

British Journal of Medicine & Medical Research 20(10): 1-10, 2017; Article no.BJMMR.32186 ISSN: 2231-0614, NLM ID: 101570965



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Surgical in- Patient Satisfaction with Services Rendered in a Tertiary Health Facility in Delta State, **Nigeria**

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Authors' contributions

This work was carried out in collaboration between all authors. Authors DOOO, RETE and CIO designed the study and wrote the initial protocol. Authors CIE and EA managed the literature searches and wrote the first draft of manuscript. Authors NSA, MOO and DOOO performed the collation of data and the statistical analysis. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/BJMMR/2017/32186

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Original Research Article

Received 13th February 2017 Accepted 22nd March 2017 Published 10th April 2017

ABSTRACT

Objective: To explore factors determining the level of satisfaction of surgical in-patients with services rendered at the Delta State University Teaching Hospital (DELSUTH), Oghara, Delta State, Nigeria.

Methodology: A descriptive cross sectional study was carried out among 115 adult surgical inpatients using an interviewer administered structured questionnaire (Patient Satistaction Questionnaire Short Form-PSQ-18). Data analysis was done using SPSS version 17 software.

Results: A hundred and fifteen respondents participated in this survey. The mean age of respondents was 40.9 ±16.0 years. Most respondents were male 62 (53.9%). Average overall satisfaction was 63.1%. Of the seven dimensions of patient satisfaction among respondents, financial sub-scale and time spent seeing doctor had the lowest satisfaction ratings of 30.4% and 47% respectively. Technical quality of care (82.6%) was one of the sub-scales patients were most satisfied with. It was observed that it was only with regards to the dimensions of satisfaction with communication, interpersonal aspect of care and satisfaction with access to care that any sociodemographic characteristic showed a significant association with the patient satisfaction.

Conclusion: Although, many surgical in-patients were satisfied with the technical quality of care and interpersonal relationship with doctors, most of them find it difficult to pay hospital fees and feel they spend too much time in the process of seeing doctors and accessing other services. There is need for a possible downward review of our fees and efforts geared at shortening waiting time.

Keywords: Patient satisfaction; surgical in-patients; services rendered; tertiary health facility.

1. INTRODUCTION

Satisfaction describes a state of pleasure or contentment with an action, event, or service especially one that was previously desired. When applied to medical care, patients' satisfaction can be considered in the context of patient's appraisal of their desires and expectations of health care [1].

Patients' satisfaction is a critical healthcare outcome indicator and should be given focus by hospital administrators. It has emerged as an increasingly important parameter in the assessment of quality of care and has over the past 20 years been an essential source of information for identifying gaps and the development of effective actions plans for quality improvement in health care organizations [2-4].

Because goals and values vary widely, are not predictable on the basis of demographic and disease factor alone and are subject to change, the only way to determine what patient wants is to ask them. From this perspective, viewing care "through the patients' eyes" is an ethical and professional imperative. Individuals, clinicians, medical groups, hospital and health planners, all have reason to be interested in patients' satisfaction [5,6].

In this era of high patient demand for health care excellence and growing awareness for individual rights, patients satisfaction surveys are veritable avenues to generate information that can be used for programme planning and quality control [7].

In order to gain competitive edge and increase profitability, health care and health plan providers should be interested in investigating what

constitutes 'better health care' from the consumers' point of view, what factors are important in determining patient / enrollee satisfaction with health care and health plan and which of these factors can be managed and marketed [8].

Patient satisfaction studies are not done routinely in most hospitals in Nigeria including ours. No study on in-patient satisfaction has previously been carried out in our centre to the best our knowledge.

This study therefore aims to evaluate the satisfaction of our surgical in-patients with our services as a follow-up to an earlier similar study carried out on surgical outpatients in order to highlight areas of strength and weaknesses and make appropriate recommendations to relevant authorities. The findings will bridge the gap in knowledge in this area and if appropriate actions are taken to implement recommendations, it will improve on the quality of our services and make our patients more satisfied with its attendant benefits.

2. MATERIALS AND METHODS

This study was carried out at the Delta State University Teaching Hospital(DELSUTH), Oghara, Nigeria a 220 bed multi-disciplinary state government owned hospital which in addition to provision of specialised patients' care is also involved in the training of undergraduate nursing and medical students and post-graduate specialist doctors.

It was a cross-sectional descriptive study among adult surgical in-patients (16 years and above) who agreed to participate, are not too sick to answer questions and who had spent a minimum of 48 hours in the surgical wards of DELSUTH. The study was carried out between October, 2014 and March, 2015 using a structured interviewer administered questionnaire (PSQ-18). Research assistants comprised preinstructed registrars and house officers in the surgical unit of the hospital who helped administer the questionnaires on the patients.

The Patients Satisfaction Questionnaire Short Form (PSQ-18) was adapted to collect data from patients after an informed consent was obtained from those who agreed to participate. The PSQ-18 has 18 questions with 5 point likert scale type options. The options include: 'strongly agree', 'agree', 'uncertain', 'disagree' to 'strongly disagree' scored 1 to 5 respectively. To reduce bias, half of the questions (4,7,9,10,12,13,14,16 and 17) were structured such that low score means that patient is less satisfied and vice versa. The other half of the questions (1,2,3,5,6,8,11,15 and 18) were structured such low score means that patient is more satisfied. However, before final data analysis, the last set of questions were rescored such that low score also indicated less satisfaction [9-11]. The questionnaires were checked for completeness, serialised and entered into a spread sheet of the Statistical Package for Social Sciences SPSS version 17 (SPSS Inc. Chicago, Illinois. USA) for analysis. Scores were averaged for 7 sub-scales : 1. Communication (Q. 1&13); 2. Financial aspect (Q.5&7); 3.Accessibility and convenience (Q.8,9,16 & 18); 4.Time spent with doctor (Q.12 ጼ 15); 5.General satisfaction (Q.3&17); Technical quality (Q.2,4,6& 14); 7. Interpersonal manner (Q.10 & 11). [10,11].

Descriptive statistics was used to determine counts and frequencies of the various categorical variables. Patient satisfaction in the various domains was categorised as good (≥2.5/5) and poor (<2.5/5).

Test of association (using Chi Square and Regression analysis) between the outcome variable of patient satisfaction and exposure variables of socio-demographic characteristics of respondents was done to determine the level of statistical significance. Statistical significance was set at a P<0.05.

Ethical approval was gotten from the Ethical committee of the Delta State University teaching hospital and informed consent obtained verbally from participants before administering the questionnaires.

3. RESULTS

Of the 115 respondents, there were 62 males and 53 females giving a male to female ratio of 1.16: 1. Table 1 below shows the sociodemographic characteristics of respondents.

Table 1. Socio-demographic characteristics of respondents, Oghara, Delta State, Nigeria. 2017 (n=115)

Variable	Frequency	Percent
Age (years)		
< 40	61	53.0
40-59	35	30.4
≥ 60	19	16.5
Mean (SD)	40.9 (±16.0)	
Min. age = 17 years.		
Max. age = 82 years.		
Gender		
Male	62	53.9
Female	53	46.1
Marital status		
Unmarried	40	34.8
Married	75	65.2
Educational level		
Informal	6	5.2
Primary	11	9.6
Secondary	58	50.4
Tertiary	40	34.8
Employment status		
Employed	52	45.2
unemployed	63	54.8

A hundred and fifteen respondents participated in this survey. The mean age of respondents was 40.9 (±16.0) years. Most respondents were male 62 (53.9%), married 75 (65.2%), had at least a secondary level of education 58 (50.4%) and were unemployed 63 (54.8%).

The scores for 7 dimensions of satisfaction were as shown in figure: accessibility 68 (59.1%), time spent with doctor 54 (47.0%), financial aspect 35 (30.4%), communication 70 (60.9%), interpersonal manner 82 (71.3%), technical quality 95 (82.6%) and general satisfaction 104 (90.4%). The overall average satisfaction was 63.1%.

With regards to technical quality, none of the variables of age, gender, marital status and educational level was a significant predictor of patient satisfaction.

Age (40-59 years) was a significant predictor of patient satisfaction with regards to interpersonal

quality. P=0.002. OR (95%CI)=4.82 (1.52-15.81).

The data showed that proportionally more married respondents 51 (68.0%) were satisfied with the communication. There was a statistically significant association between the marital status of respondents and their satisfaction with communication (p= 0.032). OR (95%CI) = 0.35 (0.99-5.56).

None of the socio-demographic variables of age, gender, marital status and educational level was a significant predictor of patient satisfaction with the financial aspect of care.

With regards to time spent with doctor, none of the variables of age, gender, marital status and educational level was a significant predictor of patient satisfaction.

Age was a significant predictor of patient satisfaction with access to care, with increasing age there was an increasing level of satisfaction reported among respondents, 40-59 years, OR (95%CI)= 6.96 (2.33-23.13) and ≥ 60 years, OR (95%CI)= 4.03 (1.16-15.92). Being married was also a significant predictor of patient satisfaction with access to care, OR (95%CI) = 2.88 (1.21-6.86) with proportionally more married respondents being satisfied with access to care.

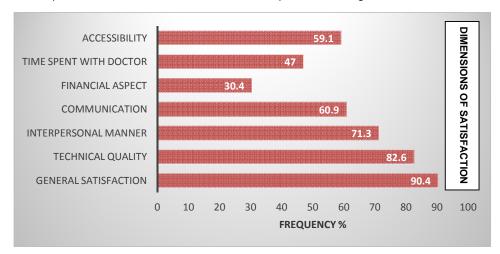


Fig. 1. Proportion of respondents satisfied using the 7 dimensions of patient satisfaction

Table 2. Socio-demographic characteristics and patient satisfaction with technical quality.

Oghara, Delta State, Nigeria. 2017 (n=115)

Variable	Technical quality n (%)		p-value	OR (95%CI)
	Dissatisfied	Satisfied	_ -	. ,
Age (years)				
< 40	13 (21.3)	48 (78.7)		
40-59	5 (14.3)	30 (85.7)	0.396	1.63 (0.48-6.39)
≥ 60	2 (10.5)	17 (89.5)	0.501	2.30 (0.44-22.90)
Gender	, ,	, ,		,
Male	10 (16.1)	52 (83.9)		
Female	10 (18.9)	43 (81.1)	0.699	0.83 (0.28-2.45)
Marital status	` ,	, ,		,
Unmarried	10 (25.0)	30 (75.0)		
Married	10 (13.3)	65 (86.7)	0.166	2.17 (0.72-6.48)
Educational level	` ,	, ,		,
Informal	1 (16.7)	5 (83.3)		
Primary	2 (18.2)	9 (81.1)	1.000	0.90 (0.01-21.86)
Secondary	10 (17.2)	48 (82.8)	1.000	0.96 (0-02-10.08)
Tertiary	7 (16.7)	33 (82.5)	1.000	0.94 (0.02-10.66)
Employment status	, ,	, ,		,
Employed	7 (13.5)	45 (86.5)		
Unemployed	13 (20.6)	50 (79.4)	0.312	0.60 (0.19-1.79)

Table 3. Socio-demographic characteristics and patient satisfaction with interpersonal management, Oghara, Delta State, Nigeria. 2017 (n=115)

Variable	Interpersonal management n (%)		p-value	OR (95%CI)
	Dissatisfied	Satisfied	_ •	, ,
Age (years)				
< 40	20 (32.8)	41 (67.2)		
40-59	8 (22.9)	27 (77.1)	*0.002	4.82 (1.52-15.81)
≥ 60	5 (26.3)	14 (73.7)	0.595	1.37 (0.39-5.52)
Gender	,	,		,
Male	19 (30.6)	43 (69.4)		
Female	14 (26.4)	39 (73.6)	0.617	1.23 (0.51-3.04)
Marital status	,	,		,
Unmarried	13 (32.5)	27 (67.3)		
Married	20 (26.7)	55 (73.3)	0.510	1.32 (0.52-3.29)
Educational level	,	,		,
Informal	1 (16.7)	5 (83.3)		
Primary	3 (27.3)	8 (72.7)	1.000	0.53 (0.01-9.44)
Secondary	18 (31.0)	40 (69.0)	0.660	0.44 (0.01-4.45)
Tertiary	11 (27.5)	29 (72.5)	1.000	0.53 (0.01-5.61)
Employment status	(- /	(- /		, , , , ,
Employed	11 (21.2)	41 (78.8)		
Unemployed	22 (34.9)	41 (65.1)	0.104	0.50 (0.19-1.25)

*Significant at P<.05

Table 4. Socio-demographic characteristics and patient satisfaction with communication, Oghara, Delta State, Nigeria. 2017 (n=115)

Variable	Communication n (%)		p-value	OR (95%CI)
	Dissatisfied	Satisfied		
Age (years)				
< 40	29 (67.5)	32 (52.5)		
40-59	10 (28.6)	25 (71.4)	0.069	2.27 (0.86-6.19)
≥ 60	6 (31.6)	13 (68.4)	0.221	1.96 (0.59-7.11)
Gender	, ,	, ,		,
Male	23 (37.1)	39 (62.9)		
Female	22 (̀41.5)́	31 (̇̀58.5)́	0.629	0.83 (0.37-1.89)
Marital status	` ,	, ,		,
Unmarried	21 (52.5)	19 (47.5)		
Married	24 (32.0)	51 (68.0)	*0.032	2.35 (0.99-5.56)
Educational level	` ,	,		,
Informal	1 (16.7)	5 (83.3)		
Primary	4 (36.4)	7 (63.6)	0.600	0.35 (0.01-5.52)
Secondary	22 (37.9)	36 (62.1)	0.406	0.33 (0.01-3.26)
Tertiary	18 (45.0)	22 (55.0)	0.377	0.24 (0.00-2.54)
Employment status	. ,	. ,		,
Employed	23 (44.2)	29 (55.8)		
Unemployed	22 (34.9)	41 (65.1)	0.309	1.48 (0.65-3.36)

*Significant at P<.05

With regards to general satisfaction, none of the socio-demographic variables was a significant predictor patients satisfaction.

4. DISCUSSION

Recognising patients' satisfaction and expectation is considered an important

component of assessing quality of care and also critical to developing service improvement strategies [12,13].

Some studies have shown that failure to identify what patient expects can lead to dissatisfaction with care, non-compliance with medical care and inappropriate use of medical services [12,14].

Although it may seem impossible to satisfy every patient that comes to the hospital, a high level of satisfaction can be achieved by working on related indicators and reports of satisfaction

surveys to improve on defective areas. Studies have shown that using results obtained from satisfaction surveys can have a profound effect on quality of services [1,2,8,15].

Table 5. Socio-demographic characteristics and patient satisfaction with financial aspect.

Oghara, Delta State, Nigeria. 2017 (n=115)

Variable	Financial aspect n (%)		p-value	OR (95%CI)
	Dissatisfied	Satisfied		
Age (years)				
< 40	48 (78.7)	13 (21.3)		
40-59	21 (60.0)	14 (40.0)	0.056	2.46 (0.89-6.78)
≥ 60	11 (57.9)	8 (42.1)	0.072	2.69 (0.76-9.11)
Gender				
Male	45 (72.6)	17 (27.4)		
Female	35 (66.0)	18 (34.0)	0.447	1.36 (0.57-3.26)
Marital status				
Unmarried	28 (70.0)	12 (30.0)		
Married	52 (69.3)	23 (30.7)	0.941	1.03 (0.42-2.64)
Educational level				
Informal	4 (66.7)	2 (33.3)		
Primary	9 (81.8)	2 (18.2)	0.584	0.44 (0.02-8.64)
Secondary	41 (70.7)	17 (29.3)	1.000	0.83 (0.11-10.01)
Tertiary	26 (65.0)	14 (35.0)	1.000	1.08 (0.13-13.29)
Employment status				
Employed	38 (73.1)	14 (26.9)		
Unemployed	42 (66.7)	21 (33.3)	0.457	1.36 (0.56-3.32)

Table 6. Socio-demographic characteristics and patient satisfaction with time spent with doctor. Oghara, Delta State, Nigeria. 2017 (n=115)

Variable	Time spent with doctor n (%)		p-value	OR (95%CI)
	Dissatisfied	Satisfied	 , -	, ,
Age (years)				
< 40	37 (60.3)	24 (39.3)		
40-59	15 (42.9)	20 (57.1)	0.092	2.06 (0.81-5.22)
≥ 60	9 (47.4)	10 (52.6)	0.306	1.71 (0.53-5.52)
Gender		•		
Male	34 (54.8)	28 (45.2)		
Female	27 (50.9)	26 (49.1)	0.677	1.71 (0.53-5.52)
Marital status		•		,
Unmarried	26 (65.0)	14 (35.0)		
Married	35 (46.7)	40 (53.3)	0.061	2.12 (0.90-5.11)
Educational level	, ,	, ,		,
Informal	1 (16.7)	5 (83.3)		
Primary	6 (54.5)	5 (45.5)	0.304	0.17 (0.00-2.52)
Secondary	28 (48.3)	30 (51.7)	0.209	0.21 (0.00-2.13)
Tertiary	26 (65.0)	14 (35.0)	0.068	0.11 (0.00-1.15)
Employment status	. ,	. ,		,
Employed	30 (57.7)	22 (43.1)		
Unemployed	31 (49.2)	32 (50.8)	0.364	1.41 (0.63-3.15)

Table 7. Socio-demographic characteristics and patient satisfaction with access to care.

Oghara, Delta State, Nigeria. 2017. (n=115)

Variable	Access to care n (%)		p-value	OR (95%CI)
	Dissatisfied	Satisfied	— ·	,
Age (years)				
< 40	36 (59.0)	25 (41.0)		
40-59	6 (17.1)	29 (82.9)	*<0.001	6.96 (2.33-23.13)
≥ 60	5 (26.3)	14 (73.7)	*0.013	4.03 (1.16-15.92)
Gender	,	, ,		,
Male	22 (35.5)	40 (64.5)		
Female	25 (47.2)	28 (52.8)	0.204	0.62 (0.27-6.86)
Marital status	,	, ,		,
Unmarried	23 (57.5)	17 (42.5)		
Married	24 (32.0)	51 (68.0)	*0.008	2.88 (1.21-6.86)
Educational level	,	,		,
Informal	1 (16.7)	5 (83.3)		
Primary	4 (36.4)	7 (63.6)	0.394	0.35 (0.01-5.52)
Secondary	26 (44.8)	32 (55.2)	0.184	0.25 (0.01-2.45)
Tertiary	16 (40.0)	24 (60.0)	0.390	0.30 (0.001-3.13)
Employment status	, ,	, ,		, ,
Employed	21 (40.4)	31 (59.6)		
Unemployed	26 (41.3)	37 (58.7)	0.933	0.96 (0.43-2.17)

*Significant at p<0.05

Table 8. Socio-demographic characteristics and general satisfaction of respondents. Oghara, Delta State, Nigeria. 2017. (n=115)

Variable	General satisfaction n (%)		p-value	OR (95%CI)
	Dissatisfied	Satisfied	 -	, ,
Age (years)				
< 40	6 (9.8)	55 (90.2)		
40-59	3 (8.6)	32 (91.4)	0.838	1.16 (0.23-7.67)
≥ 60	2 (10.53)	17 (89.47)	1.000	0.93 (0.15-10.23)
Gender	,	. ,		,
Male	7 (11.3)	55 (88.7)		
Female	4 (7.5)	49 (92.5)	0.543	1.56 (0.37-7.68)
Marital status	` '	, ,		,
Unmarried	5 (15.0)	34 (85.0)		
Married	6 (6.7)	70 (93.3)	0.395	1.72 (0.38-7.52)
Educational level	•			,
Informal	0 (0.0)	6 (100.0)		
Primary	2 (18.2)	9 (81.8)	0.515	0.00 (0.00-6.43)
Secondary	3 (5.2)	55 (94.8)	1.000	0.00 (0.00-26.06)
Tertiary	6 (15.0)	34 (85.0)	0.579	0.00 (0.00-6.30)
Employment status	, ,	, ,		, ,
Employed	7 (13.5)	45 (86.5)		
Unemployed	4 (6.3)	59 (93.7)	0.220	2.29 (0.54-11.28)

The mean age of patients in this study was 40.9 ±16.0 with more than half of the patients being below 40 years of age. This mean age is similar to that obtained for a similar study on surgical out-patients in our centre 3 years earlier [16], but higher than that reported by Ofili and Ofovwe in Benin [1] (36.2 years) and Ilyasu et al. in Kano

[17] (31.9 years). Higher average ages of 45.9 years and 45 years have been recorded by Aldaqal et al. [2] and Jawaid et al. [18] in Saudi Arabia and Karachi respectively. Patient selection criteria, variations in health indices and possibly racial/genetic factors might have contributed to these observed differences.

Among the 7 dimensions of satisfaction assessed in this study, more persons aged 40 – 59 years were significantly more satisfied with interpersonal quality aspect of care. There was also significant association with age and access to care, older patients above 40 years are more satisfied with access to care. Aldaqal et al. [2] found similarly that older respondents were more satisfied with surgical team response to emergencies in their study on surgical in-patients in Saudi Arabia.

In this study, there was male preponderance among the respondents, similar to observations in some other studies [2,7,12,15,18] although, to varying degrees. This contrasts with findings in some other satisfaction studies [1,16,17] which females were more. No significant association was found between gender and any of the 7 dimensions of satisfaction in this study. In contrast, Aldagal et al. [2] observed that females were more satisfied with medical services than their male counterparts in their study while Jawaid et al. [18] reported more male satisfaction with three of their measured parameters of satisfaction. Study design, sociocultural background, and patients' expectations might explain some of these variations.

The proportion of formally educated respondents form primary to tertiary level is 94.8% in this study. This is similar to 95% reported by Aldaqal et al. [2] but a bit higher than 89% reported in an earlier satisfaction study on surgical out-patients in our centre [16]. Lower values have been reported by other authors -72% (Ofili and Ofovwe [1]) and 58% (Umar et al. [3]). The last group of authors [3] observed that educated patients spent less time in the consulting room with doctors thus helping to reduce waiting time for other patients and as a result may indirectly help to improve on patients' satisfaction.

The overall average patient satisfaction considering all the 7 domains in this study was 63.1%. This is lower than the finding of 68.42% average overall satisfaction in a study on surgical out-patients in our centre previously [16] and also 66.8% and 89.6% reported by Iloh et al. [19] and Aldaqal et al. [2] respectivley. It is however, higher than the 56% observed by Umar et al. [3]

Accessibility to health facility and provider plays an important role in how patients are satisfied with health services received. Only about 59% of respondents in this study were satisfied with access to care in our centre. In contrast higher levels of satisfaction with access to care of 88% and 84% have been reported by Iloh et al. [19] and Ilyasu et al. [17] respectively. The low level of satisfaction with access might not be unconnected with the fact that our centre is located in a suburban area while most of our patients come from the bigger towns like Warri, Sapele, Asaba and even other states like Bayelsa, Ondo and Edo.

Our respondents were least satisfied with the fees they pay for our services (financial aspect). About 70% were dissatisfied with this sub-scale of satisfaction. In Iran Makaren et al. [20] studied patients satisfaction in 26 hospitals affiliated to Terhan University of Medical Sciences and reported that fee charges was one of the areas patients were least satisfied. However in Kano, Ilyasu et al. [17] reported that relatively large number of their patients (73%) were satisfied with the fees they paid. In an earlier study carried out on surgical out-patients in our centre [16], percentage satisfaction for the financial was also low [57%] which is higher than that presently reported. The fact that in-patients pay more fees as they are exposed to more of the hospital services would explain this. There is need for the National health insurance scheme in Nigeria to be extended to more persons to cushion the effect of the current difficulty encountered from out-of-pocket payments. A downward review of fees paid in the hospital is also advised to make our health services affordable and available to more people.

More than half of the respondents were also not satisfied with time spent seeing a doctor. This has actually been a source of dissatisfaction to varying degrees in many previous studies [2,16,20]. However, Ilyasu et al. [17] recorded a fairly high level of satisfaction (70%) with waiting time in their study. It must be noted that perceived waiting time is a better determinant of patients' satisfaction than actual waiting time. Engaging patients in activities like watching health related videos, reading health literature and pre-informing them about the expected waiting time tend to shorten perceived waiting time and improve satisfaction even without shortening the actual waiting time The hospital management will need to work on both the perceived and actual waiting times in order to improve on patients' satisfaction. Employing more staff, training and re-training of old ones and ensuring discipline among staff will go a long way to improve on actual waiting time.

Effective communication is a vital tool in the physician/patient interaction process. About 61% of respondents in this study were satisfied with their communication with doctors. This is lower than what has been reported in some previous studies [11,16,19]. Training and retraining of doctors and other health workers on the need for and ways of effective communication while interacting with patients will help to improve patients' satisfaction in this regard.

Poor interpersonal relationship between doctors and other health workers and patient / relatives has also been shown to lower patients' satisfaction ratings with hospital services [15,16,19]. About 71% of respondents in this study were satisfied with their interpersonal relationship with doctors. This is lower than the percentage satisfaction reported in some other studies. Odatuwa-Omagbemi [16] in an earlier study on surgical out-patients in this centre, reported 76.21%, while 82.5% and 88.8% have been recorded by Soleinmanpour et al. [15] and lloh et al. [19] respectively in other studies. Training and retraining of doctors and other hospital staff will also go a long way in improving on satisfaction with this aspect of care.

Respondents rating/satisfaction with the technical quality of care provided (82.6%) is relatively high in this study compared with other domains of satisfaction. The reason for this is not farfetched. Ours is a referral centre and the only tertiary health facility of its kind in Delta State, Nigeria. Most state of the art investigations and procedures are done here and so patients and relatives come believing that in spite of other difficulties they might encounter, they will get the best technical quality of medical care. This is true to a large extent. The 82.6% satisfaction in this study is higher than 72.7% previously observed in an earlier study [16] on surgical out-patients in our centre. This observation might be due to actual improvement in this aspect of care or might be related to the fact that in-patients are more exposed to services in the hospital and thus be in a better position to assess the technical quality of care offered. However, the hospital management we believe can still do more by conducting regular in-service training for staff to acquire new skills and improve on quality of care.

5. CONCLUSION

Satisfaction is a highly individualised phenomenon that depends on expectations of

individual patients/relatives based on previous experiences and exposure. Our patients do not seem to expect much on a general note. In spite of this, this study has shown that several aspects of care need to be improved on by the management of our health facility as pointed out in the discussion above in order to improve on the satisfaction of our patients. Of particular note is the area of fees payment and time spent to see doctors, findings which have further opened our eyes to these areas of patients' disaffection. The fees need to be reviewed downwards and our activities re-organised to reduce time wastage. The National Health Insurance Scheme (NHIS) should be extended by government to cover a larger part of the Nigerian populace to reduce the burden of out-of-pocket payments.

6. STUDY LIMITATIONS

An important limitation in this study is the fact that not all aspects of patients satisfaction with our services were assessed by the PSQ-18 questionnaire. For example cleaniness in the wards, food quality etc.

Also our sample size being relatively small could limit the generalization of findings.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

- Ofili AN, Ofovwe CE. Patients' assessment of efficiency of services at a teaching hospital in a developing country. Ann Afr Med. 2005;4(4):150–153.
- Aldaqal SM, Alghamdi H, Alturki H, Eldeek BS, Kensarah AA. Determinants of patients satisfaction in the surgical ward at a university in Saudi. Life Science Journal. 2012;9(1):277-280.
- 3. Umar I, Oche MO, Umar AS. Patients' waiting time in a tertiary health institution in Northern Nigeria. J Public Health Epidemiol. 2011;3(2):78-82.
- Al-Abri R, Al-Ballushi A. Patient satisfaction survey as a tool towards quality improvement. Oman Med J. 2014; 29(1):3–7.
- 5. Kravitz R. Patient satisfaction with health care: Critical outcome or trivial pursuit. J Gen Intern Med. 1998;13(4):280–282.
- Gerteus M, Edgman-Levitan S, Daley J, Delbanco TL(ed). Through the patients'

- eyes: Understanding and promoting patient-centred care. Josey-Bass Publishers. San Francisco, Calif; 1993.
- Megbalayin EO, Ibeinmo O, Kurawa MS, Babalola YO. Preconsultation waiting time in a Nigerian public eye hospital – a source of patient dissatisfaction. Standard Research Journal of Medicine and Medical Sciences. 2013;1(1):1-5. Available:http://www.standresjournals.org/j
 - Available: http://www.standresjournals.org/journals/SRIMMS
- Braunsberger K, Gates RH. Patient / enrolee satisfaction with health care and health plan. Journal of Consumer Marketing. 2002;19(7):575–590.
- Taylor C, Benger JR. Patient satisfaction in emergency medicine. Emerg Med J. 2004; 21:528-532.
- Marshall GN, Hays RD. The patient satisfaction questionnaire short form (PSQ-18). Santa Monica CA: RAND. 1994;7865 (1-35).
- 11. Thayaparan AJ, Mandi E. The patient satisfaction questionnairre short form (PSQ-18) as an adaptable, reliable and validated tool for use in various settings. Med Educ Online. 2013. DOI: 10.340/meo.v18i0.21747
- 12. Bener A, Ghuloum S. Gender difference on patients' satisfaction and expectation towards mental health care. Niger J Clin Pract. 2013;16:285-291.
- 13. Gill L, White L. Critical review of patient satisfaction. Leadership in Health Services. 2009; 22(1):8 -19.
- Rothschild SK. Cross-cultural issues in primary care medicine. Dis Mon. 1998;44: 293 -319.

- Soleinmanpour H, Gholipouri C, Salarilak S, Raoufi P, Valudi RG, Rouhi AJ, Ghafouri RR, Soleinmanpour M. Emergency department patient satisfaction survey in Imam Reza Hospital Tabriz, Iran. Int J Emerg Med. 2011;4:2.
- Odatuwa-Omagbemi DO. Patients satisfaction with surgical out-patient services at the Delta State University Teaching Hospital, Oghara Delta State, Nigeria. Nig Health J. 2014;14(2):71-78.
- Iliyasu Z, Abubakar IS, Abubakar S, Lawal UM, Gadija AU. Patients' satisfaction with services obtained from Aminu Kano Teaching Hospital, Kano, Northern Nigeria. Niger J Clin Pract. 2010;13:371-378.
 Available: http://www.njcponline.com/text.a sp?/2010/13/4/371/74619
- Jawaid M, Ali I, Rizvi B, Razzak H. Patients' satisfaction of surgical out-patient department using concise out-patient depart user satisfaction scale. The Internet Journal of Surgery. 2009;(22)1.
- Iloh GUP, Ofoedu JN, Odu FU, Ifedigbo CV, Iwuamanam KD. Evaluation of patients' satisfaction with quality of care provided at the national health insurance scheme clinic of a tertiary hospital in South-Eastern Nigeria. Niger J Clin Pract. 2012;15(4):469-474.
- Makarem J, Larijam B, Joodaka K, Gaderi S, NayeriF, Mohammadpoor M. Patient satisfaction with in-patient services provided in hospitals affiliated to Terhan University of Medical Sciences, Iran During 2011 -2013. J Med Ethics Hist Med. 2016; 9:6.

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Peer-review history:
The peer review history for this paper can be accessed here:
http://sciencedomain.org/review-history/18563