

Patient satisfaction regarding eye care services at tertiary hospital of central India

Anand Sudhan, Rajiv Khandekar¹, Subramanyam Deveragonda, Sheela Devi², B. K. Jain, Ramendra Sachan, Vijay Singh

Sadguru Netra Chikitsalaya, Chitrakoot, Madhya Pradesh, ¹Eye and Ear Health Care, Department of Non Communicable Disease Control, Ministry of Health, Muscat, Oman, ²International Centre for Rural Eye Care, LVPEI, Hyderabad, India

Purpose: To evaluate patients' satisfaction regarding eye care services and suggest policy changes accordingly.

Study Design: Descriptive study.

Materials and Methods: This study was conducted between September 2005 and June 2006. Patients attending the eye clinic of Sadguru Netra Chikitsalaya, Chitrakoot, Madhya Pradesh, India, and admitted as in-patients in this hospital were our study population. Randomly selected patients were interviewed by trained staff. Close-ended questionnaire was used to conduct these structured interviews. Their responses were grouped into one of five categories and evaluated to determine satisfaction for different components of eye care services.

Results: Three hundred and twenty persons were

interviewed. The satisfaction was of excellent grade among 77 (48.1%) patients attending clinic and 156 (97.5%) patients who were admitted in the hospital. The participants expressed dissatisfaction for the long waiting period in clinics, poor cleanliness, and insufficient toilet facilities. Those admitted in the hospital felt that food facilities were less than the expected quality. Child-friendly facilities received high satisfaction scores.

Conclusion: Although eye care services both in clinics and in the wards were satisfactory according to the end-users, there are scopes for improvement. Patient satisfaction surveys should be encouraged in hospitals for better accountability and also for strengthening the quality of eye care services.

Keywords: Eye care, health policy, patient satisfaction

Introduction

In developing countries, the demand for better and low-cost health services is increasing due to increased population. On the other hand, end-users of these services are expecting high standards of facilities. Eye care providers try to satisfy both qualitative and

quantitative demands of clients.^[1,2] Due to better access to the knowledge and services, concerns for affordability, and changing practices of proactive marketing of health services, the health care services have undergone rapid transformations in the last three decades. More and more hospitals cater to health services of different specialties. Competition among service providers has given wider opportunities to patients to select the hospitals. A happy customer not only shows faithfulness in availing the services for rest of the life, but also acts as an agent to bring few more customers. Hence, measuring the satisfaction level of patients, and understanding and meeting their expectations are crucial.^[3]

Studies to measure satisfaction in public hospitals have been conducted in different parts of the world.^[2,4-6] To our knowledge, patient's satisfaction for eye care services has been studied in a

Access this article online	
Quick Response Code:	Website: www.ojonline.org
	DOI: 10.4103/0974-620X.83657

Copyright: © 2011 Sudhan A, *et al.* This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Correspondence:

Dr. Rajiv Khandekar, Eye and Ear Health Care, NCD, DGHA, MOH (HQ), POB: 393, Pin: 113, Muscat, Oman. E-mail: rajshpp@omantel.net.om

very few centers of India.^{17,81} The administrators would benefit by such exercise which could improve health services.

Sadguru Netra Chikitsalaya (SNC), Chitrakoot, Madhya Pradesh, India, is an organization that provides eye care to rural and tribal population since 56 years. Over the years, the hospital has expanded to offer different types of services and even cover the newer areas where people had difficulty to access the services in the past. There are scanty eye care services at affordable cost within the radius of 200 km of the hospital [Figure 1]. In the year 2005, 45,076 eye surgeries were performed and nearly 144,800 patients visited this hospital for their eye care. The eye care services are offered both on cost sharing basis and free of cost to the poor and needy. The health care system in the hospital was upgraded to suit the ISO 9001:2000 Quality management systems. For this, the satisfaction of patients is an important indicator to evaluate the services.

We conducted this study to determine clients' satisfaction regarding eye care services offered and suggest changes to make the services more suited to the client's needs.

Materials and Methods

The study was conducted between September 2005 and May 2006. The hospital's ethics and research committee approved it. This was a descriptive study. Persons who utilized the eye care services in clinics or were admitted in the hospital during the study period were our study population.

Nearly 100,000 adults and 6500 children attended eye clinics and 47,000 adults and 1000 children were admitted for eye surgeries in a year. We assumed that the high grade of satisfaction would be among 80% of these patients. The study aimed to achieve 95% Confidence Interval and 10% margin of error was considered acceptable. We used the STAT Calculator of EPI6 software to determine the sample size. Accordingly, we needed randomly selected 320 participants for this study.

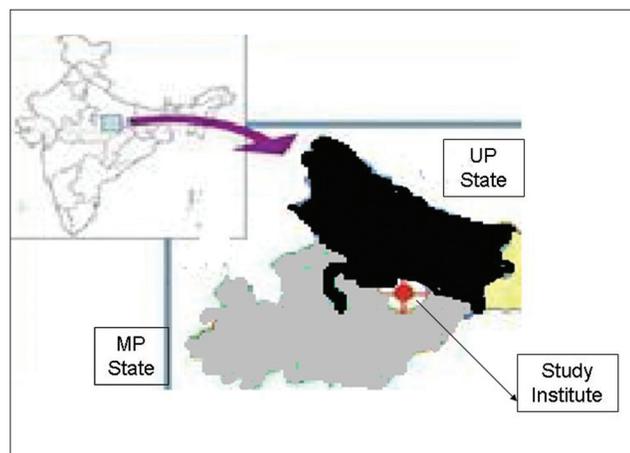


Figure 1: Map of central India showing the study institution

Patients attending eye clinics or who were admitted in the hospital were approached for enrollment. Their informed consent was obtained. Those who refused or were unable to articulate (less than 2-year-old children) were excluded from the study. Field investigators had participated in other health studies and had been working in Department of Community Ophthalmology since 2 years. They were proficient in the local language. The study was piloted to test the questionnaire, standardize the methodology and familiarize the investigators with the procedures.

The investigator interviewed the participants in private. A standardized form was used to collect details from the respondents. The form covering adults and children who attended the eye clinics included questions related to waiting time, physical facilities, treatment, attitude and behavior of staff and their willingness to visit the hospital again. The respondents suggested improvement in the facilities also. Children of more than 6 years of age were questioned on the "child-friendly facilities" that had been developed in the hospital recently. The parents of children less than 6 years of age were interviewed.

Patients who were admitted and underwent eye surgery were interviewed before their discharge. Questions were related to the cost of services, mode of treatment, physical facilities available and patient's/parent's willingness to revisit or recommend the hospital to others. Children and their parents were asked questions on child-friendly facilities and bed facilities, health education material and the situation of the playing area. The questions were sensitive to cover issues related to both the genders and people of different ages. The structured questions were graded on five and few had two response scale.

All the responses in text were converted into the numerical using MS Excel. Univariate type of parametric analysis was done using the Statistical Package for Social Studies (SPSS 9). Frequency analysis was done for different responses and subgroups.

Points were awarded for each response. Those who said "very good" about the services were given 4 points and those who said the services were "bad" were given 1 point. All the responses were then summed up and graded. Those respondents with a score of 81–100 were considered as fully/highly satisfied. Respondents with 61–80 score were grouped as partly satisfied; moderately satisfied respondents had a score of 41–60. Those with a score of 21–40 were labeled as "not satisfied". Finally, highly dissatisfied respondents had a score of less than 20 points.

Identity of patients was de-linked from their responses to maintain confidentiality. The study outcomes were used to improve eye services at SNC. A workshop was conducted to disseminate the results to the health staff and eye health professionals.

Results

We interviewed 320 persons (160 attending the eye clinic and 160 admitted in eye hospital) to find out their satisfaction levels. The

profile of the interviewed persons is given in Table 1. Among the participants, 143 (44.6%) were females and the rest were males. 111 (69.3%) respondents were from “free services” group, while the rest had done part payment for the services. The participants were mainly in the age group of 6–15 years and 60 years and above.

Seventy-seven (48.1%) patients attending the clinic and 156 (97.5%) patients admitted in the hospital expressed high grade of satisfaction with the services [Table 2].

Participants expressed very high satisfaction with the attitude and behavior of health staff (123), explanation and guidance given to them (156), and for the waiting area facilities (88). Majority of the children ($n = 65$) expressed very high satisfaction regarding facilities of the play area. Participants’ dissatisfaction was for the long time they had to spend in the clinic [Table 3].

Of those admitted in the hospital for eye care, more than 90% expressed very high satisfaction for the services [Table 4]. Fourteen (9.6%) participants had less satisfaction with the cost

of services. Food facilities needed improvement. Children and their parents were highly satisfied with the child-friendly bed facilities, play area and facilities for Information Education and communication (IEC).

One hundred and twenty-one (76%) respondents attending the clinic and 153 (95.6%) patients admitted in the hospital expressed their willingness to utilize the services again. Ninety-nine respondents were willing to act as messenger/a peer counselor, as they felt that the institute is worth referring to other patients.

Among 163 patients who paid for eye care services, 120 expressed high grade of satisfaction, 40 had part satisfaction and 3 had poor satisfaction. Among 157 patients who received eye care services free of cost, 115 had high level of satisfaction, 42 patients has part satisfaction and only two patients had poor level of satisfaction. Thus, the level of satisfaction among those in free payment category was not significantly different compared to patients paying for eye services ($\chi^2 = 0.1$, degree of freedom = 2, $P = 0.75$).

Discussion

Eye problem remains one of the commonest public health problems. People’s expectation toward eye care services is taking a different shape considering the development in technology and availability of competitive services. Eye care is a service industry and its

Table 1: Profile of eye patients interviewed for their satisfaction for the eye services

		Patients in clinic		Patients admitted in hospital	
		No.	%	No.	%
Gender	Male	95	59.4	82	51.3
	Female	65	40.6	78	48.7
Payment system	Paid	114	71.3	49	30.6
	Free	46	28.8	111	69.4
Age group (in years)	<5	11	6.9	23	14.4
	6–15	60	37.5	50	31.2
	16–39	19	11.9	9	5.6
	40–59	23	14.4	31	19.4
	60+	47	29.4	47	29.4
Total		160	100	160	100

Table 3: Satisfaction of different components of services in eye clinic

Respondents (n = 160)	Very high	High	Average	Poor	Not answered
Time spent for eye care in OPD	27	23	72	38	0
Attitude and behavior of staff	123	35	2	0	0
Explanation and guidance by staff	156	4	0	0	0
IEC materials	124	22	1	0	13
Physical facilities	141	16	1	0	2
Seating	88	8	16	0	58
Toilets	119	14	0	0	27
Water facilities	150	9	0	0	1
Cleanliness	145	14	0	0	1
Play area (n = 80)	65	2	0	0	13

Table 2: Satisfaction of patients attending the eye clinic

Grades	Out-patient		In-patient	
	No.	%	No.	%
Highly satisfied	77	48.1	156	97.5
Partly satisfied	78	48.8	4	2.5
Not satisfied	5	3.1	0	0

Table 4: Satisfaction for different components of eye care services among the admitted patients

Respondents (n = 160)	Very high	High	Average	Poor	Not answered
Cost of in-patient eye care services	33	88	14	0	25
Explanation and guidance by staff	147	12	1	0	0
Physical facilities	156	4	0	0	0
Room/ward	155	5	0	0	0
Facilities in room/ward	152	8	0	0	0
Toilets	151	7	2	0	0
Water facilities	152	8	0	0	0
Cleanliness	155	5	0	0	0
Food	92	56	10	2	0
Bed facilities (n = 80)	78	2	0	0	0
Play area (n = 80)	77	3	0	0	0
IEC materials (n = 80)	65	6	0	0	9

uptake depends on the quality of services delivered. Evaluation of services usually focuses on the quality of medical care and the surgical outcomes. But satisfaction of patients is often forgotten.

We conducted this study to understand patient's expectations toward eye care services at different levels and suggest the changes to be made accordingly. During the literature review, we did not come across any study that evaluated satisfaction for eye care services among the rural population of a developing country. Our study, therefore, will provide crucial information to those aiming to expand and succeed to serve rural population.

Although our study indicated a high satisfaction level with the quality and treatment of services, supportive services had scope for improvement to reach patient's expectations. It is a myth that rural patients give little emphasis on cleanliness. Responses of the participants in our study suggested that frequent cleaning is expected, as large number of patients and their relatives visit hospital. Food served can be improved by monitoring the quality of food served, the serving procedures and presentation, and the attitude of caterers. Continuous feedback system could further improve the services delivered.

Only 31% of respondents expressed high satisfaction with the time spent in clinic. Kovai *et al.* also noted less satisfaction about time spent for eye care at vision centers.^[9] Increase in waiting time may result in unwanted use of available resources and the hospital may not be able to execute work to its capacity. Therefore, the issue should be addressed by the administrators promptly.

Satisfaction among both admitted and day care patients in our study is higher than that reported in other studies.^[1,6,10,11] It is also proven in other studies that high satisfaction levels among end-users indicate that the services are meeting patients' needs.^[12-14] Our study also confirms this observation. The growth of the hospital in the past many years is perhaps the result of satisfied customers.

The study had adequate sample, representing both patients paying for services and patients availing services free of cost. Also, the levels of satisfaction were not significantly different. It seems that desirability bias among the group of patients offered free eye care services is less likely to influence the outcomes of such study. As service providers were study investigators, it could have influenced the response of a few patients during the interview. Precautions were taken to minimize this bias in our study. Still this could be a limitation and should be avoided in such studies in the future.

Although sample was calculated to cover all patients visiting clinic and hospital, randomization was not properly carried out in our study. Thus, all patients visiting the hospital during the study period did not have equal opportunity to participate. Hence, study results should be extrapolated with caution. The level of satisfaction could vary with the cause for which eye service is requested. In this study, we had not included diagnosis of the eye condition to correlate with the level of client satisfaction.

"Patient satisfaction survey" is a good audit tool and it should be used to improve the quality of services. Strategies to improve areas of dissatisfaction and sustain areas of high satisfaction should be implemented. Such surveys, if carried out at regular intervals, could create quality consciousness of services in hospitals and orient toward expectation of patients.

Acknowledgments

We thank the administrators of Sadguru Netra Chikitsalaya for their wholehearted support in conducting the study. We also appreciate the sincere contribution of the staff of the eye clinic, ward section and Department of Community Ophthalmology in this study. We thank Dr. Praveen Nirmalan of Prashasa Health Consultants Pvt. Ltd., Hyderabad, for his guidance in the study.

References

1. Dawn AG, Santiago-Turla C, Lee PP. Patient's expectations regarding eye care: Focus group results. *Arch Ophthalmol* 2003;121:762-8.
2. Dawn AG, McGwin G Jr, Lee PP. Patient's expectations regarding eye care: Development and results of the Eye Care Expectations Survey (ECES). *Arch Ophthalmol* 2005;123:534-41.
3. Dawn AG, Lee PP. Patient's expectations for medical and surgical care: A review of the literature and applications to ophthalmology. *Surv Ophthalmol* 2004;49:513-24.
4. Owsley C, McGwin G, Scilley K, Girkin CA, Phillips JM, Searcey K. Perceived barriers to care and attitudes about vision and eye care: Focus groups with older African Americans and eye care providers. *Invest Ophthalmol Vis Sci* 2006;47:2797-802.
5. Rahi JS, Manaras I, Tuomainen H, Hundt GL. Meeting the needs of parents around the time of diagnosis of disability among their children: Evaluation of a novel program for information, support, and liaison by key workers. *Pediatrics* 2004;114:e477-82.
6. Martin K, Balding C, Sohal A. Stakeholder perspectives on outpatient services performance: What patients, clinicians and managers want to know. *Aust Health Rev* 2003;26:63-72.
7. Mahapatra P, Srilatha S, Sridhar P. Patient Satisfaction survey in Public Hospitals. *J Hosp Adm* 2001;13:7-12.
8. Muralikrishnan R, Sivakumar AK. Patients' perspective: An important factor in assessing patient satisfaction. *Community Eye Health* 2002;15:5-7.
9. Kovai V, Rao GN, Holden B, Sannapaneni K, Bhattacharya SK, Khanna R. Comparison of patient satisfaction with services of vision centers in rural areas of Andhra Pradesh, India. *Indian J Ophthalmol* 2010;58:407-13.
10. Gurung K, Baniya B, Rai N, Pokharel NR, Shrestha MK, Poudyal G, *et al.* Patient's perception towards the eye health care system in a tertiary eye care centre in Nepal. *Nepal Med Coll J* 2006;8:115-7.
11. Gerkowicz M, Matysik A, Latalaska M, Bak K, Mamcarz P. Evaluations of ophthalmological care expectation in the opinion of countryside dwellers in the example of the Wola Uhruska region. *Klin Oczna* 2003;105:288-90.
12. Williams S, Weinman J, Dale J, Newman S. Patient's expectations: What do primary care patients want from the GP and how far does meeting expectations affect patient satisfaction? *Fam Pract* 1995;12:193-201.
13. Rao JK, Weinberger M, Kroenke K. Visit-specific expectations and patient-centered outcomes: A literature review. *Arch Fam Med* 2000;9:1148-55.
14. Kravitz RL, Cope DW, Bhrary V, Leake B. Internal medicine patients' expectations for care during office visits. *J Gen Intern Med* 1994;9:75-81.

Cite this article as: Sudhan A, Khandekar R, Deveragonda S, Devi S, Jain BK, Sachan R, *et al.* Patient satisfaction regarding eye care services at tertiary hospital of central India. *Oman J Ophthalmol* 2011;4:73-6.

Source of Support: Nil, **Conflict of Interest:** None declared.