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SURVEY OF PATIENT SATISFACTION IN A COVID-19 FACILITY

Paediatrics

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ABSTRACT

This cross-sectional descriptive study was conducted using the convenience sampling technique on 514 adult patients (females: 175, 34.04%; males: 339, 65.96%) who were admitted in a designated COVID-19 facility in Maharashtra state. After explaining the purpose of the study to the prospective participants, their informed consent was obtained. The mean ages of female and male patients were 50.39 +/- 16.55 years and 49.74 +/- 16.50 years, respectively, without significant gender difference (Z=0.441; p=0.659). The religion-wise distribution was not statistically significant (Z=0.191; p=0.849). Significant gender differences were observed in the reasons given by patients for getting admitted in the designated COVID-19 facility: inability to afford private health facilities (Z=3.035; p=0.002) and lack of vacancy in public hospitals in their localities (Z=3.381; p=0.0007). Significant gender differences were observed in the responses to the questions on explanation regarding investigations (Z=2.443; p=0.014), the planned treatment (z=2.151; p=0.031) and usefulness of direction signs in the hospital (Z=2.934; p=0.003). The "other hospital staff" obtained marginally higher PSI scores for their communication skills from both female and male patients, as compared to doctors and nurses. Health care personnel should be aware that interpersonal skills are more crucial determinants of patient satisfaction than clinical competency.

KEYWORDS

COVID-19, Patient satisfaction index, Survey

INTRODUCTION

"Patient satisfaction" quantifies the extent to which patients are content with the health care which they received from their health care providers (HCPs). [1] Patient satisfaction has been defined as "attitudes towards care or aspects of care" [2] and as "patients' emotions, feelings and their perception of delivered healthcare services". [3] Though there is no concurrence between researchers on the definition of "patient satisfaction" in healthcare, researchers agree that patients' assessment of care is a tool that offers opportunity for improvement, reduce expenses, meet patients' expectations, monitor healthcare and provide yardstick for comparing healthcare institutions. [4-6] "Patient experience" is a holistic perception of the patient about the HCPs, which is based on the summation of all interactions that can affect patient perceptions across the continuum of care. [1]

Evaluation of patient satisfaction was made obligatory for all hospitals in France in 1996, [7] in England in 2002, [8] and in Germany in 2005. [9] Patient satisfaction surveys have been transformed into a quality improvement tool [10] and are used as indicators for improving the services and strategic goals for all healthcare organizations. [11]

Healthcare managers reflect on patient perceptions and incorporate patient-centered care as a major component when devising plans for improving quality of health care. [12] A study in a tertiary teaching hospital in France revealed that patients were competent to determine hospital service quality. [7] The Six Sigma methodology [13] has been used to classify and investigate patients' adverse comments to comprehend the drivers of patient dissatisfaction. Dearth of adequate data can stall an organization's ability to recognize its strengths and to target areas in which performance can be enhanced. [14] Measuring patients' satisfaction has become an integral part of hospital management strategies for quality assurance and accreditation process in most countries. [14]

Accreditation is a formal recognition conferred by a competent authority to the effect that an organization is proficient in performing specific tasks. The norms formulated by the National Accreditation Board for Hospitals & Healthcare Providers (NABH) are the highest benchmark standards for hospital quality in India and are applicable to both public and private sector hospitals. [1] NABH is a constituent board of Quality Council of India (QCI), which has been established for continuous quality improvement and patient safety. [1] NABH standards are perceived to be relevant to India's unique health care system requirements and are dynamic and would be under constant review [1] to handle higher patient load, as well as to increase level of patient satisfaction. [15,16] The National Accreditation Board for testing and calibration Laboratories (NABL), also an autonomous body under the QCI, maintains an India-specific accreditation system for laboratories. [15]

Patients are the major beneficiaries since the accreditation process begets quality consciousness, improves patient safety because patients are treated by accredited personnel, and their satisfaction is regularly assessed. [15] The accreditation process also provides for continuous learning, good working environment, improves overall professional and skills development of the hospital staff. [15] For the hospitals, accreditation process creates a focus on quality and provides for a transparent system of empanelment by insurance and other third parties. [15]

Indian Public Health Standards (IPHS) are a set of uniform standards to provide a benchmark to quantify the services provided by public health facilities. [17] The IPHS fundamentally deals with availability of infrastructure, equipment and manpower; while some components measure processes, there is no measure to estimate outcomes. [18]

The International Organization for Standardization (ISO), a non-governmental organization based in Geneva, Switzerland, develops voluntary standards to ensure that consumers get reliable, desired quality goods and services. The new ISO 9001:2015 management system standard focuses on performance at all levels in the organization. [19] For health care institutions, attainment of ISO certification can act as a springboard before venturing to acquire the more stringent NABH accreditation. [18] The objective of the present study was to determine the patient satisfaction in a COVID-19 facility.

MATERIALS AND METHODS

This cross-sectional descriptive study was conducted on adult patients, of either sex, who were admitted in a designated COVID-19 facility in Maharashtra state, Western India during November-December 2020. The purpose of the study was explained to the prospective participants; they were assured that confidentiality and anonymity would be

maintained and their informed consent was obtained. Convenience sampling technique was used due to the reluctance of some patients to reveal their opinions about the services rendered. A pre-tested and pre-validated questionnaire was used for interviewing the willing participants one day prior to their discharge from the hospital so that they did not have give their responses to the questionnaire in a hurried manner.

A scoring system for quality of service was devised as follows: Excellent=5; Good=4; Average=3; Satisfactory=2, Acceptable=1; Poor=0. The scoring system for time taken for providing a service was as follows: <15 minutes=5; 15-30 minutes=4; 31-45 minutes=3; 46-60 minutes=2; 61-75 minutes=1; >76 minutes=0. For dichotomous responses (Yes/No), Yes=5; No=0. The "total score" (TS) was the sum of scores in each component of the questionnaire. For female respondents, the "maximum possible score" (MPS) was 5 (maximum score in each component)*175 (number of respondents) = 875. For male respondents, the "maximum possible score" (MPS) was 5 (maximum score in each component)*339 (number of respondents) = 1695. The "patient satisfaction index" (PSI) was calculated as a percentage for each component using the formula: [(Total score) divided by (Maximum possible score)]*100.

The data were entered in Microsoft Excel spreadsheet (Microsoft Corporation, Redmond, WA, USA) and analyzed using SPSS statistical software Windows Version 25.0 (IBM Corporation, Armonk, NY, USA). The mean and standard deviation were calculated for continuous data. 95% confidence interval was represented as: [Mean–(1.96*Standard Error)] – [Mean + (1.96*Standard Error)]. Percentage distribution was computed for discrete data. The standard errors of differences between sample means and sample proportions were calculated to determine the statistical significance at $p<0.05$.

RESULTS AND DISCUSSION

A total of 514 adult patients (females: 175, 34.04%; males: 339, 65.96%) participated in the study.

Socio-demographics:

The overall mean age of patients was 49.97 +/- 16.52 years (95% CI: 48.54–51.40 years). The mean ages of female and male patients were 50.39 +/- 16.55 years (95% CI: 47.94–52.84 years) and 49.74 +/- 16.50 years (95% CI: 47.98–51.49 years), respectively, without exhibiting significant gender difference (Z=0.441; p=0.659). The religion-wise distribution was not statistically significant (Z=0.191; p=0.849). Significant gender differences were observed in the reasons given by patients for getting admitted in the designated COVID-19 facility – (i) inability to afford private health facilities (Z=3.035; p=0.002) and (ii) lack of vacancy in public hospitals in their localities (Z=3.381; p=0.0007).

Table 1: Clinical aspects of hospital-based care

Parameter	Females (n=175)		Males (n=339)		Z value	'p' value
	TS/MPS	PSI	TS/MPS	PSI		
Greeting / guidance where indoor paper is issued	746 / 875	85.26%	1425/1695	84.07%	0.787	0.429
Examination by doctor after admission in the ward/ICU	731 / 875	83.54%	1402/1695	82.71%	0.530	0.596
Junior doctor's approach & explanation of condition of patient	747 / 875	85.37%	1404/1695	82.83%	1.651	0.098
Senior doctor's approach & explanation of condition of patient	746 / 875	85.26%	1404/1695	82.83%	1.575	0.114
Was the investigation / procedure clearly explained?	702 / 875	80.22%	1425/1695	84.07%	2.443	0.014 *
Were you involved in decision affecting your care?	660 / 875	75.42%	1310/1695	77.29%	1.054	0.293
Were you informed about the treatment planned for you?	695 / 875	79.43%	1405/1695	82.89%	2.151	0.031 *

TS = Total score; MPS = Maximum possible score; PSI = Patient satisfaction index; Z = Relative deviate; *Significant

Significant gender differences, observed in the responses to the questions "Was the investigation / procedure clearly explained?" (Z=2.443; p=0.014) and "Were you informed about the treatment planned for you?" (z=2.151; p=0.031) may be ascribed to socially-enforced inhibitions on female patients, who may not seek clarifications regarding investigation/procedure/treatment from HCPs. (Table 1)

Table 2: Hospital supportive services

Parameter	Females (n=175)		Males (n=339)		Z value	'p' value
	TS/MPS	PSI	TS/MPS	PSI		
Breakfast provided by the hospital	732 / 875	83.66%	1409/1695	83.13 %	0.341	0.727
Lunch provided by the hospital	726 / 875	82.97%	1401/1695	82.65 %	0.201	0.841
Dinner provided by the hospital	732 / 875	83.66%	1395/1695	82.30 %	0.862	0.389
Drinking water facility at the hospital	732 / 875	83.66%	1414/1695	83.42 %	0.152	0.880
Bed linen in the hospital	704 / 875	80.46%	1374/1695	81.06 %	0.369	0.711
Usefulness of direction signs in the hospital	691 / 875	78.97%	1418/1695	83.65 %	2.934	0.003 *
Cleanliness in the wards	686 / 875	78.40%	1360/1695	82.01 %	1.094	0.275
Cleanliness in the toilets	739 / 875	84.46%	1401/1695	82.65 %	1.159	0.246
Cleanliness in the corridors	746 / 875	85.26%	1399/1695	82.54 %	1.759	0.078
Overall cleanliness in the hospital	740 / 875	84.57%	1394/1695	82.24 %	1.491	0.136

TS = Total score; MPS = Maximum possible score; PSI = Patient satisfaction index; Z = Relative deviate; *Significant

The significant gender difference (Z=2.934; p=0.003) in response to question on usefulness of direction signs in the hospital (Table 2) may be due to gender differences in literacy levels. Pictorial direction signs may be more helpful for less educated patients.

Table 3: Other patient perceptions

Parameter	Females (n=175)		Males (n=339)		Z value	'p' value
	TS/MPS	PSI	TS/MPS	PSI		
Communication skills of doctors	751 / 875	85.83%	1387/1695	81.83 %	2.569	0.010 *

Communication skills of nurses	754 / 875	86.17%	1402/1695	82.71%	2.259	0.023 *
Communication skills of other hospital staff	758 / 875	86.63%	1406/1695	82.95%	2.423	0.015 *
Overall care in this hospital	753 / 875	86.06%	1395/1695	82.30%	2.435	0.014 *
Would you recommend this hospital to other patients?	810 / 875	92.57%	1520/1695	89.67%	2.390	0.016 *

TS = Total score; MPS = Maximum possible score; PSI = Patient satisfaction index; Z = Relative deviate; *Significant

The significant gender differences in the responses to all questions in Table 3 may be due to the gender differences in expectations from HCPs. It is noteworthy that "other hospital staff" obtained marginally higher PSI scores for their communication skills from both female and male patients, as compared to doctors and nurses.

Table 4: Time taken for provision of various services

Parameter	Females (n=175)		Males (n=339)		Z value	'p' value
	TS/MPS	PSI	TS/MPS	PSI		
Time taken to reach the hospital	689 / 875	78.74%	1298/1695	73.63%	1.241	0.214
Time taken to reach allocated ward	678 /875	77.49%	1322/1695	77.99%	0.294	0.771
Time taken for bed allocation	728 / 875	83.20%	1352/1695	79.76%	2.101	0.035 *
Time taken for first dose of medication	801 / 875	91.54%	1521/1695	89.73%	1.471	0.141
Investigation / procedure done as scheduled	600 / 875	68.57%	1142/1695	67.37%	0.615	0.535
Report of investigation / procedure provided as scheduled	668 / 875	76.34%	1283/1695	75.69%	0.365	0.718
Radiographic investigations done as scheduled	770 / 875	88.00%	1525/1695	89.97%	1.531	0.126

TS = Total score; MPS = Maximum possible score; PSI = Patient satisfaction index; Z = Relative deviate; *Significant

The significant gender difference (Z=2.101; p=0.035) was observed in response to question on time taken for allocation of bed, which is easily rectifiable. (Table 4)

Other studies [20-22] have found that patient satisfaction was positively influenced (higher levels of overall satisfaction) by socio-demographic factors, such as, age>50 years, female gender, low-income, low-educational attainment, rural residence and shorter length of hospital stay. The Expectancy Value Theory of Linder-Pelz (1982) hypothesized that satisfaction was mediated by personal beliefs and values about care as well as by prior expectations about care. [23] The Healthcare Quality Theory of Donabedian (1980) deduced that the voicing of satisfaction or dissatisfaction is the patient's verdict on all facets of quality of care, but chiefly in relation to the interpersonal component of care. [24]

It has been reported that satisfaction levels were higher in patients with chronic illness [25] and that the physical and mental health status and social support were more important than clinical status in understanding patient satisfaction. [26]

CONCLUSION

Patient satisfaction is a leading quality outcome indicator in health care delivery. Health care personnel should be aware that interpersonal skills (showing courtesy, respect, politeness, communication skills in a language understood by the patient, explanation and clear information, paying undivided attention without distractions, such as, mobile phone calls) are more crucial and impressive determinants of patient satisfaction than clinical competency.

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