

EFFECT OF DEMOGRAPHIC CHARACTERISTICS ON PATIENT'S SATISFACTION WITH HEALTH CARE FACILITY

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ABSTRACT

Objective: To assess the patients' satisfaction level and effect of demographic characteristics on patients' satisfaction with health care facility in a tertiary care hospital.

Methodology: This Descriptive Cross sectional survey was conducted from June through October, 2012 in Out Patients Department of Punjab Social Security Hospital (PESSI), Rawalpindi. Participants were interviewed by trained interviewers (students of 4th year MBBS class) using pre tested questionnaires. The patients were interviewed for their satisfaction and experience in the healthcare facility regarding interaction with doctors, paramedical staff, and facilities in the institution. Demographics like age, gender, educational status, marital status and monthly income were recorded. A five point scale of Strongly Agree (5), Agree (4), Uncertain (3), Disagree (2), and Strongly Disagree (1) was used. The percentage score was calculated for each patient and patient satisfaction was measured in terms of mean percent score.

Results: In sample of 110 patients, age of patient showed significant (p-value = 0.033) relationship with satisfaction score, with maximum satisfaction level (79.86%) in older age patients of > 55 years. Gender and occupation of patient did not show significant effect on satisfaction score. The illiterate or less educated (p-value = 0.003) and married patients were significantly (p-value = 0.003) more satisfied. Patients with less monthly income were significantly (p-value < 0.001) more satisfied.

Conclusion: Older and less educated patients with lower income bracket were more satisfied with healthcare facility as compared to younger, highly educated patients and having higher income levels.

Key words: Patients Satisfaction, Demographic characteristics, Percent Satisfaction Score,

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INTRODUCTION

Patient satisfaction is one of the several ways to evaluate the quality of care, an outcome variable in its own right, and is an indicator of weaknesses in the service. Previous literature shows that satisfaction level can be dependent on many factors other than the quality of service delivery, it may subject to factors like patients' demographics. Among demographic characteristics, age, health status, and race had a consistent, statistically significant effect on satisfaction scores. Some institutional characteristics also showed consistent and significant effect on patient satisfaction score^{1,2}.

Patient satisfaction can be used to investigate the areas having flaws or deficiencies in r quality of services. Previous studies have explored methods to improve ser-

vice quality in outpatient departments by analyzing outpatient satisfaction regarding waiting times, courtesy and interpersonal skills, , professionalism, access, coordination of care, education and information provision, emotional support, technical quality of care, and overall quality and satisfaction³⁻⁷.

Previous literature showed that older patients tended to have higher satisfaction scores in all respects⁸. Educational levels of patients also found a contributor to patient satisfaction and those with no education or only primary education had higher satisfaction scores. Marital status was also a major contributor towards the satisfaction of patients with healthcare facilities and those married or cohabitating tended to have higher satisfaction scores,⁹ but in another study those who were single or divorced had

higher satisfaction scores with health care facility¹⁰.

Literature also showed gender dependency of patient satisfaction and it was found that males tended to have higher satisfaction scores than females¹¹. The literature shows that job status of a person can have effect on satisfaction level but results of some studies revealed that this variable don't have any influence on patient satisfaction^{11, 12}.

Every human being carries a particular set of thoughts, feelings and needs. By getting to know the patients a little more and to get their views on the care, one ought to know what the patients consider as good care¹³. Patient compliance is very important for successful treatment outcome and since clinical outcome is always attributed to the provider and never to the patient, the patient compliance with treatment becomes all the more crucial¹⁴.

Patient satisfaction can be an important tool to improve the quality of services. It can play an increasingly important role in the growing push toward accountability among health care providers overshadowed by measures of clinical processes and outcomes in the quality of care. This present study was planned to assess the quality of care provided to patients in a tertiary care hospital in terms of patients' satisfaction and relate this satisfaction with demographic characteristics of the patients.

METHODOLOGY

This cross sectional survey was conducted between June 2012 and October 2012. A total 110 participants were included in this study. The patients from out patients department were included after taking informed written consent by consecutive sampling technique. Approval of the study was taken from the hospital ethical committee. Participants were interviewed privately face to face in the hospital Outpatient department of Punjab Social Security Hospital (PESSI), Rawalpindi. Interviews were conducted by trained interviewers (students of 4th year MBBS class) using pre tested questionnaire which was developed according to the international standards of National Technical Information Service (NTIS) Publication No. PB 288-329, Springfield, VA). The patients were interviewed for their experience in the healthcare facility regarding different aspects of doctor's treatment, behavior of the doctor, attitude of paramedical staff, facilities regarding convenience in the institution like parking area, drinking water, toilets, signs to reach to a specific location in the hospital, facilities for pharmacy and cost of treatment. Information regarding demographic characteristics like age, gender, educational status, marital status and monthly income were

recorded. Different characteristics of hospital which were considered to have a significant effect on patients treatment and satisfaction level, like behavior of doctor, paramedical staff, waiting time, etc were measured on five point scale of Strongly Agree (5), Agree (4), Uncertain (3), Disagree (2), Strongly Disagree (1). The percent score was calculated for each patient and patient satisfaction was measured in terms of mean percentage score. These percent scores were analyzed with respect to different demographic characteristics. Data was entered and analyzed by using SPSS v 16. Descriptive statistics was used to analyze the data and results were presented by mean \pm SD for quantitative variables and frequencies with percentages for qualitative variables in tabular form. Percent mean score technique was used to show the satisfaction score of the participants. Independent sample t-test was used to compare two categories for percent mean score and One Way ANOVA test for comparison of more than two categories on the basis of percent mean score. P-value < 0.05 was considered significant.

RESULTS

In this cross sectional study a total of 110 patients were included and were interviewed for their experience in the healthcare facility. In this sample there were 51 (46.4%) males and 59 (53.6%) females in the study. The mean age of patients was 38.99 years with a standard deviation of 15.86 which ranged from 15 to 84 years. In these patients 51.82% belonged to rural area and 48.18% were from the urban area. In this study greater part of patients included were illiterate (31.82%) or had very less education that is primary (25.84%) or madrasa level (10%) education. A bulk (40%) of these patients was unemployed or house wives (20.91%) and 30.91% were employed. Similarly majority of the patients included in the study were married (63.64%), followed by (29.09%) patients who were single. Since this study was conducted in a public sector hospital and patients visiting this hospital were retired employees or people belonging to low income class. So in our study sample majority (63.64%) had less than 10,000 income followed by 27.27% patients belonging to middle income class of 10,000-25,000 and only 9.09% patients had income above 25,000 as elaborated in Table 1.

The comparison of patient satisfaction score with respect to different demographic characteristics shows that age of the patient had a significant (p-value = 0.033) relationship with satisfaction score. The mean satisfaction level increased with increase in age and maximum satisfaction level (79.86%) was found in older age of > 55 years. Gender of the patient did not show significant effect on satisfaction score although females were com-

paratively more satisfied. Similarly patients satisfaction was independent of area of living, patients from rural or urban area had almost same level of satisfaction. The education level was also found to be significantly (p -value = 0.003) associated with level of satisfaction of patients. It was noted that the illiterate or less educated patients were more satisfied as compared with literate or high educated persons that is the mean satisfaction level was comparatively less in patients who were graduate or post graduate. The occupation of the patient did not show any relationship with their satisfaction level. In this study the marital status was significantly (p -value = 0.003) related to patients satisfaction score. It was found that the single patients had significantly less satisfaction score as compared with married or separated patients. Monthly income level of the patients was found to be a major contributor to patients satisfaction and we found that patients with less monthly income were significantly (p -value = 0.000) more satisfied with health care facility as compared to patients who had high income level of Rs. > 25,000 as given with details in table 1.

The distribution of overall patient's satisfaction score is given in fig 1. Which show that the mean overall satisfaction score was 75.60 % with a standard deviation of 8.175%. The minimum patient satisfaction level found in our study was 55% and maximum satisfaction level was 97%. Majority of the patients had a satisfaction level between 70 to 80% as given in histogram (Figure 1).

The distribution of responses from patients regarding different parameters used to find out the satisfac-

tion of patients regarding health care facility is listed in Table 2. It was noted that most of the patients were dissatisfied with washroom facility provided in the hospital followed by availability of clean drinking water. Many patients were dissatisfied with office hours when doctors can be seen in OPD and waiting time to perform different tests in the hospital as given in detail in table 2.

DISCUSSION

In today's epoch of competition with increased levels of competition and the emphasis on consumerism, patient satisfaction has become an important measurement for monitoring health care performance. This measurement has developed along with a new feature in the patient's perspective of quality of care^{15, 16}.

Patient satisfaction surveys frequently are used to provide measures of the quality of care from the patient perspective. The objective of this study was to estimate the effects of different predictors of overall patient satisfaction with this health care facility and effect of patient's age, gender, marital status, education and income on their satisfaction level.

According to the previous researches gender might affect the mean level of patient satisfaction or the relative strength of predictors of satisfaction. Evidence for gender differences in mean satisfaction levels is mixed. Some authors report that women are more satisfied than men with medical care received, and some report that women are more critical of medical care than men^{17,18}. In this present study it was found that gender of the

Fig 1: Distribution of overall patients' satisfaction score

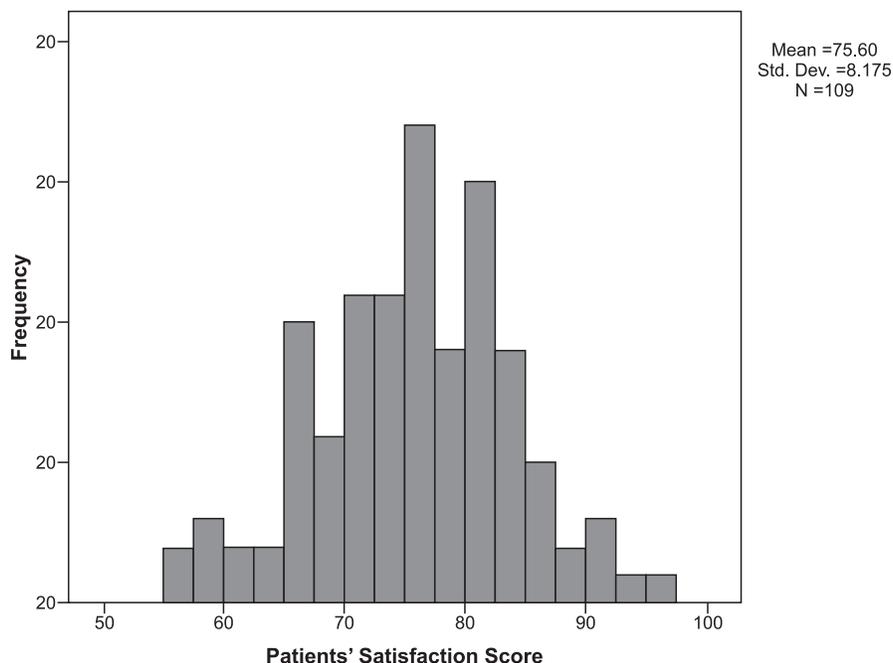


Table 1: Demographic characteristics

Characteristics	Distribution	Patients Satisfaction Score ¥		P-value
	Frequency (%)	Mean	SD	
Age of patients				
Mean ± SD	38.99±15.859			
< 25 years	28 (25.45)	72.54	9.41	0.033 *
25 - 40 years	38 (34.55)	75.63	8.12	
40 - 55 years	27 (24.55)	76.06	6.92	
> 55 years	17 (15.45)	79.86	6.27	
Gender of Participants				
Male	51 (46.36)	75.07	8.40	0.529
Female	59 (53.64)	76.07	8.01	
Area of living				
Rural	57 (51.82)	76.48	8.11	0.245
Urban	53 (48.18)	74.65	8.21	
Education of Patients				
Illiterate	35 (31.82)	77.49	6.41	0.003 *
Madrassa	11 (10.00)	75.35	7.14	
Primary	28 (25.45)	77.30	6.95	
Secondary	17 (15.45)	76.80	10.03	
College	13 (11.82)	69.48	9.53	
University	6 (5.45)	67.33	6.76	
Occupation of the Respondent				
Unemployed	44 (40.00)	76.42	8.57	0.290
Private Job	34 (30.91)	73.39	7.74	
Govt. Servant	7 (6.36)	78.63	8.55	
Business	1 (0.91)	68.80	0.00	
House wife	23 (20.91)	76.70	7.72	
Marital Status				
Single	32 (29.09)	71.10	9.03	0.003 *
Married	70 (63.64)	77.09	7.27	
Separated	3 (2.73)	77.33	2.31	
Divorced	2 (1.82)	85.20	0.57	
Widowed	3 (2.73)	79.47	6.80	
Family/Personal Income (Rs.)				
< 10,000	70 (63.64)	76.70	6.82	< 0.001 *
10,000-25,000	30 (27.27)	76.52	9.06	
above 25,000	10 (9.09)	65.28	7.71	

* Significant at 5% level of Significance

¥ Satisfaction score was calculated by Percent satisfaction Score

Table 2: Distribution of responses from patients regarding different parameters of satisfaction

S. No	Questions Regarding Satisfaction	Strongly Agree %	Agree %	Uncertain %	Disagree %	Strongly disagree %
1	Parking is good	16	45	34	5	1
2	Waiting area is good	8	65	18	9	0
3	OPD is neat and clean	10	52	26	11	1
4	Registration is a quick process	8	51	27	14	0
5	OPD staff is courteous	8	55	20	15	1
6	Waiting time to see doctors is reasonable	6	61	20	13	0
7	Time spent with doctors in exam room is reasonable	20	57	14	8	1
8	Waiting time for tests to be performed is good	4	52	25	15	4
9	Reports of diagnostic tests are given without any delay on the due date	9	45	25	19	3
10	X-ray room and lab is conveniently located	15	56	22	6	1
11	Sign posting of the hospital departments is convenient and understandable	13	50	32	5	0
12	Clean drinking water is available easily	4	35	17	34	11
13	Washroom facility is available and in clean condition	3	24	12	46	16
14	wheel chairs are available to shift patients from one place to another	8	51	27	14	0
15	All the medicines are easily available which doctors recommend	13	44	37	6	0
16	Medicines have standard packing	8	58	19	13	2
17	Medicines are free of cost or on nominal charges	12	60	17	9	2
18	The office hours when a doctor can be seen at OPD are convenient	25	44	13	15	4
19	Referred patients are seen by medical specialists when required	11	63	15	8	3
20	Doctor listens to problems with care and patience	20	48	24	6	2
21	Doctors do not use medical terms without explaining what they mean	27	55	11	5	1
22	Total cost of care is affordable	26	44	19	10	2
23	Paramedical staff is honest, (Nobody demanded for a tip)	21	55	13	11	1
24	The treatment in emergency department is given quickly and adequately	14	66	14	5	2
25	Do you recommend others to get treatment from this facility	13	57	25	5	1

patient did not have significant effect on satisfaction score although females were comparatively more satisfied than males but this difference was not statistically significant. It was found in a meta-analysis of 110 studies of patient satisfaction, using standard instruments, that there was no average difference in satisfaction with medical care between women and men¹⁹.

In a study it was reported that women, older patients, those with low education levels, and those who were married or cohabitating have higher satisfaction scores²⁰. In another study it was seen that older patients, males and those with a lower level of education, were more satisfied with both their healthcare and health plan than their opposite counterparts²¹.

Results of this present study show that the age of the patient had a significant relationship with satisfaction score, the mean satisfaction level increased with increase in age and maximum satisfaction level was found in older age patients. This result is in accordance with literature results. The education level was significantly associated with level of satisfaction of patients. It was noted that the illiterate or less educated patients were more satisfied as compared with literate or highly educated persons that is the mean satisfaction level was comparatively less in patients who were more educated. These results are also same as were noted in previous studies. Similarly the marital status was significantly related to patients satisfaction score. It was found that single patients had significantly less satisfaction score as compared with married or separated patients which also have resemblance with results of previous studies conducted^{17,19}.

Previous studies have documented significant disparities in health care according to patient socioeconomic status (SES). For example, lower patient's SES is associated with avoidable or preventable hospitalizations, hospital readmissions, and delivery of less preventive care. Studies of the effect of patient SES on satisfaction with health care have reported mixed findings, but it has been noted that patients having less income have less expectations and shows more satisfaction with healthcare providers²².

In this present study we also noted that the patients having less monthly income showed a significantly higher level of satisfaction as compared to patients having higher monthly income.

CONCLUSION

From the results of this study it can be concluded that patients of higher age, having no education or lower level of education, married and patients with less monthly income showed higher level of patient's satis-

faction as compared with their counter parts. This can lead to the conclusion that former group might not have enough access to knowledge about good standard health care. The gender of patient, area of living and occupation of patient did not show any effect on patients' satisfaction level.

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CONTRIBUTORS

MA, and FR participated in planning of study, data analysis and manuscript writing. AMR supervised the study and helped in manuscript writing. AK, AHA and NT helped in data management. All authors contributed significantly to the final manuscript.