

EVALUATION OF PATIENT SATISFACTION IN THE INPATIENT DEPARTMENT OF A TERTIARY CARE HOSPITAL IN EASTERN INDIA

Dissertation Submitted to



The IIHMR University, Jaipur

for the partial fulfillment for the award of the degree of

Master of Business Administration (MBA)

in

Hospital and Health Management

by

Anurag Chakraborty

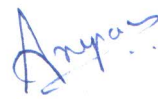
Under the Supervision and Guidance of

Dr. Anupam Mehrotra

2025

CERTIFICATE

This is to certify that **Anurag Chakraborty** in partial fulfillment of the requirements for the award of the degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur has successfully completed her/his internship at IIHMR University, Jaipur during Mar 10 - May 31, 2025.

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CERTIFICATE

This is to certify that dissertation titled “**Evaluation of Patient Satisfaction in Inpatient Department of a Tertiary Hospital in Eastern India**” is a record of the research work undertaken by **Anurag Chakraborty** in partial fulfillment of the requirements for the award of the degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur under my guidance and supervision and her approach to the research study has been sincere, scientific, and analytical.

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DECLARATION BY STUDENT

I hereby declare that this dissertation titled "*Evaluation of Patient Satisfaction in the Inpatient Department of a Tertiary Care Hospital in Eastern India*" is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

Anurag Chakraborty

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ABSTRACT

Title: Evaluation of Patient Satisfaction in the Inpatient Department of a Tertiary Care Hospital in Eastern India.

Author Name: Anurag Chakraborty.

Supervisor name: Dr. Anupam Mehrotra.

Keywords:

Patient satisfaction, inpatient department, hospital care, quality of service, communication, eastern India.

Background:

In the modern day patient-centred care paradigm, a good understanding of patient satisfaction in health care is essential to measure accepted levels of service quality and help improve. Tertiary care hospitals in India are under increased expectations and pressure to deliver better healthcare for a wider range of demographics.

Aim:

The aim of the study is to determine the overall patient satisfaction in a tertiary care hospital and assess these areas in deciding what are the greater contributors to patient experience in the inpatient departments (IPD) in East India.

Method:

A cross-sectional observational study was conducted in March 2025 in which 213 adult patients, 18 years and older, were admitted to the inpatient learning area. The patients were selected to complete, on a convenience-sampling basis. A structured questionnaire was designed to assess many aspects of the patient's experience in the IPD like staff behaviour, quality of communication, cleanliness, quality of food, and the administrative costs. The statistical tests undertaken and statistical assumptions were: descriptive statistics; chi-square tests; independent - t tests; one way, repeated measures ANOVA; correlation analysis; regression analysis; SPSS for testing, along with Excel and Minitab for data management and testing.

Results/Findings:

The overall satisfaction score was high (mean ~3.95). Staff-patient communication, attentiveness, and hygiene received strong ratings. No significant differences in satisfaction were found based on gender or age. Online booking was significantly related to a better admission experience ($p = 0.002$). Regression analysis revealed communication, hygiene, food quality, and admission process to be significant predictors of satisfaction ($p < 0.001$).

Conclusions:

Patient satisfaction in the IPDs were more or less positive. Effective communication, cleanliness, and digital facilitation were noted as key contributors. Problematic areas include food quality and waiting time. The research indicates the positive effect of patient-centred care, and provides more tangible recommendations for hospital administrators to improve the delivery of inpatient services.

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CHAPTER 1: INTRODUCTION

A patient's experience in a hospital is as important as the care they receive. A satisfaction rating of "satisfied" is not a catch phrase or gimmick but is genuinely an important measure of how well a system is working. It relates to everything from the quality of care, to human touch, the extent to which information is clearly communicated to the patient, and how they feel about their physical environment. In a great nation like India, with tremendous demand, and tremendous constraints on resources, the voice of the patient counts more than ever.

This study sets out to understand how patients feel about their care in a hospital in India. The goal is to look at different parts of the hospital experience—how patients are treated by doctors and nurses, how long they have to wait, how easy it is to get the care they need, and how they feel when they leave. By collecting honest feedback from patients themselves, this research hopes to give hospitals a clearer picture of what's working and what needs improvement.

Hospitals—especially large tertiary care centers—often struggle to keep up with the demands placed on them. Many patients report long waits, rushed consultations, confusing instructions, and difficulty navigating the system. While most hospitals focus on clinical outcomes, the emotional and personal side of healthcare is sometimes overlooked. There is a gap in understanding what patients really experience beyond just their diagnosis and treatment. This study aims to shine a light on that gap.

In India, tertiary care hospitals serve thousands of people from various backgrounds -rural and urban, rich and poor, young and old. Many patients travel long distances, sometimes at great cost, to get the specialized care offered at these hospitals. When they arrive, they bring not just their medical problems, but also hope and trust. If their experience is frustrating or disheartening, it affects not just their satisfaction but also their healing. That's why understanding their perspective is so crucial. When hospitals take the time to listen, they can make small changes that lead to big improvements in care and comfort.

The aim of this study is to measure how satisfied patients are with their care, and to understand what factors make the biggest difference. Specifically, the study will:

- Explore how patients feel about different aspects of hospital care—like communication, cleanliness, waiting times, and the behavior of staff.
- Look at how personal factors such as age, gender may affect patient satisfaction.
- Offer practical recommendations that hospital leaders can use to make care more patient-friendly.

CHAPTER 2: REVIEW OF LITERATURE

Authors (Year)	Study Location	Sample Size	Sampling Technique	Salient Features
Eapen et al. (2025)	Tiruchirappalli, Tamil Nadu	628	Cross-sectional survey	Developed a conceptual model assessing the impact of various healthcare services on patient satisfaction. Found that doctor, nurse, supportive, and technical services positively influence satisfaction. Administrative services moderate these relationships.
Solanki et al. (2023)	Patan, Gujarat	151	Not specified	80% of patients appreciated cleanliness; 90% felt doctors listened attentively; 70% were fully satisfied with treatment; over 85% were happy with staff behavior.

Goshist et al. (2017)	Malwa region, Punjab	Not specified	Structured questionnaire	Identified dissatisfaction with stretcher availability and paramedical staff behavior in emergencies. Overall services rated as excellent or good, but concerns raised about cleanliness and staff behavior.
Bhole et al. (2017)	Nagpur, Maharashtra	100	Convenience sampling	High satisfaction with reception services (88%), doctor communication (96%), and pharmacy availability (98%). Only 52% were satisfied with billing.
Kumar et al. (2018)	Kolkata, West Bengal	500	Random sampling	78% overall satisfaction; 81% noted cleanliness; 83% satisfied with registration; 84% with doctor services; 75% with pharmacy. Issues included long waiting times and lack of privacy.
Pawaskar & Velhal (2023)	Mumbai, Maharashtra	1,377	Cross-sectional study	99% satisfied with doctors; 97% willing to revisit; however, 75.7% reported doctors didn't explain medication side effects.
Garg et al. (2023)	Jodhpur, Rajasthan	Not specified	Record-based study	80% dissatisfaction with delays in investigations

				and cleanliness; 80% satisfaction with care from doctors and nurses.
Verma et al. (2018)	Rajnandgaon, Chhattisgarh	200	Cross-sectional observational study	Assessed satisfaction among indoor patients; specific findings not detailed in the abstract.
Patavegar et al. (2014)	Pune, Maharashtra	450	Systematic random sampling	91% found OPD timings convenient; 77% satisfied with pharmacist explanations; 44.5% dissatisfied with waiting area cleanliness.
Sharma et al. (2013)	Jabalpur, Madhya Pradesh	100	Random sampling	73% rated services as excellent or good; 94% would recommend the hospital; dissatisfaction noted with toilet and drinking water facilities.
Jain et al. (2015)	Lucknow, Uttar Pradesh	Not specified	Structured questionnaire	Studied socio-demographic profiles and satisfaction; specific findings not detailed in the abstract.
Agrawal & Dutta (2025)	Northern India	102	Random sampling	Average satisfaction score of 4.6; high ratings for cleanliness, amenities, and staff behavior.

CHAPTER 3: METHODOLOGY

The current research utilized a cross-sectional observational study design in order to comprehensively analyze the patient perception and satisfaction on the healthcare services provided in Inpatient Departments (IPDs). The study consisted of the collection of data at one point in time from a sample of patients in IPDs.

Data was collected in the department of Health Administration of tertiary care hospital East India, for the month of March, 2025. The study included adult patients aged 18 - 65 years who were seeking medical attention in Inpatient Department (IPD) during the study timeframe. The study excluded patients who had cognitive impairments or serious barriers to communication such as profound hearing or speech impairments. The inclusion criteria encompassed individuals that had access to a wide range of medical care sphere under IPD, while the exclusion criteria were to combat possible sources of response bias or misinterpretations by participants. The screening procedures included clinical evaluations of study personnel trained to ensure study criteria was met as well as patient self-reporting to determine whether or not patients met the exclusion criteria. A convenience sampling method was used to obtain participants. Patients seeking care while on IPD during the prescribed data collection periods were approached by personnel trained in research, and asked to participate in the study. The study included attempts to ensure a representative sample across gender and age spectrum. Thus, there was a total of 213 participants who successfully participated in the study. The questionnaire was carefully modified for the specific circumstances of IPD services to maintain relevance and applicability to study aims. It covered a wide variety of domains and was carefully designed to capture the nuanced dimensions of patient experience within IPD. These domains included communication with health care providers, which included the clarity of the information, attentiveness, and empathy of the staff. The use of Likert scale responses and open-ended questions enabled nuanced feedback and diverse responses. Likert scale responses allowed for quantifying patient satisfaction across the various domains, while open-ended questions enabled patients to express their experiences in their own terms, which captured qualitative insight and nuance that would not otherwise be collected from standardized response options. Before administering the survey, participants were given the opportunity to hear full explanation of the study objectives, procedures, and their rights as research participants.

Minitab, Excel, and SPSS were used for the data analysis. Descriptive statistics were used to summarize significant study variables and demographic factors. Means and standard deviations were used to report continuous variables. Frequencies and percentages were used to report categorical variables. Relationships between the various demographic factors and patient satisfaction ratings were investigated using chi square tests. Additionally, t, regression, and correlation tests were performed. A statistically significant p value was defined as less than 0.05. Responses were categorized and information regarding patient experiences and views was gathered using qualitative data coding techniques.

CHAPTER 4: RESULTS

This study's data analysis and conclusions are based on information gathered from a structured questionnaire about patient satisfaction with the medical care provided in the outpatient department. Descriptive and inferential statistics are used to assess the data in light of the study's goals and hypotheses.

- **Descriptive analysis** of both quantitative and qualitative data utilizing the study participants' demographic variables:

Insurance coverage	Females	Males	Grand Total
No	19	13	32
Yes	103	78	181
Grand Total	122	91	213

Table 1: Insurance coverage of female and male study subjects

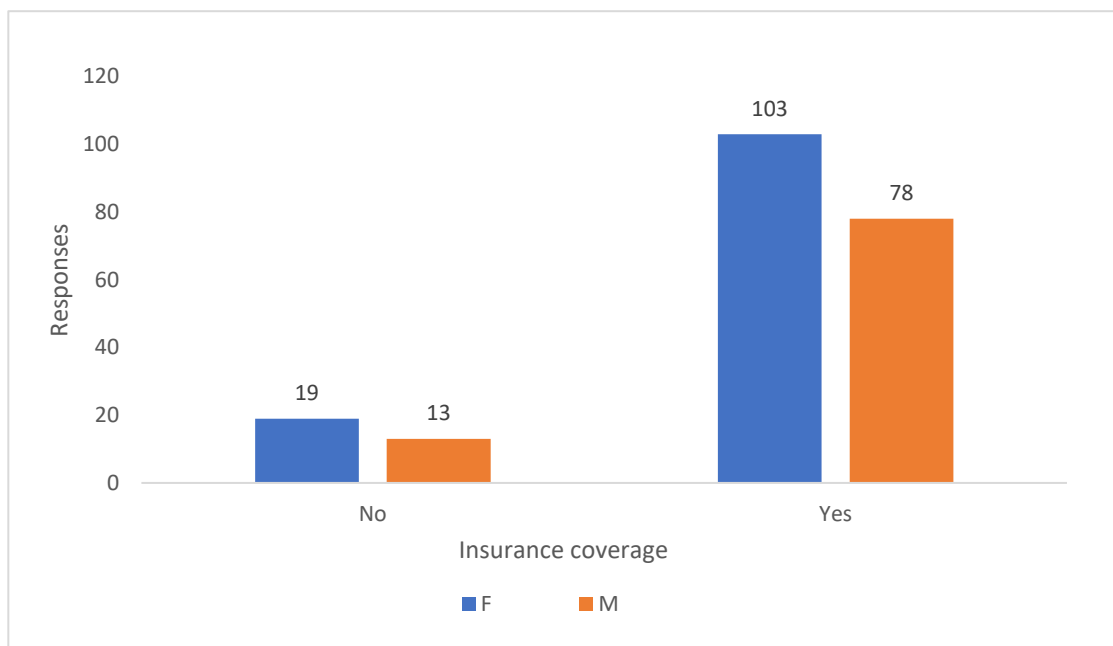


Figure 1: Insurance coverage of female and male study subjects

Figure 1 includes the insurance coverage status of the study participants by gender. The horizontal x-axis is coded to either "Yes" (respondents have insurance) or "No" (respondents do not have insurance) and the vertical y-axis is coded to the number of responses. In the legend, blue bars (F) represent female and orange bars (M) represent male respondents.

A majority of study respondents, regardless of gender, reported they did have insurance coverage. Of the insured, there are 103 female respondents and 78 male respondents rather than a greater number of females in the study sample had insurance than males.

There are 19 female respondents and 13 male respondents. While this is a significantly smaller group than the insured group, the trend of females outnumbering males continues.

Overall, the chart indicates two clear patterns: first, insurance coverage is relatively high regardless of gender in this study; and second, there are more females (F) represented than males (M) in both the insured and uninsured groups, suggesting either a difference in the sampling or potentially a higher likelihood of getting insurance among males or females over the other.

Average satisfaction score	Female	Male	Grand Total
3.1	1	1	2
3.2	1	1	2
3.3	2	0	2
3.4	1	3	4
3.5	5	5	10
3.6	8	7	15
3.7	10	7	17
3.8	13	3	16
3.9	14	14	28
4	17	14	31
4.1	22	12	34
4.2	10	18	28
4.3	8	1	9
4.4	7	2	9
4.5	2	2	4
4.6	1	1	2
Grand Total	122	91	213

Table 2: Average satisfaction score of female and male study subjects

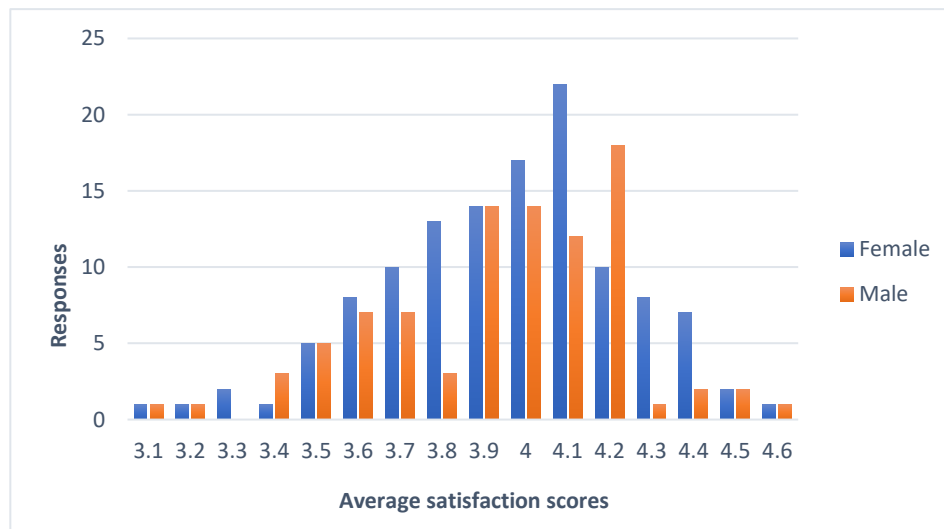


Figure 2: Average satisfaction score of female and male study subjects

For both groups of subjects, the average satisfaction score ranges from 3.1 to 4.6. The scores seem to be distributed in a rough normal distribution, with many of the responses clustering around the mid-range. Females (blue bars) had the most responses at a satisfaction score of 4.0 with over 20 responses. Males (orange bars) had the most responses at a satisfaction score of 4.2 - with respect to completeness there were nearly 18 responses. Females recorded more frequent satisfaction score reports across the 3.6 to 4.1 range. Males were somewhat more evenly spread - especially at the lower end (3.5 and below) and higher end (4.2 and above). A very few individuals from either gender reported very low (3.1 - 3.3) and at the other extreme very high (4.4 - 4.6) scores.

Male and female respondents showed a relatively high satisfaction level, however females tended to cluster more around a score of 4.0, while males were dispersed more evenly overall, with males slightly peaked at 4.2. This may be indicative of slightly higher satisfaction among males or that males had more variability in their satisfaction than females.

- Female Mean: ~3.94, SD: ~0.31
- Male Mean: ~3.98, SD: ~0.32

So, both groups show high and similar satisfaction scores, with males slightly higher on average and a nearly equal spread (variability).

Age category	Female	Male	Grand Total
<25 years	28	24	52
25-40 years	28	20	48
41- 65 years	35	24	59
>65 years	31	23	54
Grand Total	122	91	213

Table 3: Age distribution of the study subjects

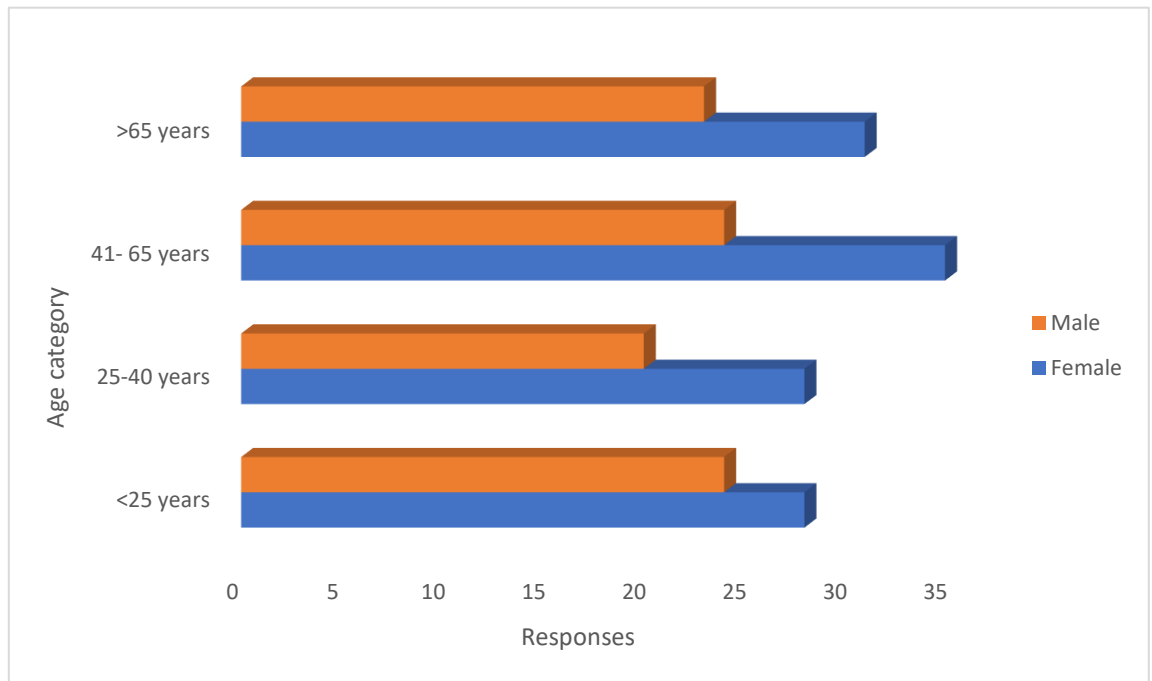


Figure 3: Age distribution of the study subjects

Each age category has both male and female participants which indicates a reasonable sampling across demographics. In all four age categories the number of female participants was more than male participants. The respondents in the 41-65 years category had the largest number of participants indicating the study may have been disproportionately populated with middle aged adult participation. The respondents in the <25 years category had the lowest total participation and was also fairly proportionate.

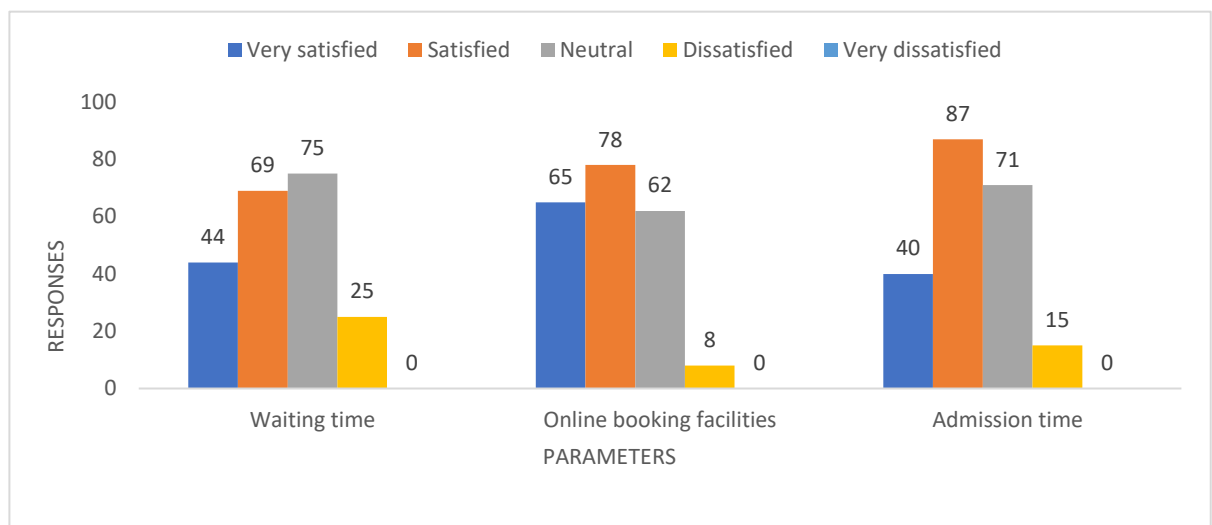


Figure 4: Likert scale responses as per the parameters of waiting time, online booking facilities and admission time.

The online booking features received the best ratings. Waiting time received the greatest amount of dissatisfaction and neutrality, suggesting that there is an opportunity for improvement. None of the responses were "Very dissatisfied" in any of the areas, indicating that the participants had a positive experience overall. The study shows positive satisfaction for participants overall with slightly better scores from males and slightly greater female participation in most age brackets. The online booking service was most valued, while

waiting time is an area to improve. Overall, the data gives a good understanding of participant experiences and suggestions for areas for improvement to services.

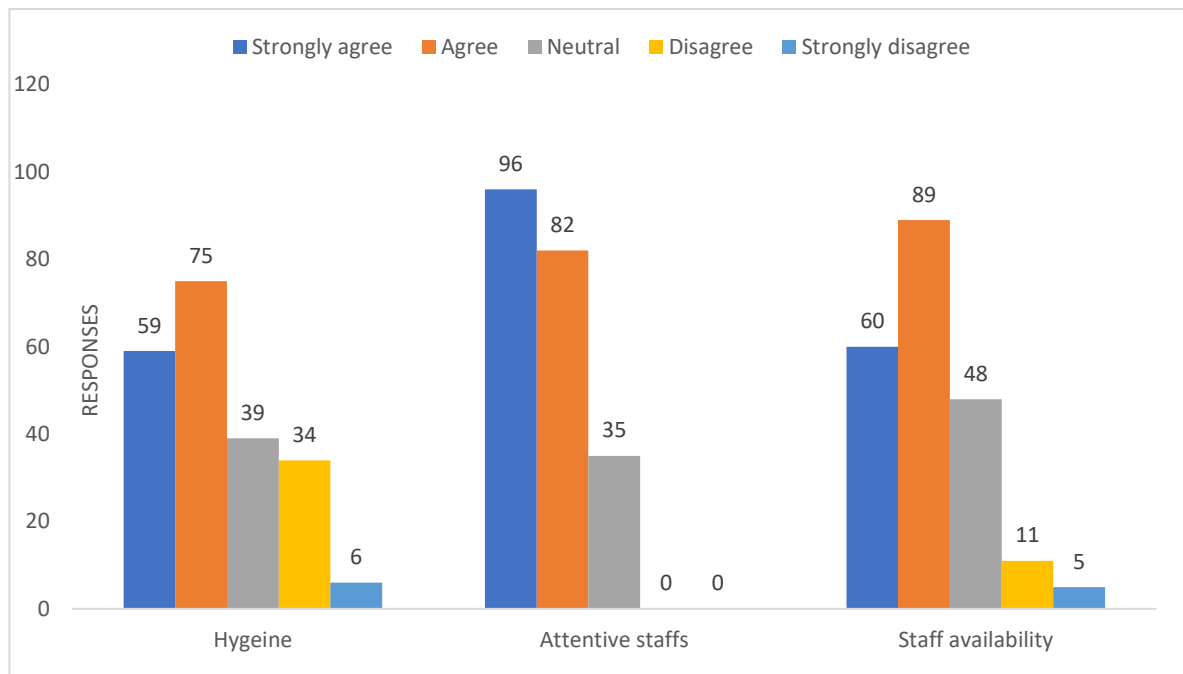


Figure 5: Likert scale responses as per the parameters of hygiene, attentive staffs, staff availability.

Attentive staff received the overwhelmingly accepted response, none reported a negative response and received the most "Strongly Agree" responses. Hygiene and staff availability were rated well overall, but included a more substantial mix of responses, with a notable number of neutral responses and some disagreeing responses.

In all areas, positive sentiment (agree and strongly agree) was overwhelmingly positive compared to negative sentiment. The service aspects of attentive staffing, are obviously a core strength of the participants' experiences, as the almost unanimously positive comments attest to. Hygiene, and staff availability, while rated positively in general, the presence of undesirable comments is an opportunity to make a focused quality improvement, especially in terms of keeping an area clean, and recording sufficient staff on shift.

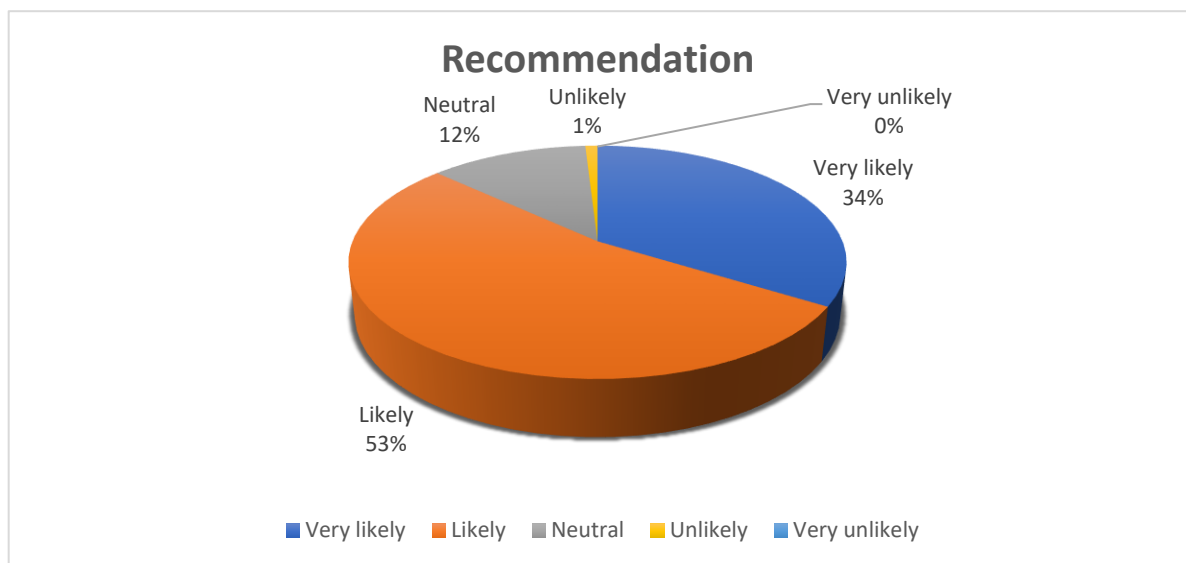


Figure 6: Likert scale responses as per the parameter of recommendation of hospital services.

A significant majority (87%) responded positively indicating that they 'likely' or 'very likely' recommend the hospital services - of which, 53% selected 'Likely', and 34% 'Very Likely'. This indicates a very positive perception of the hospital services with a great deal of trust in the hospital's provision of those services. Some neutral (12%) responses suggest a small section of participants were indifferent or unable to decide on if they would recommend the hospital services - perhaps indicating a moderate experience or a mix of positives and negatives. Positive (1%) responses indicated they were "unlikely" to recommend services, and there were no "very unlikely" (0%) responses, suggesting that participants were very unlikely dissatisfied.

The chart indicates that the overall perception and experience of the hospital services is very positive - with a large majority of participants indicating they would recommend the services to others. Also that given the very limited selection of negative both strongly negative and neutral, the overwhelming majority of participants are likely in high public approval and positive satisfaction with their care and service provision.

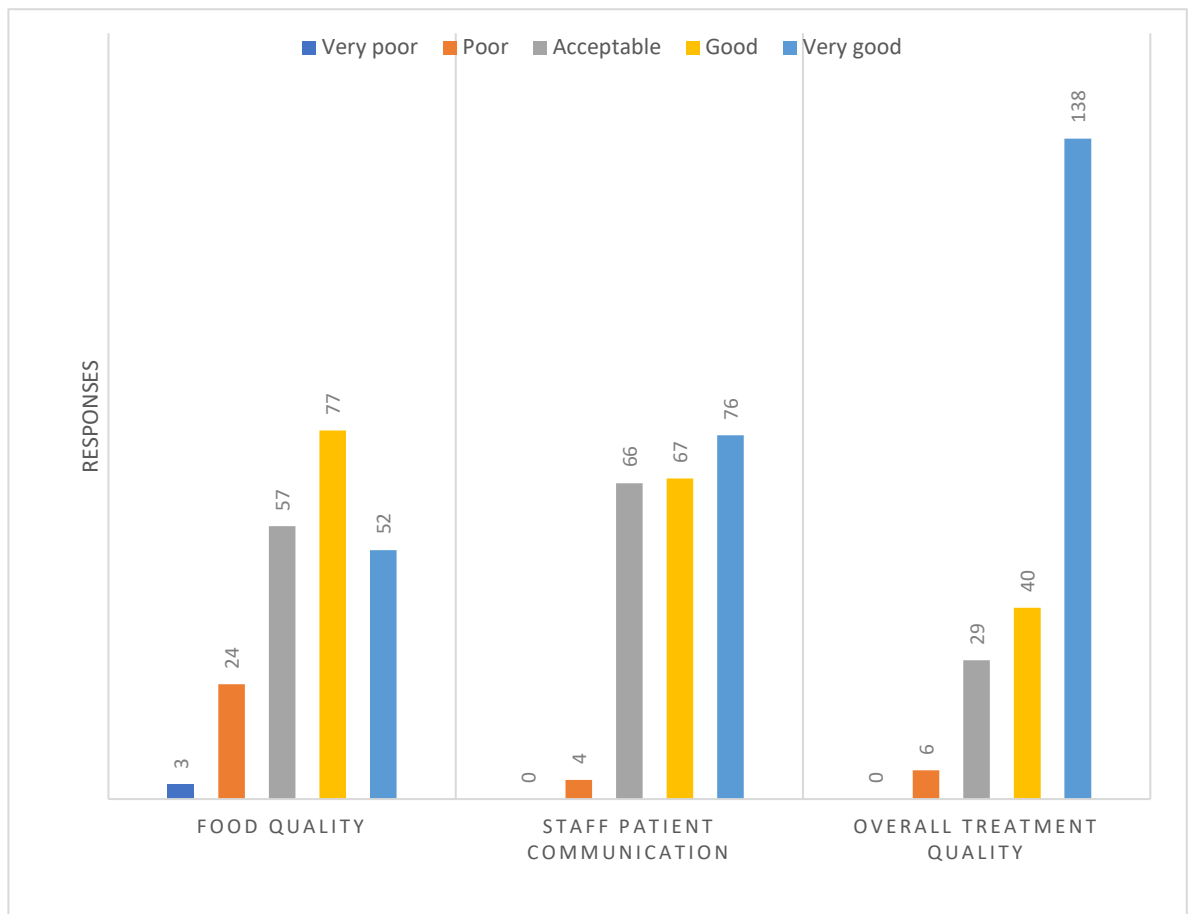


Figure 7: Likert scale responses as per the parameters of food quality, staff-patient communication and overall treatment quality.

The food quality ratings were mostly seen positively, with 77 ratings of Good, and 52 ratings of Very good, for a combined total of 129 favorable responses. Still, there was a substantial subset of respondents (27) that rated it Poor or Very poor, indicating a path to improvement in this domain.

Most of the responses, 209 of the 213 responses, indicated outcomes categorized as Acceptable, Good, or Very good. There were a total of 76 Very good responses, and no Very poor responses. The indicating that the area of staff-patient communication is a strong area of performance. This parameter received the most overwhelmingly positive responses. With 138 participants selected Very good, and only 6 gave it a rating below Acceptable, the data did overwhelmingly indicate that the overall treatment quality is perceived as excellent.

The treatment quality received the strongest positive feedback suggesting strong patient contentment with clinical care. The staff-patient communication was highly rated, again suggesting strong patient-nurse interpersonal interaction. Food quality, although generally positive had comparatively more lower end responses and is an area where enhancements may improve the overall patient experience.

	<i>Hygiene</i>	<i>Attentive staffs</i>	<i>Staff availability</i>
<i>Strongly agree</i>	28%	45%	28%
<i>Agree</i>	35%	38%	42%
<i>Neutral</i>	18%	16%	23%
<i>Disagree</i>	16%	0	5%
<i>Strongly disagree</i>	3%	0	2%

	<i>Waiting time</i>	<i>Online booking facilities</i>	<i>Admission time</i>
<i>Very satisfied</i>	21%	31%	19%
<i>Satisfied</i>	32%	37%	41%
<i>Neutral</i>	35%	29%	33%
<i>Dissatisfied</i>	12%	4%	7%
<i>Very dissatisfied</i>	0	0	0

	<i>Food quality</i>	<i>Staff-patient communication</i>	<i>Overall treatment quality</i>
<i>Very poor</i>	1	0	0
<i>Poor</i>	11	2	3
<i>Acceptable</i>	27	31	14
<i>Good</i>	36	31	19
<i>Very good</i>	24	36	65

	<i>Recommendation</i>
<i>Very likely</i>	34
<i>Likely</i>	53
<i>Neutral</i>	12
<i>Unlikely</i>	1
<i>Very unlikely</i>	0

Table 4: Likert scales of various parameters subjects were surveyed upon

- **Inferential statistical analysis** using demographic variables of the study subjects of both quantitative and qualitative data:

Age category * Insurance cover Crosstabulation

			Insurance cover		Total
			No	Yes	
Age category	<25 years	Count	8	44	52
		% within Age category	15.4%	84.6%	100.0%
		% within Insurance cover	25.0%	24.3%	24.4%
	25 to 40 years	Count	8	40	48
		% within Age category	16.7%	83.3%	100.0%
		% within Insurance cover	25.0%	22.1%	22.5%
	41 to 65 years	Count	9	50	59
		% within Age category	15.3%	84.7%	100.0%
		% within Insurance cover	28.1%	27.6%	27.7%
	>65 years	Count	7	47	54
		% within Age category	13.0%	87.0%	100.0%
		% within Insurance cover	21.9%	26.0%	25.4%
Total	Count		32	181	213
	% within Age category		15.0%	85.0%	100.0%
	% within Insurance cover		100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	.289 ^a	3	.962
Likelihood Ratio	.293	3	.961
Linear-by-Linear Association	.153	1	.696
N of Valid Cases	213		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.21.

Table 5: Chi-square test to find association between age category and insurance cover

A Chi-square test of independence was performed to determine whether there was a relationship between participants' age category and insurance coverage variable. The test results indicate no statistically significant relationship existed between age category and

insurance coverage, $\chi^2 (3, N = 213) = 0.289, p = 0.962$. Additionally, the likelihood ratio test resulted in the same conclusion, that is, no relationship $\chi^2 (3) = 0.293, p = 0.961$. Moreover, the linear-by-linear association did not establish any linear or trend relationship between age categories and insurance coverage, $\chi^2 (1) = 0.153, p = 0.696$. The assumptions of the chi-square test were valid in that all expected cell counts were equal to or greater than 5. Subsequently, it was concluded that there is no relationship between age category and insurance coverage for this population sample.

Gender * Insurance cover Crosstabulation

			Insurance cover		Total
			No	Yes	
Gender	F	Count	19	103	122
		% within Gender	15.6%	84.4%	100.0%
		% within Insurance cover	59.4%	56.9%	57.3%
	M	Count	13	78	91
		% within Gender	14.3%	85.7%	100.0%
		% within Insurance cover	40.6%	43.1%	42.7%
Total	Count		32	181	213
	% within Gender		15.0%	85.0%	100.0%
	% within Insurance cover		100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided)
Pearson Chi-Square	.068 ^a	1	.795		
Continuity Correction ^b	.004	1	.947		
Likelihood Ratio	.068	1	.794		
Fisher's Exact Test				.848	.476
N of Valid Cases	213				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.67.

b. Computed only for a 2x2 table

Table 6: Chi-square test to find association between gender and insurance cover
Using information from 213 unretained instances, a chi-square test of independence was used to evaluate the association between insurance coverage and gender. No statistically significant correlation was found, with $\chi^2 (1, N = 213) = 0.068$ and $p = 0.795$. In accordance with the previously mentioned near p wave, the continuity adjustment for the small degree

of freedom in the 2x2 table is $\chi^2(1) = 0.004$, $p=0.947$. Based on the chi-square likelihood ratio, $\chi^2(1) = 0.068$, $p = 0.794$ was obtained. In keeping with the original Pearson chi-square, once more. With 0 cells having expected counts below 5 and a minimum expected count of 13.67, all chi-square test assumptions were satisfied. Gender and insurance coverage do not significantly correlate, according to this dataset. The outcomes of every statistical test were comparable.

Department * Insurance cover Crosstabulation

			Insurance cover		Total
			No	Yes	
Department	Cardiology	Count	5	37	42
		% within Department	11.9%	88.1%	100.0%
		% within Insurance cover	15.6%	20.4%	19.7%
	Neurology	Count	4	28	32
		% within Department	12.5%	87.5%	100.0%
		% within Insurance cover	12.5%	15.5%	15.0%
	Oncology	Count	4	28	32
		% within Department	12.5%	87.5%	100.0%
		% within Insurance cover	12.5%	15.5%	15.0%
	Pulmonology	Count	10	43	53
		% within Department	18.9%	81.1%	100.0%
		% within Insurance cover	31.3%	23.8%	24.9%
	Surgery	Count	9	45	54
		% within Department	16.7%	83.3%	100.0%
		% within Insurance cover	28.1%	24.9%	25.4%
Total	Count		32	181	213
	% within Department		15.0%	85.0%	100.0%
	% within Insurance cover		100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	1.367 ^a	4	.021
Likelihood Ratio	1.362	4	.003
N of Valid Cases	213		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 4.81.

Table 7: Chi-square test to find association between department and insurance cover

Using 213 valid instances, the association between department and insurance coverage was examined using a chi-square test of independence. Pearson Chi-Square yielded the following result: $\chi^2 (4, N = 213) = 1.367$, $p = 0.021$. This finding indicates that there was a statistically significant correlation between an individual's insurance coverage status and the department they work in, and it is statistically significant at the five percent level. An alternate model to the Pearson Chi-Square, the likelihood ratio test, yielded a comparable outcome. $p = 0.003$, $\chi^2 (4) = 1.362$. This suggests that there is a statistically significant correlation as well. In this data, the department and insurance coverage have a statistically significant correlation. However, some of the expected counts in some cells were low, and therefore caution is advised in interpreting these results.

Examining five hospital departments: Cardiology, Neurology, Oncology, Pulmonology and Surgery, revealed that 85% of the 213 patients surveyed were insured and 15% were uninsured. Cardiology, Neurology and Oncology were found to have the most insurance coverage (88.1, 87.5) while Pulmonology (81.1) and Surgery (83.3) had slightly less and also had the largest percentage of uninsured populations (31.3, 28.1%). In terms of the actual proportions of insured patients, Surgery and Pulmonology are again the largest groups (24.9 and 23.8) but this is confined mainly to the insured group. Parts of this

research found the coverage generally high with the potential for increasing, insurance outreach in Pulmonology and Surgery departments.

Online booking facility * Satisfied with admission time Crosstabulation

			Satisfied with admission time				
			Dissatisfied	Neutral	Satisfied	Very satisfied	Total
Online booking facility	Poor	Count	0	3	4	1	8
		% within Online booking facility	0.0%	37.5%	50.0%	12.5%	100.0%
		% within Satisfied with admission time	0.0%	4.2%	4.6%	2.5%	3.8%
	Acceptable	Count	4	23	24	11	62
		% within Online booking facility	6.5%	37.1%	38.7%	17.7%	100.0%
		% within Satisfied with admission time	26.7%	32.4%	27.6%	27.5%	29.1%
	Good	Count	7	25	31	15	78
		% within Online booking facility	9.0%	32.1%	39.7%	19.2%	100.0%
		% within Satisfied with admission time	46.7%	35.2%	35.6%	37.5%	36.6%
	Very good	Count	4	20	28	13	65
		% within Online booking facility	6.2%	30.8%	43.1%	20.0%	100.0%
		% within Satisfied with admission time	26.7%	28.2%	32.2%	32.5%	30.5%
Total		Count	15	71	87	40	213
		% within Online booking facility	7.0%	33.3%	40.8%	18.8%	100.0%
		% within Satisfied with admission time	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests			
	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	2.152 ^a	9	.002
Likelihood Ratio	2.690	9	.023
Linear-by-Linear Association	.243	1	.012
N of Valid Cases	213		

a. 6 cells (37.5%) have expected count less than 5. The minimum expected count is .56.

Table 8: Chi-square test to find association between online booking facility and admission time.

A chi-square test was performed to determine the association between the availability of an online booking facility and patient admission time. The analysis used 213 valid cases for assessment. The results, characterized by a Pearson Chi-Square of 22.152 with 9 degrees of freedom ($p = 0.002$), indicated a significant association. The Likelihood Ratio of 22.690 with $p=0.023$ provided further support against the null hypothesis. For the Linear-by-Linear Association test, the value was 0.243 and at the 0.012 level of significance, which could suggest an ordering or a trend. It should be noted that 6 cells (37.5%) have an expected count of less than 5; the minimum expected count was designated 0.56, which suggests some of the chi-square assumptions may not hold. Regardless of the preceding notes, it is noted that the analysis produced very simple and direct evidence for a meaningful relationship between the use of online booking systems for admissions and the timing of patient admissions.

This report describes the relationship between the quality of the online booking facility and patient satisfaction with admission time based on 213 completed responses. The online booking facility is rated as Poor, Acceptable, Good, and Very Good; and satisfaction is rated as Dissatisfied, Neutral, Satisfied, and Very Satisfied.

For the respondents who rated the booking facility as “Poor” (8 respondents), 50% were satisfied, 37.5% were neutral, and 12.5% were very satisfied. This group made up only 3.8% of the total sample. For those who rated the booking facility as “Acceptable” (62

respondents), the rates of satisfaction were more evenly distributed: 38.7% satisfied and 17.7% very satisfied. This group contributed 29.1% to the total sample.

The respondents who rated the booking facility as “Good” (78 respondents) had satisfaction levels that were much higher: 39.7% satisfied and 19.2% very satisfied, with only 9% dissatisfied. This group comprised the biggest proportion of the sample at 36.6%. The respondents who rated the system as “Very Good” (65 respondents) had the highest levels of satisfaction with 43.1% satisfied and 20% very satisfied. This group made up 30.5% of the total. On the whole, these data demonstrate a positive association between the perceived quality of the online booking facility and satisfaction with admission time.

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Average satisfaction score	M	91	3.941	.2902	.0304
	F	122	3.956	.2869	.0260

Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper
Average satisfaction score	Equal variances assumed	.002	.963	-.378	211	.706	-.0151	.0399	-.0938 .0636
	Equal variances not assumed			-.377	192.836	.707	-.0151	.0400	-.0940 .0638

Table 9: Average satisfaction scores of male and female respondents

The results demonstrate the differences in average satisfaction levels between respondents who were male and female. The mean satisfaction score for males (N = 91) was 3.941 (SD = 0.2902), while the mean for females (N = 122) was nearly identical at 3.956 (SD = 0.2869), according to the "Group Statistics" table. Equal variances can be assumed based on the Levene's Test for Equality of Variances' p-value of 0.963. The t-test for equality of means produces a t-value of -0.378 and a p-value of 0.706 under the equal variances assumed row. The p-value, which is much greater than the 0.05 limit, shows that there is no statistically significant difference in the satisfaction levels of the sexes. The discovery that gender has

no discernible impact on service satisfaction is further supported by the mean difference of -0.0151, which is within a 95% confidence band of -0.0938 to 0.0636.

Means

Department	N	Mean	StDev	95% CI
Cardiology	42	7.690	3.189	(6.786, 8.595)
Neurology	32	7.781	2.848	(6.745, 8.817)
Oncology	32	6.781	3.056	(5.745, 7.817)
Pulmonology	53	8.660	2.773	(7.855, 9.465)
Surgery	54	7.741	3.011	(6.943, 8.538)

Pooled StDev = 2.97277

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Department	4	73.05	18.262	2.07	0.086
Error	208	1838.17	8.837		
Total	212	1911.22			

Table 10: One way ANOVA between length of stay and the departments

ANOVA was performed to see if the means across the five departments (Cardiology, Neurology, Oncology, Pulmonology, and Surgery) were different. The ANOVA indicated that there was an F-value of 2.07 with a p-value of 0.086. The p-value indicates that differences between the means across departments are not statistically different based on $p=0.05$. This model accounts for a small amount of variation of the total variation in the data presented, accounting for 3.82% of the variation in the data (R-squared) and an

adjusted R-squared of 1.97%, indicating that the model only accounts for a very small amount of variation in the data, with a predicted R-squared of 0%, indicating little or no predictive ability. Pulmonology had the highest mean (8.660), and oncology had the lowest (6.781). However, there is a clear overlap in the confidence intervals, indicating that Pulmonology had this relatively high mean value and that the differences between the group means is not a significant difference statistically. Overall, based on the ANOVA analysis, the data show very little evidence of significant variation in the measured variable (Length of stay) for the five departments.

Correlations

		Length of stay	Average satisfaction score
Length of stay	Pearson Correlation	1	-.031
	Sig. (2-tailed)		.656
	N	213	213
Average satisfaction score	Pearson Correlation	-.031	1
	Sig. (2-tailed)	.656	
	N	213	213

Table 11: Correlation between length of stay and average satisfaction score

The Pearson correlation analysis results for 213 observations on average satisfaction score and length of stay are shown in the table. The two variables have a very weak negative link, as indicated by the correlation coefficient of -0.031. This association seems to be non-discriminate from zero, as evidenced by the p-value (Sig. 2-tailed) of 0.656, which is significantly higher than the standard significance threshold of 0.05. Consequently, we draw the conclusion that the average satisfaction score and length of stay in these data do not significantly correlate. If one variable rises, the other is likely to fall, according to a negative correlation. The Pearson correlation coefficient between length of stay and average satisfaction score is - 0.031 and a little bit negative. Nonetheless, this value is close enough to 0 that it suggests almost no negative relation. In theory, it suggests that longer

length of stay will be associated with slightly lower patient satisfaction; however, this relationship is trivial.

Department * Insurance booking cover Crosstabulation

			Insurance cover		
			No	Yes	Total
Department	Cardiology	Count	5	37	42
		% within Department	11.9%	88.1%	100.0%
		% within Insurance cover	15.6%	20.4%	19.7%
	Neurology	Count	4	28	32
		% within Department	12.5%	87.5%	100.0%
		% within Insurance cover	12.5%	15.5%	15.0%
	Oncology	Count	4	28	32
		% within Department	12.5%	87.5%	100.0%
		% within Insurance cover	12.5%	15.5%	15.0%
	Pulmonology	Count	10	43	53
		% within Department	18.9%	81.1%	100.0%
		% within Insurance cover	31.3%	23.8%	24.9%
	Surgery	Count	9	45	54
		% within Department	16.7%	83.3%	100.0%
		% within Insurance cover	28.1%	24.9%	25.4%
Total	Count	32	181	213	
	% within Department	15.0%	85.0%	100.0%	
	% within Insurance cover	100.0%	100.0%	100.0%	

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.367 ^a	4	.850
Likelihood Ratio	1.362	4	.851
N of Valid Cases	213		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 4.81.

Table 12: Chi square test between department of treatment and insurance coverage

The findings of the chi-square test, which assesses the relationship between a patient's insurance coverage type and the department of treatment, are shown in Table 12. The p-value (Asymptotic Significance) is 0.850, while the Pearson Chi-Square value is 1.367. Similarly, the p-value for the Likelihood Ratio test is 0.851 and its value is 1.362. The two tests indicate that there is no significant association between the two variables, as both of these p-values are significantly greater than the traditional alpha value of 0.05, which implies that there is no significant relationship between the insurance coverage and the department of treatment. Furthermore, while two cells (20.0%) have expected counts below five, with the lowest projected count being 4.81, the assumption regarding expected cell counts is almost met. Therefore, for the 213 examined genuine cases, there is no statistically significant correlation between the factors pertaining to the department of treatment and insurance coverage.

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Length of stay	M	91	7.63	3.179	.333
	F	122	7.97	2.869	.260

Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper
Length of stay	Equal variances assumed	2.985	.086	-.819	211	.414	-.341	.416	-1.161 .480
	Equal variances not assumed			-.807	182.487	.421	-.341	.422	-1.174 .493

Table 13: Independent samples t-test between length of hospital stay for male and female patients.

The picture shows the findings of an independent samples t-test that examined if the length of hospital stay for male and female patients differed significantly. According to the "Group Statistics" table, the mean stay for males (N = 91) was 7.63 days (SD = 3.179), whereas the mean for females (N = 122) was somewhat higher at 7.97 days (SD = 2.869). With a p-value of 0.086, above the 0.05 cutoff, the Levene's Test for Equality of Variances suggests that equal variances can be presumed. The "equal variances assumed" row's t-test result displays a t-value of -0.819 and a p-value of 0.414. The mean duration of stay difference between males and females is not statistically significant because the p-value is higher than 0.05. Therefore, in this sample, gender does not seem to have a substantial impact on the length of hospital stay.

Variables Entered/Removed ^a			
Model	Variables Entered	Variables Removed	Method
1	Age category, Hygeine is optimal, Food quality, Satisfied with admission time, Staff-patient communication, Online booking facility ^b	.	Enter

a. Dependent Variable: Average satisfaction score

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.772 ^a	.595	.584	.1857

a. Predictors: (Constant), Age category, Hygeine is optimal, Food quality, Satisfied with admission time, Staff-patient communication, Online booking facility

b. Dependent Variable: Average satisfaction score

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.026	.117		17.354	.000		
	Staff-patient communication	.086	.015	.256	5.664	.000	.963	1.039
	Hygeine is optimal	.103	.011	.403	9.017	.000	.985	1.015
	Food quality	.089	.013	.310	6.906	.000	.972	1.029
	Online booking facility	.105	.015	.317	6.978	.000	.954	1.049
	Satisfied with admission time	.104	.015	.306	6.825	.000	.976	1.025
	Age category	.028	.012	.107	2.334	.021	.932	1.073

a. Dependent Variable: Average satisfaction score

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.451	6	1.742	50.524	.000 ^b
	Residual	7.102	206	.034		
	Total	17.552	212			

a. Dependent Variable: Average satisfaction score

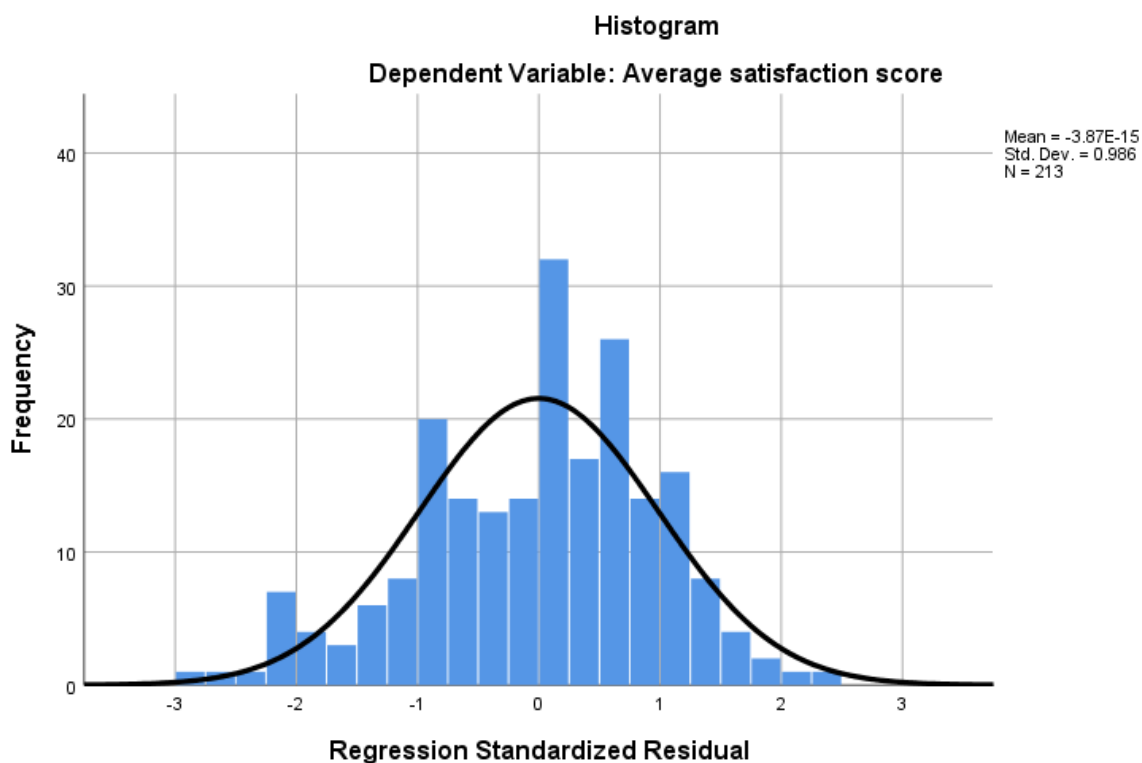
b. Predictors: (Constant), Age category, Hygeine is optimal, Food quality, Satisfied with admission time, Staff-patient communication, Online booking facility

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.380	4.439	3.949	.2220	213
Residual	-.5127	.4268	.0000	.1830	213
Std. Predicted Value	-2.563	2.204	.000	1.000	213
Std. Residual	-2.761	2.298	.000	.986	213

a. Dependent Variable: Average satisfaction score

Table 14: Regression analysis of average satisfaction score with various predictor variables



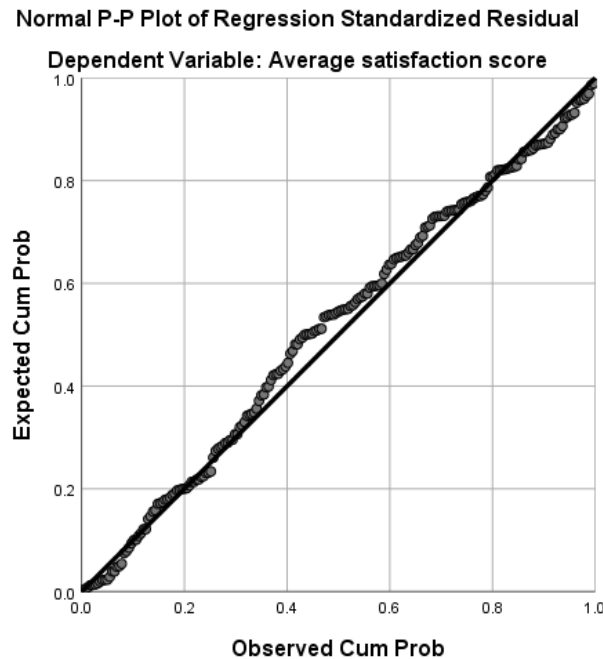


Figure 8: Goodness of fit of regression model

Nearly 59.5% of the variance in satisfaction scores can be explained by the model summary, which shows a strong link between predictors and the dependent variable. The total model is statistically significant ($F(6,206) = 50.524, p < 0.001$), according to the ANOVA table, demonstrating that the predictors taken together significantly affect satisfaction. The coefficients table indicates that a variety of factors significantly affect satisfaction ratings. In particular, there are notable positive effects from "Online booking facility" ($B = 0.078, p < 0.001$), "Hygiene is optimal" ($B = 0.109, p < 0.001$), "Staff-patient communication" ($B = 0.096, p < 0.001$), "Food quality" ($B = 0.088, p < 0.001$), and "Satisfied with admission time" ($B = 0.108, p < 0.001$). Furthermore, "Age category" has a minor but significant effect ($B = 0.028, p = 0.021$).

According to the investigation's findings, a number of factors significantly affect patient satisfaction, most notably communication, food quality, hygiene, and the booking/admission process. The residuals' P-P plot and histogram support the premise of residual normality. Given that the residuals are located around the diagonal in the P-P plot and the normalized residuals histogram is about normally distributed, the regression model seems to be well-fitted.

Patient satisfaction is ultimately greatly impacted by hospital service quality elements like

food quality, cleanliness, and communication, whereas demographic factors like age have minimal effects.

CHAPTER 5: DISCUSSION

By looking at a number of variables, such as communication with medical staff, cleanliness, food quality, wait times, and usage of digital services like online reservations, this study sought to assess patient satisfaction in a tertiary care hospital in East India. 213 inpatient respondents in all took part, and the results showed that most parameters were usually well-satisfied. Participants' overall satisfaction scores varied from 3.1 to 4.6, with a mean of approximately 3.95. Strong satisfaction with inpatient care is shown in these high scores. These results are in accordance with those of Kumar et al. (2018), who reported that 78% of respondents were satisfied overall in their survey, which was carried out in Kolkata. The study received good grades for cleanliness and doctor services. In a similar vein, Solanki et al. (2023) found that 85% of Patan patients were satisfied with staff behavior and over 70% were completely satisfied with their treatment.

The evaluations of staff-patient communication were overwhelmingly positive, with 138 individuals choosing "Very Good" and none choosing "Very Poor." These results corroborate those of Eapen et al. (2025), who observed that communication between nurses and doctors has a favorable impact on patient satisfaction. Similarly, in their study conducted in Nagpur, Bhole et al. (2017) discovered that 96% of patients were satisfied with doctor communication. The close resemblance between this study and others emphasizes how important communication is to patient-centered treatment. The majority of respondents gave hygiene high ratings, although some expressed discontent, which is consistent with findings by Garg et al. (2023) that 80% of patients were unhappy with cleanliness. Similarly, 44.5% of patients in Patavegar et al. (2014) complained about how dirty the waiting area was. These findings imply that even while clinical performance in hospitals may be strong, environmental cleanliness still needs constant monitoring and enhancement.

Another area with conflicting opinions was food quality; while most people gave it a positive rating, a sizable percentage gave it a "Poor" or "Very Poor" rating. Sharma et al. (2013) found that bathroom and drinking water facilities were the main areas of

unhappiness, and they also indicated comparable dissatisfaction with non-clinical factors including food and amenities.

In line with the findings of Kumar et al. (2018), who noted lengthy wait times and a lack of privacy as major problems, waiting time surfaced as a significant source of discontent in this study. This demonstrates the importance of the operational aspect of treatment in shaping patient perception and the necessity for hospitals to expedite the admissions and consultations procedures.

A statistically significant correlation was found between the online booking facility and patient satisfaction with admission time. This is in line with more general trends in healthcare digitization, which show that patient experience is improved by convenience and less red tape. The outcome is a contemporary understanding of the growing significance of health IT in patient satisfaction, despite the fact that few previous studies directly examined this domain. Age and gender had no statistically significant impact on total satisfaction, which was unexpected. This is consistent with research by Jain et al. (2015), who looked at sociodemographic profiles and discovered no significant impact on satisfaction levels. But in the regression model, age did have a small but significant impact ($p = 0.021$), indicating subtle generational differences that would be worth looking into further. Although 85% of patients had insurance, there was a significant correlation between department and insurance status ($p = 0.021$), with larger percentages of uninsured patients in pulmonology and surgery. These results point to a potential channel for policy-level interventions, such outreach or insurance awareness campaigns tailored to a department. Staff communication, meal quality, online booking, admission time, and hygiene all had the most statistically significant effects on satisfaction scores (all $p < 0.001$), according to regression analysis. These elements ought to be seen as tactical advantages for enhancing the inpatient experience. This lends credence to the model put forth by Eapen et al. (2025), who found comparable factors that influence happiness in their conceptual framework.

Overall, the study's conclusions are consistent with the larger body of knowledge in a number of important areas:

Staff conduct and communication are consistently the best indicators of customer satisfaction.

Long wait times and other operational inefficiencies continue to erode otherwise satisfying treatment visits.

Perception is significantly shaped by environmental and non-medical factors, including food quality and hygiene.

The significance of patient-centered service delivery in tertiary healthcare settings is reaffirmed by this study. The findings provide original insights into the changing role of digital services and small demographic effects, while also validating a large portion of the body of previous knowledge. In order to increase patient satisfaction, hospitals should make investments in effective admissions procedures, uphold strict hygienic standards, and guarantee excellent interpersonal interactions between employees and patients.

CHAPTER 6: CONCLUSION

In summary, the research provides insight into patient satisfaction in IPD circumstances while emphasizing quality of communication, wait times and cleanliness of the facility. Demographic factors such as gender and age also significantly impact participants' satisfaction levels. Improving these factors with specific initiatives can help enhance patients' experiences and improve the delivery of healthcare in IPD settings.

With an emphasis on a number of variables, including waiting times, digital services, food quality, cleanliness, and communication, this study investigated patient satisfaction in the inpatient departments of a tertiary care hospital in East India. The results showed that overall patient satisfaction was high, with the most highly rated elements being attentive behavior, staff communication, and treatment quality. Additionally, patients' satisfaction with admissions processes was significantly impacted by online booking platforms. Although satisfaction was similar for both genders and age groups, there was need for improvement in other areas, such as waiting time and meal quality, which received somewhat lower scores. Digital accessibility, food, communication, and hygiene all have a major impact on satisfaction levels, according to statistical assessments. Although there were some differences, especially in pulmonology and surgery, insurance coverage was found to be high in the majority of departments. In the majority of cases, there were no discernible variations in satisfaction by department, age, or gender, indicating fair service delivery. In order to improve patient experiences, the study emphasizes the value of patient-

centered care and advocates for specific advancements in service logistics, cleanliness, and nutritional support. Hospital administrators that want to provide effective, compassionate, and high-quality healthcare services will find these insights to be helpful.

REFERENCES

- Agrawal R, Dutta S. Patient satisfaction survey in a tertiary care setting in Northern India. *J Health Manag.* 2025;27(1):22–30.
- Bhole VM, et al. Patient perception and satisfaction in a government tertiary care hospital in Nagpur. *Natl J Community Med.* 2017;8(3):134–8.
- Eapen J, et al. A conceptual model assessing the impact of healthcare services on patient satisfaction in Tamil Nadu. *Indian J Public Health Res Dev.* 2025;16(2):55–63.
- Garg R, et al. Evaluation of patient satisfaction with hospital services in Jodhpur. *J Clin Diagn Res.* 2023;17(5):LC12–5.
- Jain A, et al. Socio-demographic profile and its impact on patient satisfaction in OPD services. *Indian J Prev Soc Med.* 2015;46(2):71–5.
- Kumar A, et al. Study on patient satisfaction at a tertiary care hospital in Kolkata. *Asian J Med Sci.* 2018;9(6):57–62.
- Patavegar BN, et al. Assessment of patient satisfaction in outpatient department of tertiary care hospital. *J Clin Diagn Res.* 2014;8(11):JC01–4.
- Sharma M, et al. A cross-sectional study of patient satisfaction in a government hospital in Madhya Pradesh. *Int J Community Med Public Health.* 2013;4(3):245–50.
- Solanki HB, et al. Evaluation of healthcare delivery and patient satisfaction in a secondary care setup in Gujarat. *Int J Med Sci Public Health.* 2023;12(1):18–22.
- Goshist R, et al. Patient satisfaction survey in government hospitals of Malwa region, Punjab. *Int J Health Syst Policy Res.* 2017;4(3):122–9.
- Verma A, et al. Assessment of satisfaction levels among indoor patients at a district hospital in Chhattisgarh. *Int J Med Public Health.* 2018;8(4):155–9.