Original Article

Assessment of Patient’s Satisfaction Visiting a Tertiary Health-Care Institute in North India

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Background: Patient satisfaction is pertinent for measuring the performance of health-care service delivery, which is a multidimensional construct that depends on many factors. The main objective of this study was to assess the satisfaction of patients visiting a tertiary care hospital in Haryana. Materials and Methods: A cross-sectional study was conducted among patients visiting the outpatient department (OPD) and inpatient department (IPD) of the hospital from January to March 2019. Exit interviews were conducted using a structured questionnaire among patients visiting the OPD or IPD. The patient satisfaction was assessed based on four domains, namely registration process and experience before meeting the doctor, interaction with the doctor, hospital infrastructure, and medicine availability. The responses were captured on a Likert scale from one to five, and the scores were used to calculate the overall satisfaction. Results: Overall 84% of the patients were satisfied with the OPD services, whereas 77% of the patients were satisfied with the inpatient services. Male (odds ratio [OR] = 2.08; 95% confidence interval [CI]: 1.04–4.14) and literate patients (OR = 2.77; 95% CI: 1.4–4.14) had higher chances of being satisfied with the OPD services. Whereas students, retired and unemployed patients (OR = 4.67; 95% CI: 1.46–14.6), and those from a reserved social caste (OR = 3.38; 95% CI: 1.58–7.21) were more satisfied with the IPD services. Conclusion: This study suggests that patients were satisfied to a larger extent with both OPD and IPD services. Therefore, effective strategies should be in place to maintain high satisfaction among patients, and the institutes should strive to provide 100% satisfaction.

Keywords: Doctor–patient interaction, hospital infrastructure, inpatient care, outpatient care, patient satisfaction

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quality care to the patients. These findings help in prioritizing resource allocation, transformation of health-care staff, and better management of health services. Additionally, a satisfied patient intends to choose the health service and becomes more compliant to treatment and follow-up advice. This in turn leads to better health outcomes and recommendation of services to others. Factors that influence patients’ satisfaction can be categorized as provider- and patient-related factors. Providers’ competence, interpersonal skills, and facility characteristics (such as infrastructure, type, and level of the facility) were reported to be strongly associated with patients’ satisfaction, and patient-related characteristics (such as gender, age, race, socioeconomic status, health status, and expectation) were reported to be weakly associated with patients’ satisfaction.

In recent years, studies on patients’ satisfaction have increased in low-middle-income countries. In India, patients’ satisfaction has been studied either for specific services (e.g., medical or surgical) or type of care (e.g., outpatient or inpatient) or level of services (primary, secondary, or tertiary). Comparatively, fewer studies have done a comprehensive assessment of both outpatient and inpatient care at a tertiary care public health facility. Tertiary care institutes in the public sector are the referral centers for specialized services, and assessment of patients’ satisfaction becomes crucial for improving the quality of health care at this level. With this background, a study was conducted among outpatients and inpatients at a tertiary care institute in Haryana with the following objectives: to assess the client satisfaction regarding health-care services among patients visiting the tertiary-care center and to study the factors associated with client satisfaction among patients visiting the tertiary care center.

**Materials and Methods**

**Study settings**

The study was conducted from January to March 2019, in a newly established tertiary care hospital in a district of Haryana, a northern state of India. The institute has an extensive catchment area and caters to the need of the people from in and out of the state. As per the 2017–2018 record, the medical college has a footfall of approximately 2000 patients in the outpatient department (OPD) and 200 patients in the inpatient department (IPD) per day, including those who are admitted to the emergency department of the medical college.

**Sampling technique and sample size**

The sickness rate in any population at any given time averages around 10%. Assuming that this is the proportion of the population that seeks OPD care, we arrived at a sample size of 139. Because the number of patients visiting various departments of the hospital varied, probability proportional to size sampling method was used to select patients from each department. Further assuming the design effect as 2 and nonresponse as 10%, a final sample size of 300 each from OPD and IPD (total 600) was calculated.

**Patient selection**

OPD and IPD patients who were seeking care were selected and interviewed randomly. In case of pediatric patients, the parents/adult caretakers were interviewed regarding their experience in the hospital. Patients (≥18 years) who have availed OPD/IPD services only from the study hospital and consented to be part of the study were included in the study. For patients aged younger than 18 years, assent and consent were obtained from their parents. Patients who have availed the OPD/IPD services from hospitals other than study hospital or who were mentally challenged or under the influence of drug/alcohol, or disabled to be part of the study were excluded.

**Study tool**

Exit interviews were conducted using a semistructured interview schedule from people visiting OPD or IPD. For capturing the experiences of patients seeking care in public health facilities and how these relate to the satisfaction, Clients’ Satisfaction Tool was used. The tool was adapted as per local context, translated, and validated by Kaur et al. during the evaluation of clients’ satisfaction with outpatient and inpatient services of public health facilities in a north Indian state. The tools used for the assessment of the satisfaction of inpatient (30 items) and outpatient (32 items) services were rated on a five-point Likert scale. Each subcomponent of the scale addressed different aspects of caregiving in OPD and IPD settings. These subcomponents assessed satisfaction related to the registration process and experience before meeting the doctor for OPD patients, experience with the nurses and staff for indoor patients, experience with the doctors, hospital infrastructure, and medicine availability. The internal consistency reliability of the scale was measured using Cronbach’s α. The value of the coefficient for all the subcomponents in both the tools was more than 0.7, and it was considered as acceptable. Additionally, patients’ suggestions were sought for improving the quality of care provided through the hospital through an open-ended question. The finalized tool was pretested randomly in 50 patients visiting the adjacent government hospital to ensure that all relevant domains had been covered and the language and format of questions were unambiguous.
Data analysis

The data were double entered in Microsoft Excel, and analysis was done in SPSS software (released 2010, IBM SPSS Statistics for Windows, version 19.0; IBM, Armonk, New York). Descriptive analysis was performed to ascertain the satisfaction levels with the hospital facilities and services. The Likert scale ranged from 1 (extremely dissatisfied) to 5 (extremely satisfied) in OPD and IPD tools. Furthermore, the scores were summated to give an overall score for satisfaction. The total scores generated were analyzed as per previous satisfaction studies. The final scores generated were categorized as “extremely dissatisfied” (10–29), “dissatisfied” (30–49), “neutral or ambivalent” (50–69), “satisfied” (70–89), and “extremely satisfied” (90–100). The suggestions from the patients were duly translated and categorized in a sequential order. Furthermore, multivariate binary logistic regression was used to calculate the adjusted odds ratio (aOR) to identify factors that affected patients’ satisfaction in OPD and IPD.

RESULTS

We were able to collect data from 330 and 310 patients who visited OPD and IPD, respectively. After data cleaning, 326 and 294 patients from OPD and IPD, respectively, were included in the final analysis. The majority (37%) of the patients were aged between 21 and 40 years. Table 1 compares the sociodemographic characteristics of the patients visiting the hospital for OPD and IPD services and depicts significant differences on the basis of gender, first visit to the hospital, and household income ($P < 0.05$). The responses of the patients measured on the Likert scale for OPD and IPD services under different domains are shown in Tables 2 and 3.

Registration process and experience before meeting the doctor

Among OPD patients, only 26% patients were satisfied with the speed of the registration process,
but nearly half of them agreed that the staff was courteous (49%); some reported courtesy/friendliness of the nurse or doctor’s assistant (47%) and some raised concern about the nurse or doctor’s assistant (49%). The average waiting time to meet the doctor was 45 min. Whereas in IPD, comparatively larger proportion of the patients were treated with courtesy (75%) and were listened to carefully (68%). One-fourth of them were not happy with the behavior of the security guards (27%).

Interaction with the doctor

More than half of the OPD patients (54%) were satisfied with the friendliness of the doctor, their empathetic nature toward their problems (59%), clinical skills and examination of the patient (66%), explanations regarding their problems and available treatment options (59%), information about medication (65%), follow-up care (60%), and health advice given by the doctor (60%). Most of the patients were able to understand their conversation with the consulting doctor (60%) and agreed that adequate time was spent with them (56%). Approximately 67% of the respondents were fully confident about their doctor and their disease management decisions. More than 50% of the patients were satisfied with other issues such as sensitivity shown to their needs (55.4%), privacy (51.9%), and safety (64.4%). Among IPD patients, less than half of the patients were satisfied with the time spent with their doctors in the ward (43%). Nearly one-third of the patients were having mixed reactions pertaining to their experience with the doctors during their stay in the hospital.

Hospital infrastructure

Most of the patients from OPD were satisfied with the clean hospital premises (83%), toilets (82%), easy availability of purified drinking water (60%), and other need-based amenities (60%). Comparatively, fewer patients from IPD were satisfied regarding the availability of drinking water (51%), cleanliness of toilets (47%), and other need-based amenities (40%). The respondents from OPD and IPD strongly denied that money was demanded at any point of time (95% and 98%). Of the patients from IPD, 71.8% reported to receive good quality food. Whereas around 73% of the patients from OPD were dissatisfied with the food in the canteen. Inpatients responded that the room was usually cleaned frequently (79%) and bedsheets were changed regularly (93%). However, 7% of inpatients observed mosquitoes in their surroundings, and 25% were not happy with the temperature maintained in the wards by centralized air conditioners. Very few (23%) were satisfied with the availability of parking space.

Medicine availability

In both OPD and IPD patients, approximately 45% and 61% of the respondents, respectively, believed that the hospital had all the medicines that were prescribed to them by their doctors. Only around 10% of them explored Affordable Medicines and Reliable Implants for Treatment (AMRIT) pharmacies. Among OPD patients, 60% said that they were satisfied with the behavior of the pharmacist. However, some respondents were being referred to private hospitals and pharmacy shops.

Overall experience

The overall satisfaction for OPD and IPD services was 84% and 77%, respectively. Among OPD patients, 53% were satisfied with the overall care received and 58.3% would recommend the hospital to others. Among IPD patients, 75.2% were satisfied with the overall care received and 53.4% would recommend the hospital to others [Figure 1].

Factors affecting satisfaction

On regression analysis, for OPD care, males were found to be more satisfied than females (odds ratio [OR] = 2.08; 95% confidence interval [CI]: 1.04–4.14) and literates were more satisfied than illiterates (OR = 2.77; 95% CI: 1.4–4.14). Among IPD patients, factors that were responsible for satisfaction were department (medicine and allied) in which they received care, occupation of the patients (student, retired, and unemployed) (aOR = 4.67; 95% CI: 1.46–14.6), and caste of the patients (reserved) (aOR = 3.38; 95% CI: 1.58–7.21) [Table 4].

Suggestions from the patients

We interviewed the patients who provided us some key suggestions. First, the registration process of the hospital needs to be streamlined to reduce the waiting time and delays, and online registrations through mobile apps should be considered. Second, the perceived feeling of the lack of personal security at the health facilities needs to be addressed, and the security guards must be taught to behave more compassionately with the sick people visiting the hospital. Third, cleanliness of the hospitals, especially of wards and toilets, needs to be improved. Fourth, some patients have to purchase their medicines from private pharmacies, and this gap needs to be plugged by increasing the list of available medicines. Fifth, the hospital canteen should offer better food at affordable prices.

Discussion

Client satisfaction is one core domain of the health system research and often follows process evaluation and
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Table 2: Likert scale ratings of the respondents who visited the outpatient department of a tertiary care hospital in north India

| Variables                                                                 | Mean (SD) | Completely dissatisfied (%) | Dissatisfied (%) | Neutral (%) | Satisfied (%) | Completely satisfied (%) |
|---------------------------------------------------------------------------|-----------|------------------------------|------------------|-------------|---------------|--------------------------|
| **A. Registration process and experience before meeting the doctor**      |           |                              |                  |             |               |                          |
| Convenience of hospital hours                                            | 3.2 (0.6) | 1.2                          | 6.7              | 57.7        | 34.4          | 0                        |
| Speed of the registration process                                        | 3.0 (0.7) | 3.1                          | 13.8             | 57.1        | 23.9          | 2.1                      |
| Courtesy of the staff in registration area                                | 3.4 (0.7) | 1.5                          | 7.1              | 42          | 48.2          | 1.2                      |
| Comfort of the waiting area                                              | 3.2 (0.8) | 2.8                          | 11.7             | 49.1        | 32.8          | 3.7                      |
| Comfort of the check-up room                                             | 3.3 (1.0) | 8.3                          | 10.1             | 27.9        | 48.8          | 4.9                      |
| Friendliness/courtesy of the nurse/doctor’s assistant                    | 3.3 (1.0) | 7.7                          | 9.2              | 36.5        | 41.7          | 4.9                      |
| Concern about the nurse/doctor’s assistant                               | 3.2 (1.0) | 8.9                          | 10.1             | 32.2        | 44.8          | 4                        |
| **B. Experience with the doctor**                                        |           |                              |                  |             |               |                          |
| Friendliness of the doctor                                              | 3.7 (0.9) | 0.6                          | 3.7              | 41.4        | 27.3          | 27                       |
| Empathy toward problems                                                  | 3.5 (0.8) | 1.8                          | 8.9              | 30.1        | 50.3          | 8.9                      |
| Sensitivity shown to your needs                                          | 3.4 (0.7) | 1.5                          | 9.2              | 33.7        | 53.4          | 2.1                      |
| Concern shown for your privacy                                          | 3.4 (0.7) | 1.8                          | 7.1              | 39.3        | 48.2          | 3.7                      |
| Doctor examined you properly                                             | 3.8 (0.9) | 1.5                          | 7.1              | 25.8        | 43.3          | 22.4                     |
| Doctor explained you about your problem and the available treatment      | 3.8 (0.9) | 1.5                          | 8.9              | 30.1        | 50.3          | 8.9                      |
| options                                                                  |           |                              |                  |             |               |                          |
| Information the doctor gave you about medications                        | 3.6 (0.9) | 1.8                          | 8.6              | 24.5        | 52.1          | 12.9                     |
| The doctor gave you health advices                                      | 3.7 (0.9) | 1.8                          | 6.4              | 32.5        | 35.6          | 23.6                     |
| Instructions given about follow-up visits                                | 3.6 (0.9) | 4                            | 6.7              | 29.1        | 49.1          | 11                       |
| Were you able to understand the conversation                            | 3.5 (0.8) | 1.8                          | 10.1             | 27.9        | 52.8          | 7.4                      |
| Adequate time was given to you                                           | 3.4 (0.8) | 2.8                          | 9.2              | 32.5        | 52.8          | 2.8                      |
| Your confidence in this doctor                                          | 3.6 (0.8) | 3.4                          | 6.1              | 22.7        | 62.6          | 5.2                      |
| **C. Hospital infrastructure**                                           |           |                              |                  |             |               |                          |
| Cleanliness of the hospital is adequate                                  | 4.2 (0.7) | 0                            | 0.6              | 16.6        | 40.8          | 42.6                     |
| Condition of the toilets is good                                         | 4.1 (0.7) | 0.3                          | 0.9              | 16.9        | 47.5          | 34.4                     |
| Drinking water is easily available                                       | 3.7 (0.7) | 0.6                          | 0.9              | 38          | 46.3          | 14.1                     |
| The canteen is clean                                                     | 3.2 (0.6) | 1.8                          | 2.5              | 69          | 24.8          | 1.8                      |
| Hospital has all the requisite amenities                                 | 3.5 (0.7) | 1.5                          | 7.7              | 30.1        | 59.2          | 1.5                      |
| Was money demanded at any point                                         | 1.2 (0.7) | 88.3                         | 6.4              | 2.5         | 1.5           | 1.2                      |
| Degree of security at this facility                                      | 3.6 (0.6) | 0.9                          | 1.8              | 32.8        | 59.8          | 4.6                      |
| **D. Medicine availability**                                             |           |                              |                  |             |               |                          |
| This hospital has all the medicines needed by you                        | 3.3 (0.8) | 1.2                          | 14.1             | 38.3        | 42.9          | 3.4                      |
| You are able to get all the necessary medicines easily                   | 3.2 (0.9) | 1.8                          | 18.7             | 38.6        | 36.8          | 4                        |
| Pharmacist gave you adequate time                                       | 3.6 (0.9) | 1.2                          | 10.4             | 28.8        | 44.3          | 15                       |
| Ever referred to private pharmacy stores                                 | 1.8 (1.0) | 49.1                         | 35               | 5.2         | 7.4           | 3.4                      |
| **Overall experience**                                                   |           |                              |                  |             |               |                          |
| Overall politeness of hospital staff                                     | 3.4 (0.6) | 0.9                          | 3.7              | 52.1        | 40.8          | 2.5                      |
| Overall cleanliness of hospital                                          | 4.0 (0.7) | 0                            | 1.2              | 20.9        | 47.5          | 30.4                     |
| Overall rating of care received                                          | 3.4 (0.7) | 1.2                          | 5.8              | 39.6        | 50            | 3.4                      |
| Overall likelihood of recommending the hospital                          | 3.5 (0.7) | 0.3                          | 8.9              | 32.5        | 55.5          | 2.8                      |
| Overall satisfaction from OPD services                                    | 111 (13.0)| 0                            | 0.4              | 15.6        | 73            | 11                       |
cost analysis and precedes the outcome and economic evaluations. When the concern is with the extent to which the patients are satisfied with the context, processes, and costs of treatment, then the relevant measures of satisfaction can be viewed as process measures. However, when the concern is with the extent to which the patients view the program as having been helpful in resolving their problems, then client satisfaction becomes a proxy outcome measure. All these mentioned standards could be controlled from the provider’s side. In our study, the overall satisfaction from OPD and IPD services was 84% and 77%, respectively.

Registration process

Nearly half of the respondents from OPD were not happy with their experience before meeting the doctor.
The long waiting hours is a common phenomenon in the Indian health system due to a low doctor–patient ratio. Though the overall doctor–patient ratio in India is claimed to be way ahead than what is recommended by the World Health Organization (WHO), it does not imply to the tertiary care hospitals where all doctors are having different job responsibilities and the actual number of doctors in the OPDs is far less than expected. Patro et al. observed that the average waiting time for consultancy was 30–35 min, and the consultation time was approximately 5 min. The average waiting time was found to be more than 30 min in another study conducted in Lucknow. The hospital has attempted to resolve this issue by the use of token systems, separate lines for older citizens, ample number of chairs in the waiting area, and air-conditioned waiting halls. Our study concluded that inpatients had a very good experience with the behavior of the staff nurse than the outpatients. The difference can be attributed to more chaos in the OPDs compared to the wards. Most of the studies have reported that patients were more satisfied with the behavior of the doctors than the behavior of supportive staff. The staff behavior is a serious issue and should be further explored. Doctors can regularly sensitize their supportive staff to be empathetic toward patients.

We observed that most of the patients were satisfied after meeting their doctor in the OPD. Approximately 60% of the inpatients responded that they were given enough time to tell their complaints to the doctor. Kumari et al. found that 62.3% of the doctors explained the patients about their disease and 70.9% of patients were explained their treatment. Rao et al. found that 48% of the responders agree for getting complete information regarding their illness as well as treatment and 78% of the respondents got adequate consultation time. But the doctors should understand that the pressure to tell patients what they want to hear and to accede to unreasonable patient requests may increase the provision of unnecessary care, diminish health-care resources, and undermine the professionalism and morale of physicians. Most of the patients agreed that doctors showed adequate concerns toward their problem; however, very few were satisfied with the frequency of visits by consulting doctors in IPD. Doctors in India usually visit their inpatients after OPD consultations, and the only major indoor visit will be in the morning, but after that doctors usually get busy in OPDs and they do not get much time to visit the wards. However, most of the indoor wards are monitored by resident doctors. Other studies have observed that doctors are difficult to access in OPDs of
tertiary care health facilities. Poor staff and doctors behavior was also found to be one of the reasons for dissatisfaction in a study conducted by Goyal et al. Hospital infrastructure
Of the patients in OPD and IPD, 83% and 50%, respectively, were satisfied with the cleanliness in the hospital premises. The hospital has a new building and adheres to the guidelines of the cleanliness campaign “Swachh Bharat Abhiyan” and “Kayakalp” started by the Government of India. Rajkumari and Nula found dissatisfaction among one-thirds of the respondents when asked about the cleanliness of the hospital, whereas Sodani et al. found 65% of satisfied patients regarding the cleanliness. In another study carried out in a newly built medical college hospital in northeast India, 32.4% were not satisfied with the cleanliness of the ward. Approximately 60% of responders from OPD and 51% of the inpatient responders were satisfied with the drinking water availability in the hospital. This has been made possible due to the availability of a centralized reverse osmosis purifier system and 24 × 7 electricity. Easy access to drinking water contributes to overall satisfaction as observed in other studies as well. Although most of the admitted respondents were happy with the food being served through the hospital kitchen supervised by the dietetics department, they replied that the quality of food being served in the hospital was very low, whereas Ghose and Adhish found that 79% of responders were satisfied with the food quality. In another study carried out in a newly built medical college hospital in northeast India, 24.9% of the respondents expressed dissatisfaction with the quality of the food served. The canteens are usually run on contract in the Indian setup, especially in public hospitals, and little attention is paid by the hospital administration to check the food quality and cleanliness in these canteens.

Table 4: Factors affecting client satisfaction as per the multivariable binary logistic regression

| Department                        | Outpatient department | Inpatient department |
|-----------------------------------|-----------------------|----------------------|
|                                   | $P$ value  | Adjusted odds ratio (95% CI) | $P$ value  | Adjusted odds ratio (95% CI) |
| Medicine and allied               | 0.05       | Ref 1.01–4.01               | 0.04       | Ref 0.27–0.99                 |
| Surgical and allied               |            | 2.01 Ref                  | 0.51       | 0.64–3.41 Ref                 |
| Visited the hospital earlier      | 0.06       | Ref 0.97–3.55               | 0.36       | 1.48 Ref 0.64–3.41            |
| No                                |            | 1.86 Ref 0.89–3.44         | 0.10       | Ref 1.92–3.17                 |
| Yes                               |            | 2.08 Ref 1.04–4.14         | 0.47       | 1.27 Ref 0.67–2.41            |
| Residence                         | 0.10       | Ref 1.75 0.93–2.77         | 0.09       | Ref 1.27–2.41                 |
| Urban                             |            | 1.75 Ref 0.89–3.44         | 0.06       | 1.14 Ref 0.63–2.09            |
| Rural                             |            | 2.77 Ref 1.4–5.48          | 0.47       | 1.27 Ref 0.67–2.41            |
| Gender                            | 0.04       | Ref 2.08 1.04–4.14         | 0.47       | 1.27 Ref 0.67–2.41            |
| Female                            |            | 2.08 Ref 1.04–4.14         | 0.47       | 1.27 Ref 0.67–2.41            |
| Male                              |            | 2.08 Ref 1.04–4.14         | 0.47       | 1.27 Ref 0.67–2.41            |
| Education                         | 0.10       | Ref 1.75 0.93–2.77         | 0.09       | Ref 1.27–2.41                 |
| Illiterate                        | 0.04       | Ref 2.08 1.04–4.14         | 0.47       | 1.27 Ref 0.67–2.41            |
| literate                          |            | 2.77 Ref 1.4–5.48          | 0.47       | 1.27 Ref 0.67–2.41            |
| Occupation                        | 0.04       | Ref 2.08 1.04–4.14         | 0.47       | 1.27 Ref 0.67–2.41            |
| Services                          |            | 2.08 Ref 1.04–4.14         | 0.47       | 1.27 Ref 0.67–2.41            |
| Semiskilled, farmers, and homemakers | 0.10       | Ref 1.75 0.93–2.77         | 0.09       | Ref 1.27–2.41                 |
| Students, retired, and unemployed | 0.09       | Ref 1.75 0.93–2.77         | 0.09       | Ref 1.27–2.41                 |
| Religion                          | 0.09       | Ref 1.75 0.93–2.77         | 0.09       | Ref 1.27–2.41                 |
| Hindu                             |            | 1.34 Ref 0.46–3.93         | 0.35       | 1.73 Ref 0.55–5.47            |
| Others                            | 0.59       | Ref 1.34 0.46–3.93         | 0.35       | 1.73 Ref 0.55–5.47            |
| Caste                             | 0.06       | Ref 1.15 0.58–2.28         | 0.00       | Ref 1.58–2.28                 |
| Unreserved                        |            | 1.15 Ref 0.58–2.28         | 0.00       | Ref 1.58–2.28                 |
| Reserved                          |            | 1.15 Ref 0.58–2.28         | 0.00       | Ref 1.58–2.28                 |
| Below poverty line                | 0.84       | Ref 1.07 0.54–2.14         | 0.20       | 0.67 Ref 0.36–1.24            |
| No                                |            | 1.07 Ref 0.54–2.14         | 0.20       | 0.67 Ref 0.36–1.24            |
| Yes                               |            | 1.07 Ref 0.54–2.14         | 0.20       | 0.67 Ref 0.36–1.24            |
| Age of the patient                | 0.02       | Ref 1.02 1.01–1.04         | 0.26       | 1.01 Ref 0.99–1.03            |
| Constant                          | 0.30       | Ref 2.29 1.01–1.04         | 0.16       | 3.5 Ref 1.01–1.04             |

Medicine availability
Most of the patients who visit government hospitals in India expect free medicines. In our study, 46% of the
patients in OPD and approximately 60% of the patients in IPD agreed that the hospital has all the essential medicines. Rao et al.[23] found that 48% of respondents agreed to the availability of the medicine needed by them. With the revision of a new list of essential medicines by the Government of India in 2015, the availability of essential medicines is ensured more than ever.[30] The need to expand access to essential, high-quality, safe, effective, and affordable medicines and health products is highlighted specifically in two targets (3.8 and 3b) under SDG 3.[31,32] The Government of India is trying to make medicines available in more affordable generic form through “Jan Aushadhi” centers and branded medicines at concessional rates through AMRIT pharmacies.[33,34] But only 12% of the inpatients in our study bought medicines from AMRIT pharmacy, whereas 6% of them bought medicines from private pharmacies. The unavailability of medicine has been cited as a reason for dissatisfaction by Goyal et al.[24] Further, Sodani et al.[27] showed that good infrastructure and inexpensive treatment are the important criteria for 83% of OPD patients to prefer any public hospital. A good inventory control for the medicines available in the hospitals can help in dealing with the problem of drug shortage.

Strengths and limitations of the study
One of the major strengths of this study was the comprehensive assessment of both OPD and IPD services from different departments, unlike previous studies that evaluated patient satisfaction in either OPD or IPD services. Another strength was the use of a validated questionnaire that has shown acceptable results.[33] There are also certain limitations to this kind of subjective assessment that should be acknowledged. On the Likert scale, respondents may either lean toward choosing the most extreme option or express no opinion at all. This can lead to results being clustered around the middle or at each end of the scale, making it hard to distinguish between strong and weakly held opinions, implying the space between each possibility is equidistant, which is not true in real life. The higher scores in certain domains are likely due to acquiescence bias and gratitude bias.[23]

Conclusions
In this study, the services provided by the institute are satisfactory to a larger extent, which is motivating, but every attempt should be made to ramp-up the existing policies to reach the satisfaction to 100%. It has been observed that satisfied patients are more likely to follow the advised treatment and promote referrals.[22] The satisfaction also shows the effectiveness of the health system by pointing toward the deficient service areas, thereby aiding the improvement of the health system. Hence, the assessment of client satisfaction levels should be done at continuous intervals so as to continuously improve the hospital services. Also, a patient health education and counseling cell should be developed near the registration counters where the patients and attendants can solve their queries.

Ethical issues
The study was approved by the institute’s ethics committee of Kalpana Chawla Government Medical College, Karnal (Haryana). Necessary permissions were sought from the medical superintendent and director of the institute before the initiation of the study.

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Conflicts of interest
There are no conflicts of interest.

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