

## A Study to Determine Patient Satisfaction towards Health- Care Services at a tertiary Care Hospital in Goa, India

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### ABSTRACT

**Objective:** To assess the patient satisfaction with the quality of health-care in the medicine wards of a tertiary care hospital in Goa.

#### Materials and Methods:

**Study Design:** A cross-sectional design was used to conduct the study in the medicine wards of a government tertiary care hospital in Goa.

**Selection of Study participants:** A total of 200 patients, 100 males and 100 females admitted in the medicine were studied.

**Study instrument:** Data was collected by interviewing the patients. The pre-tested structured questionnaire used to collect the data had 16 items which were divided into five sets, which included: medicine availability, information given by the physician about the illness, staff behaviour, and doctor behaviour and hospital infrastructure. For the purpose of evaluation, a balanced Likert-type scale was used for the responses.

**Ethical considerations and statistical analysis:** Approval was obtained from the Institutional Ethics Committee of the Medical College. Informed written consent was obtained from the participant prior to the interview. SPSS Software Package was used for statistical analysis.

**Results:** It was found that a significant number (44.0%) of patients ended up having to purchase more than half of their medication. Around 48.0% patients were fully satisfied with advice given by the doctor about ways to avoid illness. Around 70.0% of patients strongly agreed that hospital workers (nurses, sweepers, ward boys) talk politely. Around 91.0% of patients felt that the doctor listened carefully to them. About 82.0% of patients felt that the time given to them by the doctor was fully adequate according to their requirement. Around 72.5% patients strongly agreed that the hospital wards were quite clean. Around 73.0% of patients strongly agreed that the hospital had all the necessary facilities for treatment.

**Conclusion:** The patient satisfaction survey is one of the few means by which patient happiness can be measured, therefore even with all its limitations, it can be utilised to ensure that patient experience is improved.

**Keywords:** Satisfaction, Patient, Scores, Health care services, Questionnaire

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### INTRODUCTION

Human satisfaction is a complex concept that is related to a number of factors including lifestyle, past experiences, future expectations and the value of both individual and society<sup>1</sup>. However, satisfaction is considered as a judgment of individuals regarding any object or event after gathering some experience over time<sup>2</sup>. Its only recent times that with the increased knowledge of patient rights and awareness of new diseases and their treatments on the internet and other sources that the patients have begun demanding more from their doctors. It is in light of this increased demand for better quality of health-care that patient satisfaction surveys have come into prominence. Therefore nowadays the patient can be considered as a customer. They are consumers of medical services, and they emphasize effective, active, and improved health care quality<sup>3</sup>. Therefore, medical service leaders became accountable for assisting their staff to meet patient satisfaction improvement goals and to decrease the barriers to quality patient care<sup>4</sup>. Health care services have a distinct position among other services due to the highly involving and risky nature of services and the

general lack of adequate knowledge possessed by consumers. This makes conceptualizing and measuring customer satisfaction and service quality in health care settings more important and at the same time more complex. It is difficult to measure the satisfaction responsiveness of the health systems as not only the clinical but also the non-clinical outcomes of care do influence the patient satisfaction<sup>5</sup>. To maintain and improve the quality of health care services, besides relying on clinical and economic criteria, there should also be feedback obtained from the patients through "perception of care" surveys<sup>6</sup>. However in India and many developing countries, there was excessive emphasis on service coverage and inputs in the provision of health services for a very long time. It ignored the needs of the very people for whom this health services existed<sup>7</sup>. The concept of patient satisfaction is therefore a relatively new concept in India and very few studies are being carried out for measuring satisfaction of patient with hospital services as a routine process<sup>8</sup>. The main objective of this study was to assess the in-patient satisfaction with the existing quality of health care. It tried to identify the

specific core areas which needed improvement by means of a questionnaire. With the results obtained from the study, new dimensions to health-care policy can be formulated, with stress given to the different stakeholders in the delivery of health-care services particularly the administrators, the doctors, the nurses, the other staffs and most importantly, the patients. The patients can no longer be considered as just recipients of health-care but they are people with a definite say in the running of the hospital.

## MATERIAL AND METHODS

**Study Design:** A cross-sectional design was used to conduct the study in the medicine wards of a government tertiary care hospital in Goa over a period of two months from 2<sup>nd</sup> July 2014 to 1<sup>st</sup> September 2014.

**Selection of Study participants:** A total of 200 patients, 100 males and 100 females admitted in the medicine wards of the hospital were selected randomly. The hospital has a total of four medicine wards with a total capacity of 160 patients. In addition, there are other allied medicine wards like Nephrology (28 beds), Skin and Venereal Diseases (28 beds) and Neurology (28 beds). Patients suffering from impaired higher functions and those below the age of 18 years were excluded from the study.

**Collection of Data:** Data was collected by interviewing the patients admitted to the medicine wards of the hospital. Relevant demographic variables like age, sex, income, occupation, and location of residence were recorded. A pre-tested structured questionnaire was used to collect the data on patient satisfaction. The patients were personally explained every question individually and their possible implications. The patients were encouraged to answer one question and then move on to the next. Patients were assured the confidentiality of their responses. They were encouraged to express their opinion freely and in an unbiased manner.

**Study Instrument:** A pre-tested structured questionnaire which had been used in an earlier study by Rao et al<sup>7</sup> was administered wherein there were 16 items which were divided into five sets. The first set had 2 items regarding medicine availability and ease of obtaining drugs, the second set had 3 items regarding information given by the physician about the illness. The third set contained 2 items regarding staff behaviour and the fourth set had 5 questions regarding doctor behaviour and the fifth set listed 4 items regarding hospital infrastructure. For the purpose of evaluation, a balanced Likert-type scale was used for the responses to the given items, they were labelled as “strongly disagree”, “disagree”, “neutral”, “agree”, and

“strongly agree”. For analytical purposes, zero, one, two, three and four were assigned to these responses.

**Ethical Considerations:** Approval was obtained from the Institutional Ethics Committee of the Medical College. Before starting the interview, an informed written consent was obtained from the patients.

**Statistical Analysis:** SPSS Software Package was used for statistical analysis and appropriate statistical tests were applied. The data collected were tabulated, analysed and expressed in terms of means and proportions.

## RESULTS

A total of 200 patients (100 Males and 100 females) were studied. As far as age distribution was concerned majority of the patients were from the age group 40-59 years (37.0%), closely followed by 60-79 age group (35.0%). Lowest proportion (2.5%) was from the 80 and above age group. (Table 1)

A Majority (36.0%) of patients were those who had completed their secondary education (VIII, IX and X Standard). A significant proportion of patients (29.0%) were also reported to not have had any formal education. Only 6.5% patients were seen to have completed their graduation.

Out of a total of 200 patients, 39 patients (19.5%) reported missing values of income. The remaining 161 patients were categorised according to the B. G. Prasad Classification of Socio-economic status. Maximum number of patients (22.0% of the total 200) belonged to Class IV. The least number of patients (10.0% of the total 200) belonged to Class V, the lowest level of income classification. (Table 1)

Table 2 deals with patient perceptions towards health-care services at the tertiary care hospital. As far as perception towards medicine availability and medical information was concerned, it was seen that a significant number (Strongly Disagree, Disagree and Neutral), i.e. around 44.0% of patients ended up having to purchase more than half of their medication. Many patients even mentioned that essential medicines were not provided by the hospital due to lack of availability. It was noted that 85.0% of patients were able to purchase all the medicines from the private pharmacy within the hospital campus without having to go outside. However, some of the drugs were unavailable and the patients had to source them from outside. The lowest satisfaction score (2.55) for the item “the hospital has all the medicines needed by you” and the highest (3.75) for the item “you are able to get all the necessary medicines easily” Regarding advice given by the doctor about ways to avoid illness and stay healthy, around 48.0% patients were fully satisfied with a mean score of 3.08. Satisfaction of being given information about their illness was also largely favourable with 82.0% patients expressing that they either agreed or

strongly agreed to it, the mean score being 3.39. Regarding information about the treatment, once again most patients (59.5%) were fully satisfied. In all, it was seen that patients were generally happy with the information and medical advice they were given.

As far as patient attitudes towards staff and doctor behaviour was concerned, around 70.0% of patients strongly agreed that hospital workers (nurses, sweepers, ward boys) talk politely the mean score being 3.54. Just 3.0% (strongly disagree, disagree) of the patients found the hospital workers behaviour to be unsatisfactory. Around 8.5% patients were of neutral opinion.

To the question whether the hospital workers are helpful, 69.0% patients strongly agreed to it, 16.5% (agree) of patients were of the opinion that they were helpful most of the time. 9.0% of patients were neutral and mentioned having to do work by them half of the time. Only 5.5% (strongly disagree, disagree) patients were dissatisfied with the quality of help given by the workers. The mean score for this item was 3.47. As far as perception of patients towards doctor behaviour was concerned most patients (85.5%) were of the opinion that they were given enough time to tell the doctor everything. Every patient in the wards was visited by the doctor every day with adequate time given for their history and examination. However, 7.0% patients were neutral and only 1.0% patients were dissatisfied, the mean score for this item being 3.77. Around 91.0% of patients felt that the doctor listened carefully to them. Only 3.0% were neutral and felt that the doctor should pay more attention to their complaints. Regarding the doctor checking patients properly, 88.0% patients were highly satisfied with the doctor and the examination performed on them. Only 0.5% patients were dissatisfied. 5.0% cases were neutral and 6.5% (agree) were generally satisfied. The mean score was high at 3.88 around 87.5% patients (strongly agree) were of the opinion that the doctor was always ready to answer their questions in a satisfactory manner. 8.0% patients generally agreed that the doctor answered most of their questions. 4.5% patients were neutral in their opinion. No patients however expressed dissatisfaction with their doctor on the given issue giving a high mean score of 3.83. The last item for doctor behaviour examined if the patients were given adequate time. 82.0% (strongly agree) of patients felt that the time given to each patient was fully adequate according to their requirement. Around 11.0% (agree) were happy with the time given to them but they felt more could be done. 6.5% were neutral and only 0.5% patients disagreed. The mean score was 3.75. The last part of the questionnaire dealt with patient attitudes towards hospital infrastructure. Around 72.5% patients strongly agreed that the hospital wards were quite clean. The patients remarked that the wards were cleaned regularly. 19.5% (agree) found that the cleanliness was satisfactory, 5.5% were neutral, however 1.0% (disagree) and 1.5% (strongly disagree)

were unhappy with the cleanliness. The mean score for cleanliness was 3.61.

As far as the condition of the toilets was concerned, it was seen that though 62.5% (strongly agree, agree) of the patients found them clean, a significant proportion (16.0%-disagree, strongly disagree) found the toilets unsatisfactory. The remaining 21.5% were neutral. The mean score for condition of toilets was low at 2.64. 68.0% of patients strongly agreed that boiled drinking water was provided twice a day in the morning and evening, 8.5% patients remarked that though they were satisfied, more water could be provided. 18.5% (neutral) patients mentioned that they purchased their water from outside or brought from home. However, 5.0% (disagree, strongly disagree) mentioned that they were not told or did not know about drinking water being supplied. Some patients mentioned that they had to go all the way down to the main building because the water purifier on the respective floors was not

Around 73.0% of patients strongly agreed that the hospital had all the necessary facilities for treatment; all the lab tests were available. 17.0% (agree) were generally happy, however they had to get one or two lab tests done from outside because it was not available in the hospital. 8.5% were neutral. 1.0% disagreed and 0.5% strongly disagreed, the mean score being 3.61.

**Table 1: Socio-demographic characteristics of the study population**

Variable	Gender Distribution		Total (n = 200) %
	Male (%) (n = 100)	Female (%) (n=100)	
<b>Age</b>			
<20 years	3.0	7.0	5.0
20 – 39 years	17.0	24.0	20.5
40 – 59 years	44.0	30.0	37.0
60 – 79 years	36.0	34.0	35.0
80 and above	0.0	5.0	2.5
<b>Educational Status</b>			
No Formal Education	12.0	46.0	29.0
Primary Education	24.0	17.0	20.5
Secondary Education	50.0	22.0	36.0
Higher Secondary Education	8.0	8.0	8.0
Graduate and Above	6.0	7.0	6.5
<b>Socio-economic status according to B. G. Prasad Classification</b>			
Class I	15.0	16.0	15.5
Class II	17.0	14.0	15.5
Class III	19.0	16.0	17.5
Class IV	22.0	22.0	22.0
Class V	9.0	11.0	10.0
Missing	18.0	21.0	19.5
<b>Location of Residence</b>			
Rural	73.0	74.0	73.5
Urban	27.0	26.0	26.5

**Table 2: Patient perception towards Health-care Services at the tertiary hospital**

Item	Mean score(SD)	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)
This hospital has all the medicines needed by you.	2.55 (1.12)	6.0	11.0	27	34.5	21.5
You are able to get all the necessary medicines easily.	3.75 (0.65)	0.0	1.0	8.5	5.5	85.0
The doctors gave you advice about ways to avoid illness and stay healthy.	3.08 (1.08)	3.0	5.0	21.5	22.5	48.0
The doctor gave you complete information about your illness.	3.39 (0.94)	2.0	2.0	14.0	19.0	63.0
The doctor gave you complete information about your treatment.	3.33 (0.95)	1.5	3.0	16.0	20.0	59.5
Hospital workers talk politely.	3.54 (0.85)	2.0	1.0	8.5	18.5	70.0
Hospital workers are helpful to you.	3.47 (0.94)	2.0	3.5	9.0	16.5	69.0
You are given enough time to tell the doctor everything.	3.77 (0.62)	0.0	1.0	7.0	6.5	85.5
Doctors listen carefully to what you have to say.	3.88 (0.41)	0.0	0.0	3.0	6.0	91.0
The doctor checks patients properly.	3.82 (0.53)	0.0	0.5	5.0	6.5	88.0
The doctor is always ready to answer your questions.	3.83 (0.48)	0.0	0.0	4.5	8.0	87.5
The doctor gave you adequate time.	3.75 (0.59)	0.0	0.5	6.5	11.0	82.0
The cleanliness of the hospital is adequate.	3.61 (0.77)	1.5	1.0	5.5	19.5	72.5
The condition of the toilets is good.	2.64 (1.14)	6.5	9.5	21.5	38.5	24.0
Drinking water is easily available in the hospital.	3.38 (1.02)	2.0	3.0	18.5	8.5	68.0
This hospital has all the required amenities.	3.61 (0.73)	0.5	1.0	8.5	17.0	73.0

## DISCUSSION

The study items regard patient satisfaction as a tool that can be used to assess the levels of care and how far it reaches the patient. It can be used by the hospital management to identify core areas which need massive improvement and serve as a yardstick to determine future policies. Medicine Availability and medical information as it was observed, maximum grievance of the patient was about the free supply of medicines. On closer analysis, it was seen that many patients could not purchase the required medicines due to lack of funds. However, it was also noted that the mean score obtained (2.55) was slightly higher than a similar study conducted in Uttar Pradesh (2.48) (Rao, et al)<sup>7</sup>. But it is seen that the private pharmacies at the hospital stock many of the drugs not available at the government pharmacy, hence patients do not have to go outside the hospital premises to obtain many of the drugs.

Regarding medical information, it was seen that most patients were satisfied with the information that they had received from the doctor. The mean scores also reflect this with a generalised score of 3.40 for the three items combined. It was also seen to be almost two times the comparative score obtained by Rao et al. (1.76)<sup>7</sup>; this could be explained by the better attitude of doctors towards patients, the higher standards of care given and the better quality of physician training.

**Staff and doctor behaviour:** The mean score of 3.51 for the two items on staff behaviour suggest that the patients are more or less satisfied with the nursing staff at the hospital. However this score is slightly lower than the mean score of the doctor behaviour subset items, which had a score of 3.83. Now this might be because of the fact that the staff definition was expanded to include all the sweepers, ward boys, etc. instead of just the nursing staff.

The unhappiness could probably arise because of the increased workload of the nurses, the large number of patients in the wards, the huge amount of paperwork needed. Also at times, it is seen that the wards are overcrowded which could also contribute to the workload. In addition, the sweepers and other ward boys, etc. were also seen to behave rudely with the patients. However, the score obtained was much better than what was seen (2.9) in Uttar Pradesh by Rao et al<sup>7</sup>. As far as doctor behaviour was concerned, the combined mean score of 3.83 for the five items was in fact the highest among the different questionnaire items. An essential component of a healthy doctor-patient relationship is in ensuring that the patient never feels left alone or ignored. It is also reflected by competencies of diagnosis, skills to interpret laboratory report, provide appropriate explanations to queries<sup>6</sup>. It is very often seen from anecdotal evidence that doctors in public set ups often behave rudely to the poorer patients (Das et al)<sup>9</sup>. However, a similarly high mean value for doctor behaviour was obtained by Rao et al<sup>7</sup>

where they had attributed the high scores to acquiescence bias and gratitude bias. However in the present study, though bias may have a role, it does not seem to be as significant because of the similarly higher values obtained from the other questionnaire subsets. It also confirms the findings of Greenley et al<sup>10</sup> where patients reported being happier when the doctors showed favourable attitudes to the patients.

**Hospital Infrastructure:** A score of 3.61 obtained for the cleanliness of the hospital is much higher than the score obtained by Rao et al<sup>7</sup>. It has been seen that the government has employed a large number of contract workers who regularly clean the wards and toilets. On the availability of drinking water, the score obtained 3.38 was comparatively high. There was efficient supply of drinking water with warm water provided twice a day. This was seen to be enough by most patients. The last item on the scale was hospital amenities. A score of 3.61 was obtained. In other studies, the increased level of satisfaction has also been attributed to the large roomy wards<sup>11</sup> and the efficient organisation of services<sup>12</sup>.

## CONCLUSION

Major factors leading to patient satisfaction in Goa included doctor behaviour, particularly the fact that the doctors were always ready to answer the patient's questions. Other aspects of doctor behaviour including the time provided by the doctor to the patients, the doctor checking patients properly were also high scorers. Major factors causing dissatisfaction were medicine availability and the condition of the toilets. The study has shown that behaving courteously to the patients, listening to them, ability to explain issues for the satisfaction of the patients, are important in the overall treatment. Patients regard it as part of the overall quality health care delivery. This is a shift from the conventional notion that patient is the recipient of services and the doctor is the provider. These identified factors could be utilised to help improve the patient experience at the hospital. In addition to serving as a tool for policy planners, the results of the study could be used by the physicians, the nurses and other staff members as a self-evaluating tool to enable them to deal with patients in a better way. The patient satisfaction survey is one of the few means by which patient happiness can be measured, therefore even with all its limitations, it can be utilised to ensure that patient experience is improved.

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