



WILLINGNESS FOR EYE DONATION AMONG M.B.B.S STUDENTS – A STUDY IN MEDICAL COLLEGES OF TAMIL NADU, SOUTHERN INDIA

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ABSTRACT

OBJECTIVES: To assess willingness for eye donation among medical students in Tamil Nadu.

METHODS: A cross sectional descriptive study was conducted using standardized questionnaire to obtain information regarding willingness for eye donation from 334 medical students in Tamil Nadu during their ophthalmology study years.

RESULTS: 242 participants (72.4%) were willing to donate their eyes. 86 participants (35.5%) had attitude to help others see, 83 participants (34.3%) were willing as a part of service to humanity, 52 participants (21.5%) had just an idea to donate, 20 participants (8.3%) did not want to waste an organ. Only one participant (0.4%) was willing to donate to spread awareness.

Among students not willing for eye donation, 46 participants (50%) believed relatives would not allow. 12 participants (13%) did not have an idea about it, 7 participants (7.6%) felt religion was against it, 10 participants (10.9%) had personal reservations against donation, 8 participants (8.7%) were scared, 9 participants (9.8%) expressed that they were not of sufficient age or fitness.

219 Hindu participants (75.5% of 290 Hindus) were willing for eye donation. 5 Muslim participants (29.41% of 17 Muslims) were willing. 18 Christian participants (66.66% of 27 Christians) were willing.

CONCLUSION: Willingness to donate eyes among the medical students in Tamil Nadu was good. The reasons for unwillingness to donate eyes need to be addressed. No significant correlation between religion and willingness for eye donation was found in our study.

KEYWORDS: Eye donation, religion and eye donation, willingness

INTRODUCTION

Of the 12 million blind in India, 1% is due to corneal blindness. [1] In many low- and middle-income countries, options for visual rehabilitation from corneal disease are limited. [2] In India, of the 6.8 million people with vision less than 6/60 in at least one eye due to corneal diseases; about a million have bilateral involvement. 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. 90% of the global cases of ocular trauma and corneal ulceration leading to corneal blindness occur in developing countries. [3]

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 willingness to donate eyes, if yes or no, reason for the same.

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%. A total of 133 males and 201 females enrolled in the study. 55 males (41.35%) and 37 females

(18.40%) were not willing to donate. 78 males (58.64%) and 164 females (81.59%) were willing to donate their eyes. 242 participants (72.4%) were willing to donate their eyes and 92 participants (27.6%) were not willing for eye donation. [Table 1]

Table 1
Willing to donate eyes

		would you be willing to donate your eyes		Total
		yes willing	no not willing	
Sex	Male	78	55	133
	female	164	37	201
Total		242	92	334

Reasons for willingness and non willingness to donate eyes were assessed including religious motives. Of those willing, 86 participants (35.5%) had an attitude to help others see the world, 83 participants (34.3%) were willing to donate as a part of service to humanity, 52 participants (21.5%) had just an idea /thought/interest to donate, 20 participants (8.3%) did not want to waste an organ. Only one participant (0.4%) was willing to donate to spread awareness. [TABLE 2]

Table 2 Reason For Willingness

	Frequency	Percent	Cumulative Percent
interested	52	21.5	21.5
as a part to service to humanity	83	34.3	55.8
it can help someone else see this world	86	35.5	91.3
to create awareness	1	.4	91.7
do not want to waste a precious organ	20	8.3	100.0
Total	242	100.0	

Out of the 92 participants (27.5%) students not willing for eye donation, 46 participants (50%) believed that parents or relatives

would not allow. 12 participants (13%) did not have an idea about eye donation, 7 participants (7.6%) felt their religion was against it, 10 participants (10.9%) students had certain personal reservations against donation, 8 participants (8.7%) were scared and 9 participants (9.8%) expressed that they were not of sufficient age or fitness. [TABLE 3]

Table 3 Reason For Not Willing In Males And Females

		scared	parents relative's will not allow	i am not eligible, sufficient age or fitness	my religion is against it	personal belief	do not know much about it	Total
Male	Count	3	32	7	1	5	7	55
	% within Sex	5.5%	58.2%	12.7%	1.8%	9.1%	12.7%	100.0%
Female	Count	5	14	2	6	5	5	37
	% within Sex	13.5%	37.8%	5.4%	16.2%	13.5%	13.5%	100.0%

6 females (2.9%) and 1 male (0.75%) student felt their religion prevented donation. [TABLE 4] .290 participants were Hindus (86.8%), 27 participants (8.1%) were Christians, 17 participants (5.1%) were Muslims. [TABLE 4]

Table 4 Religion And Willingness

		would you be willing to donate your eyes	
		yes willing	no not willing
Hindu	Count	219	71
	Frequency	75.5%	24.5%
Muslim	Count	5	12
	Frequency	29.4%	70.6%
Christian	Count	18	9
	Frequency	66.7%	33.3%

219 Hindu participants (75.5%) were willing for eye donation and 71 Hindu participants (24.48%) were not. 5 Muslim participants (29.41%) were willing and 12 Muslim participants (70.58%) were not willing. 18 Christian participants (66.66%) were willing and 9 Christian participants (33.33%) were not willing to donate eyes. [TABLE 5]

Table 5 No Significant Correlation Between Religion And Willingness To Donate

	Religion	if yes reason
Pearson Correlation	1	.069
Sig. (2-tailed)		.285
N	334	242
Pearson Correlation	.069	1
Sig. (2-tailed)	.285	
N	242	242

Among the willing Hindus, 50 participants (22.8%) were interested to donate eyes, 73 participants (33.33%) wanted to donate as a part of service to humanity, 77 participants (35.16%) wanted to help someone else see this world. 18 participants (8.2%) did not want to waste a precious organ. Only one participant (0.46%) wanted to create awareness. Among the willing Muslims, one participant (20%) was interested to donate, 1 participant (20%) wanted to help someone else see this world. 3 participants (60%) wanted to donate as a part of service to humanity. None of the Muslims wanted to donate to create awareness or to not waste a precious organ. Among Christians, 1 participant (5.55%) was interested to donate, 7 participants (38.8%) wanted to donate as a part of service to humanity, 8 participants (44.4%) wanted to help someone else see this world and 2 participants (11.1%) did not want to waste a precious organ [TABLE 6]

Table 6 Religion * If Yes Reason

	Religion * if yes reason					Total
	interested	as a part to service to humanity	it can help someone else see this world	to create awareness	do not want to waste a precious organ	
Hindu	50	73	77	1	18	219
Muslim	1	3	1	0	0	5
Christian	1	7	8	0	2	18
Total	52	83	86	1	20	242

21 participants (17.1%) of the non willing Hindus, did not give any specific reason for non willingness to donate, 17 participants (13.8%) did not know much about eye donation, 72 participants (58.53%) believed that they could not decide for others if they were the deciding authority after relative's death, 11 participants (8.94%) had personal reasons for unwillingness, 2 participants (1.62%) were scared and none of the participants believed their religion prevents it. None of the the non willing Muslim participants and 2 participants (25%) of Christians did not give any specific reason for non willingness to donate, 2 participants (15.38%) did not know much about eye donation, 7 participants (53.84%) believed their religion prevents it, 2 participants (15.38%) believed that they could not decide for others if they were the deciding authority after relative's death, 2 participants (15.38%) had personal reasons for unwillingness and none of the participants were scared. Among the non willing Christians, 1 participant (12.5%) did not know much about eye donation, none of the participants believed their religion prevents it, 2 participants (25%) believed that they could not decide for others if they were the deciding authority after relative's death, 2 participants (25%) had personal reasons for unwillingness and 1 of the participants (12.5%) was scared. [TABLE 7]

Table 7 Religion * If No Why

			if no why					Total	
			no reason	do not know much about it	religion prevents it	i cannot decide for others	personal things		scared
Religion	Hindu	Count	21	17	0	72	11	2	123
		Frequency	17.1%	13.8%	.0%	58.5%	8.9%	1.6%	100.0%
	Muslim	Count	0	2	7	2	2	0	13
		Frequency	.0%	15.4%	53.8%	15.4%	15.4%	.0%	100.0%
	Christian	Count	2	1	0	2	2	1	8
		Frequency	25.0%	12.5%	.0%	25.0%	25.0%	12.5%	100.0%

DISCUSSION

In a study by Runda N et al, willingness to pledge eyes for donation was observed in only 6% of the participating health professionals. [4] In another study by Arya SK et al, of those who did not want to pledge, 12(14.8%) had religious reasons, 9(11.1%) feared disfigurement, 9(11.1%) thought that they might be born blind in their next birth and 51(63%) had some other reasons [5]. Most participants (87.2%) were willing to donate eyes. Nobility in the act of eye donation was the main motivational force for eye donation according to 85.5% of students. Perceived reasons for not pledging eyes by the people were: lack of awareness (32.7%), objection by family members (27.7%), unsuitability to donate because of health reasons (17.7%) and the unacceptable idea to separate the eye from the body (15.5%) [6]. In a study by Dave A et al, The perceived reasons for not pledging were religious [28 (5.52%)], thought of family getting upset (5.72%) and scepticism regarding proper usage of tissue (12.62%) [7]. A study by Bruzzone P et al states that some South Asia Muslim ulemas (scholars) and muftis (jurists) oppose donation from human living and deceased donors because the human body is an "amanat" (trusteeship) from God and must not be desecrated following death, but they encourage xenotransplantation research. No religion formally obliges one to donate or refuse organs. No religion formally obliges one to consider cadaveric organs "a societal resource" or considers organ donation "a religious duty" [8] A study by Tandon et al found that 55.4% next of kin were aware of the concept of eye donation. Also, the study by Tandon et al showed that the prior knowledge of eye donation, literacy, and socioeconomic status had no influence on willingness for eye donation and major reasons for not donating eyes included refusal to discuss the issue and dissuasion by distant relatives, legal problems, and religious beliefs. [9] A study by Bhandary, Sulatha et al showed that 31% of the Indians felt eye donation is against their religion [10]. In another study by Dave A, Patel NV et al, 457 (90.13%) participants were willing to pledge their eyes for donation, the prime motivational force being spreading vision to the blind 346 participants (68.24%). The perceived reasons for not pledging were religious (5.52%), thought of family getting upset (5.72%) and scepticism regarding proper usage of tissue (12.62%) [7]. In a study by Ahirwar RK et al, 289 (61.9%) students were willing to donate eyes, out of which 161 (56%) were males and 128 (44%) were females [11].

CONCLUSIONS

Willingness to pledge eyes for donation among students was good though it could have been better. The various reasons for unwillingness to donate eyes were fear about eye donation, concern about consent of family members, lack of proper knowledge about eligibility for eye donation, religious factors and personal beliefs. Concerted efforts are required to alter their attitude. A well informed and motivated medical and paramedical team can increase the rate of eye donation by timely counseling of grief-stricken relatives of the deceased for eye donation, thereby reducing the burden of corneal blindness.

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