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# Awareness and Attitude Regarding Cataract Surgery Among Senile Cataract Cases Attending Camps

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## ABSTRACT

**Context:** Study conducted in district of North Karnataka where majority of the population are illiterate and have poor access to treatment of cataract. People have different concepts regarding cataract

**Aims:** The present study is an attempt to know the knowledge, attitude and practices regarding cataract surgery

**Settings and Design:** All the camp cases screened during the period Dec-May 2012 from 6 neighboring villages for 6 months were included in the study. The data was collected by interview technique

**Methods and Material:** A Cross-sectional study was carried over a period of 6 months. The results were analysed using proportion and chi-square test.

**Statistical analysis used:** The results were analysed using proportion and chi-square test.

**Results:** In the present study, 81% were illiterates and 50% were unemployed. Majority of them (67%) were females. The knowledge about cataract related to, 'at what age it occurs' and how it occurs was found statistically significant with relation to education. Regarding reasons for not getting surgery done, 64(21.3%) cases cited lack of escort as the reason, 148(49.3%) cases managed with existing eyesight, 49(16.3%) cases cited economic reasons. The socioeconomic status versus preference of surgery with or without lens found to be significant ( $p < 0.001$ ).

**Conclusions:** There are lot of misconceptions regarding cataract and its surgery among the public. We need to explore their myths regarding cataract surgery and bridge the gap between their knowledge and the actual causes and thus prevent cataract blindness.

**Key Words:** Knowledge, Attitude, Practices, Cataract surgery

**Key Messages:** Cataract is a major cause of blindness in India. There are many barriers limiting the access to cataract surgery among the population. These barriers are to be eliminated to achieve the concept of preventable blindness.

## INTRODUCTION

Blindness is a major public health problem in India. It is estimated that there are 9 to 12 million people blind in India which amounts to about one-fourth of all the blind people worldwide.<sup>1</sup> In India, 3.8 million people contribute to cataract blindness annually.<sup>2</sup> Out of the 41.8% global blindness, 23.5% is contributed by India.<sup>3</sup> A major proportion of total blindness in India (81%) is constituted by cataract blinds. Yorston<sup>4</sup> has suggested that four barriers in limiting access to cataract surgery worldwide: Lack of knowledge, uncertainty over the quality of available services, transportation

problems, and concerns over the cost of surgery. The present study was carried out to assess the knowledge, attitude and practices regarding cataract surgery.

### Subjects and Methods:

All the camp cases screened during the period Dec-May 2012 from 6 neighbouring villages for 6 months were included in the study. This was a hospital-based, cross-sectional descriptive, clinical study. Inclusion criteria: consecutive patients, aged 30 years or above, with vision  $< 20/60$ , the principal cause was cataract. Patients who did not give consent to participate were excluded.

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After obtaining Institutional Ethical Committee approval, patients were briefed in appropriate local language about the purpose and procedure of the study. Socio-demographic data were noted on a proforma and included age, gender, literacy, and occupation. The information from these cases was collected by the interview technique; on a predesigned questionnaire; which contained questions such as age; sex; occupation; education and general awareness about cataract and its surgery such as 'Have you heard about'; 'Is it curable/incurable'; 'How can it be treated'; etc. A total of 300 cases were interviewed. All the questions were asked in their local language. The diagnosis of cataract was based on torchlight and distant direct ophthalmoscopy. The results were analysed using Proportion and chi-square test.

## RESULTS

The age and sex distribution of the 300 cases is shown in Table 1.

In the present study, 81% were illiterates and 19% were literates and 50% were unemployed. The number of cases having bilateral cataract, one eye cataract and other eye aphakia, one eye cataract and other eye pseudophakia were 222(74%), 4(1.33%) and 74(24.66%) respectively.

Regarding knowledge, attitude and practices related to cataract, 94.33% were aware about cataract, 17 (5.6%) cases had not heard about it. Out of 283 cases, 53(18.7%) cases heard it from their respective village head, 52(18.3%) cases from the doctor at PHC, 115(40.6%) from their relatives and other villagers, 8(2.8%) from newspapers and 55(19.4%) from other agency like anganwadi and school teachers.

Thirty one (10.3%) cases responded that cataract commonly occurred at the age of 50- 60 years, 24(8%) cases responded that it occurs at the age more than 60 years, 4 (1.33%) cases responded for the age 40-50 years and the rest 202(67.3%) cases did not know the exact age group affected. Out of 300 cases, 62(20.6%) related cataract to ageing process, 16(5.3%) cases related it to religious cause, 5(1.6%) cases related to socioeconomic cause, 217(72.3%) could not cite any specific reason.

Regarding treatment, 91.6% were aware that cataract is curable, and among these, 93.8% cited surgery is the main cure. Majority of the population(72.3%) did not know how cataract, rest of them cited non-specific reasons. 95.3% cases wanted to undergo surgery. 85% didn't know whether surgery is done with or without lens implantation.

Among the various options cited by the study population regarding facilities for surgery available, Government hospital and camps (33.3%) ranked the highest (Figure 1).

As far as reasons for not getting surgery done even after prior diagnosis, managing with existing eyesight (49.3%) was the reason cited by most of the people (Figure 2).

Education in relation to 'Have you heard about cataract' was found to have significant association with a Chi-square value of 9.539 and  $p=0.0490$  (Table 2).

Education in relation to 'At what age it occurs?' and 'How it occurs' showed a Chi-square value of 140.81 and 47.97 each (Figure 3) (Figure 4).

Education in relation to 'Facilities for surgery' and 'surgery with or without lens' and 'reasons for not getting surgery done even after prior diagnosis' were found to have a Chi-square values of 52.72, 97.89 and 56.82 each respectively (Figure 5) (Figure 6) (Figure 7).

Socioeconomic status in relation to 'Whether they want to undergo surgery' and 'Reasons for not getting surgery done even after prior diagnosis' showed a Chi-square value of 19.98 and 21.67 each respectively (Figure 8) (Figure 9). The proforma is shown in Figure 10.

## DISCUSSION

Blindness is a disease that invariably affects the country by hindering economic production. Refractive errors and cataracts are the leading causes of avoidable blindness and visual impairment.<sup>5</sup>

A major proportion of total blindness in India (81%) is constituted by cataract. It has been assumed that there is a poor access to the cause and treatment of cataract in cataract blinds.<sup>6</sup> By delaying intervention, patients only make matters worse for themselves and their relatives. Early diagnosis and intervention will help in restoring useful vision in the patient and helps him lead an independent life.<sup>7,8</sup> A few studies, mostly from other developing countries, have addressed barriers to accepting surgery for cataract.<sup>9,10</sup> Analysing the obstacles that come in way in utilising eye care services will help in formulating strategies to prevent blindness.

Majority of the study population (67%) were females.

Majority of the patients (49%) were in the age group of 61-70 years somewhat similar to those reported by Soundarssanane et al<sup>11</sup> (40.37%), Chatterjee et al<sup>12</sup> (43.3%). Regarding knowledge, attitude and practices related to cataract, 94.33% were aware about cataract similar to studies of J. Bhagwan and I.M. Rastogi<sup>13</sup> and Brilliant and Brilliant<sup>14</sup> (93.5%) and 17 (5.6%) cases had not heard about it. Majority of the cases (40.6%) in our study got the knowledge regarding cataract surgery from their relatives and other villagers similar to the study by J. Bhagwan et al who reported that 73.79% of people got to know from their peer group/relatives.

About 67.3% cases did not know the exact age group affected, while 10.3% cases opined that it occurs at the age of 50-60 years, which shows the lack of knowledge regarding cataract among the study population. Brilliant and Brilliant<sup>14</sup> found majority of the cases citing unspecific causes. 72.3% cases could not cite any specific reason regarding how cataract occurs and the rest cited ageing religious and socioeconomic causes as the reason. Thus there is a need to educate the masses regarding cataract by various health education programmes.

Regarding treatment, 91.6% cases were aware that it is curable and the rest were unaware. 93.8% cases told that cure is by surgery, 2.5% cases believed that cure is by instilling medicines and rest 3.6% were not sure about treatment or mostly by quacks which shows that still adequate knowledge regarding treatment has to be emphasized.

Thirty two percent cases responded that facilities for surgery might be available at camps, 100 (33.3%) cases responded for both government and private hospital, 22.6% cases responded for all the three places that is government, private hospitals and camps. This shows the importance of camps being conducted regularly in these areas.

Twenty one percent cases cited lack of escort as the reason for not getting surgery done, 49.3% cases managed with existing eyesight, 16.3% cases cited economic reasons. In the study by J. Bhagwan et al,<sup>13</sup> 41.46% and 31.7% cases cited economic reasons and poor knowledge as the main reasons, similar reasons were cited by 29% cases in the study by Brilliant and Brilliant.<sup>14</sup> Studies have shown that financial limitations rank high as reasons for not having cataract surgery.<sup>9,15</sup>

As far as knowledge regarding type of cataract surgery was concerned, 14% cases preferred surgery with lens implantation, 85% were unaware of it whereas in the study by J. Bhagwan et al 72.36% cases preferred cataract surgery without lens implantation and 27.64% preferred Intraocular Lens.

The results of this study give information about people's belief, representing an important step in planning and programming actions with the goal of preventing visual loss.

There is lack of knowledge regarding cataract among the study population. The literacy rate and the socioeconomic status had a significant association with the opinion of the people.

The attitude of the study population towards cataract can be changed by increasing awareness regarding the causes, prevention and management for cataract. To broaden the access of the public to cataract surgery, social and cultural barriers must be eliminated.

If elimination of avoidable blindness is to be achieved in India, all the components, namely disease control, human resource development and infrastructure development must

work in concert for an effective eye care delivery system.

## CONCLUSION

There are lot of misconceptions regarding cataract and its surgery among the public. We need to explore their myths regarding cataract surgery and bridge the gap between their knowledge and the actual causes and thus prevent cataract blindness.

The results of this study give information about people's belief, representing an important step in planning strategies with the concept of avoidable blindness. Thus, to achieve the concept of avoidable blindness, the mass should be educated about the need for surgical intervention in cases of cataract where vision will be restored hence avoiding blindness.

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**Conflict of Interest:** Nil

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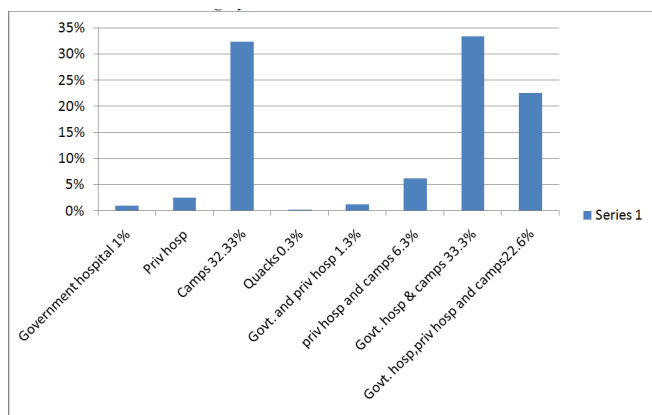
**Table 1: Age and Sex distribution**

Age group (in years)	Males		Females		Total	
	n	%	n	%	n	%
30-40	02	0.6	01	0.3	03	1
41-50	13	4.3	24	8	37	12.3
51-60	18	6	46	15.3	64	21.3
61-70	51	17	96	32	147	49
71-80	13	4.3	32	10.6	45	15
81-90	02	0.6	02	0.6	04	1.3

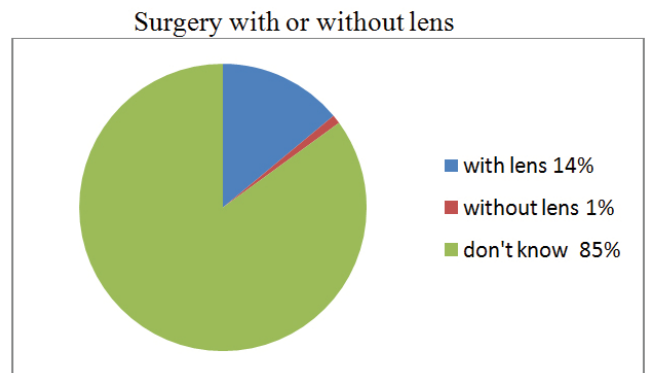
**Table 2: Education Vs heard about**

	Yes	No	Total	%
Illiterate	230	13	243	81
Primary school	34	02	36	12
High school	12	0	12	4
PU college	4	02	06	2
Degree	3	0	03	1

$\chi^2 = 9.539$   $p = 0.0490$ . Significantly associated



**Figure 1:** Facilities for surgery available 95.3% cases wanted to undergo surgery.



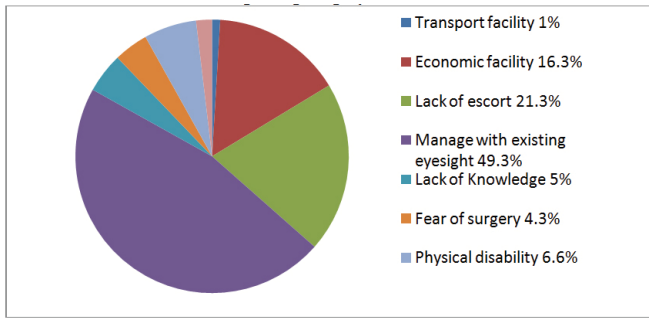
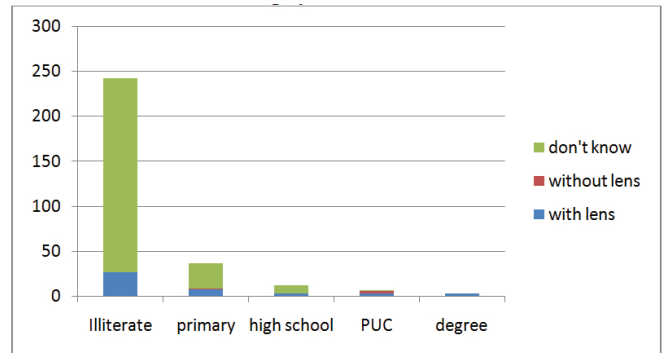
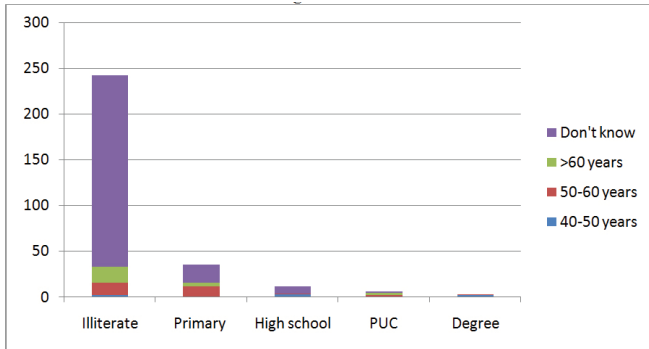


Figure 2: Reasons for not getting surgery.



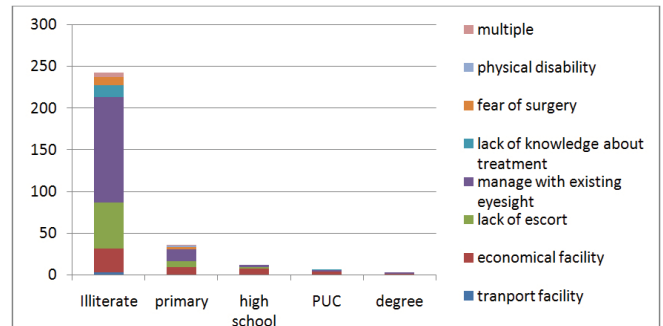
$\chi^2 = 97.89$   $p < 0.001$  : significantly associated

Figure 6: Education Vs surgery with or without lens.



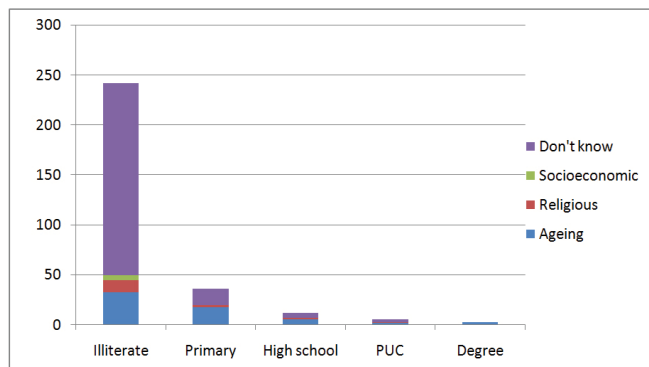
$\chi^2 = 140.81$   $p < 0.0001$  : significantly associated

Figure 3: Education Vs 'At what age it occurs?'



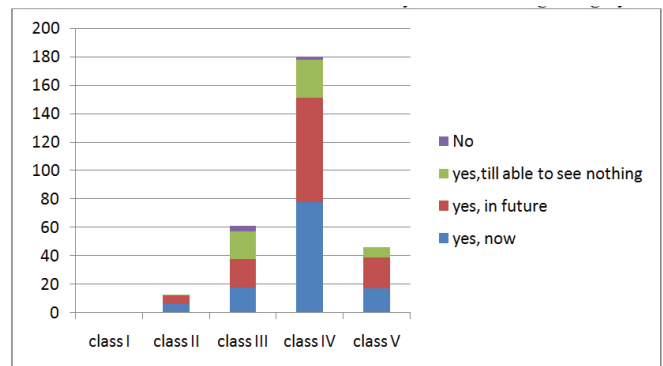
$\chi^2 = 56.82$   $p = 0.001$  : significantly associated

Figure 7: Education Vs Reasons for not getting surgery.



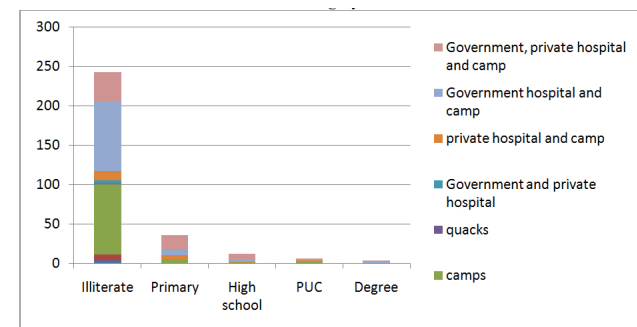
$\chi^2 = 47.97$   $p < 0.001$  : significantly associated

FIGURE 4: Education Vs 'How it occurs?'



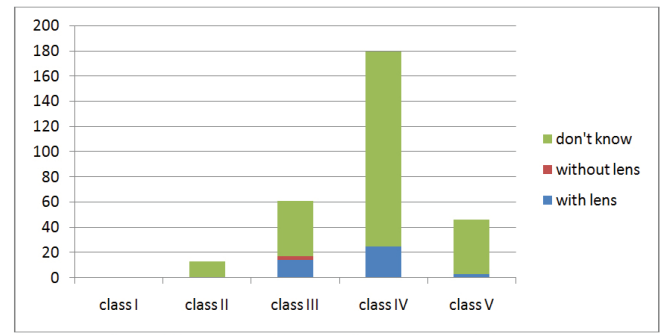
$\chi^2 = 19.98$   $p = 0.02$  : significantly associated

Figure 8: Economic status Vs 'Whether they want to undergo surgery'.



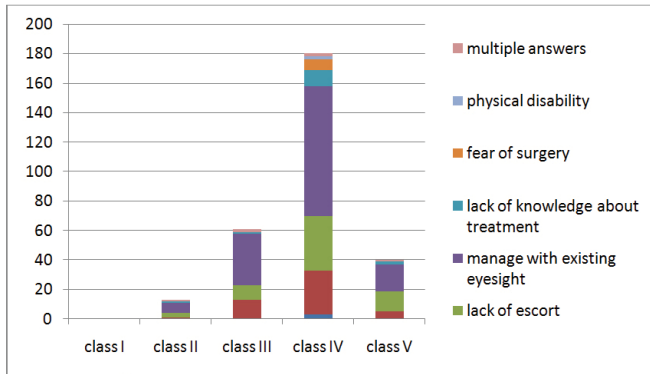
$\chi^2 = 52.72$   $p = 0.00032$  : significantly associated

Figure 5: Education Vs Facilities for surgery.



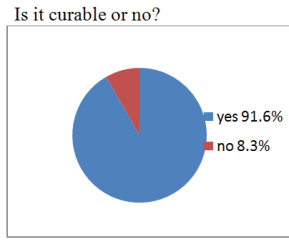
Pooled  $\chi^2 = 13.24$   $p = 0.01$  : significantly associated

Figure 9: Socioeconomic status Vs surgery with lens or without lens.



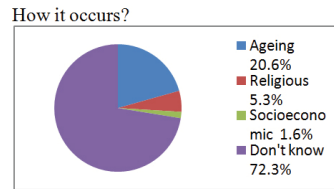
Pooled  $\chi^2= 21.67$   $p= 0.05$ : significantly associated

**Figure 10:** Socioeconomic status Vs 'Reasons for not getting surgery'.



if yes,

Medicine	2.5%
Surgery	93.8%
Don't know	2.9%
Quacks	0.7%



**Figure 11:** Regarding treatment.