

Original Research Article

A cross sectional study to assess awareness and attitude on eye donation among college going students of Jhalawar, Rajasthan

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ABSTRACT

Background: Eye sight is very important for human life. The WHO estimates that for every 5 seconds someone goes blind. According to the Eye Bank Association of India, approximately 1.1 million people are corneal blind in India. College students can play important role for creating awareness about eye donation and breaking myths in society, there is no such research in Jhalawar region on this subject. Aim and objectives were to assess awareness related to eye donation among collegiate students, to know attitude regarding eye donation and to provide information with motivation for eye donation.

Methods: A cross sectional analytical study was conducted on UG students studying in professional colleges of Jhalarapatan block, Jhalawar, Rajasthan. A pretested and semi-structured questionnaire with informed consent was administered among all participants. The questionnaire consisted of 21 questions related to eye donation ranging from the source of information about eye donation, corneal transplantation, eye donors, criteria for eye donors, knowledge of eye banks, attitude regarding eye donation etc.

Results: All participants (246) have idea of eye donation but medical students have good awareness (84%) compared to nursing (46%), engineering (31.1%) and academic students (26.9%) respectively. Mass media created good awareness (43.6%) while friend/close relative created least (4.7%).

Conclusions: Students who were part of medical/nursing education because of their close association with this activity have better opportunity for creating awareness in community compare to academic students. Mass media had an important role in creating eye donation awareness among society.

Keywords: Awareness, Eye donation, Student

INTRODUCTION

Eye sight is very important for human life. The World Health Organization (WHO) estimates that for every 5 seconds someone goes blind. Corneal diseases constitute a significant cause of visual impairment and blindness in the developing world.

The importance of organ donation cannot be denied and for this Indian Journal of Ophthalmology (IJO) presents

an important article on the awareness of eye donation among medical and nursing students.¹ Some organs/tissues like kidney, liver, skin, and blood can be given ante mortem. Organs like the heart, lungs, and eyes can only be donated after death.

The need for organ donation is ubiquitous regardless of religion, community, gender and age. By the help of celebrities signing pledge form and by advertisement awareness in general population has been improved.

Blindness from corneal disease is a major ophthalmic public health problem in India and Corneal blindness can be rectified by transplantation. Currently, In India, approximately 68 lakh people suffer from corneal blindness in at least in one eye; of these, 10 lakh people are blind in both eyes.²

According to the Eye Bank Association of India, approximately 1.1 million people are corneal blind in India; More than 100,000 corneal transplants are required annually in India.³ Based upon our current ratio of available safe donor eyes, 277,000 donor eyes are needed to perform 100, 000 corneal transplants in a year in India.⁴

India is lagging behind in eye donation due to false social taboos. National eye donation fortnight is observed in India every year from 25th August to 8th September. This campaign aims to create awareness about importance of eye donation and thereby motivate people to pledge their eyes for donation after death.⁵ Raising the level of public awareness on eye donation is important to increase procurement of corneas.⁶

Public health prevention programs are the most cost-effective means of decreasing the global burden of corneal blindness, because it is difficult to treat corneal blindness once it has occurred. Previous reports suggest that increasing the awareness level of the communities regarding eye donation will be useful for increasing eye donation in the community.⁷ However, most previous studies have focused on only single groups such as medical students or nursing students⁸⁻¹¹ There was no study conducted thus far to include various stakeholders from the same community. There are many key players in the community who can create awareness and influence the attitude of the rest of the community towards better health practices.

There is a paucity of such studies on the subject in Jhalawar region which has a number of students pursuing various professional courses.

Aim

To assess awareness and attitude on eye donation among college going students.

Objective

To assess knowledge regarding eye donation in student of various professional courses. To know attitude regarding eye donation in college student. To give information and motivate the college student for eye donation.

METHODS

It was a cross sectional analytical study that took place at Jhalarapatan block of Jhalawar district Rajasthan.

Study duration

After ethical permission (24/2/22), the study duration was 15 days for data collection and 15 days for statistical analysis (1 month).

Study population

Under graduate student studying in Government PG (academic) College, Government Engineering College, College of Horticulture and Forestry, Jhalawar Nursing College and Jhalawar Medical College in Jhalarapatan block of Jhalawar district.

Inclusion criteria

3rd year undergraduate students and students who gave consent were included.

Exclusion criteria

Students those were absent on data collection day and not consenting students were excluded.

Sample size and sampling technique

Complete enumeration (342) of UG student of a study year of Government PG (academic) College, Government Engineering College, College of Horticulture and Forestry, Jhalawar Nursing College and Jhalawar Medical College in Jhalarapatan block of Jhalawar district.

Study tool

A questionnaire contain question to know demographic profile and their knowledge and attitude regarding eye donation.

Methodology

After ethical approval, we contacted the concerned principal to obtain suitable time slot for conducting studies in their college. After getting principals permission, we organized 15 minutes tutorial for explaining the questionnaire and importance of study to class 3rd year under graduate student to, then after consent the proforma distributed in the same class and after filling there proforma was collected. At the end a seminar was organized to give proper information about eye donation and to motivate them for eye donation.

Statistical analysis

All details of students were entered in Microsoft Excel (MS-Excel). IBM SPSS (Statistical Package for Social Science) Statistics trial version 23.0 software was used for data analysis.

For qualitative data, Pearson’s chi-square test was applied to test the relationship of categorized independent and dependent variables.

Ethical approval

The present study was conducted after getting permission from institutional ethical committee with serial number 01 dated 24/2/22 of Jhalawar Medical College (JMC), Jhalawar. Informed written consent was obtained from study participants.

RESULTS

Out of 342 students, 100% had heard about eye donation. Among the 342 students, 115 (33.3%) were females and 227 (66%) were males. Out of all 139 (40.6%) students belonged to rural area of living while 203 (59.4%)

belonged to urban area. Age varied from 16 to 24 years and the mean age of the students was 19.99±2.434 years. Maximum participants were studied in medical college (38.3%) and least were in horticulture and forestry college (5.8%).

The response of the students regarding awareness about eye donation is shown in Table 1.

All participants (342) have idea of eye donation but medical students have good awareness (84%) compare to nursing (46%), horticulture (40%), engineering (31.1%) and academic students (26.9%). 73.1% students of Government PG college had average knowledge while only 16.0% student of medical college had average knowledge. Among all no one had poor knowledge about eye donation. According to study awareness about eye donation is significantly associated with stream of student in which they studied (p<0.001).

Table 1: Comparison between different colleges student about awareness of eye donation.

Name of college	Awareness about eye donation		Total N (%)	P value
	Average N (%)	Good N (%)		
Government PG College (academic), Jhalawar	49 (73.1)	18 (26.9)	67 (100.0)	<0.001
Government Engineering College, Jhalawar	51 (68.9)	23 (31.1)	74 (100.0)	
College of Horticulture and Forestry, Jhalawar	12 (60.0)	8 (40.0)	20 (100.0)	
Jhalawar Nursing College, Jhalawar	27 (54.0)	23 (46.0)	50 (100.0)	
Jhalawar Medical College, Jhalawar	21 (16.0)	110 (84.0)	131 (100.0)	
Total	160 (46.8)	182 (53.2)	342 (100.0)	

Table 2: Comparison between different colleges student about attitude regarding eye donation.

Name of college	Attitude regarding eye donation		Total N (%)	P value
	Average N (%)	Good N (%)		
Government PG College (academic), Jhalawar	44 (65.7)	23 (34.3)	67 (100.0)	<0.001
Government Engineering College, Jhalawar	38 (51.4)	36 (48.6)	74 (100.0)	
College of Horticulture and Forestry, Jhalawar	8 (40.0)	12 (60.0)	20 (100.0)	
Jhalawar Nursing College, Jhalawar	13 (26.0)	37 (74.0)	50 (100.0)	
Jhalawar Medical College, Jhalawar	27 (20.6)	104 (79.4)	131 (100.0)	
Total	136 (39.8)	206 (60.2)	342 (100.0)	

In regard of eye donation, good attitude was found among students related to medical field as compared to other academic colleges. 79.4% of medical students had good attitude regarding eye donation followed by nursing students (74%), horticulture students (60%), engineering students (48.6%) and academic students (34.3%). 65.7% of academic student showed average attitude regarding eye donation while only 20.6% medical students showed average attitude (Table 2).

Among all students no one had poor attitude about eye donation. In this study attitude regarding eye donation was significantly associated with stream of students (p<0.001).

We found Muslim community had good awareness in 62.1% but good attitude regarding donation was only 31.0% while in Hindu community good attitude was more (62.9%) in comparison to good knowledge (52.4%). According to gender females had good awareness in 60.9% females as well as good attitude in 60.6% females. While only 49.3% male had good knowledge and 59.0% had good attitude regarding eye donation. Among all study participants according to area of living were 61.1% urban participants having good awareness about eye donation as compared to rural area of living 41.7% and urban had good knowledge as well as good attitude in urban population.

Table 3: Association of socio-demographic variable with awareness and attitude regarding eye donation.

Socio demographic variable	Awareness about eye donation			P value	Attitude regarding eye donation			Total N (%)
	Average N (%)	Good N (%)			Average N (%)	Good N (%)		
Religion	Hindu	149 (47.6)	164 (52.4)	0.318	116 (37.1)	197 (62.9)	0.001	313 (100.0)
	Muslim	11 (37.6)	18 (62.1)		20 (69.0)	9 (31.0)		29 (100.0)
	Total	160 (46.8)	182 (53.2)		136 (39.8)	206 (60.2)		342 (100.0)
Gender	Male	115 (50.7)	112 (49.3)	0.043	93 (41.0)	134 (59.0)	0.523	227 (100.0)
	Female	45 (39.1)	70 (60.9)		43 (37.4)	72 (62.6)		115 (100.0)
	Total	160 (46.8)	182 (53.2)		136 (39.8)	206 (60.2)		342 (100.0)
Area of living	Rural	81 (58.3)	58 (41.7)	<0.001	72 (51.8)	67 (48.2)	<0.001	139 (100.0)
	Urban	79 (38.9)	124 (61.1)		64 (31.5)	139 (68.5)		203 (100.0)
	Total	160 (46.8)	182 (53.2)		136 (39.8)	206 (60.2)		342 (100.0)

Association of awareness found significant with gender (p=0.043) and area of living (p<0.001), and association of good attitude found with religion (p=0.001) and area of living (p<0.001). There was no significant association of awareness with religion and attitude with gender.

Our study showed that mass media such as TV, radio and social media platform created good awareness (43.6%) in public while friend and closed relative created least awareness about eye donation.

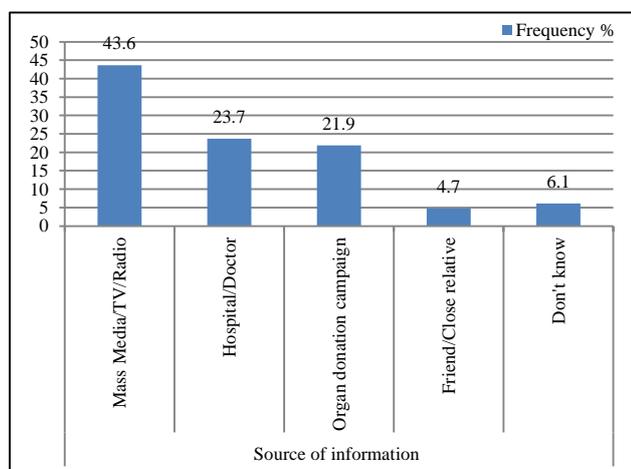


Figure 1: Source of information about organ donation.

DISCUSSION

In the present study, 100% of the students had heard about eye donation; similar to a study done by Bhole et al, among the students of a nursing college in Gujarat in 2020, where 98% of the participants had heard about eye donation.¹² Whereas in a study by Bhattacharya et al, in an urban community of West Bengal, 74% of the respondents had heard about eye donation.¹³

Our study shows that there was good awareness and attitude about eye donation in medical related students in Jhalawar district in comparison to other streams.

Similar studies have been done among health professional of AIIMS New Delhi by Neelam et al and showed medical social workers and health supervisors had better knowledge about eye donation (p=0.026) than other professional groups.¹⁴

Studies by Eze et al and Ogawa et al reported deficits in knowledge and attitude about eye donation and corneal transplantation in non-medical undergraduates compared to medical undergraduates.^{15,16}

Though the mass media remains an essential tool to spread awareness in our study, it is still insufficient to improve harvesting from donors

Our study showed mass media is most important factor that create awareness about eye donation.

Similarly, Yadav et al reported newspapers (34.3%) as the most common source of knowledge on eye donation, followed by television (33.5%), eye specialists (17%), doctors (11.3%) and health workers (3.8%).¹⁷

Similarly, Sadana et al showed that newspapers (64.8%) contributed as an important source of information about eye donation.¹⁸

CONCLUSION

Studies point out that both medical fields related students (medical and nursing) have good awareness as well as attitude regarding the act of eye donation because of their close association with this activity compare to academic students.

Mass media had an important role in creating eye donation awareness among society.

Recommendations

The current study, in accordance with the other findings, emphasizes that medical students have the ability to raise

awareness about eye donation, offer appropriate guidance, and discuss the advantages of eye donation.

In order to spread the word and reach as many people as possible, medical students can also collaborate closely with community organizations and NGOs that are active both nationally and globally in this field.

The linking of medical universities and eye banks for advocacy programs is another stage.

Nursing students should be active in the educational and promotional campaigns.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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