

Awareness about eye banks and willingness for eye donation among medical doctors in a medical college –“time to educate regularly”

Puttaswamy S.^{1*}, Rupakala B.², Das Shetty S.³

DOI: <https://doi.org/10.17511/joooo.2023.i01.01>


^{1*} Shashikala Puttaswamy, Assistant Professor/ Senior Specialist GR 1, ESIC MC & PGIMSR, Bengaluru, Karnataka, India.

² B S Rupakala, Specialist, ESIC MC & PGIMSR, Bengaluru, Karnataka, India.

³ Shruthi Das Shetty, CMO, ESIC MC & PGIMSR, Bengaluru, Karnataka, India.

Background: Corneal blindness, is a significant problem; donated corneas being the only source does explain the requirement for eye donation and its awareness. If doctors approach and counsel the family members then, the possibility of eye donation is increased or else many potential corneal donors may be lost. **Aim:** To assess the knowledge and attitude of doctors regarding eye donation. **Methods:** A cross-sectional study on doctors using a questionnaire and pledge form to collect information on demographic details, awareness of eye donation and eye banks, willingness, intention and hesitation to promote eye donation. Response evaluated in terms of their knowledge and attitude towards eye donation. **Results:** A total of 144 doctors participated in the study, and only 108 completed answering; the response rate is hence, 75 %. Age ranged from 26-59 years, with 53.7 % males and 46.3 % females. Postgraduates of various fields were 35.2% and 64.8% were medical graduates; 76.9% were aware of the existence of an eye bank and 71.3% knew its name in the Institute. Cent percent knew about eye donation done after death but, only 81.5% knew the ideal time for eye donation. Though, 91.7% stated cornea, only 4% said sclera was too graftable. Pledging done by 65.1% with nobility as inspiration while not pledging, 32.4% due to lack of complete awareness, 13.6% believed underutilization of donated eyes; 33.35%, felt difficult to counsel, consumer forum worried 19.4% and 26.9% believed delay of funeral arrangements. **Conclusion:** The awareness though good, there is an imperative need to emphasize regularly to evade myths concerning eye donation and in turn to promote eye donation.

Keywords: Awareness, Eye donation, Medical professionals

Corresponding Author	How to Cite this Article	To Browse
Shashikala Puttaswamy, Assistant Professor/ Senior Specialist GR 1, , ESIC MC & PGIMSR, Bengaluru, Karnataka, India. Email: puttaswamysasi@gmail.com	Shashikala Puttaswamy, B S Rupakala, Shruthi Das Shetty, Awareness about eye banks and willingness for eye donation among medical doctors in a medical college –“time to educate regularly”. Trop J Ophthalmol Otolaryngol. 2023;8(1):1-5. Available From https://ophthalmology.medresearch.in/index.php/joooo/article/view/238	

Manuscript Received
2023-03-07

Review Round 1
2023-03-09

Review Round 2
2023-03-16

Review Round 3
2023-03-23

Accepted
2023-03-30

Conflict of Interest
Nil

Funding
Nil

Ethical Approval
Yes

Plagiarism X-checker
17%

Note



© 2023 by Shashikala Puttaswamy, B S Rupakala, Shruthi Das Shetty and Published by Siddharth Health Research and Social Welfare Society. This is an Open Access article licensed under a Creative Commons Attribution 4.0 International License <https://creativecommons.org/licenses/by/4.0/> unported [CC BY 4.0].



Introduction

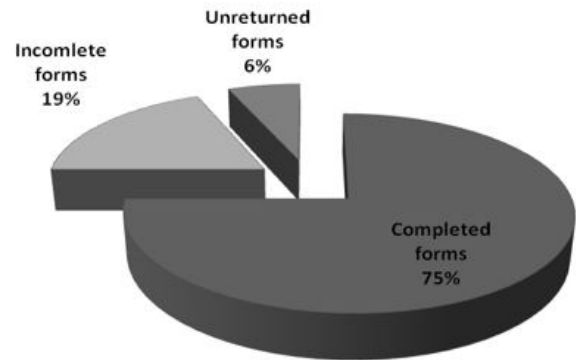
Corneal blindness remains a significant problem in India [1], and needs corneal transplantation is the major mode of visual rehabilitation. Donated corneas being the only source for keratoplasty, does explain the requirement for eye donation and its awareness. Eye donation is an act of donating one's eyes after his/her death. Only corneal blindness can be benefitted through this process no other blinds. It is an act of charity, purely for the benefit of society and is voluntary. [2] There is a huge gap between the demand and supply of donor-healthy cornea. The need, therefore, is to educate the masses about eye donation to increase the procurement of cornea. [3] Well-informed medical students could be expected to influence eye donation rates. Education of physicians early in their course may lead to better procurement rates for donor organs [4]. Studies are available about this awareness in students in nursing colleges, [5] academic colleges, [6] and medical colleges.[7] What about our colleagues, the medical doctors? Moreover, if doctors approach and counsel the family members for donation then the possibility of eye donation is increased or else many potential donors may be lost.

Materials & Methodology

A cross-sectional study was designed to assess the knowledge and attitude of medical professionals regarding eye donation. The study was conducted on medical doctors who attended the CME program during the eye donation fortnight, by issuing a questionnaire along with a pledge form after obtaining informed consent. A total of 144 doctors were included in the study however, only those doctors who completed the questionnaire were considered in the study. The Questionnaire included data on demographic details, awareness of eye donation, contact with nearby eye banks, intention and willingness for eye donation as well as hesitation to promote eye donation. We included all doctors from the general duty department and different specialities were included and excluded those who returned incomplete questionnaires or those who did not return the questionnaire. Response evaluated in terms of their knowledge and attitude towards eye donation. Ethical clearance was taken from the ethical committee of our institute. The data was collected and analyzed using Microsoft Excel interpreted.

Results

A total of 144 doctors participated in the study but, only 108 (75%) completed answering while, 27 (19%) returned incomplete forms & 9(6%) forms were unreturned and hence, not considered in the study. The response rate is hence 75% (Fig 1).



Response to questionnaire

Figure 1: response rate to the questionnaire

Age of the doctors ranged from 26-59 years with an average of 39.6 years. Males were 53.7% (58 of 108) and females were 46.3% (50 of 58). Of 108 doctors, 64.8% (83 Of 108) were graduates only, and 35.2% (38 of 108) were postgraduates (Fig 2).

Medical qualification of respondents

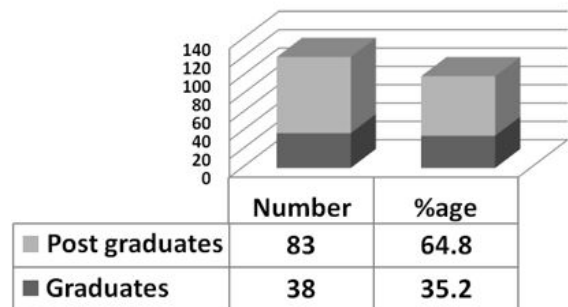


Figure 2: Medical qualification of respondents

Only 65.1% (71 of 108) pledged their eyes with "Nobility" as the major inspiring cause. Reasons given for not pledging were lack of complete awareness(like unawareness whether myopic, post cataract surgery, diabetic retinopathy etc., are fit to donate, minimum and max age for donation, solo/family pledging, doubts on if pledging already done in other banks to be repeated, contact details of eye bank etc.,) in 71.9% (27 Of 37), 13.5% believed that donated eyes are either underutilized or yield poor results, 5.4% (2 of 37) had a family objection and 8.1% (3 of 37) had religious objection (Fig 4).

Willingness for eye donation

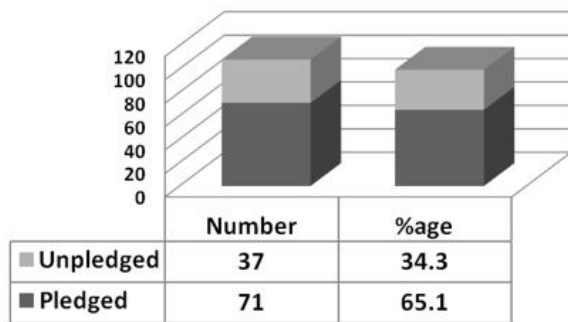


Figure 3: willingness to Pledge eyes

Reasons for not pledging

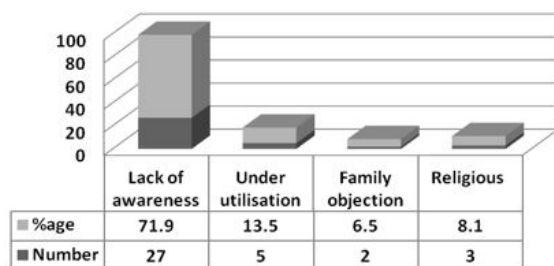


Figure 4: Reasons for not pledging

The majority, 76.9% (83 of 108) were aware of the existence of an eye bank in the institute and 71.3% (77 of 108) knew its name as well (Fig 5). Cent percent knew about eye donation being after death, but only 81.5% (88 of 108) knew the ideal time for eye donation (Fig 6). Enquiring on the tissue was transplanted, 91.7% (99 of 108) stated cornea is grafted; 4.6% said the sclera is grafted and only 3.7% were aware that either the cornea or sclera was grafted (Fig 7).

Awareness of eye bank

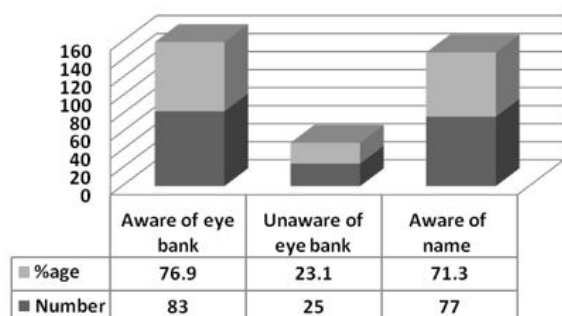


Figure 5: Awareness of the existing eye bank of the institute

Awareness on ideal time for eye donation

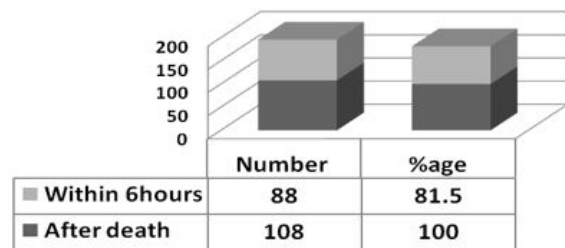


Figure 6: Awareness of the ideal time for eye donation

Awareness on tissue transplanted

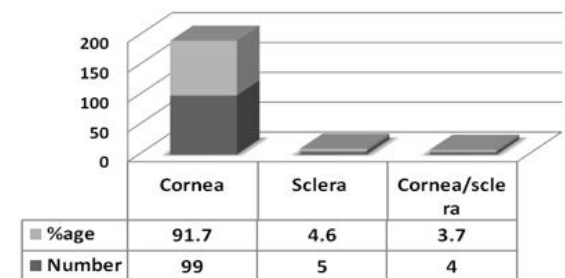


Figure 7: Awareness of the eye tissue transplanted

When enquired about how easy is it to motivate near and dear ones for eye donation in the situation of death, only 20% (22 of 108) felt the ease while 33.4% (36 of 108) hesitated to motivate and felt difficult to counsel, consumer forum worried 19.4% (21 of 108) and 26.9% (29 of 108) believed that, eye donation delays handing over of body (Fig 8).

Ease of motivation

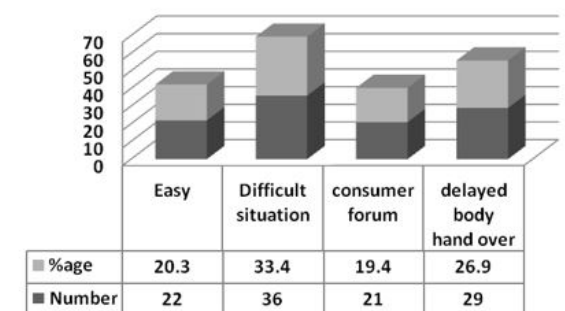


Figure 8: Ease felt by doctors for eye donation motivation

Discussion

In our country with a huge log of corneal blindness, there is a strong need for developing effective

Means of procuring corneas to enhance corneal donations at present. The level of knowledge and attitude of medical professionals is at most important, as they are the models for training the future potential doctors, paramedical and nursing staff to involve in this. If doctors approach and counsel the family members for donation then the possibility of eye donation is increased but if they lack sufficient knowledge and with no attitude to motivate eye donation then, many potential corneal donors may be lost., The response rate ranged from 56%-71% in other studies.[8, 9] Our study showed no difference in response by gender while females responded better in other studies.

Willingness to donate eyes in our study was 65.7% while it ranged from 30.18%-80% in other studies [8,9,10] and the most important reason for not pledging their eyes was lack of complete awareness like unawareness on whether myopic, post cataract surgery, diabetic retinopathy etc., are fit to donate, the minimum and maximum age for donation, solo/family pledging, doubts on if pledging already done in other banks to be repeated, contact details of eye bank etc., in 71.9% (27 Of 37), 13.5% believed that donated eyes are either underutilized or yield poor results, 5.4% (2 of 37) had a family objection and 8.1% (3 of 37) had religious objection. Lack of awareness was cited as an important reason among 32.7% of students by Singh et al [11]and 48.9% of students by Sadana et al. [7] Family member's objection was the main reason for not donating their eyes according to a study conducted by Singh et al [12] among medical students in Ambala. Misconceptions should be removed as medical doctors make poor spokespersons for eye banking.

The awareness about the name of any eye bank in India was known to only 21- 38% in a study by Arun Gupta et al; [13] may be medical graduates and also because of sticking eye bank posters inwards and OPDs, awareness of the eye bank existing in our Institute found 76.9%; unawareness in remaining could be because residents usually are on contract basis.

Cent percent knew about eye donation done after death, but only 81.5% (88 of 108) were aware and 18.5% (20 of 108) were unaware of the ideal time for eye donation while the same question was answered right by 50-98% nursing and medical students in various studies.

Enquiring the tissue transplanted, 91.7% (99 of 108) stated the cornea is grafted; 4.6% said the sclera is grafted and only 3.7% were aware that either the cornea or sclera was grafted while this knowledge.

When enquired about the ease to motivate near and dear ones for eye donation in the situation of death, only 20%(22 of 108) felt the ease while 33.4%(36 of 108) hesitated to motivate and felt difficult to counsel, consumer forum worried 19.4%(21 of 108) and 26.9% (29 of 108) believed that eye donation delays handing over of body.

Additional results obtained were, 72 % knew that pre-existing ocular diseases like cataracts, glaucoma etc., or the use of spectacles does not render the corneas unfit, 91% knew that the donor or recipient details are kept confidential, only 54% answered that there is a deficiency of donor's eyes, 63% did not know any person who had donated eyes, only 2% knew a person who had received eyes, 18% thought that human eyes be bought or sold.

The point of concern is, 86% had not counselled anyone for eye donation to date. The reason behind their hesitation like counselling methods, and consumer forums regarding, tactics to avoid delay in eye collection need to be hence addressed.

Conclusion

Medical doctors too hence, need to be educated regularly to refresh their knowledge and to clear any misconceptions if any.

Especially, Young doctors and those working at casualty, need to be trained so that, they feel the ease to counsel donors and their family members effectively for eye donation.

Reference

1. Gupta N, Tandon R, Gupta SK, Sreenivas V, Vashist P. Burden of corneal blindness in India. *Indian J Community Med.* 2013; 38:198-206.
2. Mohan RK. Eye donation, 2014. Available at: <http://www.mohanfoundation.org>. Accessed 14 July 2014.
3. Kannan KA. Eye donation movement in India. *J Indian Med Assoc.* 1999; 97:318-9.

4. Priyadarshini B, Srinivasan M, Padhmavati A, Selvam R, Nirmalan PK. Awareness of eye donation in an adult population of southern India. A pilot study. *Indian J Ophthalmol.* 2003; 51:101-4.

5. Gupta A, Jain S, Jain T, Gupta K. Awareness and perception regarding eye donation in students of a nursing college in Bangalore. *Indian J Community Med* 2009; 34:2:122-5.

6. Manjunath S N, Laxmikant L, Sunil A G, Maneesha G, Mulkipatil S Y, Mahesh V. Awareness Of Eye Donation Among College Students Of Hubli City, Karnataka. *International J BR* 2012; 3(4):201-4.

7. Sadana A, Sushma M, Lekha KC, Dudala SR, prabhu G, Reddy KK. Assessment of knowledge and attitude regarding eye donation among undergraduate medical students, Tirupati. *Ijmps.* 2014; 4(9): 16-24.

8. Bharti MK, Reddy SC, Tajunisah I, Ali NA. Awareness and knowledge on eye donation among university students. *Med J Malaysia.* 2009 Mar; 64(1):41-5.

9. Tiwari R, Rajput AS, Jain V, Goyal M, Mahore R, Tiwari S. A study to assess awareness regarding eye donation among post graduate medical students admitted through NEET pre PG 2014 of Gajra Raja medical college Gwalior, M.P., India. *Int J Res Med Sci* 2015; 3:871-5.

10. Dhaliwal U. Enhancing eye donation rates. Training students to be motivators. *Indian J Ophthalmol.* 2002; 50:209-12.

11. Singh MM, Rahi M, Pagare D, Ingle GK. Medical students' perception on eye donation in Delhi. *Indian J Ophthalmol.* 2007; 55: 49-53

12. Singh M, Bhardwaj A, Ahluwalia SK, Saini S, Qadri S. Eye donation: Perception and promoting factors among medical students' *Indian J Of Community Health.* 2012;24(3):175-8

13. Aruna G, Roopam G. Awareness about eye bank and willingness for eye donation among medical students in western india –time to educate early. *NJMR.* 2015; 5(1):6-10