

Assessment of Patient Satisfaction with Doctor-Patient Interaction Among Inpatients of a Tertiary Care Hospital

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ABSTRACT

Background: Patient satisfaction with doctor-patient interaction is an important indicator of inpatient care quality, particularly in tertiary hospitals where patients often experience high clinical dependency and prolonged contact with healthcare teams.

Objectives: This study assessed the level of inpatient satisfaction with doctor-patient interaction and examined sociodemographic and clinical factors associated with overall satisfaction.

Methods: A hospital-based cross-sectional study was conducted among 300 adult inpatients admitted for at least 48 hours in General Medicine, General Surgery, Obstetrics and Gynaecology, and Orthopaedics wards. Data were collected using a pre-tested, locally adapted 20-item patient satisfaction questionnaire covering information provision, interpersonal communication, perceived technical competence, time and accessibility, and respect for autonomy and dignity. Scores were analysed using descriptive statistics, group comparison tests, correlation analysis and multivariate linear regression.

Results: The mean overall satisfaction score was 73.33 ± 9.84 out of 100. A total of 232 patients (77.3%) were satisfied or highly satisfied, 44 (14.7%) were neutral, and 24 (8.0%) were dissatisfied or highly dissatisfied. Interpersonal manner and communication recorded the highest mean sub-domain score (15.34 ± 2.14), while time provision and accessibility recorded the lowest score (13.47 ± 2.87). Higher satisfaction was significantly associated with older age, lower educational status, lower socioeconomic class and longer duration of hospitalisation. In multivariate analysis, educational status was the strongest independent predictor of satisfaction, followed by age, socioeconomic class, ward of admission and duration of hospitalisation.

Conclusion: Most inpatients reported favourable satisfaction with doctor-patient interaction, but physician time availability and accessibility remained the principal areas requiring

improvement. Structured communication practices, protected ward-round time and periodic patient satisfaction audits may help strengthen patient-centred inpatient care.

Keywords: patient satisfaction; doctor-patient interaction; inpatient care; tertiary care hospital; communication; India

1. INTRODUCTION

Patient satisfaction is a multidimensional construct that has become an important indicator of healthcare quality and a determinant of clinical outcomes in modern hospital management. It reflects the degree to which care received by patients meets their expectations in relation to technical competence, interpersonal communication, accessibility and the physical environment of care. [1,2] As healthcare systems move toward patient-centred care, structured measurement of satisfaction has become a practical requirement for institutional accountability and continuous quality improvement.

The doctor-patient relationship remains the central element of the therapeutic encounter. The quality of this relationship influences trust, treatment adherence, information recall and overall health outcomes. [3,4] In the inpatient setting, patients are often vulnerable because of illness severity, procedural dependency and prolonged hospital stay. Under these circumstances, the manner in which physicians communicate, explain and respond to patients assumes particular importance. Poor communication, inadequate information provision and limited interpersonal engagement have repeatedly been linked with lower satisfaction, poorer adherence and increased complaints. [5,6]

Internationally, patient satisfaction measurement has been incorporated into healthcare quality frameworks through structured patient experience surveys and consumer-oriented quality assessment models. [7,8] However, satisfaction responses are strongly influenced by sociocultural norms, patient literacy, health-system structure and whether care is delivered in public or private institutions. [9,10] Therefore, locally adapted instruments and institution-specific assessments are necessary to

generate findings that are meaningful for service improvement.

In India, patient satisfaction studies among hospitalised patients are available but remain methodologically heterogeneous, especially in public tertiary care hospitals that manage large and diverse patient populations. [11,12] Indian tertiary hospitals often work under high patient load, workforce constraints and resource limitations, all of which can influence the quality of doctor-patient interaction. Studies from Indian settings have reported variable satisfaction levels, with communication, information provision and waiting or time-related aspects repeatedly identified as areas requiring attention. [13,14,15]

Sociodemographic variables including age, sex, education, socioeconomic status, ward type and duration of hospitalisation may influence how patients perceive satisfaction. [16,17] Older patients and those with lower educational levels often report higher satisfaction, while younger and more educated patients may evaluate care more critically because of greater expectations for information, participation and shared decision-making. [18,19] Understanding these determinants is necessary for designing communication strategies that are responsive to different patient groups.

Several validated tools have been used to assess patient satisfaction and doctor-patient communication, including patient satisfaction questionnaires, consultation satisfaction tools and communication assessment instruments. [20,21,22] Structured Likert-scaled instruments enable reproducible measurement of domains such as physician approachability, clarity of explanation, perceived competence, time provision, empathy and respect for patient autonomy. [23,24] In view of the need for locally relevant data from tertiary inpatient settings in South India, the present study

was undertaken to assess patient satisfaction with doctor-patient interaction and to identify sociodemographic and clinical correlates of satisfaction.

2. METHODS

Study Design and Setting

A hospital-based, cross-sectional descriptive study was conducted at Sree Balaji Medical College & Hospital, a tertiary care teaching hospital over a period of six months (Aug 2025 to Feb 2026). Tertiary care hospitals serve as referral centres receiving patients with complex and advanced medical and surgical conditions, and their inpatient wards constitute an appropriate setting for the study of doctor-patient interaction in the context of prolonged and intensive therapeutic engagement.

Study Population and Eligibility Criteria

The study population consisted of adult inpatients admitted to the General Medicine, General Surgery, Obstetrics and Gynaecology, and Orthopaedics wards during the study period. Patients were included if they were aged 18 years or above, had been admitted for at least 48 hours at the time of interview, were able to communicate in the local language or English, and provided informed consent. Patients were excluded if they were critically ill or admitted to the intensive care unit, had significant cognitive impairment or psychiatric illness affecting reliable self-report, had an admission duration of less than 48 hours, were healthcare professionals themselves, or declined participation.

Sample Size and Sampling Method

The sample size was calculated using the formula $n = Z^2pq/d^2$, where $Z = 1.96$ for a 95% confidence level, $p = 0.75$ as the anticipated proportion of patients satisfied with doctor-patient interaction based on previous literature, $q = 0.25$ and $d = 0.05$. This yielded a minimum sample size of 288, which was rounded to 300 to compensate for non-response or incomplete questionnaires. ^[14]

A systematic random sampling method was used. The daily ward census registers formed the sampling frame, and every alternate eligible patient across the selected wards was approached until the required sample size was achieved. If a patient refused or was unable to participate, the next eligible patient in sequence was approached.

Data Collection Instrument

Data were collected using a pre-tested, semi-structured questionnaire with two sections. Section I recorded sociodemographic and clinical variables, including age, sex, educational status, occupation, socioeconomic status assessed using the modified BG Prasad classification, ward of admission, primary diagnosis and duration of current hospitalisation.²⁷ Section II consisted of a locally adapted 20-item patient satisfaction questionnaire derived from patient satisfaction measurement frameworks. ^[20,28]

The questionnaire assessed five sub-domains of doctor-patient interaction: information provision and explanation of diagnosis and treatment, interpersonal manner and communication, physician technical competence as perceived by the patient, time provision and accessibility of the physician, and respect for patient autonomy and dignity. Each item was scored on a five-point Likert scale ranging from 1 (strongly dissatisfied) to 5 (strongly satisfied). Each sub-domain had a score range of 4-20, and the overall score ranged from 20 to 100. Satisfaction was categorised as highly satisfied (80-100), satisfied (60-79), neutral (40-59), dissatisfied (20-39) and highly dissatisfied (<20).

The questionnaire was translated into Tamil by a language expert and back-translated into English to ensure conceptual equivalence. Face and content validity were reviewed by a panel of five subject experts comprising clinicians and community medicine specialists. A pilot study was conducted among 30 patients who were not included in the final analysis. Cronbach

alpha for the overall scale was 0.84, indicating acceptable internal consistency. [29]

Data Collection Procedure

Data were collected by trained postgraduate research interns who were briefed on neutral interviewing, bedside conduct and confidentiality. Interviews were conducted privately at the bedside in an unhurried manner, preferably without accompanying family members, to minimise response bias. The purpose of the study was explained to each participant, written informed consent was obtained and confidentiality was assured. Each interview lasted approximately 20-25 minutes, and questionnaires were checked for completeness at the time of collection.

Statistical Analysis

Data were entered and analysed using IBM SPSS Statistics version 26.0 (IBM Corp., Armonk, NY, USA). Continuous variables were summarised as mean $\pm$ standard deviation, while categorical variables were expressed as frequency and percentage. The Kolmogorov-Smirnov test was used to assess normality. Independent samples t-test and one-way analysis of variance were used for comparisons of satisfaction scores across sociodemographic and clinical groups, followed by Tukey post-hoc testing where applicable. Pearson correlation was used to examine associations between continuous variables and satisfaction scores. Chi-square test or Fisher exact test was used for categorical associations. Multivariate linear regression was performed to identify independent predictors of overall satisfaction, including variables significant on univariate analysis. A p-value <0.05 was considered statistically significant. [30]

Ethical Considerations

The study was approved by the Institutional Ethics Committee (IEC) of Sree Balaji Medical College & Hospital (Approval Number-019/SBMCH/IHEC/2025/2030) prior to commencement of data collection. The study was conducted in accordance with the principles of the Declaration of Helsinki. Written informed consent was obtained from all participants. Participation was voluntary, withdrawal was permitted at any time without prejudice, and patient anonymity and confidentiality were maintained throughout data collection, entry and analysis in accordance with ethical principles for human-subject research. [31]

3. RESULTS

3.1 Response Rate and Sociodemographic Profile

Of the 320 inpatients approached during the study period, 300 fulfilled the eligibility criteria and completed the questionnaire, yielding a response rate of 93.8%. The remaining 20 subjects were excluded because of incomplete responses ($n = 12$) or withdrawal of consent before interview completion ($n = 8$). The sociodemographic profile of the study participants is presented in Table 1.

The mean age of participants was 42.7 ± 14.6 years, with an age range of 18-78 years. The largest age cohort was 46-60 years (30.3%), followed by 31-45 years (28.3%). Male participants constituted 54.3% of the sample. The majority had secondary or higher secondary/diploma-level education. Socioeconomic Class III was the most frequently represented group. General medicine contributed the highest proportion of participants, and approximately one-third of patients had been hospitalised for 2-4 days at the time of interview.

Table 1: Sociodemographic Profile of Study Participants (n = 300)

Sociodemographic variable	Frequency (n)	Percentage (%)
Age group (years)		
18-30	72	24.0
31-45	85	28.3
46-60	91	30.3

>60	52	17.3
Sex		
Male	163	54.3
Female	137	45.7
Educational status		
Illiterate / no formal education	38	12.7
Primary (up to Class V)	54	18.0
Secondary (Class VI-X)	76	25.3
Higher secondary / Diploma	68	22.7
Graduate and above	64	21.3
Socioeconomic status (BG Prasad)		
Class I (Upper)	31	10.3
Class II (Upper-middle)	58	19.3
Class III (Middle)	89	29.7
Class IV (Lower-middle)	74	24.7
Class V (Lower)	48	16.0
Ward of admission		
General Medicine	93	31.0
General Surgery	77	25.7
Obstetrics & Gynaecology	70	23.3
Orthopaedics	60	20.0
Duration of hospitalisation		
2-4 days	108	36.0
5-7 days	112	37.3
>7 days	80	26.7

3.2 Overall Patient Satisfaction

The mean overall patient satisfaction score was 73.33 ± 9.84 , with a range of 36-98 out of a maximum possible score of 100. The distribution of satisfaction categories is shown in Table 2. The combined proportion

of patients who were satisfied or highly satisfied was 77.3% (n = 232). Only 8.0% of patients (n = 24) expressed dissatisfaction or high dissatisfaction, while 14.7% were neutral.

Table 2: Distribution of Overall Patient Satisfaction (n = 300)

Satisfaction category	Frequency (n)	Percentage (%)
Highly satisfied (score 80-100)	102	34.0
Satisfied (score 60-79)	130	43.3
Neutral (score 40-59)	44	14.7
Dissatisfied (score 20-39)	17	5.7
Highly dissatisfied (score <20)	7	2.3
Total	300	100.0

Distribution of Satisfaction Categories Among Inpatients (n = 300)

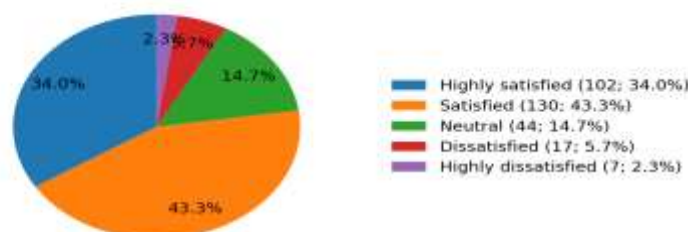


Figure 1: Pie chart depicting distribution of satisfaction categories among inpatients (n = 300).

3.3 Sub-Domain Satisfaction Scores

Analysis of the five sub-domains of doctor-patient interaction showed that Interpersonal Manner & Communication yielded the highest mean satisfaction score (15.34 ± 2.14 out of 20), followed by Respect for Autonomy & Dignity (15.09 ± 2.22) and Information Provision & Explanation (14.82 ± 2.31). Time Provision & Accessibility recorded the lowest mean sub-domain score (13.47 ± 2.87), with the widest standard deviation, indicating the greatest variability in patient experience. These data are

summarised in Table 3 and illustrated in Figure 2.

The Time Provision & Accessibility domain was consistently identified as the principal area of concern across wards, with 22.0% of respondents rating this dimension as neutral or dissatisfactory. Inspection of individual item responses indicated that perceived brevity of physician visits and limited opportunity for patient-initiated questions were the most frequent concerns within this domain.

Table 3: Mean Sub-Domain Satisfaction Scores (n = 300; Max = 20 per sub-domain)

Sub-domain	Mean score	SD	Min	Max
Information Provision & Explanation	14.82	2.31	7	20
Interpersonal Manner & Communication	15.34	2.14	8	20
Technical Competence (Patient Perceived)	14.61	2.58	6	20
Time Provision & Accessibility	13.47	2.87	5	20
Respect for Autonomy & Dignity	15.09	2.22	7	20
Overall score (Max = 100)	73.33	9.84	36	98

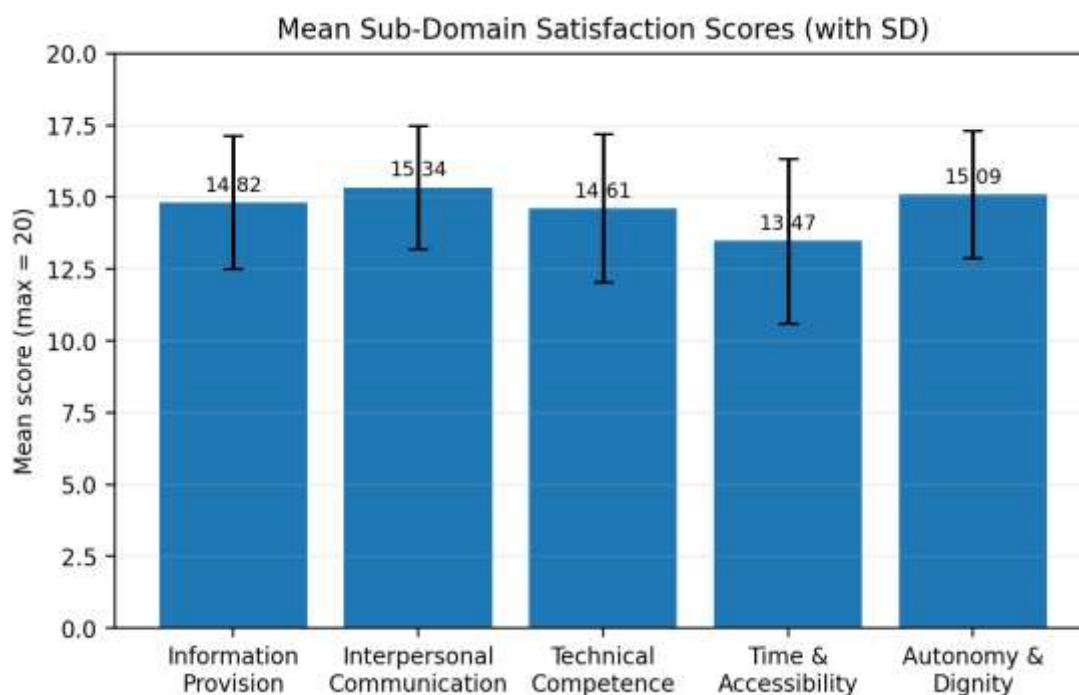


Figure 2: Bar chart of mean sub-domain satisfaction scores (± 1 SD; max = 20).

3.4 Association Between Sociodemographic Variables and Satisfaction Scores

The association between sociodemographic variables and mean overall satisfaction

scores was examined using independent samples t-test and one-way ANOVA. The findings are shown in Table 4.

Table 4: Comparison of Mean Overall Satisfaction Scores by Sociodemographic Variables

Variable	Mean score ($\pm$ SD)	Test statistic	p-value
Age group		F = 6.43	0.0003*
18-30 years	68.4 $\pm$ 10.2		
31-45 years	71.2 $\pm$ 9.6		
46-60 years	74.8 $\pm$ 9.1		
>60 years	78.5 $\pm$ 8.3		
Sex		t = 1.84	0.067
Male	72.6 $\pm$ 10.1		
Female	74.2 $\pm$ 9.4		
Educational status		F = 8.71	<0.0001*
Illiterate	79.1 $\pm$ 7.8		
Primary	76.3 $\pm$ 8.6		
Secondary	73.4 $\pm$ 9.9		
Higher secondary / Diploma	71.2 $\pm$ 10.3		
Graduate and above	67.8 $\pm$ 11.1		
Socioeconomic status (BG Prasad)		F = 5.12	0.001*
Class I (Upper)	68.3 $\pm$ 11.4		
Class II-III (Middle)	72.8 $\pm$ 9.7		
Class IV-V (Lower)	76.4 $\pm$ 8.9		
Duration of hospitalisation		F = 4.38	0.013*
2-4 days	71.4 $\pm$ 9.5		
5-7 days	73.8 $\pm$ 10.1		
>7 days	75.6 $\pm$ 9.2		

* $p < 0.05$, statistically significant. F = ANOVA F-statistic; t = independent samples t-statistic.

A statistically significant inverse association was observed between educational level and satisfaction score ($F = 8.71$, $p < 0.001$). Patients with no formal education reported the highest mean satisfaction (79.1 ± 7.8), while graduates and above recorded the lowest mean score (67.8 ± 11.1). Older patients demonstrated significantly higher satisfaction, with those above 60 years

recording a mean score of 78.5 ± 8.3 compared with 68.4 ± 10.2 in the 18-30 year group ($F = 6.43$, $p = 0.0003$). Lower socioeconomic class was also associated with higher satisfaction, and longer duration of hospitalisation showed a positive association with satisfaction. Sex did not emerge as a statistically significant predictor of overall satisfaction ($t = 1.84$, $p = 0.067$).

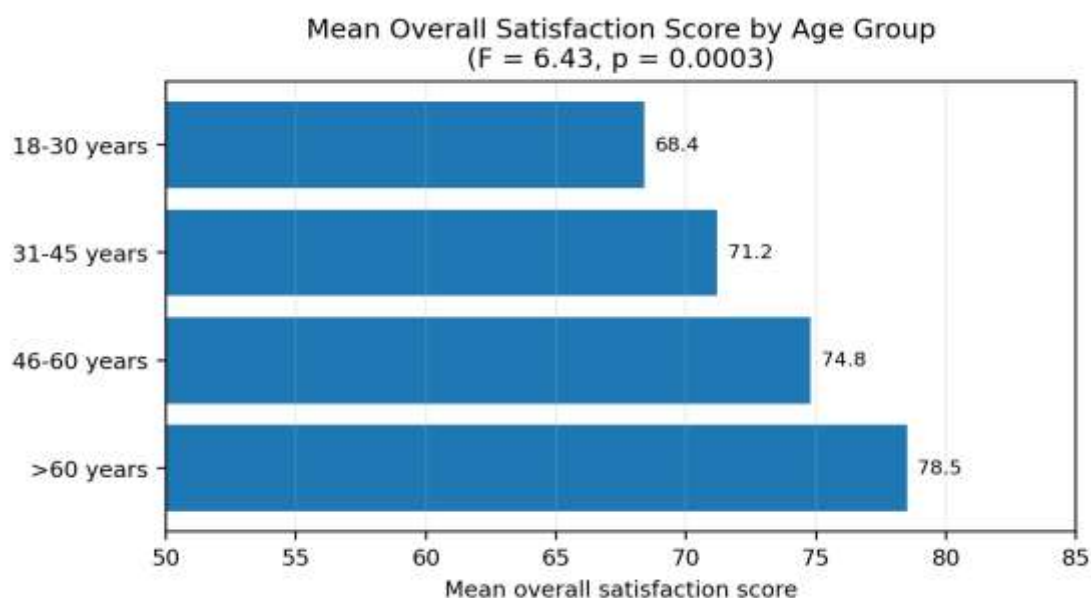


Figure 3: Mean overall satisfaction score stratified by age group ($F = 6.43$, $p = 0.0003$).

3.5 Satisfaction by Ward of Admission

The distribution of satisfaction categories across the four inpatient wards is presented in Table 5 and depicted in Figure 4. The Obstetrics & Gynaecology ward recorded the highest proportion of patients who were satisfied or highly satisfied (82.8%), followed by General Medicine (79.6%) and General Surgery (76.7%). The Orthopaedics

ward recorded the lowest proportion of highly satisfied patients (26.7%) and the highest proportion of neutral responses (21.7%). Despite these differences, chi-square analysis did not show a statistically significant association between ward of admission and satisfaction category distribution (chi-square = 11.84, df = 12, p = 0.459).

Table 5: Distribution of Satisfaction Categories by Ward of Admission

Satisfaction category	Gen. Medicine (n = 93)	Gen. Surgery (n = 77)	Obs & Gynae (n = 70)	Orthopaedics (n = 60)
Highly satisfied	36 (38.7%)	24 (31.2%)	26 (37.1%)	16 (26.7%)
Satisfied	38 (40.9%)	35 (45.5%)	32 (45.7%)	25 (41.7%)
Neutral	11 (11.8%)	12 (15.6%)	8 (11.4%)	13 (21.7%)
Dissatisfied	5 (5.4%)	5 (6.5%)	3 (4.3%)	4 (6.7%)
Highly dissatisfied	3 (3.2%)	1 (1.3%)	1 (1.4%)	2 (3.3%)
chi-square = 11.84; df = 12; p = 0.459 (NS)				

NS = not significant; df = degrees of freedom.

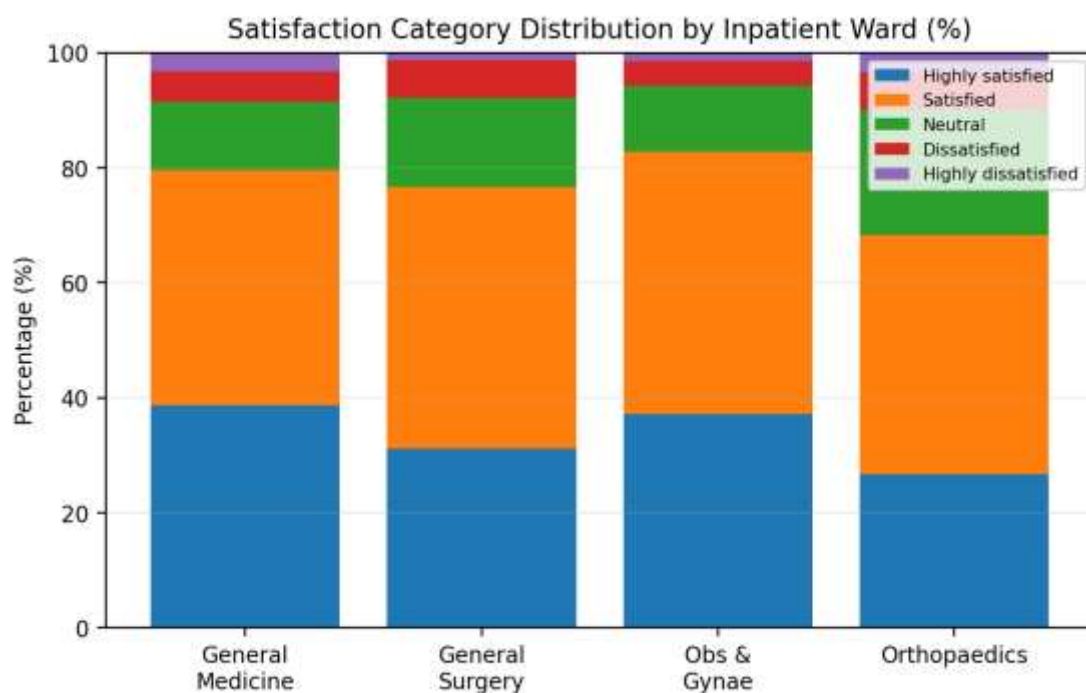


Figure 4: Stacked bar chart showing satisfaction category distribution by inpatient ward (%).

3.6 Sub-Domain Scores by Sex

Female participants reported marginally but consistently higher mean sub-domain scores across all five dimensions of doctor-patient interaction compared with male participants (Figure 5). The most notable difference was observed in the Interpersonal Manner &

Communication sub-domain (female: 15.6 ± 2.0 ; male: 15.1 ± 2.3). Independent samples t-test analysis at the sub-domain level did not reveal statistically significant differences between sexes in any sub-domain (all p > 0.05), consistent with the overall satisfaction comparison.

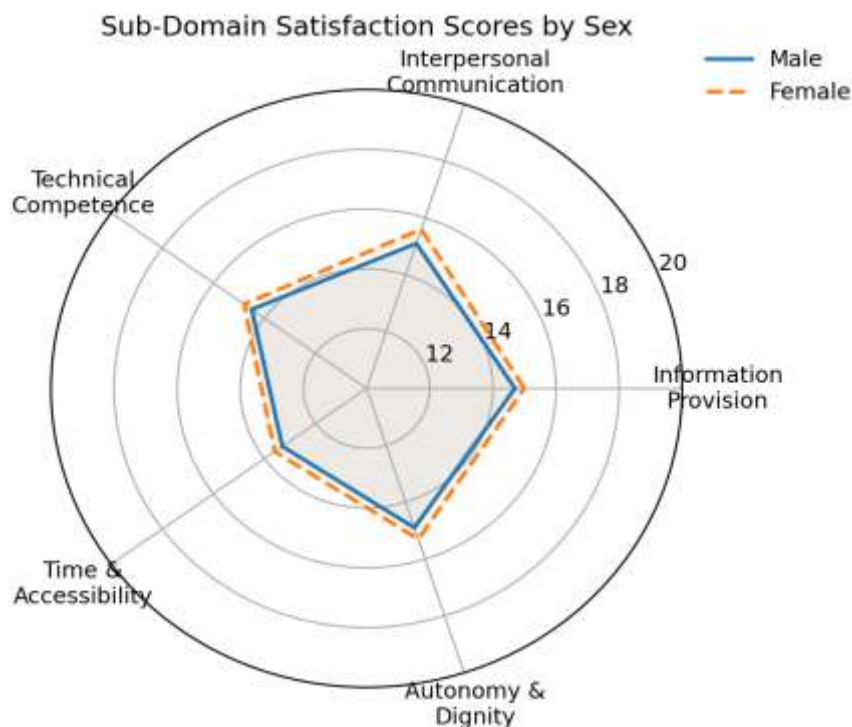


Figure 5: Radar plot comparing sub-domain satisfaction scores between male and female patients.

3.7 Multivariate Linear Regression - Predictors of Overall Satisfaction

Multivariate linear regression analysis was performed with overall satisfaction score as the dependent variable. Sociodemographic and clinical predictors significant on univariate analysis were

entered into the model. The model was statistically significant ($F = 29.4$, $p < 0.001$) and explained 38.2% of the variance in overall satisfaction ($R^2 = 0.382$; adjusted $R^2 = 0.369$). The regression output is shown in Table 6.

Table 6: Multivariate Linear Regression - Independent Predictors of Overall Patient Satisfaction Score

Predictor variable	B (unstd. coeff.)	Beta (std. coeff.)	t	p-value
Age (years)	0.214	0.198	3.41	0.001*
Sex (Female = 1)	1.182	0.062	1.04	0.298
Educational status (higher = lower satisfaction)	-1.847	-0.243	-4.12	<0.001*
Socioeconomic class (higher class = lower satisfaction)	-1.316	-0.172	-2.88	0.004*
Duration of hospitalisation (days)	0.389	0.141	2.34	0.020*
Ward (Orthopaedics vs others)	-2.614	-0.153	-2.61	0.009*
$R^2 = 0.382$; adjusted $R^2 = 0.369$; $F = 29.4$; $p < 0.001$				

* $p < 0.05$; B = unstandardised coefficient; Beta = standardised coefficient; R^2 = coefficient of determination.

Educational status emerged as the strongest independent predictor of satisfaction (Beta = -0.243, $p < 0.001$), with higher educational attainment independently associated with lower overall satisfaction. Age was a significant positive predictor (Beta = 0.198, $p = 0.001$), indicating higher satisfaction among older patients after adjustment for other covariates. Socioeconomic class, ward

of admission and duration of hospitalisation were also significant independent predictors. Sex was not significant in the multivariate model (Beta = 0.062, $p = 0.298$).

4. DISCUSSION

4.1 Overview of Principal Findings

The present cross-sectional study examined patient satisfaction with doctor-patient interaction among 300 inpatients in a tertiary care teaching hospital. The mean overall satisfaction score was 73.33 ± 9.84 on a 100-point scale, and 77.3% of participants were satisfied or highly satisfied. This indicates a broadly favourable perception of physician-patient engagement, while also identifying specific areas requiring improvement. The lowest-scoring domain was Time Provision & Accessibility, suggesting that the availability of physicians and the opportunity for patients to ask questions remain important practical concerns in inpatient care.

The study also demonstrated that satisfaction was not uniformly distributed across patient groups. Older age, lower educational attainment, lower socioeconomic class and longer hospitalisation were associated with higher satisfaction, while orthopaedic ward admission was independently associated with lower satisfaction. These findings indicate that patient expectations and ward-level clinical processes both shape satisfaction perceptions.

4.2 Overall Satisfaction and Comparison with Previous Studies

The overall satisfaction rate of 77.3% is comparable with findings from Indian tertiary care and government hospital settings, where satisfaction has often varied by domain and by the type of facility assessed. [11,12,13] Studies from Indian healthcare contexts have commonly shown that interpersonal care is rated more favourably than access-related or time-related aspects, a pattern reproduced in the present study. [14,15]

Evidence from international studies also supports the importance of communication, responsiveness and interpersonal conduct in shaping patient satisfaction. [16,17] Cross-national and health-system-level research has shown that patient experience is closely related to satisfaction and that demographic

characteristics and expectations influence how care is evaluated. [18,19] The present findings are therefore consistent with the broader literature while also highlighting issues specific to high-volume inpatient tertiary care.

4.3 Interpretation of Sub-Domain Findings

The highest mean sub-domain score was observed for Interpersonal Manner & Communication, followed by Respect for Autonomy & Dignity. This suggests that physicians were generally perceived as courteous, respectful and communicative. Previous work on doctor-patient communication has emphasised that warmth, clarity, attentive listening and respectful interaction are among the most consistently valued physician behaviours. [3,4,6]

The relatively favourable score for patient-perceived technical competence should be interpreted as a perception-based measure rather than an objective assessment of clinical skill. Patients often infer competence from observable behaviours such as careful examination, confidence during explanation, responsiveness to concerns and consistency in management advice. [23] Such perceptions are meaningful because they influence trust and satisfaction even when patients cannot directly judge technical quality.

Time Provision & Accessibility was the lowest-scoring domain. This is a clinically important finding because time spent in explanation, opportunity for questions and accessibility during ward stay are core aspects of patient-centred communication. [5,22] In high-volume tertiary hospitals, short ward-round interactions may be driven by workload pressures rather than lack of physician intent. Nevertheless, patient experience can be improved by structured communication routines that ensure essential explanation and opportunities for clarification.

4.4 Age, Education and Socioeconomic Status

Satisfaction increased significantly with age, with the highest mean score among patients above 60 years. This age gradient has been repeatedly reported in patient satisfaction research. [18,19] Older patients may have lower baseline expectations, greater deference to medical authority and greater gratitude for care received during illness, whereas younger patients may expect clearer information, faster access and more participatory decision-making.

Educational status was the strongest independent predictor of satisfaction, with higher education associated with lower satisfaction. This inverse relationship has been described in prior meta-analytic and conceptual work on patient satisfaction. [9,10] More educated patients may have higher expectations, greater health literacy, more exposure to alternative sources of medical information and a stronger preference for shared decision-making. If these expectations are not met during inpatient interactions, lower satisfaction may result.

Lower socioeconomic class was associated with higher satisfaction in this study. This may reflect differences in expectation thresholds, previous healthcare experiences and relative appraisal of care received. Satisfaction scores therefore need to be interpreted with awareness that under-reporting of dissatisfaction may occur among socially disadvantaged patients. Stratified analysis is useful to avoid over-reliance on aggregate satisfaction rates. [28]

4.5 Ward-Level Variation

The Obstetrics & Gynaecology ward had the highest combined satisfaction proportion, whereas the Orthopaedics ward showed the lowest proportion of highly satisfied patients and the highest proportion of neutral responses. Although the chi-square test for category distribution was not statistically significant, orthopaedic ward admission remained an independent negative predictor in multivariate analysis. This suggests that ward-specific processes

may influence patient experience beyond differences in patient demographics.

The relatively lower orthopaedic satisfaction profile may be related to expectations surrounding pain relief, mobility, rehabilitation, operative recovery and discharge planning. Patients with musculoskeletal conditions may require repeated explanation of recovery timelines and functional outcomes.⁴ The finding supports the need for department-level communication review and targeted expectation-setting practices in wards where recovery is gradual or symptom relief may not be immediate.

4.6 Sex and Duration of Hospitalisation

Sex was not a significant predictor of overall satisfaction in univariate or multivariate analysis, although female participants reported slightly higher sub-domain scores. Previous research has shown inconsistent effects of sex on satisfaction, and these effects often reduce after adjustment for other sociodemographic variables. [7,9] The present findings suggest that sex alone may not be a major determinant of inpatient satisfaction in this setting.

Longer duration of hospitalisation was positively associated with satisfaction. Patients admitted for more than seven days had higher mean satisfaction than those admitted for two to four days. This may reflect greater cumulative contact with physicians, improved familiarity with the treating team and more opportunities for explanation over time. Continuity of physician contact has been recognised as an important contributor to satisfaction with interpersonal and informational aspects of care. [2]

4.7 Multivariate Predictors and Model Interpretation

The regression model explained 38.2% of the variance in overall satisfaction. Educational status, age, socioeconomic class, ward of admission and duration of hospitalisation were independent predictors.

These results show that satisfaction is shaped by both patient-level expectations and healthcare delivery context. The independent ward effect is particularly useful for quality improvement because it suggests that departmental communication processes can be assessed and strengthened. The findings also reinforce the value of examining sub-domains rather than relying solely on a global satisfaction score. A global score may suggest acceptable performance, while sub-domain analysis reveals the specific component needing improvement. In this study, time and accessibility emerged as the clearest institutional target for intervention.

4.8 Strengths and Limitations

The strengths of this study include systematic sampling, a high response rate, use of a pre-tested locally adapted questionnaire, pilot assessment of internal consistency and analysis of satisfaction across separate doctor-patient interaction domains. The inclusion of multivariate regression allowed independent predictors to be identified after adjustment for related patient characteristics.

The limitations include the cross-sectional design, which prevents causal interpretation, and the single-centre setting, which limits generalisability. Social desirability bias may have influenced responses because interviews were conducted during hospitalisation. Patient-perceived technical competence is subjective, and the modified questionnaire may not capture all inpatient-specific issues such as after-hours access or multidisciplinary team communication.

4.9 Implications for Clinical Practice and Policy

The principal practical implication is the need to improve physician time availability and accessibility during inpatient care. Protected ward-round communication time, structured opportunities for patients to ask questions, clear explanations of diagnosis and treatment, and brief written summaries may improve patient understanding and

satisfaction without requiring major infrastructural changes.

Communication strategies should be tailored for younger and more educated patients, who may expect greater information detail and participation in decisions. The lower satisfaction profile in Orthopaedics indicates a need for ward-specific communication audits, particularly around pain control, recovery expectations, rehabilitation planning and discharge counselling. Periodic sub-domain-based satisfaction audits should be linked with faculty development and service redesign.

CONCLUSION

This study found that most inpatients in the tertiary care hospital were satisfied with doctor-patient interaction, with a mean overall satisfaction score of 73.33 ± 9.84 and a combined satisfied or highly satisfied proportion of 77.3%. Interpersonal manner and communication, along with respect for autonomy and dignity, were the strongest domains, while time provision and accessibility was the weakest domain.

Older age, lower educational status, lower socioeconomic class and longer hospitalisation were independently associated with higher satisfaction. Orthopaedic ward admission was associated with comparatively lower satisfaction, indicating a department-specific opportunity for improvement. Strengthening structured communication, ensuring adequate time for explanation and questions, and conducting periodic satisfaction audits can support more patient-centred inpatient care.

Declaration by Authors

Ethical Approval: This study was duly permitted by the ethics committee of Sree Balaji Medical College & Hospital (Approval Number-019/SBMCH/IHEC/2025/2030)

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REFERENCES

1. Sitzia J, Wood N. Patient satisfaction: a review of issues and concepts. *Soc Sci Med.* 1997;45(12):1829-1843. [https://doi.org/10.1016/S0277-9536\(97\)00128-7](https://doi.org/10.1016/S0277-9536(97)00128-7)
2. Ware JE Jr, Snyder MK, Wright WR, Davies AR. Defining and measuring patient satisfaction with medical care. *Eval Program Plann.* 1983;6(3-4):247-263. [https://doi.org/10.1016/0149-7189\(83\)90005-8](https://doi.org/10.1016/0149-7189(83)90005-8)
3. Stewart MA. Effective physician-patient communication and health outcomes: a review. *CMAJ.* 1995;152(9):1423-1433.
4. Roter DL, Hall JA. Doctors talking with patients/patients talking with doctors: improving communication in medical visits. 2nd ed. Westport (CT): Praeger; 2006.
5. Kravitz RL. Patients' expectations for medical care: an expanded formulation based on review of the literature. *Med Care Res Rev.* 1996;53(1):3-27. <https://doi.org/10.1177/107755879605300101>
6. Williams S, Weinman J, Dale J. Doctor-patient communication and patient satisfaction: a review. *Fam Pract.* 1998;15(5):480-492. <https://doi.org/10.1093/fampra/15.5.480>
7. Cleary PD, Edgman-Levitan S. Health care quality: incorporating consumer perspectives. *JAMA.* 1997;278(19):1608-1612. <https://doi.org/10.1001/jama.1997.03550190072047>
8. Coulter A, Jenkinson C. European patients' views on the responsiveness of health systems and healthcare providers. *Eur J Public Health.* 2005;15(4):355-360. <https://doi.org/10.1093/eurpub/cki004>
9. Hall JA, Dornan MC. Meta-analysis of satisfaction with medical care: description of research domain and analysis of overall satisfaction levels. *Soc Sci Med.* 1988;27(6):637-644. [https://doi.org/10.1016/0277-9536\(88\)90012-3](https://doi.org/10.1016/0277-9536(88)90012-3)
10. Crow R, Gage H, Hampson S, Hart J, Kimber A, Storey L, et al. The measurement of satisfaction with healthcare: implications for practice from a systematic review of the literature. *Health Technol Assess.* 2002;6(32):1-244. <https://doi.org/10.3310/hta6320>
11. Kumari R, Idris MZ, Bhushan V, Khanna A, Agarwal M, Singh SK. Study on patient satisfaction in the government allopathic health facilities of Lucknow district, India. *Indian J Community Med.* 2009;34(1):35-42. <https://doi.org/10.4103/0970-0218.45372>
12. Mohd A, Chakravarty A. Patient satisfaction with services of the outpatient department. *Med J Armed Forces India.* 2014;70(3):237-242. <https://doi.org/10.1016/j.mjafi.2013.06.010>
13. Jain A, Mishra N, Pandey CM. A study to assess patient satisfaction in out patient department of a tertiary care hospital in north India. *Int J Community Med Public Health* [Internet]. 2017 Jan. 31 [cited 2026 Jul. 17];3(1):328-34. Available from: <https://www.ijcmph.com/index.php/ijcmph/article/view/701>
14. Taran S. An examination of the factors contributing to poor communication outside the physician-patient relationship. *McGill J Med.* 2011;13(1):86.
15. Verma M, Rana K, Kankaria A, Aggarwal R. Assessment of patient satisfaction visiting a tertiary health care institute in north India. *J Pharm Bioallied Sci.* 2020;12(3):252-261. https://doi.org/10.4103/jpbs.JPBS_168_20
16. Boudreaux ED, O'Hea EL. Patient satisfaction in the emergency department: a review of the literature and implications for practice. *J Emerg Med.* 2004;26(1):13-26. <https://doi.org/10.1016/j.jemermed.2003.04.003>
17. Atkinson S, Haran D. Individual and district scale determinants of users' satisfaction with primary health care in developing countries. *Soc Sci Med.* 2005 Feb;60(3):501-13. doi: 10.1016/j.socscimed.2004.05.019.
18. Bleich SN, Ozaltin E, Murray CJ. How does satisfaction with the health-care system relate to patient experience? *Bull World Health Organ.* 2009;87(4):271-278. <https://doi.org/10.2471/BLT.07.050401>
19. Rahmqvist M. Patient satisfaction in relation to age, health status and other background factors: a model for comparisons of care units. *Int J Qual Health Care.* 2001;13(5):385-390. <https://doi.org/10.1093/intqhc/13.5.385>
20. Marshall GN, Hays RD. The Patient Satisfaction Questionnaire Short-Form (PSQ-18). Santa Monica (CA): RAND

- Corporation; 1994. Available from: <https://www.rand.org/pubs/papers/P7865.html>
21. Kinnersley P, Anderson E, Parry K, Clement J, Archard L, Turton P, et al. Randomised controlled trial of nurse practitioner versus general practitioner care for patients requesting 'same day' consultations in primary care. *BMJ*. 2000;320(7241):1043-1048. <https://doi.org/10.1136/bmj.320.7241.1043>
 22. Baker R. Development of a questionnaire to assess patients' satisfaction with consultations in general practice. *Br J Gen Pract*. 1990;40(341):487-490.
 23. Bertakis KD, Roter D, Putnam SM. The relationship of physician medical interview style to patient satisfaction. *J Fam Pract*. 1991;32(2):175-181.
 24. Padma P, Rajendran C, Lokachari PS. Service quality and its impact on customer satisfaction in Indian hospitals. *Benchmarking Int J*. 2010;17(6):807-841. <https://doi.org/10.1108/14635771011089746>
 25. Aljarallah NA, Almuqbil M, Alshehri S, Khormi AMS, AlReshaidan RM, Alomran FH, et al. Satisfaction of patients with health care services in tertiary care facilities of Riyadh, Saudi Arabia: a cross-sectional approach. *Front Public Health*. 2023; 10:1077147. <https://doi.org/10.3389/fpubh.2022.1077147>
 26. Grol R, Wensing M, Mainz J, Jung HP, Ferreira P, Hearnshaw H, et al. Patients in Europe evaluate general practice care: an international comparison. *Br J Gen Pract*. 2000 Nov;50(460):882-7.
 27. Sharma N, Aggarwal P. Modified BG Prasad socioeconomic classification, update - 2021. *J Integr Med Public Health*. 2022; 1:7-9. https://doi.org/10.4103/JIMPH.JIMPH_1_21
 28. Ware JE Jr, Davies-Avery A, Stewart AL. The measurement and meaning of patient satisfaction. *Health Med Care Serv Rev*. 1978;1(1):1, 3-15.
 29. Tavakol M, Dennick R. Making sense of Cronbach's alpha. *Int J Med Educ*. 2011; 2:53-55. <https://doi.org/10.5116/ijme.4dfb.8dfd>
 30. Pagano M, Gauvreau K. Principles of biostatistics. 2nd ed. Pacific Grove (CA): Duxbury Press; 2000.
 31. World Medical Association. WMA Declaration of Helsinki: ethical principles for medical research involving human participants [Internet]. Ferney-Voltaire: World Medical Association; 2024 [cited 2026 Jul 2]. Available from: <https://www.wma.net/policies-post/wma-declaration-of-helsinki/>

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