



BARRIERS TO UPTAKE OF CATARACT SURGERY AMONG PATIENTS WITH LATE PRESENTATION AT A TERTIARY CARE CENTRE IN CENTRAL INDIA

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ABSTRACT **Background:** Cataract is a major cause of avoidable blindness. Despite availability of effective surgery, delayed acceptance remains common in some populations. **Objective:** To identify barriers to uptake of cataract surgery among patients with delayed presentation at a tertiary care centre in Chhattisgarh. **Methods:** A hospital-based observational study was conducted from August 2017 to August 2018. One hundred and fifty patients aged >40 years with delayed or advanced cataract presentation were evaluated by interview, ophthalmic examination and a predesigned, pretested Hindi questionnaire. **Results:** Of 150 participants, 91 (60.7%) were male and 59 (39.3%) were female. Nearly 90% lived within 100 km of the hospital. Only 87 (58.0%) were aware of cataract, its curability and the need for surgery. Insufficient family income (70.7%) was the commonest reported barrier, followed by distance from hospital (59.3%), belief that blindness was God's will (54.0%), concern regarding cost (53.7%), fear of surgery (53.3%) and poor road connectivity (50.7%). Multiple barriers frequently coexisted. **Conclusion:** Financial constraints, accessibility, inadequate awareness, fear and low perceived need were important barriers to timely cataract surgery. Community counselling, awareness of subsidized services, transport support and stronger peripheral referral systems may improve early surgical uptake.

KEYWORDS : Cataract, cataract surgery, barriers, delayed presentation, surgical uptake, Chhattisgarh

INTRODUCTION

Cataract remains an important cause of avoidable visual impairment and blindness. Although cataract surgery is effective and cost-effective, availability of services alone does not ensure timely utilization. Acceptance of surgery is influenced by socioeconomic status, awareness, perceived need, fear, family support, cost and accessibility. Barriers differ across regions; therefore, local evidence is essential for planning eye-care services. Chhattisgarh has a large rural and geographically dispersed population, and patients may present with advanced cataract or severe visual loss. This study assessed the socioeconomic profile, knowledge, attitudes and reasons for delayed acceptance of cataract surgery among patients attending a tertiary care centre in Raipur.

AIM AND OBJECTIVES

To study barriers to uptake of cataract surgery; assess patients' socioeconomic profile and knowledge regarding cataract; evaluate attitudes towards blindness; and identify reasons for delayed acceptance of surgery.

MATERIALS AND METHODS

This hospital-based observational study was conducted in the Department of Ophthalmology, Pt. J.N.M. Medical College and Dr. B.R.A.M. Hospital, Raipur, Chhattisgarh, from August 2017 to August 2018. A total of 150 patients of either sex, aged >40 years, presenting with delayed or advanced cataract-related disease were included. Patients who were uncooperative, declined consent, had severe pre-existing systemic illness, or had congenital, developmental or traumatic cataract were excluded.

Demographic and socioeconomic data, residence, education and occupation were recorded. Knowledge and barriers were assessed using an interviewer-administered, predesigned and pretested Hindi questionnaire. Visual acuity was assessed using a Snellen chart. Anterior segment examination was performed by slit-lamp biomicroscopy. Posterior segment evaluation included ophthalmoscopy and B-scan ultrasonography when the fundus was not visible. Data were summarized as frequencies and percentages using SPSS version 17 and Microsoft Excel 2007. Institutional ethical approval was sought and consent was obtained before interview. [Institutional Ethics Committee (IEC) approval number: MC/Ethics/114 dated 17/09/2018. Written informed consent was obtained from all participants before enrollment.]

RESULTS

Among 150 participants, 91 (60.7%) were male and 59 (39.3%) were female. Most patients lived within 100 km of the hospital: 58.7% within 50 km and 32.0% at 51–100 km. Illiteracy was present in 32.0%, while 31.3% had primary-level education. Unskilled labourers constituted 49.3% of participants. Mature cataract was the most frequent lens status; in the right eye, mature and hypermature cataract

were present in 49.3% and 16.7%, respectively.

Eighty-seven patients (58.0%) were aware that they had cataract and recognized that cataract was curable and required surgery. Most patients (77.4%) sought medical consultation within one year after visual difficulty began interfering with daily activities, yet surgery was delayed. Multiple reasons for delay were reported.

Table 1: Major reported barriers to cataract surgery (N=150)

Barrier	Percentage (%)
Insufficient family income	70.7
Living far from hospital	59.3
Belief that blindness was God's will	54.0
Concern regarding cost of operation	53.7
Fear of undergoing surgery	53.3
Poor road connectivity	50.7
Busy with work	45.3
Could manage routine work	40.7
Could see with the other eye	40.0
Fear of loss of eyesight	34.0
Fear of death during surgery	9.3

Note: More than one response was permitted; therefore, percentages are not mutually exclusive and do not total 100%.

DISCUSSION

The present study shows that delayed cataract surgery was associated with overlapping economic, access-related, knowledge and attitudinal barriers. Insufficient family income was the most frequently reported barrier. Rabi et al. similarly identified inability to afford treatment as a major reason for non-uptake. Dhaliwal and Gupta also reported insufficient family income and cost concerns among Indian patients. Even where public-sector surgery is available, perceived cost and indirect expenses such as travel, loss of wages and the need for an attendant may influence acceptance.

Distance was reported by 59.3% and poor road connectivity by 50.7%, although approximately 90% of patients lived within 100 km of the centre. This suggests that accessibility involves not only kilometres travelled but also transport, travel time, dependence on family members and referral pathways. Marmamula et al. and other studies have described affordability, accessibility and lack of accompaniment as barriers to eye-care utilization.

Knowledge and fear were also important. Only 58% of participants were aware of cataract and the need for surgery. Fear of surgery was reported by 53.3%, and 34% feared loss of eyesight. Dhaliwal and Gupta described fear of surgery and fear of postoperative blindness among patients with cataract. Low perceived need was reflected by patients who could manage daily work or see with the fellow eye.

Similar observations have been reported in studies where patients delayed treatment while daily activities remained possible.

The belief that blindness was God's will was reported by 54% of participants. Such responses should be interpreted as health-belief barriers and addressed through culturally appropriate counselling. Community health workers, ophthalmic assistants and primary-care providers may help identify cataract earlier, correct misconceptions and inform patients about free or subsidized surgical services.

This study has limitations. It was a single-centre hospital-based study restricted to selected late presenters and cannot estimate the prevalence of barriers in the general population. Self-reported responses may be affected by recall and interviewer bias. The analysis was primarily descriptive; therefore, the findings identify commonly reported barriers but do not establish independent predictors or causality.

CONCLUSION

Financial constraints, distance and connectivity, inadequate awareness, fear of surgery and low perceived need were common, overlapping barriers among patients presenting late for cataract surgery in Chhattisgarh. Strengthening counselling and referral at peripheral health facilities, increasing awareness of free or subsidized cataract services, facilitating transport and accompaniment, and involving trained community health workers may promote earlier surgical uptake and reduce avoidable visual disability.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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