

Assessment of Patient Satisfaction Towards Ophthalmology Services in a Tertiary Care Hospital: A Cross-sectional Study

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INTRODUCTION

Ophthalmology, as a specialized part of medicine, requires a comprehensive understanding of patient satisfaction to enhance optimal service delivery. It emphasizes the need for evidence-based insights to enhance the quality of ophthalmic services. There are more than 36 million cases of blindness and 216.6 million cases of visual impairment globally and the majority of cases are preventable or treatable.^{1,2} Since the first National blindness prevalence survey was done in 1981, eye care provision in Nepal has expanded greatly and the prevalence of blindness has significantly reduced.³ Nepal provides an important

example of a well-established eye care system functioning within a lower-middle income country though the eye care services does not reach beyond the district level of health care provision into the community.⁴

It is significant to assess the level of satisfaction of patient towards ophthalmology services for several reasons.⁵ Anticipations may be greater in such department, as vision is often a matter of high importance for patients.⁶ Several existing studies in ophthalmic settings have demonstrated that factors such as waiting time of patients, time for patients by specialists, communication skills, accessibility

Abstract

Introduction: The quality of medical care directly affects patient satisfaction. The delicate nature of eye care and its potential impact on patients' well-being necessitates the assessment of patient satisfaction towards ophthalmology services. This study was conducted to evaluate the patient satisfaction towards ophthalmology services.

Methods: A hospital based cross-sectional study was conducted among 384 patients visiting Ophthalmology Department of Shree Birendra Hospital, Descriptive statistics was used to present the demographic details of the participants. Normality of the data was checked by Shapiro-Wilk test.

Results: The response rate of participants was 98.46%. Out of 384 respondents, 214 patients were satisfied with the healthcare they received. The satisfaction level was 55.7% (95% CI: 51.0-60.4).

Conclusions: The patient satisfaction towards ophthalmology services was found satisfactory. However, there are various aspects which need to be improved for enhancing quality service for the better healthcare facility.

and team cohesion were significantly associated with better patient experience.⁷ Recognizing modifiable factors has led to implementation of various programs such as those focusing on effective communication skills.⁸

Research on patient satisfaction with medical care can be tracked to the late 1960s.⁹ Gradually, patient satisfaction was shifted to a final outcome for evaluating and improving health care services.¹⁰ Little is known about how patients in low-and middle-income countries, such as Nepal, are satisfied with eye care services.¹¹ Therefore, present research seeks to address this research gap by investigating factors contributing to the patient satisfaction in Ophthalmology Department.

METHODS

This was a hospital based cross-sectional study conducted from 5th June to 6th August 2023 among patients visiting Ophthalmology Department of Shree Birendra Hospital, Chhauni, Kathmadnu, Nepal. It is a multispecialty referral center for the military personnel and their dependents. Ethical clearance was received from Institutional Review Committee of Nepalese Army Institute of Health Sciences (IRC-NAIHS, Reg No. 861). Around 130 patients visit the hospital for ophthalmology services. Informed consent was taken from the participants. We used Cochran's formula to get the target sample size ($n = Z^2 \times p \times q / e^2$) ($1.96^2 \times 0.5 \times 0.5 / 0.05^2 = 384$). Expected number of patients visiting our department in three months of the study period (N) was 11700. Adjusted sample size came out 372. Considering non-response rate of 5%, the final sample size was 390. A systematic sampling method was used to select the participants. Every eight patient was selected as the respondent of this study and this cycle was continued till the target sample size was reached. A pre-designed structured questionnaire was used in this study. Questionnaire was then pre-tested among 18 patients and revised to improve the value of Cronbach's alpha. The value of Cronbach's alpha was 0.924 which reflected the good internal consistency of the questionnaire. The study tool is available as Supplementary File 1. Descriptive statistics was used to present the demographic details of the patients and the individual Likert items of the questionnaire. Normality of the data was checked by Shapiro-Wilk test. Frequency with percentage was used for the categorical variables and median with inter-quartile range (IQR) was used for continuous variable. Patients completing all the items of the questionnaire were included in the analysis.

RESULTS

Out of 390 respondents, 384 patients completed the questionnaire with response rate of 98.46%. The participants of

the study had age [median (IQR)] of 50 (33.0 - 66.0) years and male to female ratio of 1.6 : 2.1. The demographic details of the respondents are shown in Table 1 and Figure 1.

Table 1: Demographic details of the respondents

Characteristics	Sample group (N = 384)	
	N	%
Sex		
Male	165	43.0
Female	219	57.0
Marital status		
Married	341	88.8
Unmarried	43	11.2
Education		
Primary	247	64.3
Intermediate	59	15.4
Bachelor and above	78	20.3
Occupation		
Regular army personnel	98	25.5
Retired army personnel	129	33.5
Not working / Civil (Families)	157	40.8
Locality		
Rural	163	42.4
Urban	221	57.6
Provision of residence in Kathmandu		
Yes	183	47.7
No	201	52.3

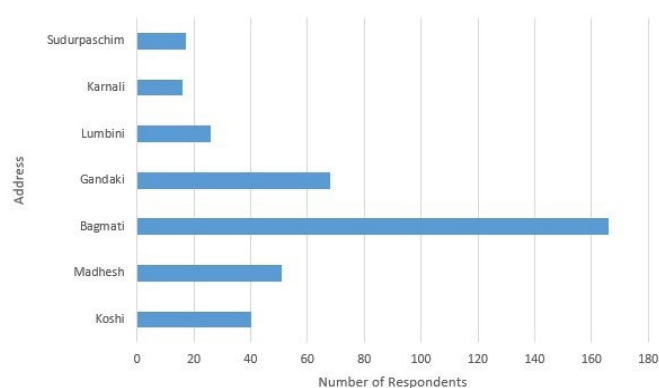


Fig 1: Geographic distribution of the respondents

Responses to the particulars like patient satisfaction, waiting time, behaviour and communication to the Likert items have been depicted in Tables 2 and 3.

Table 2: Responses to the particulars; patient satisfaction and waiting time

Particulars	SD (N) (%)	D (N) (%)	N (N) (%)	A (N) (%)	SA (N) (%)
Patient satisfaction					
Expectation regarding the quality of care received	5 (1.3)	11 (2.9)	55 (14.3)	248 (64.6)	65 (16.9)
Counselling by ophthalmologists	2 (0.5)	13 (3.4)	55 (14.3)	215 (56.0)	99 (25.8)
Cleanliness and hygiene of the department	2 (0.5)	8 (2.1)	96 (25.0)	198 (51.6)	80 (20.8)
Facilities and equipment	0 (0)	12 (3.1)	120 (31.3)	190 (49.5)	62 (16.1)
Post- treatment care and follow up instruction	3 (0.8)	17 (4.4)	88 (22.9)	229 (59.6)	47 (12.2)
Canteen services	4 (1.0)	13 (3.4)	125 (32.6)	177 (46.1)	65 (16.9)
Waiting time					
Hospital's efforts to minimize the waiting time	6 (1.6)	24 (6.3)	73 (19.0)	198 (51.6)	83 (21.6)
Waiting time for receiving medication	5 (1.3)	29 (7.6)	117 (30.5)	179 (46.6)	54 (14.1)
Respect and value during the waiting time	3 (0.8)	21 (5.5)	95 (24.7)	174 (45.3)	91 (23.7)
Waiting time management in the OT	1 (0.3)	14 (3.6)	128 (33.3)	174 (45.3)	67 (17.4)
Proper information about the waiting time for obtaining a referral to another specialist	0 (0)	27 (7.0)	100 (26.0)	181 (47.1)	76 (19.8)
Registration process	1 (0.3)	19 (4.9)	101 (26.3)	211 (54.9)	52 (13.5)

Table 3: Responses to the particulars; behaviour and communication

Particulars	SD (N) (%)	D (N) (%)	N (N) (%)	A (N) (%)	SA (N) (%)
Behaviour					
Satisfaction with the level of privacy during treatment	1 (0.3)	23 (6.0)	59 (15.4)	206 (53.6)	95 (24.7)
Respect and dignity from staff	1 (0.3)	16 (4.2)	69 (18.0)	194 (50.5)	104 (27.1)
Professional ethical standards	1 (0.3)	13 (3.4)	82 (21.4)	175 (45.6)	113 (29.4)
Behaviour of reception staff; friendliness	1 (0.3)	19 (4.9)	101 (26.3)	166 (43.2)	97 (25.3)
Diagnosis explained by ophthalmologists; clarity	0 (0)	11 (2.9)	67 (17.4)	163 (42.4)	143 (37.2)
Comfort throughout the refraction process	3 (0.8)	17 (4.4)	75 (19.5)	205 (53.4)	84 (21.9)
Communication					
Adequate information about the potential risk and complication of procedure	1 (0.3)	9 (2.3)	59 (15.4)	233 (60.7)	82 (21.4)
Adequate information about other support and services	4 (1.0)	27 (7.0)	65 (16.9)	178 (46.4)	110 (28.6)
Clarity of communication regarding the registration process	0 (0)	16 (4.2)	87 (22.7)	177 (46.1)	104 (27.1)
Clear instruction regarding medications, eye drops or post treatment care by ophthalmologists	0 (0)	12 (3.1)	60 (15.6)	181 (47.1)	131 (34.1)
Involving patients in making decision about treatment and care	1 (0.3)	34 (8.9)	43 (11.2)	204 (53.1)	102 (26.6)
Information about any delays or changes in the scheduled appointment	3 (0.8)	33 (8.6)	78 (20.3)	177 (46.1)	93 (24.2)

Out of 384 respondents, 214 patients were satisfied with the healthcare they received. The satisfaction level was 55.7% (95% CI: 51.0-60.4). Details of the satisfaction level is shown in Table 4.

Table 4: Details of satisfaction level

Satisfaction	Frequency	Percentage	95% Confidence Interval	
			Lower	Upper
Satisfied	214	55.7	51.0	60.4
Not satisfied	170	44.3	39.6	49.0

DISCUSSION

Eye problems persist as one of the primary reasons for hospital visits. The eye care sector operates within the service industry, and its success is inherently tied to the excellence of the services provided. While assessments typically prioritize the calibre of medical treatments and surgical results, the crucial aspect of patient satisfaction often goes overlooked. Continuously updating medical knowledge through education contributes to maintaining a high standard of care.¹² The results indicated that more than two-thirds of patients' expectations regarding the quality of care they received were met. Additionally, most patients reported sufficient information about post-treatment care and follow-up instructions, and agreed that the ophthalmologists listened to their concerns and answer their questions properly. The indicators of the quality of medical care were satisfactory. The study revealed that a significant proportion of patients agreed that doctors explained their diagnosis clearly. Most of the participants agreed that the information provided about the potential risk and complications was adequate and they were involved in the treatment decisions as well.

In terms of behaviour, patients generally felt they received respectful and dignified treatment from staff, and the majority believed that staff adhered to professional ethical standards. Effective communication and interpersonal skills play a pivotal role in patient satisfaction. A study by Zandbelt et al found that ophthalmologists who communicate clearly, listen attentively, and provide comprehensive explanations about diagnoses and treatment plans contribute to higher patient satisfaction scores.¹² Communication that focuses on building rapport and addressing emotional needs can alleviate anxiety and enhance patient satisfaction.¹³ These findings suggest a generally positive patient experience regarding communication and medical care.

Efficiency in service delivery, particularly reducing waiting time, impacts patient satisfaction. Anderson et al established a strong association between reduced waiting times and increased patient satisfaction scores in an ophthalmology setting.¹⁴ Strategies such as optimized scheduling and streamlined patient flow contribute to positive patient perceptions of care. Additionally, majority of the patients reported that the hospital made efforts to minimize waiting times, while only 6.3% did not feel respected and valued during their waiting time. Concerning waiting times, the hospital's efforts to minimize them were appreciated by the majority of patients, although there were areas for improvement in terms of respect and value during the waiting period.

The physical environment of the ophthalmology department plays a role in patient satisfaction. Alolayyan M et al revealed that patients were more satisfied when the clinic provided welcoming waiting areas and well-equipped examination rooms.¹⁵ Advancements in technology influence patient satisfaction by enhancing accessibility and convenience. Dia M et al emphasized the positive impact of integrating technology, such as telemedicine.¹⁶ Majority of patients found the cleanliness and hygiene satisfactory, and a substantial number (65.6%) felt that facilities and equipment were up-to-date and well maintained. We found that 55.7% of patients were satisfied with eye health services received, a similar result was demonstrated in the study conducted in the Vietnam (50%) and in Nepal (51.2%).¹⁷ Cleanliness always has the space to improve. The place, space and the available manpower has the direct proportionate affect to maintain the individual privacy. The overload and the morale of the care provider really affects the service outcome. Despite the rank, individual behaviour and the empathy really matters.

Overall, significant number of participants expressed satisfaction with the healthcare they received. These findings provide valuable insights into the patient experience with eye care services at the tertiary hospital and highlight areas where improvements can be made to enhance patient satisfaction and the quality of care.

While our sample was intended to represent all patients, we encountered issues with the randomization process. As a result, not all patients who visited the hospital during the study period had an equal chance to participate. Therefore, we advise careful consideration when extrapolating the study results. Given that the service providers also acted as study investigators, it's possible that this dual role may have influenced the responses of certain patients during

the interviews. In our study, we implemented measures to mitigate this potential bias. However, it's important to acknowledge that this situation could still represent a limitation, and future studies should aim to avoid such conflicts of interest.

CONCLUSIONS

Patient satisfaction is a key indicator of healthcare quality. The significant number of participants' satisfaction with the services provided by the Ophthalmology Department indicates the quality of service being provided as optimal. However, there are many aspects for improvement in the effective services for patients which refine and upgrade the quality of medical and accessory care that ensure the better healthcare services.

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