction and quality of life among persons attending chronic disease clinic in South Trinidad, West India. *West India Med. J* 2007;56 **(2)**: 108-114
11. Abdosh B. The quality of hospital services in eastern Ethiopia: Patients' Perspective. *Ethiop J. Health*. 2006;20**(3):** 199-200
12. Ariba AJ, Thanni LO, Adebayo EO. Patients' perception of quality of emergency care in a Nigerian teaching hospital: the influence of patient-provider interactions. Niger. *Postgrad Med J*. 2007; 14**(4)**: 296-301
13. Mtiraoui A, Alouini B. Evaluation of satisfaction of patients hospitalized at the Kairouan hospital Tunis. *Med*. 2002;80**(3)**:113-121
14. Shaw WS, Zaia A, Pransky G, Winter T, Patterson WB. Perceptions of provider communication and patient satisfaction for treatment of acute low back pain. *J Occup Environ Med*. 2005;47:1036-1043.
15. Hall JA, Dornan MC Patient sociodemographic characteristics as predictors of satisfaction with medical care: a meta-analysis. *Soc Sci Med*. 1990;30**(7)**:811-8

16. Sixma HJ, Spreeuwenberg PM, van der Pasch MA. Patient satisfaction with the general practitioner: a two-level analysis. *Med Care.* 1998; 36**(2)**: 212-29.

17. Lyatuu MB, Msamanga GI, Kalinga AK. Clients' satisfaction with services for prevention of mother-to-child transmission of HIV in Dodoma rural district. *East Afr J Public Health* 2008;5**(3)**; 174-9.

18. Fawole AO, Okunlola MA, Adekunle AO. Clients' perception of the quality of antenatal care J. *Nat Med. Association.* 2008;100. 1052-1058.

19. Mitike G, Mekonnen A, Osman M. Satisfaction on outpatient services in hospitals of the Amhara region. *Ethiop Med J.* 2002;40**(4)**;387-96.

20. Jarahar SK. A study on out-patient satisfaction at a super specially Hospital in India. *Internet Journal by Medicak Update.* 2007; 2 **(2)**; 13-17.

21. White B. Measuring patient satisfaction: how to do it and why to bother. *Fam Pract Manag.* 1999 Jan;6**(1)**:40-4

22. Kumari R, Idris MZ, Bhushan V, Khanna A, Agarwal M, Singh SK. Study on patient satisfaction in the government allopathic health facilities of Lucknow district, India. *Indian J Community Med* 2009;34:35-42