

Original Research Article

## **Knowledge and awareness regarding eye donation among medical students**

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**Abstract:** In India, there is huge need for the availability of the eye donors to reduce the burden of the corneal blindness. Voluntary eye donation usually depends on the knowledge and awareness levels in the community. Medical students are the future doctors practicing in the various community levels and they can be important sources of distributing the awareness of the eye donation. This study aimed to assess the knowledge and awareness level regarding eye donation among medical students. This study was done involving the medical students regarding knowledge and awareness of eye donation. The questionnaire were consisting of demographic details, various aspects of eye donation, intention to donate eyes, awareness regarding eye donation, eye healthcare, reasons for donating or pledging and not, and sources of information. The data was collected, tabulated and analyzed using percentage analysis. Total 178 medical students were participated in the present study and all the students had submitted their responses. The knowledge of eye donation within 6 hours of death is known to 72.47 % of the students and the fact of transplantation within 2-3 days after the removal of the eye was not known to 54.49 % of the medical students. The awareness that the eyes can be donated was present in 97.19 % of the medical students, while the age limit awareness was present only with the 26.96 % of the medical students. In the study of sources of information for the eye donation, 53 % of the medical students got this knowledge from the television. The knowledge and awareness levels about the eye donation were low among the medical students.

**Keywords:** Awareness, Eye donation, Medical students.

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### **INTRODUCTION:**

A highly sensitive and specialized sense organ of the body is eye and it is the window of the world. Various disorders can lead to the impaired vision [1]. Corneal diseases are important cause of visual impairment and blindness in the developing world. The major causes of corneal blindness include trachoma, ophthalmia neonatorum, corneal ulceration following xerophthalmia due to vitamin A deficiency and the use of harmful traditional medicines, onchocerciasis, leprosy, and ocular trauma [2-4].

Eye donation is an act of donating one's eyes after his/her death. Only corneal blinds can be benefitted through this process and no other blinds. It is an act of charity, purely for the benefit of the society and is totally voluntary [1]. Medical students are the future health care providers for the community. They

belong to different educational backgrounds with a scientific base and have an inherent inclination to serve mankind. Well-informed medical students can be expected to influence eye-donation rates. They can be actively involved as volunteers in eye donation campaigns, wherein after proper training in counselling techniques, they can act as counsellors for eye donation while involving in any health issue in their family and neighbourhood. They can also motivate people for the same during their postings in community medicine [2, 5].

### **MATERIALS AND METHODS:**

Type of study: Cross-sectional study design.

Period of study: March-april 2017

Study site: SMBT medical college and hospital, Dhamangaon, Nasik.

Sample size: Total 178 medical students of first, second and third year.

This study was done involving the medical students regarding knowledge and awareness of eye donation. First to third year students were included in the study. Pretested questionnaires were given to the students for testing the knowledge and awareness of the students. The questionnaire were consisting of demographic details, various aspects of eye donation, intention to donate eyes, awareness regarding eye donation, eye healthcare, reasons for donating or pledging and not, and sources of information. Ethical committee approval was taken before start of the study and informed consent was taken from all the participants. A time of 20 minutes was given to the students to write their responses. The data was collected, tabulated and analyzed using percentage analysis.

**Inclusion criteria:**

- Students of first to third year medical students.

**Exclusion criteria:**

- Students not willing to participate in the study.

**RESULTS:**

Total 178 medical students were participated in the present study and all the students had submitted their responses. Among the 178 students 99 were female students and 79 were male students. The knowledge of eye donation within 6 hours of death is known to 72.47 % of the students and the fact of transplantation within 2-3 days after the removal of the eye was not known to 54.49 % of the medical students. The knowledge of availability of the synthetic substitute was present with only 14.60 % of the medical students. The location where to donate the eyes in the Nasik city was known to 39.88 % of the medical students (Table 1).

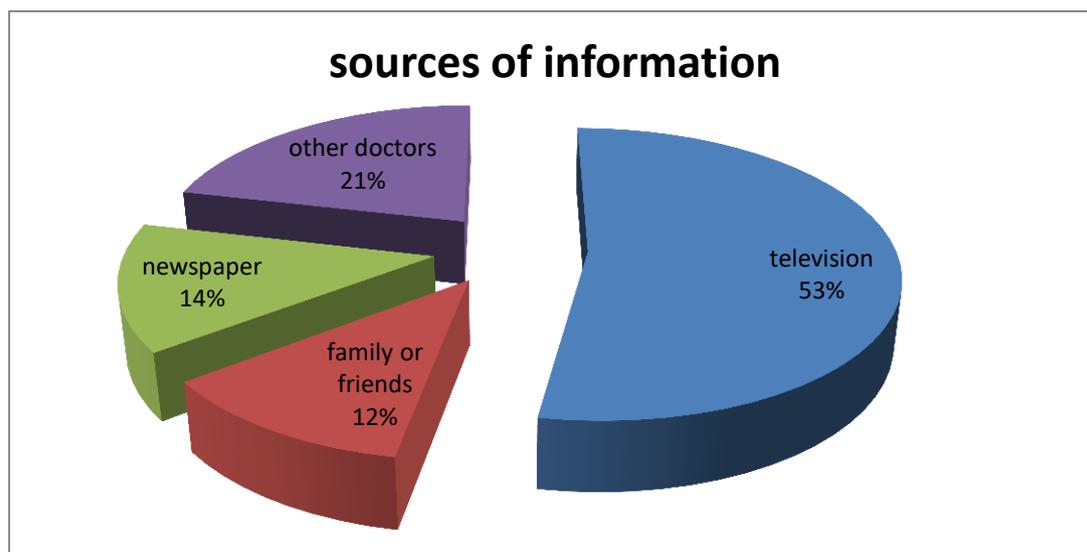
The awareness that the eyes can be donated was present in 97.19 % of the medical students, while the age limit awareness was present only with the 26.96 % of the medical students. The awareness of removal of eyes from the living people was found in only 10.67 % of the medical students. The donors shortage awareness in the India is known to 93.82 % of the medical students (Table 2). In the study of sources of information for the eye donation, 53 % of the medical students got this knowledge from the television and 21 % from the other doctors in the college. (Graph 1)

**Table 1: Knowledge of the eye donation among the medical students**

Sr. no.	Questions	Response (%)	
		Yes	No
1	Eyes should be removed within 6 hours of death	129 (72.47)	49 (27.52)
2	Transplantation should be done within 2-3days of removal	81 (45.50)	97 (54.49)
3	Synthetic substitutes for cornea are present	26 (14.60)	156 (85.39)
4	Knows where to donate eyes in Nasik	71 (39.88)	107 (60.11)

**Table 2: Awareness of the eye donation among the medical students**

Sr. no.	Questions	Response (%)	
		Yes	No
1	Eyes can be donated	173 (97.19)	5 (2.80)
2	There is age limit for eye donation	48 (26.96)	130 (73.03)
3	Eyes are removed from living people	19 (10.67)	159 (93.25)
4	Consent of family required for pledging	59 (33.14)	119 (66.85)
5	There is shortage of donors in India	167 (93.82)	11 (6.17)



**Graph 1: Sources of information on eye donation**

#### **DISCUSSION:**

Eye donations are dependent on people willing to pledge their eyes for donation and on the relatives to honor that pledge upon death of the person. This study therefore has assessed the awareness of the medical students regarding the importance of the eye donation [6].

The tissue of the eye called as cornea can be used to return vision to corneal blind person. The other servings of the eye are also used for research and development of medical studies. The Cornea is the clear tissue covering the front of the eye. It is a concentrating component of the eye. The Vision is decreased or vanished if the cornea becomes cloudy. This loss of the vision is stated as corneal blindness. Corneal blindness can be treated by removing the damaged cornea and replacing it with a healthy cornea. Corneal grafting is only the alternative for the corneal blindness. The first corneal transplant took place in 1905 [7].

The present study revealed that medical students were not well aware of eye donation. The perceived reasons for not donating eyes need to be considered while creating awareness about eye donation in the community. The level of knowledge of medical students is important in promoting eye donations as they are the future potential doctors. If doctors approach and counsel the family members for donation then the possibility of eye donation is increased but if they lack sufficient knowledge about eye donation then many potential corneal donors may be lost [5]. Approximately 18.7 million people are blind in India and 1, 90,000 are blind from bilateral corneal disease. Every year another

20,000 join the list. This problem is compounded by a low level of annual procurement of donor eyes which is 18,000 annually as per a report of the National Program for Control of Blindness and Eye Awareness [1, 4, 8].

#### **CONCLUSION:**

Medical students are the future of every society, as well as potential messenger to transmit different information. Although most of the medical students are commonly in favor of involvement to transmit knowledge, but lack of awareness is the main limitation. Data from our study suggests that medical students had less knowledge and awareness of the eye donation and they should be promoted.

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