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Original Research Article

Satisfaction of patients attending a rural hospital of Darjeeling district in West Bengal, India

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ABSTRACT

Background: Patient satisfaction is a means of measuring the effectiveness of health care delivery. This serves as a means of improvement among health care providers to give an acceptable level of patient satisfaction. Aims and Objectives: To assess the level of satisfaction and reasons of dissatisfaction among patients regarding health care services in a rural hospital of Darjeeling District, West Bengal.
Methods: A cross-sectional survey was done on 110 patients with the help of PSQ-18 questionnaire. The samples were drawn by systematic random sampling .
Results: The overall mean satisfaction score was 3.57 and S.D. ±0.69. The mean score was highest in general satisfaction domain which was found to be 3.76 with S.D ± 1.08 and lowest in time spent with doctor where mean score was 2.92 and S.D. ±1.07. 69.3% of the patients were satisfied with the services offered by the hospital. The time spent by the doctor with the patient was less and this was the major reason of dissatisfaction.
Conclusions: More than half of the patients were satisfied with the services provided by the hospital. The findings of the study can facilitate the development of targeted, objectively prioritized programs for the improvement and advancement of health care delivery systems.

Keywords: Patient satisfaction, Health care services, Reasons, Seven subscales

INTRODUCTION

Patient satisfaction is a means of measuring the effectiveness of health care delivery. This serves as a means of improvement among health care providers to give an acceptable level of patient satisfaction.[1] Patient satisfaction is one of the established yardsticks to measure success of the services being provided in the hospitals. The goal of any service organization is the creation of satisfaction among clients. Human satisfaction is a complex concept related to a number of factors including lifestyle, past experiences, future expectations and the value of both individual and society.[2]

Assessing satisfaction of patients is simple and cost effective way for valuation of hospital services. Satisfaction is the feeling of contentment resulted from fulfilling one's wishes. In medical care, satisfaction is a key indicator of quality of care. Nowadays, patients are getting more aware of their rights and so expecting more from the existing health care system. Moreover regular assessment of patient satisfaction can indirectly improve the quality of services provided by the hospitals by making necessary changes in the deficient areas.

To measure patient satisfaction, a combination of several factors should be taken into account like social, demographic, technical, psychological and many more.

Patient satisfaction can be measured by a composite scale of Patient Satisfaction Questionnaire Short Form (PSQ-18).[3] Some of the studies are already been done in rural and urban areas of West Bengal to unfold the facts or domains of satisfaction or dissatisfaction regarding various health services.[4,5]

As patient satisfaction regarding various health services or utilities varies from tools of measurements, setting to setting, from areas to areas, this study will be conducted to reveal new facts regarding patient satisfaction or dissatisfaction in a rural hospital of Darjeeling District, West Bengal, so that it may improve or change or strengthen our current practice in providing health care or services.

Aims and objectives

1. To assess the level of satisfaction of patients regarding health care services in a rural hospital of Darjeeling District in West Bengal, India.
2. To find out the reasons of dissatisfaction, if any among them.

METHODS

A cross-sectional descriptive observational study was conducted in Naxalbari Rural Hospital of Darjeeling District, West Bengal during May-June 2016 among patients attending OPD for any ailment. The patients who were admitted and refused to give consent were excluded.

Sampling

Sample size

Considering the proportion of satisfaction level as 50%, taking $Z_{(1-\alpha/2)}$=1.96 at 95% confidence interval and absolute precision 10, P=50, sample size determination is computed by using the formula, [6]

$$n = z^2_{(1-\alpha/2)}P(1-P)/d^2$$

Applying the formula, the sample size comes out to be 96. Assuming 10% non-response rate, which comes to be 10, final sample size will be 96+10=106 which will be rounded to 110.

Sampling technique

One day in a week was selected for data collection and 12-15 patients were interviewed by systematic random sampling.

Data collection

Data was collected using a pre-tested schedule consisting of three parts:

- The first part includes the socio-demographic variables of the patients, like age, sex, religion, caste, per capita income, type of family, educational status, occupation etc.
- The second part includes questions regarding patient satisfaction, based on Patient satisfaction questionnaire (PSQ-18) developed by Marshall GN and Hays RD.[3] PSQ-18 was widely used in various studies.[3-5] The questionnaire comprehensively measures the patient satisfaction with the 18 items which yields seven domains of patient satisfaction, that are general satisfaction (2 items), interpersonal manner (2 items), technical quality (4 items), financial aspects (2 items), time spent with doctor (2 items), accessibility and convenience (4 items). These items are asked such that they are statements of opinion, since each is accompanied by five response categories from strongly agree, agree, uncertain, disagree to strongly disagree. A scoring system was developed for each response that will range from 1 to 5.1 denotes strongly agree and 5 denotes strongly disagree.

The general satisfaction domain ensures that the medical care that the patient has been receiving is just about perfect, allowing him to be fully satisfied with it. The domain, technical quality, evaluates the technical aspects of the medical care. The interpersonal domain assesses whether the doctors are friendly and personable with the patients and thus examines the relationships between the doctors and patients. The communication domain describes the doctor-patient relationship again, but this time, it does so by gauging the doctor's ability to listen and explain to the patients about their medical conditions and tests. For the financial aspect, it measures the patient's ability to be confident about paying for one's medical care without being set back financially and affirms the affordability of the healthcare services. The domain, time spent with doctor, questions the attitude of the medical staff, including doctors, towards the patient. Lastly, accessibility and convenience indicates the availability and frequency of medical services for the patients.

Thus, the seven subscales describing the healthcare services and the scores are then averaged out to give the overall quality index, measuring the overall quality of the healthcare services of hospitals.

- The third part consisted of questions based on reasons of dissatisfaction and factors related to time taken to reach hospital, cost of treatment.

Data collection technique

Structured exit interviews were conducted among attendees of OPDs after obtaining informed consent from respondents. Anonymity and confidentiality was ensured

for information obtained from study subjects before the interview.

Data analysis

After collecting the data, it was entered in Microsoft excel datasheet 2007. Data was organised and presented by applying principles of descriptive statistics. Analysis of the data was done by using IBM statistical package for social sciences version 20 (SPSS 20). Continuous data was analysed showing mean and standard deviation and tested by t-test where p <0.05 is significant. Satisfaction was determined by mean scores. Linear regression analysis was done to find out the relationship between overall mean score (dependant variable) with other variables like age, gender, religion, caste, education, occupation, SES etc. (independent variables).

Scoring system

PSQ-18 yields for each of the seven different subscales; general satisfaction (2 items), interpersonal manner (2 items), technical quality (4 items), financial aspects (2 items), time spent with doctor (2 items), accessibility and convenience (4 items).

All items were scored from one to five so that high scores reflect satisfaction with health care. After item scoring, items within each scale were be averaged together to create the 7 subscale scores. The level of patient's satisfaction with each of the seven subscales of health care was presented as a score.

Table 1: Seven domains of patient satisfaction with their calculations.

Seven subscales of PSQ-18	Average of items
1. General satisfaction	3+17
2. Technical quality	2+4+6+14
3. Interpersonal manner	10+11
4. Communication	1+13
5. Financial aspects	5+7
6. Time spent with doctor	12+15
7. Accessibility and convenience	8+9+16+18
Overall satisfaction	All 18 items

Ethical clearance

Ethical approval was taken from the Institutional Ethics Committee of North Bengal Medical College and Hospital. Permission was also obtained from the Block Medical Officer of Health of Naxalbari Rural Hospital. A patient consent form was translated in local language before using in the interview. Anonymity and confidentiality was ensured to each of the patient.

Table 2: Scoring system of items of PSQ-18.

Item Numbers	Original Response value	Scored Value
1,2,3,5,6,8,11,15,18	1	5
	2	4
	3	3
	4	2
	5	1
4,7,9,10,12,13,14,16,17	1	1
	2	2
	3	3
	4	4
	5	5

Variables used

A. Socio-demographic variables which included age, gender, religion, caste, education, occupation, SES etc were studied. The socio-economic status is based on Modified B.G. Prasad's scale using AICPI June 2015.[7]

B. The PSQ-18 consisted of 18 statements including seven dimensions of satisfaction of medical care measured by general satisfaction, technical quality, interpersonal manner, communication, financial aspects, time spent with doctor and accessibility and convenience. Responses to each 18 statements were given on a five point scale ranging from strongly agree to strongly disagree.

RESULTS

A descriptive, cross section epidemiological study was conducted among patients attending the outpatient department of a rural hospital of Darjeeling district to find out the satisfaction scores. A total of 110 patients were interviewed with the help of a semi-structured schedule. The following observations are noted below. The mean age of the patients is 30.31 years with S.D.±17.69.

Table 3: Average scores for seven sub-scales of patients' satisfaction.

Subscales of patient satisfaction	Mean	S.D
General satisfaction	3.76	1.08
Technical quality	3.72	0.87
Interpersonal manner	3.77	0.86
Communication	3.75	0.9
Financial aspects	3.53	1.12
Time spent	2.92	1.07
Accessibility	3.55	0.69
Overall mean satisfaction score	3.57	0.69

The mean score was highest in general satisfaction domain is found 3.76 with S.D ± 1.08 and lowest in time spent with doctor where mean score was 2.92 and S.D±1.07. The overall mean satisfaction score is 3.57 and

S.D ±0.69. The above findings are shown in the boxplot diagram below.

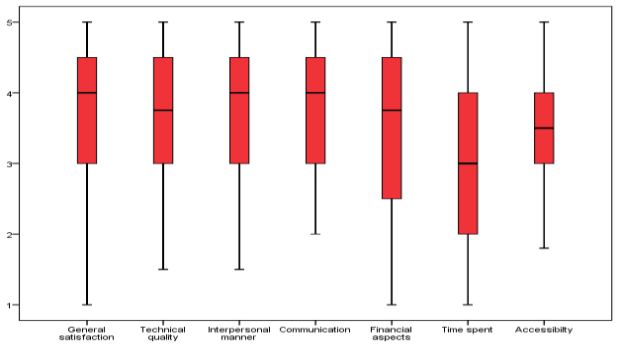

Figure 1: Boxplot diagram showing mean and SD of different domains of patient satisfaction.

From the above table it is found that the mean satisfaction score among patients who were having middle school level education 3.76 which is significantly different from who were more literate 3.40 (t=2.853 ; p <0.005). There was also significant difference noted with the type of family they belonged to. But in other variables, no such significant differences are seen.

The above table shows the relationship between total mean satisfaction which is the dependent variable with the independent variables like age, sex, religion, caste, literacy status, occupational status, type of family and SES. Linear regression equation was total mean satisfaction= 3.583 + 0.006 × age + 0.082 × gender- 0.053×religion + 0.188 × caste - 0.341 × literacy- 0.055 × occupation - 0.314 × family type + 0.135 × SES. The above model could explain 19.2% of the cases.

The patients were asked about whether they are satisfied with all the services available within the hospital during their visit, 69.3% were found to be satisfied and 29.7 were not satisfied.

Table 4: Average Patient satisfaction scores according to socio-demographic profile.

Variables	Groups	Mean	S.D	t test	p value
Age group	<30 years	3.46	0.69	-1.942	0.055
	>=30 years	3.71	0.66		
Sex					
	Male	3.50	0.74	-1.107	0.271
	Female	3.65	0.63		
Religion					
	Hindu	3.59	0.67	0.421	0.674
	Others	3.52	0.74		
Caste					
	General	3.47	0.72	-1.372	0.173
	Others	3.65	0.66		
Literacy status					
	Upto middle	3.76	0.59	2.853	0.005
	Others	3.40	0.72		
Occupation status	Employed	3.60	0.68	0.665	0.508
	Unemployed	3.50	0.71		
Type of family	Nuclear	3.69	0.64	2.194	0.030
	Joint	3.41	0.72		
Per capita income	<Rs.1500	3.65	0.67	1.953	0.053
	>=Rs.1500	3.36	0.70		

Table 5: Linear regression analysis between overall satisfaction and other variables.

Variables	Unstandardized coefficients		Significance	Model summary
	B	Std. Error		
(Constant)	3.583	0.538	0	R square
Age	0.006	0.004	0.095	0.192
Sex	0.082	0.13	0.528	Significance
Religion	-0.053	0.147	0.717	0.005
Caste	0.188	0.125	0.135	
Literacy status	-0.341	0.124	0.007	
Occupational status	-0.055	0.147	0.711	
Type of family	-0.314	0.136	0.023	
SES	0.135	0.055	0.016	

Table 6: The most common reasons of dissatisfaction among patients.

Reasons	No.	%
Lack of facilities	14	42.4
Inadequate doctor' time	10	30.3
Poor quality of services	05	15.2
Non availability of drugs	04	12.1
Total	33	100.0

DISCUSSION

A cross-sectional descriptive study regarding the satisfaction of patients attending the OPD in a rural hospital of Darjeeling District in West Bengal was conducted with the help of PSQ-18, a short form of PSQ-III. A total of 110 patients were interviewed with a pre-designed pretested schedule. The mean age of the patients was found to be 30.31 years with S.D.±17.69, as compared to 41±15.6 years in a study conducted in Nigeria and 44.7±23 years in a study done in Tehran clinics.[8,16]

Socio demographic profile

The present study had 51.9% males and 49.1% females, which was different from a study conducted in Tehran where there were 64.6% females and 35.4% males. In the Nigerian study, 39% patients were male while remaining 61% were females.[10]

Majority of the patients (37.3%) belonged to 30-60 years age group in the present study, which is similar to a study conducted in urban area of Darjeeling District, where 32.4% patients were 40-59 years of age.[9] In the Nigerian study, 65% were from 26-55 years age.[10]

18.2% of the study population was illiterate which is similar to the study conducted in urban area of Darjeeling District(18.6%).[9] 32.7% of the patients studied were daily wage labourers, i.e. unskilled workers and 11.8% were unemployed.

Satisfaction among patients

When the patients were enquired about the overall hospital services, it was revealed that, 69.3% of the patients were satisfied. The mean satisfaction score is highest in general satisfaction domain (3.76) and lowest in time spent with doctor (2.92) in the present study conducted in rural area of Darjeeling District. The overall mean satisfaction score is 3.57. In the Nigerian study, the highest average score for satisfaction was in the area of communication (4.08) and interpersonal relationship with doctor (3.81) while the lowest score was on financial aspect (2.84).[10] In a study conducted in Tehran among patients with ophthalmic services, accessibility and technical quality had the strongest association with overall satisfaction.[8] Another study conducted by Chakraborty et al in 2015 in the urban area of Siliguri found the mean score of 3.81 in general satisfaction domain and 3.48 in the domain of time spent with doctor.[9]

Patient satisfaction has been evaluated in several studies in different clinical settings. In a study conducted in Labbafinejad Hospital (Tehran, Iran) in 2008, patient satisfaction with ophthalmic services was reported to be 71%, and the main cause of dissatisfaction was poor technical quality and access to physician.[8]

In another study performed in 2009, patient satisfaction with medical services offered at the general hospitals of Isfahan University of Medical Sciences (Isfahan, Iran) was reported to be 56%, and the subscale accounting for the lowest score was doctor-patient communication .It is found from the studies that doctor-patient relationship is the most significant parameter affecting patient's satisfaction out of all other health care staff and services.[11]

Reasons of dissatisfaction

The services provided to patients in hospitals play an important role in determining the satisfaction levels.

29.7% of the patients were not satisfied with the services they received in event of their hospital visit and the reasons were mainly lack of facilities (42.4%) and insufficient doctor's time (30.3%) which were much similar to the study conducted by Chakraborty et al in 2015 in the urban area of Siliguri.[9]

CONCLUSION

A descriptive study was conducted among patients attending the OPD of Naxalbari Rural Hospital of West Bengal. The level of patient satisfaction was quite good in the hospital.

69.3% of the patients were satisfied with the services offered by the hospital. Among the various domains for measurement of satisfaction, the time spent with the doctor was the low, which may be one of the major causes of dissatisfaction among them. The mean satisfaction score among patients who were having middle school level education was significantly high from those who were more literate. The patients belonging to nuclear families had higher mean satisfaction score as compared to joint families. This difference was significant. Overall, the linear regression with socio demographic variables with overall satisfaction showed no significant association, which was consistent with other similar studies.

Recommendation

Although a majority of the patients were satisfied with the services, a significant proportion of patients were also dissatisfied. Thus, there is a need for the general improvement of the health services, particularly in the domains where the satisfaction scores were low like time spent and accessibility. Improving the affordability and accessibility of health services can help build an optimistic image of the hospital in the minds of the people.

The findings of the study can facilitate the development of targeted, objectively prioritized programs for the improvement and advancement of health care delivery systems.

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