

# Patient Satisfaction in the Outpatient Department at a Tertiary Care Teaching Hospital: A Cross-Sectional Study

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## ABSTRACT

**Introduction:** The Outpatient Department (OPD) serves as the first point of contact between patients and healthcare institutions, playing a critical role in the overall healthcare delivery system. The efficiency, accessibility, and quality of services provided in the OPD significantly influence patients' perceptions. Enhancing satisfaction in OPD will foster trust and ensure the long-term success of healthcare institutions.

**Material and Methods:** This cross-sectional study of two months duration was conducted in the outpatient departments of a tertiary care hospital. The sample size for the study was 360. A structured, validated questionnaire (Cronbach's alpha score = 0.82) was used for the study. Patient satisfaction criteria, such as patient waiting time, staff behaviour, patient amenities, and experience with doctor consultation, were studied. Statistical analysis was conducted in Microsoft Excel and Statistical Package for Social Sciences version 22.0. Pearson coefficient of correlation (r-value) and p-value were calculated. The level of statistical significance was set at 5% ( $P < 0.05$ ).

**Results:** The age distribution showed that 94(26.1%) were in the age group of 25-34 years, and 183 (51%) were males. The mean satisfaction score with waiting time in registration and to meet the doctor was  $3.93 \pm 0.86$  SD and  $3.87 \pm 0.79$  SD, respectively. The satisfaction level with waiting time was highest (78.1%) at the registration counter. Analysis of variance for doctor behaviour, communication skills, clarity of information, privacy given to patients, and treatment provided revealed a p-value of 0.002 ( $< 0.05$ ). The overall patient satisfaction was 84.6%.

**Conclusion:** The findings of this study highlight good patient satisfaction with the OPD services, and indicate key areas of strength as well as aspects requiring improvement.

**Keywords:** Behaviour, Outpatient, Patient Care, Satisfaction, Waiting

## INTRODUCTION

The Outpatient Department (OPD) serves as the first point of contact between patients and healthcare facilities, playing a vital role in the

overall healthcare delivery system. Unlike inpatient services, OPD provides medical consultations, diagnostic services, and follow-up care without requiring hospital

admission. It is often seen as the "face" of the hospital, where patients form their initial impressions of the quality, efficiency, and professionalism of the institution. An OPD is considered the shop window of the hospital [1, 2]

A large number of people visit the OPD daily for treatment and diagnostic purposes. This number is greatly influenced by patient satisfaction. Patient satisfaction is a measure of the extent to which a patient is content with the healthcare they received from their healthcare provider. [3] Once the patient comes to the hospital and experiences the facilities, they may become either satisfied or dissatisfied. [4] If the patients are not satisfied with the services provided at the OPD, then the visiting population may reduce or avoid visiting that particular healthcare institution. Therefore, patient satisfaction is one of the important factors that determine the success of a healthcare organization. [5]

Satisfied patients are more likely to follow medical advice, return for follow-up visits, and recommend the facility to others, directly influencing both health outcomes and institutional reputation. Patients' satisfaction or dissatisfaction is an assessment of the overall quality of hospital care, taking into account both its advantages and disadvantages. [6]

Patient satisfaction is based on how well the patient feels about the medical care they receive. [7] Both healthcare professionals and patients now place a greater emphasis on measuring healthcare quality and raising patient happiness. This is mostly because patients have become more informed about the healthcare services they receive and the competitive nature of the constantly developing healthcare market to meet the complex needs of their clients [8]

Patient satisfaction is a crucial health outcome used for a variety of purposes, including assessing healthcare programs, evaluating quality care, identifying service improvements, and assisting organizations in identifying areas for improvement [9]. Mismatch between patient expectations and

the service received is related to decreased satisfaction. [10]

To achieve high standards for the quality of treatment, there has been a major change towards delivering patient-centric care. Various academicians believe that satisfied individuals are more willing to follow treatment plans, ask for medical advice, and urge other people to use healthcare services [11, 12]

Patients who are happy with their care follow their doctors' instructions, keep up a relationship with them, and receive better overall care [13-15]

Thus, patient satisfaction has the potential to enhance healthcare outcomes through adherence and continuity of care [16].

This study aims to assess the current levels of patient satisfaction in the outpatient department, identify key determinants, and highlight areas for improvement. By analyzing patient feedback and experiences, healthcare institutions can develop strategies to enhance service delivery, thereby ensuring more positive patient outcomes and fostering long-term loyalty.

## MATERIAL AND METHODS

**Study design:** Observational and cross-sectional study.

**Study Setting:** The study was carried out in outpatient departments of General Medicine, General Surgery, Paediatric, and Obstetrics & Gynaecology in a 1200-bedded tertiary care teaching hospital in Uttarakhand.

**Duration of the study:** Two months.

**Sampling technique:** Simple random sampling technique was used.

**Sample size:** The sample size was calculated using Cochran's formula, assuming an anticipated proportion of 75% (satisfied patients) with 5% absolute precision at a 95% confidence interval. Assuming 20% as a non-response rate, the study required a sample size of 360, i.e., 90 from each department. The population size (N) was approximately 35,000.

### Data collection methodology and parameters studied

Primary and secondary sources were used to collect data.

#### Primary Sources

A structured questionnaire was developed to determine the level of satisfaction among the patients in the selected OPDs. Written informed consent was obtained from participants. Various criteria related to patient satisfaction, such as waiting time, staff behaviour, patient amenities, and doctor consultation, were included in the questionnaire. A Five-point Likert scale was used for rating the answers. The numerical grading awarded to the responses was 1= very dissatisfied, 2= dissatisfied, 3= neither satisfied nor dissatisfied (neutral), 4= satisfied, and 5= very satisfied. For summarizing the results, the grades of 1 & 2 were categorized as dissatisfied, 3 as neutral, and 4 & 5 as satisfied. A pilot study was conducted on 10% of the sample size. The questionnaire was validated, and the Cronbach's alpha score = 0.82. The questionnaire also included a section on demographics.

#### Secondary Sources

Standard operating procedures of the outpatient department of the hospital, relevant policy, and articles published in the literature on this subject were studied to get an insight into various parameters relating to patient satisfaction. Articles of relevance to this study were included in the references.

#### Data analysis

Data analysis tool from Microsoft Excel and SPSS version 22.0 was used for analysis. Descriptive statistics were analysed for mean, median, mode, and standard deviation. Inferential statistical analysis was done for Pearson's coefficient of correlation (r-value) and p-value. The level of confidence was set at 95% ( $p < 0.05$ ).

#### Inclusion criteria:

All patients attending Medicine, Surgery, Paediatric, and Obstetrics & Gynaecology OPDs were included.

#### Exclusion criteria:

Patients who were not willing to take part in the study were excluded. All other OPDs, including super specialty OPDs in the hospital, were excluded from the study.

## RESULTS

### A. SOCIO-DEMOGRAPHIC DETAILS

#### Age distribution

The age distribution of the participants (n=360) reveals that 94(26.1%) of the patients were in the age group of 25-34 years, followed by 77(21.38%) in 35-44 years and 65(18.05%) in 18-24 years. This indicates that the majority of the patients, 236(65.54%), coming to OPD were in the age group of 18-44 years. The age distribution is graphically represented in Figure 1.

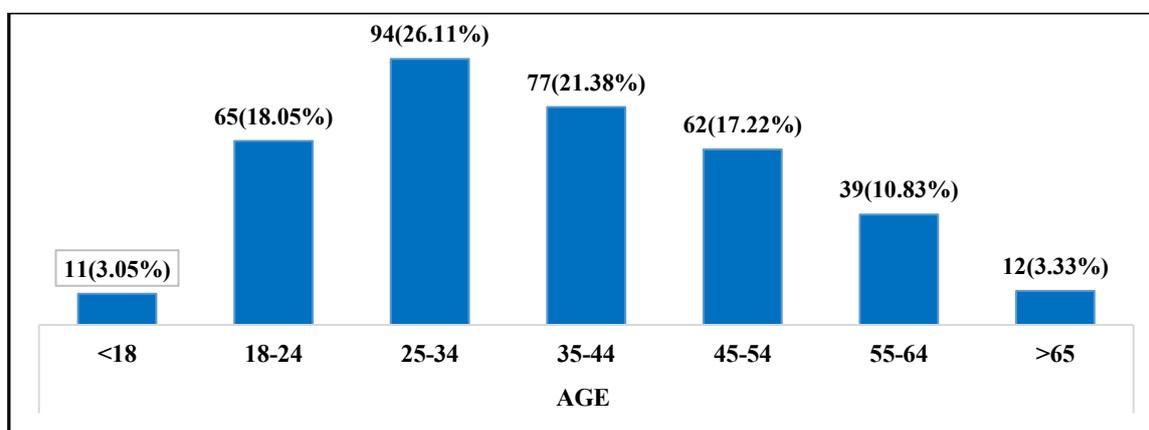


Figure 1: Age distribution (n=360)

### Gender distribution

It is observed from the data that male respondents were 183 (51%) and the females were 177 (49%). The difference between the two groups is small, indicating that both genders were represented fairly and equally in the study.

### Educational status

The data reveals that most of the respondents, 156 (43.3%), were graduates, followed by 93 (25.83%) who were 12<sup>th</sup> pass, and 50(13.88%) post-graduates. A smaller number, 32(8.88%), had completed 10<sup>th</sup>, and 19 (5.27%) had completed 8<sup>th</sup> standard. Only 10 (2.70%) were illiterate. This indicates that the overall population arriving in the OPDs was educated. The educational status is depicted graphically in Figure 2.

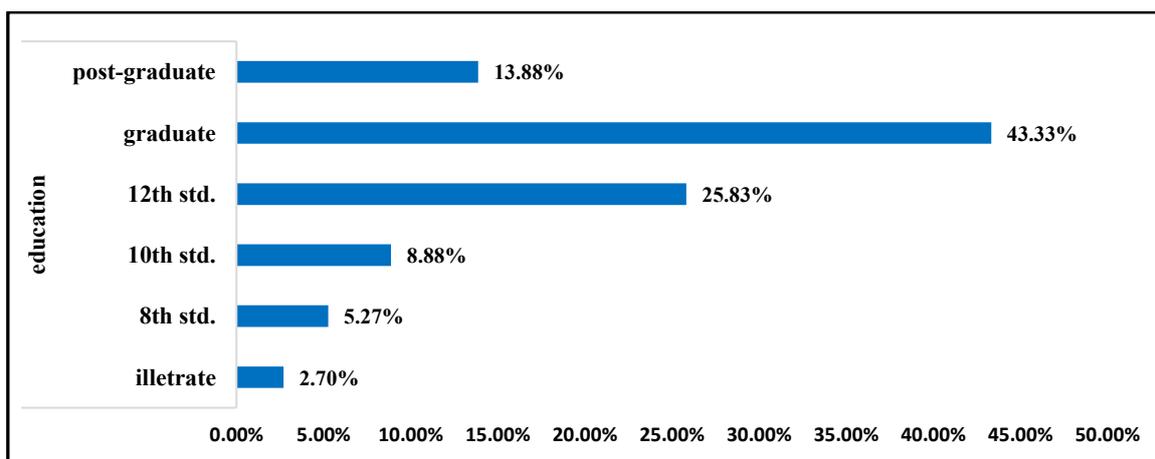


Figure 2: Educational status (n=360)

### Marital status

Analysis of marital status revealed that 256 (71.1%) participants were married and 104 (28.9%) were unmarried.

job holders accounted for 34(9.4%) & 31(8.6%) respectively. This data highlights a diverse occupational distribution among the respondents.

### Occupational status

The data reveal that the largest group of respondents, 129 (35.08%), were under the 'others' category, which included small shop owners, business owners, and housewives. This was followed by private job holders 77(21.3%). Students comprised 62(17.2%), while daily wage workers and government

### B. ASSESSMENT OF PATIENT SATISFACTION

Patient satisfaction in OPD was assessed under the criteria of waiting time, Patient amenities, Behaviour of OPD staff, and Doctor Consultation. The sub-criteria observed under each of these categories are summarised in Table 1.

Table 1: Criteria for Patient Satisfaction

S. No.	Criteria	Sub criteria
1.	Waiting Time	Waiting time for registration
		Waiting time for doctor consultation
		Waiting time at the Pharmacy
		Waiting time for billing
2.	Patient amenities	Wash rooms
		Drinking water facility
		Cafeteria
		Provision of wheelchairs/Trolley
		Complaint handling

3.	Behaviour of OPD staff	Registration staff
		OPD Attendants
		Housekeeping staff
		Security staff
4.	Doctor Consultation	Behaviour of the doctor
		The communication style of the doctor
		Clarity of information provided
		Privacy observed
		Explaining treatment

### Waiting time

The data for patient satisfaction with regard to waiting time was analysed at four touch points, i.e., waiting at the registration counter, waiting for doctor consultation, waiting at the pharmacy, and waiting time for billing. The satisfaction level was highest at the registration counter 281 (78.1%),

followed by 277(76.9%) for doctor consultation, 276(76.7%) for pharmacy, and 270 (75%) for billing. This indicates that there is a scope for reducing the waiting time to enhance patient satisfaction. The details of the waiting time are graphically represented in Figure 3.

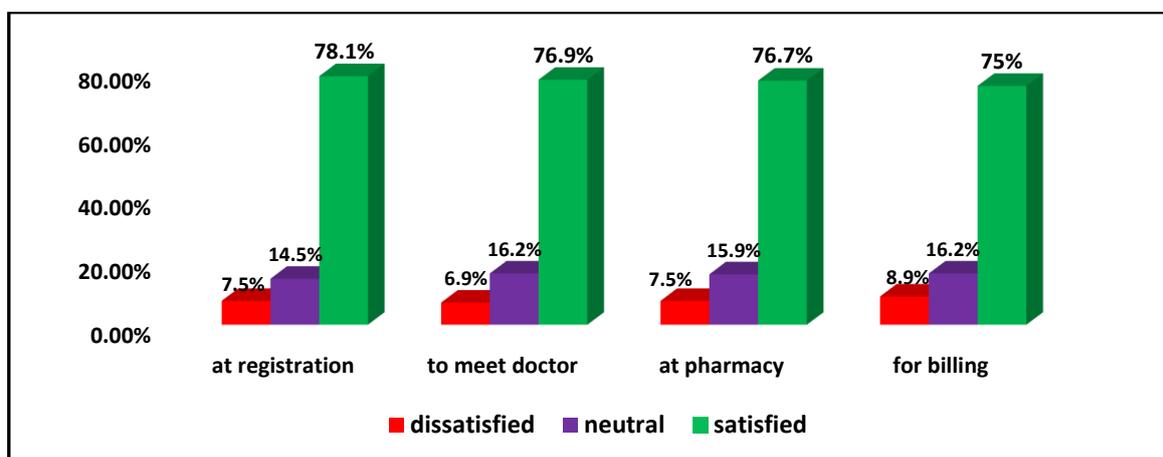


Figure 3: Waiting time satisfaction (n=360)

Descriptive statistics for satisfaction levels with waiting time at the registration counter, for doctor consultation, at the pharmacy, and

at the billing counter were calculated, and the details of the same are tabulated in Table 2.

Table 2: Descriptive statistics for satisfaction with waiting time (n=360)

	Waiting time at registration	Waiting time to meet the doctor	Waiting time at the pharmacy	Waiting time for billing
Mean	3.93	3.87	3.84	3.84
Standard deviation	0.86	0.79	0.78	0.83
Median	4.00	4.00	4.00	4.00
Mode	4.00	4.00	4.00	4.00
Range	4	4	4	4
Minimum	1	1	1	1
Maximum	5	5	5	5
Count	360	360	360	360

It was observed that the mean score for waiting time at registration was  $3.93 \pm 0.86$  SD. This was closely followed by waiting

time to meet the doctor with a mean value of  $3.87 \pm 0.79$  SD. Regression analysis revealed a positive correlation between waiting time

at registration and doctor consultation, with a Pearson coefficient  $r = 0.21$ . This indicates that as the waiting time at the registration counter increases, the waiting time for doctor consultation also increases. However, the p value of 0.34 ( $> 0.05$ ) was statistically not significant.

### Patient amenities

The highest patient satisfaction of 89.1% was observed in transportation facilities like availability of wheelchair and stretcher

trolleys. This was closely followed by easy accessibility to OPD with good signage, and had a satisfaction level of 86.9%. The lowest satisfaction of 74.7% was observed for washroom facilities. Most of the patients felt that number of washrooms provided were less in number. Only 78.8% of patients were satisfied with the drinking water facility and were of the opinion that more drinking water stations need to be provided. The graphical representation of data is shown in Figure 4.

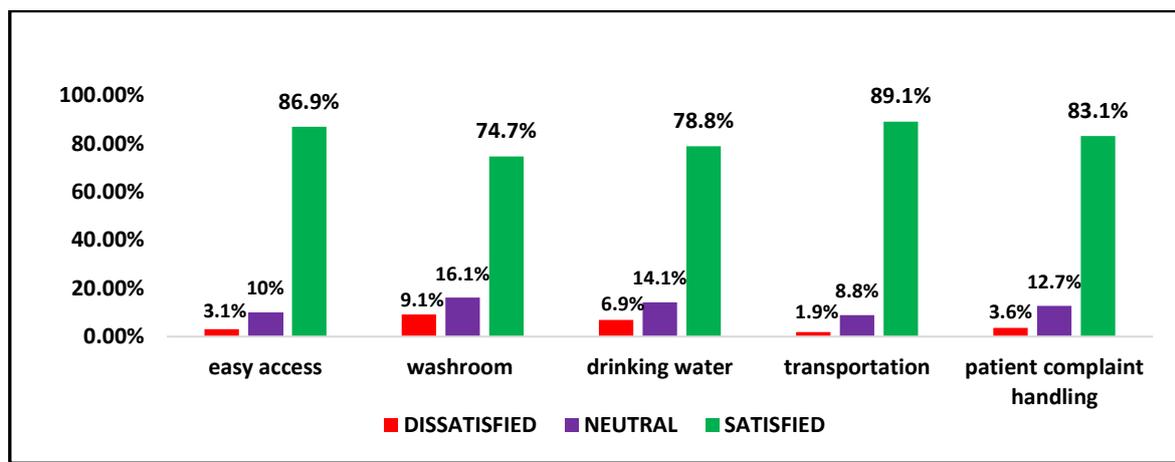


Figure 4: Patient amenities (n=360)

Descriptive statistics for satisfaction levels with patient amenities in OPD were calculated, and the details of the same are depicted in Table 3.

Table 3: Descriptive statistics for patient amenities in OPD

	Easy access to OPD	Washroom facility	Drinking water facility	Transport facility	Complaint handling
Mean	4.2	3.8	3.9	4.2	4.1
Median	4.0	4.0	4.0	4.0	4.0
Mode	4.0	4.0	4.0	4.0	4.0
Standard deviation	0.7	0.8	0.8	0.7	0.8
Range	3	4	4	4	4
Minimum	2	1	1	1	1
Maximum	5	5	5	5	5
Count	360	360	360	360	360

It was observed that the mean scores obtained for easy access to OPD as well as transport facility had a mean of  $4.2 \pm 0.7$  SD. Regression analysis revealed a positive correlation between availability of drinking water facilities and washroom facilities, with a Pearson coefficient  $r = 0.25$  and statistically significant p value of 0.03 ( $< 0.05$ ).

### Behaviour of the hospital staff

The satisfaction of patients regarding the behaviour of hospital staff deployed at registration, OPD attendants, housekeeping staff, and security staff was studied. It was observed that the highest satisfaction of 88.9% was observed for the behaviour of security staff. The patient believed that the security staff were polite and helpful. The

satisfaction level is graphically represented in Figure 5.

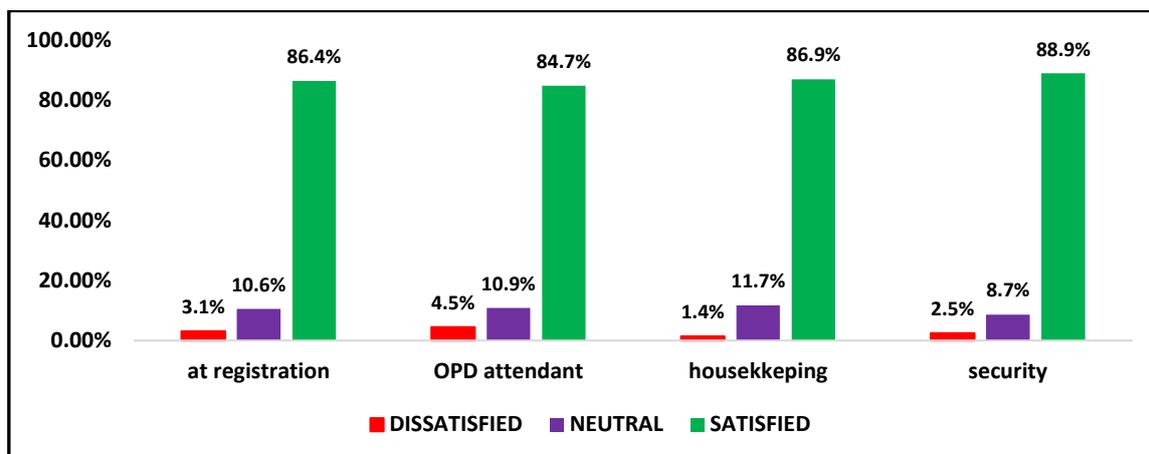


Figure 5: Behaviour of staff (n=360)

The descriptive statistics for the satisfaction responses regarding the staff's behaviour were analysed. It was observed that the mean scores obtained for the behaviour of security staff had a mean of  $4.19 \pm 0.7$  SD. This was

closely followed by the behaviour of housekeeping staff, with a mean of  $4.16 \pm 0.67$  SD. The details of descriptive analysis are tabulated in Table 4.

Table 4: Descriptive statistics for hospital staff behaviour (N=360)

	Behaviour of registration staff	Behaviour of the OPD attendant	Behaviour of housekeeping staff	Behaviour of security staff
Mean	4.05	4.01	4.16	4.19
Median	4.00	4.00	4.00	4.00
Mode	4.00	4.00	4.00	4.00
Standard deviation	0.67	0.72	0.67	0.70
Range	3	4	3	4
Minimum	2	1	2	1
Maximum	5	5	5	5
Count	360	360	360	360

Pearson coefficient of correlation between the behaviour of registration staff, OPD attendants, housekeeping staff, and security staff was analysed. It was observed that the behaviour of registration staff and OPD attendants has a positive correlation with a Pearson coefficient value  $r = 0.20$ , thereby implying that the positive behaviour of registration staff induced good behaviour in OPD attendants. Analysis of variance of the

behaviour of registration staff, OPD attendants, housekeeping staff, and security staff was carried out using the ANOVA test. It revealed a statistically significant p-value = 0.001, thus negating the null hypothesis, which stated that there is no difference in the behaviour of different categories of staff in OPD. The result of ANOVA is tabulated in Table 5.

Table 5: Analysis of variance for satisfaction towards hospital staff behaviour (n=360)

Sources of variation	SS	df	MS	F	p-value	F crit
Between groups	7.636	3	2.545	5.363	0.001	2.611
Within groups	681.561	1436	0.475			
Total	689.197	1439				

### Doctor's consultation

Patient satisfaction with regard to the doctor consultation was studied for the behaviour of the doctor, communication skills of the doctor, clarity of information to patients, privacy during consultation, and treatment given by the doctor. A high percentage of the patients, 91.9% were satisfied with the treatment given by the doctor, with a mean score of  $4.27 \pm 0.62$ . This was followed by 89.4% of the patients, who were satisfied with the clarity of information provided to them (mean score  $4.19 \pm 0.68$ ). 88.3% were satisfied with the privacy provided during the consultation (mean score  $4.11 \pm 0.65$ ), 88.3% with the general behaviour of the doctor (mean score  $4.09 \pm 0.68$ ), and 87.6% with the

communication skills of the doctor. However, it was also observed that 12.5 % patients were dissatisfied with the privacy provided during consultation. It was brought out by the patients that at times the hospital staff and other important dignitaries barged into the consultation room unannounced when the doctor was examining them, thereby compromising their privacy. Analysis of variance for behaviour, communication, clarity of information, privacy given, and treatment provided by the doctor was carried out using the ANOVA test. It revealed a statistically significant p-value of  $0.002 (< 0.05)$ . The result of ANOVA is tabulated in Table 6.

**Table 6: Analysis of variance for satisfaction with doctor consultation (n=360)**

Group/Criteria	Count	Sum	Average	Variance	Std. Dev.
Behaviour of the doctor	360	1473	4.09	0.46	0.68
Communication skills by the doctor	360	1485	4.13	0.47	0.68
Clarity of the information given by the doctor	360	1510	4.19	0.46	0.68
Adequate privacy and confidentiality during consultation	360	1478	4.11	0.43	0.65
Treatment given by the doctor	360	1536	4.27	0.38	0.62

### ANOVA

Sources of variation	SS	df	MS	F	p-value	F crit
Between groups	7.692	4	1.923	4.380	0.002	2.377
Within groups	788.128	1795	0.439			
Total	689.197	1799				

### Pharmacy services at the hospital

Patient satisfaction with regard to the availability of medicines and the cost of medicines provided by the hospital pharmacy was analysed. It was observed that 14 (3.9%) of the patients were dissatisfied with the non-availability of medicines. The patients were of the view that all the medicines prescribed by the consultant in the OPD should be made available in the hospital pharmacy to prevent

inconvenience to them. However, 313 (86.9%) were satisfied with the availability of medicines in the hospital pharmacy. Analysis of patient satisfaction towards the cost of medicine sold in the pharmacy revealed that only 2 (0.5%) were dissatisfied, thereby showing that the cost of medicine was affordable to them. The analysis is graphically represented in Figure 6.

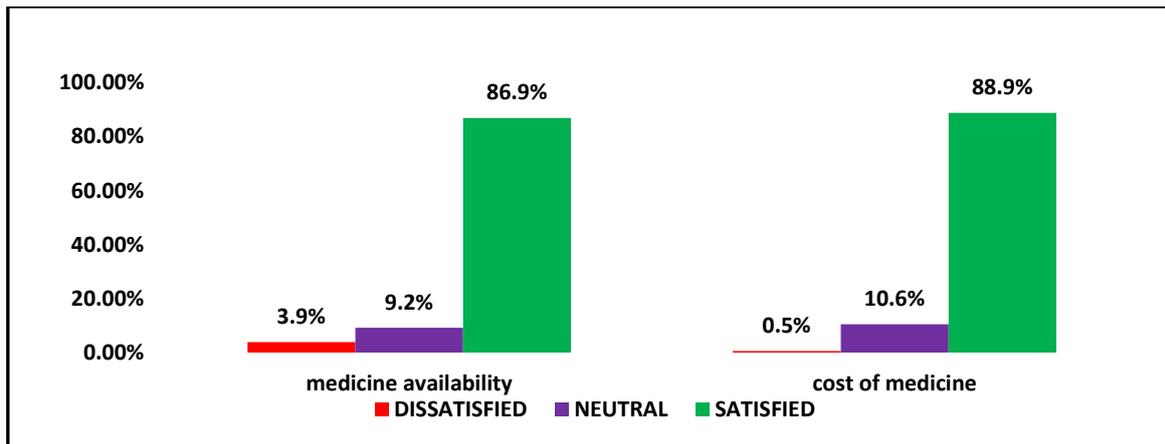


Figure 6: Pharmacy services at the hospital (n=360)

### Overall satisfaction with OPD services

A significant majority (84.6%) of patients reported being satisfied, indicating that the hospital is largely successful in meeting patient expectations and delivering quality

care. A smaller proportion (11.4%) expressed a neutral stance, while only 4.4% of patients reported dissatisfaction. Figure 7 highlights the overall patient satisfaction levels with the OPD services

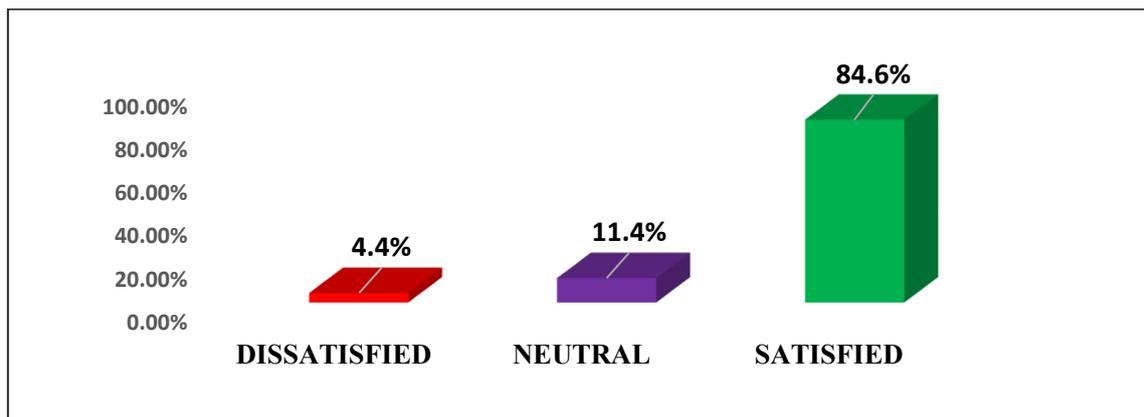


Figure 7: Overall satisfaction: OPD Services (n=360)

## DISCUSSION

Patient satisfaction is based on how well the patient feels in the entire process of OPD care received by them. Both healthcare professionals and consumers now place a greater emphasis on measuring healthcare quality and enhancing patient satisfaction.

The present study (n = 360) reported that the majority of the patients (65.54%) were between 18–44 years, which aligned with the study findings of the study by Joshi K et al., where 50% of the patients were in the age bracket of 20–40 years. [17] These findings indicate that the most frequent users of OPD services are young to middle-aged adults, which is due to higher healthcare awareness, occupational exposures, and the need for

preventive and curative care during their active years. Both studies found that a significant proportion of OPD visitors were educated. In our study, 43.3% were graduates and 25.83% had completed higher secondary education, while only 2.7% were illiterate. In the study by Joshi K et al., although a slightly lower literacy trend was seen, a large number still had at least primary (41%) or secondary (19%) education. A diverse occupational distribution was observed in both studies. In our study, the largest group (35.08%) fell under the 'others' category (i.e., small shop owners, businessmen, and housewives), followed by private job holders (21.3%) and students (17.2%). Likewise, in the study by Joshi K et al., the major part of the

respondents were housewives (33%), students (18%), and labourers (22%).

Saini NK et al. performed a cross-sectional study related to the satisfaction among patients who visited the outpatient department. Their findings revealed that the maximum participants were male (72.3%), and approximately 76.1% of participants expressed satisfaction with the OPD Services provided by the hospital. [18] However, in our study, the male respondents comprised 183 (51%), and the female respondents comprised 177 (49%), with an overall OPD satisfaction rate of 84.6%.

In our study, 78.1% of the patients reported being satisfied with the waiting time for registration, 14.5% were neutral, and 7.5% were dissatisfied. The dissatisfaction was primarily due to the long waiting time for registration. These findings are in variance with the study findings by Lyngkhai R et al., where 55% of patients expressed satisfaction, 25% were neutral, and 20% were dissatisfied with the waiting time. [7]

The study conducted by Kulkarni et al reported that the majority (68%) of the OPD attendees were unsatisfied with public facilities such as toilets and drinking water in the waiting area. [19]. Panda et al reported that the majority of the participants in their study were unsatisfied with public facilities. [20] This is in variance with our research, where only 9.1% were unsatisfied with wash washroom facility and 6.9% with the drinking water facility. The patients suggested that more washrooms need to be made available due to the large throughput of patients in various OPDs. Similarly, the drinking water facilities should be available in each of the OPDs rather than central location for a group of OPDs.

The study conducted by Jain A et al. (n=200) revealed that 25.6% were not satisfied with pharmacy services, whereas in our study, the satisfaction with medicine availability and affordability of medicine was 86.9% and 88.9 % respectively. [11]

The overall satisfaction with OPD services in our study was 84.6%. This is in variance to the findings of a cross-sectional study

(n=270) conducted by Mesfin D et al., which revealed that the overall satisfaction of the patients with OPD services was 66.5 %.[8] The study conducted by Qadri SS et al and Sharma A et al. showed patient satisfaction of 89.1% and 73 % respectively. [21,22]

In the study conducted by Nyakutombwa P et al., it was observed that 30.4%, patients were satisfied with the availability of medicines in the pharmacy, 47% were satisfied with the waiting time for registration, and 50% satisfaction was observed with overall OPD services. [23] However, the satisfaction rates in our study were significantly higher, with availability of medicines in pharmacies, waiting time for registration, and overall OPD satisfaction being 88.9%, 78.1%, and 84.6%, respectively.

Velikj V et al., in their study to evaluate patient satisfaction with public outpatient healthcare services, found that 94.7 % patients were satisfied with the behaviour of doctors and 87.6 % of patients with the clarity of information provided to them. [24] Our study findings align with the above, as satisfaction with the behaviour of the doctor and clarity of information was observed to be 88.3 % and 89.4% respectively.

Based on the study findings, the following measures were recommended to the Hospital administration:

1. **Waiting Time Management:** Setting a more effective scheduling system will reduce wait times, particularly during peak hours.
2. **Staff Training and Development:** Holding regular training sessions for all hospital employees (including security, housekeeping, and clinical personnel) will ensure that they behave consistently, courteously, and professionally towards patients.
3. **Enhance Doctor-Patient Communication:** Doctors need to be constantly sensitised on soft skills to provide concise and accurate information during consultations. They need to be encouraged to spend time listening to patients' concerns and providing them with acceptable explanations.

4. **Optimise Pharmacy Services:** All necessary medicines approved in the hospital formulary need to be made available to patients. Safety stock needs to be maintained by the pharmacy to prevent stockouts.
5. **Hygiene and Cleanliness in Public Areas:** The number and cleanliness of washrooms should be regularly monitored to provide a comfortable and hygienic environment for patients and their families. During the summer, providing adequate and easy access to drinking water stations is essential to ensure patients' comfort and hydration.
6. **Expansion of waiting area:** The current OPD waiting areas need to be further expanded to accommodate more patients comfortably. Expanding or reorganizing the waiting areas would help reduce congestion and improve patient experience.

### LIMITATIONS

Some of the patients who were illiterate and not educated enough had to be explained the questions by the researcher. Hence, some element of the subjective bias cannot be ruled out. Due to the time constraints, it was not possible to include all the OPDs of the hospital.

### CONCLUSIONS

The findings of this study highlight the overall level of patient satisfaction within the OPD services, and indicate key areas of strength as well as aspects requiring improvement. The overall OPD satisfaction was observed to be 84.6%. While most patients expressed satisfaction with the quality of care, staff behavior, and pharmacy services, concerns related to waiting time, patient amenities, and waiting space emerged as recurring themes. Addressing these gaps through targeted interventions, staff training, and systemic improvements can significantly enhance the patient experience. Continued monitoring of patient feedback and incorporating it into service planning will be

essential for ensuring sustainable quality improvements in outpatient care delivery

### Declarations

**Ethics approval and consent to participate:** Ethical approval for this study was granted by the Ethics Committee of Himalayan Institute of Medical Sciences, Swami Ram Nagar, Dehradun vide letter No. SRHU/HIMS/Ethics/2024/223.

**Ethical Guidelines:** The research was conducted in accordance with the ethical principles outlined in the 1964 Declaration of Helsinki.

**Informed consent:** Obtained from all participants prior to administering the study instrument.

**Conflict of Interest:** Nil

**Animal Subjects:** The study did not involve animal subjects or tissues.

**Financial Support:** Nil

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