

Awareness of eye donation in MBBS students - A study in medical colleges in Tamil Nadu, Southern India

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Abstract

Aim: To assess the awareness about eye donation among medical students in Tamil Nadu. **Materials and Methods:** A cross sectional descriptive study was conducted using a predesigned, pretested and standardized questionnaire which was closed- ended to obtain information regarding awareness about eye donation from 334 medical students from 4 different medical colleges of 3 districts in Tamil Nadu during their ophthalmology study years. The study was conducted over a period of 1 year. **Results:** A total of 133 males and 201 females enrolled in the study. 334 students(100%) were aware that eyes can be donated after death. 30 students (9%) had acquaintances who had donated their eyes. 304 students (91%) did not know of anyone who had donated eyes. Only 3 students (0.9%) had known an eye recipient. 32 students (6.6%) had witnessed an eye donation. 190 students (56.9%) had agreed to donate their relatives' eyes after death if they were the deciding authority and 144(43.1%) students were not willing to donate their relatives' eyes. 144 (52.8%) students not willing to donate their relatives' eyes were of the opinion that they could not decide for others. 20 students (13.9%) did not have much knowledge about donating others' eyes. 7 students (4.9%) believed their religion would not permit it. 15 students (10.4%) would not donate relatives' eyes due to personal belief. 3 students(2.1%) were scared to do so. **Conclusion:** Awareness about eye donation among the medical students in Tamil Nadu was good. However there is the dire need to encourage the students to spread awareness in the community so that we can bridge the gap between eye donors and patients in need of corneas.

Key Words: Eye donation, awareness, eye donor /enucleation, eye recipient

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INTRODUCTION

According to the World Health Organization, corneal diseases are among the major causes of vision loss and blindness in the world today, after cataract and

glaucoma.¹ In India, it is estimated that there are approximately 6.8 million people who have vision less than 6/60 in at least one eye due to corneal diseases; of these, about 1 million have bilateral involvement.^{2,3} It is expected that the number of individuals with unilateral corneal blindness in India will increase to 10.6 million by 2020.³ According to the National Programme for Control of Blindness (NPCB) estimates, there are currently 120,000 corneal blind persons in the country and there is addition of 25,000-30,000 corneal blindness cases every year in the country.⁴ Corneal transplantation is the most successful among all organ transplant procedures. Throughout the developing world there is a shortage of corneas.⁵ This study aimed to assess information regarding awareness about education, motivation, attitude towards eye donation in prefinal year medical students

who had not yet been formally exposed to the subject. Well-informed nursing and medical students could influence eye donation rates, as they are the future healthcare providers. There is a great need to increase awareness regarding eye donation among the medical students as they are our future doctors. Education regarding the preventive and curative aspects of corneal blindness can act as a major source for spreading awareness about eye donation among their family and friends thus acting as important motivators. The perceived reasons for not donating eyes need to be considered while creating awareness about eye donation in the community.⁶

MATERIALS AND METHODS

A cross sectional descriptive study by primary data analysis of 334 medical students of 4 medical colleges in three districts of Tamil Nadu was performed over a period of one year from June 2017 to June 2018. Out of the 4 colleges, 3 were government colleges and one was private college. A predesigned and standardized questionnaire was used to assess the awareness about eye donation. The questionnaire was standardised by 4 senior members of the medical fraternity and trial was done by them. Institutional ethical committee clearance was obtained. The parameters assessed in the questionnaire were awareness about eye donation, whether anyone of their relatives or acquaintances had donated eyes, whether they knew any eye donor and any eye recipient, whether they had witnessed eye donation, whether they would donate their relative's eyes if the student was the deciding authority.

Inclusion criteria

The students selected were M.B.B.S. prefinal year students appearing for ophthalmology examination who were willing to participate in the study.

Exclusion criteria

Students who were hesitant to fill the questionnaire or had completed ophthalmology examination were excluded from the study.

OBSERVATION AND RESULTS

Response rate to the questionnaire was 100%. 334 students (100%) were aware about eye donation. [Table 1]. Total number of male students was 133 (39.8%) and female students were 201 (60.2%). [Table 2]. 30 students out of 334 students (9%) knew someone in their acquaintance who had donated eyes. [Table 3]. 304 students (91%) did not know anyone who had donated eyes. Only 3 students (0.89%) had known an eye recipient [Table 4]. 22 students (6.6%) had witnessed eye donation/enucleation [Table 5]. 190 students (56.9%) of students had agreed to donate their relatives' eyes after

death if they were the deciding authority [Table 6] and 144 students (43.1%) were not willing to do so. 76 students (52.8%) of the 144 students not willing to donate their relatives' eyes were of the opinion that they could not decide for others. 20 students (13.9%) did not have much knowledge about donating others' eyes. 7 students (4.9%) believed their religion would not permit it. 15 students (10.4%) would not donate relatives' eyes due to personal belief. 3 students (2.1%) were scared to do so. [Table 7].

Table 1: Awareness

	Frequency	Percent
Aware	334	100%
Not aware	0	0%

Table 2: Sex

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	133	39.8	39.8	39.8
Female	201	60.2	60.2	100
Total	334	100.0	100.0	

Table 3: do you know anyone in your family, friends, acquaintances who have donated eyes

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	30	9.0	9.0	9.0
No	304	91.0	91.0	100
Total	334	100	100	

Table 4: Do you know anyone in your family, friends, acquaintances who have been eye recipient

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	3	.9	.9	.9
No	331	99.1	99.1	100
Total	334	100	100	

Table 5: Have you witnessed eye being removed for donation

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	22	6.6	6.6	6.6
No	312	93.4	93.4	100.0
Total	334	100.0	100.0	

Table 6: will you donate your relatives eyes if they have registered or if you are deciding authority after their death

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	190	56.9	56.9	56.9
No	144	43.1	43.1	100.0
Total	334	100.0	100	

Table 7: Why not willing to donate relatives' eyes

	Frequency	Percent	Cumulative Percent
No Reason	23	16.0	16.0
DO not know much about it	20	13.9	29.9
Religion Prevents it	7	4.9	34.7
Can not Decide for others	76	52.8	87.5
Personal Things	15	10.4	97.9
Scared	3	2.1	100.0
Total	144	100.0	

DISCUSSION

In our study 334 students were aware of eye donation (100%) which was similar to a study conducted by Gupta A, Jain S, Jain T, Gupta K. where 96.8% of students knew eyes could be donated after death.⁷ 30 students out of 334 students (9%) knew someone in their acquaintance who had donated eyes, which was slightly higher than in a study conducted by Anchit Wapa, Anu Namgyal⁸ where only 2% were acquainted with a person who had donated eyes. Three students (0.89%) had known an eye recipient which was similar to a study by Anchit Wapa, Anu Namgyal⁸ where 1% of the students knew an eye recipient. 22 students (6.6%) had witnessed eye donation/enucleation. 190 students (56.9%) had agreed to donate their relatives' eyes after death if they were the deciding authority which is markedly higher than that obtained in a study by Lal B, Usgaonkar U, Narvekar H, Venugopal D. *et al* where only 20.6% were willing to donate their relative's eyes.⁹ and a study by Bharti MK, Reddy SC, Tajunisah I, Ali N a. M. where 33% of them were willing to donate their close relative's eyes¹⁰. In a study by dev, al WX et. 7.1% would do so on behalf of a family member¹¹ The higher numbers in our study could be due to the fact that our study students were all medical students and knew the importance of eye donation. 144 students (43.1%) were not willing to donate their relatives' eyes. 76 students (52.8%) not willing to donate their relatives' eyes were of the opinion that they could not decide for others. In a study by Dhaliwal U. *et al* 25.0% felt that a close relative's eyes could be donated after death only if they had indicated willingness⁵. In a study by Phadke KD, Anandh U it was revealed that out of the potential post-mortem donors, only 44.3% of relatives of such cases gave consent for donation after intensive counselling.¹² 20 students (13.9%) did not have much knowledge about donating others' eyes which compares with a similar study by Gupta A, Jain S, Jain T, Gupta K. where 12% said they did not know and 15.75% said they needed time to decide.⁷ 7 students (4.9%) believed their religion would not permit it which is

similar to a study by Dave A *et al* [13] where perceived reasons for not pledging were religious (5.52%). In a study by Arya SK, Gupta N, Malik A, of those who did not want to pledge, 14.8% had religious reasons¹⁴ 15 students (10.4%) would not donate relatives' eyes due to personal belief. 3 students (2.1%) were scared to do so.

CONCLUSION

The present study revealed that eye donation awareness among prefinal year medical students was good, even though they were expected to have positive attitude towards the same, being medical students. The perceived barriers need to be eliminated from the minds of the students, before they become practising medical professionals.

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