

Awareness and Knowledge of Eye Donation among Nursing Students of a Tertiary Care Hospital

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Abstract

Aim: To assess the awareness and knowledge of eye donation among nursing students of a tertiary care hospital.

Methods: A semi-structured questionnaire consisting of 10 questions was given to a group of 95 students belonging to 1st year B.Sc. Nursing.

Results: In our study, all the students had heard about eye donation. 62.1% students were willing to donate. 67.36% students knew the ideal time of eye donation but only 30.52% students knew the eligibility criteria of donation.

Conclusion: All the students were aware of eye donation and majority of them were willing to donate and also knew the ideal time of donation, but their knowledge on other aspects of eye donation for Corneal Blindness and Corneal Transplantation was lacking.

Keyword: Eye Donation; Corneal Blindness; Corneal Transplantation.

INTRODUCTION

Blindness is defined as a condition where visual acuity is $<3/60$ with available correction. 43 million individuals are blind worldwide (rough frequency of 0.5%), with 1.1 billion people coping with vision loss. 295 million people (or a crude

prevalence of 3.7%) suffer moderate to severe visual impairment. Mild vision impairment affects 258 million people worldwide (crude prevalence: 3.3%). Near sightedness affects 510 million people worldwide (crude prevalence: 6.5%). There were an estimated 270 million blind persons in India by the year 2020. 9.2 million of them were visually impaired.

The following are the main reasons for eyesight loss:

Refractive defects left uncorrected (671 million individuals), (100 million people) Cataract, (8 million in individuals) have glaucoma, Macular degeneration associated with ageing (8 million persons), (4 million people) have diabetic retinopathy. Causes of corneal blindness includes microbial keratitis, trachoma, vitamin A deficiency, ophthalmia neonatorum, harmful traditional

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medicines, onchocerciasis, leprosy and ocular trauma. Millions of people have illnesses that require routine eye care procedures to stop or postpone vision loss.¹

Corneal transplantation or corneal grafting is the only effective treatment for corneal blindness. In this procedure, either a portion of the cornea or the complete cornea is replaced with a cornea donated by a deceased patient. According to a recent global analysis on corneal transplantation and eye banking, there is only one cornea available for every 70 patients worldwide, demonstrating a severe imbalance between global demand and supply of donor corneas. It is estimated that 2,70,000 donor eyes, or a four fold increase over the existing donor eye availability, will be required to conduct 1,00,000 corneal transplants annually in India based on the current accessibility of donor eyes and their consumption rates. A three-tier community system, consisting of eye donation sites, eye banks, and eye bank training institutes, has been proposed for India to address the country's lack of eye donors.²

This study focuses on nursing students of a tertiary care hospital as they form the 1st line of patient care and can play a vital role in influencing public opinion and beliefs on eye donation.

Aim

To assess the awareness and knowledge of eye donation among nursing students of a tertiary care hospital.

MATERIALS AND METHODS

No. of subjects: 95

Selection of subjects: Both male and female 1st year B.Sc. Nursing students of a tertiary care hospital belonging to age groups of 17-19 years.

Inclusion criteria: 1st year nursing students who had given informed and written consent.

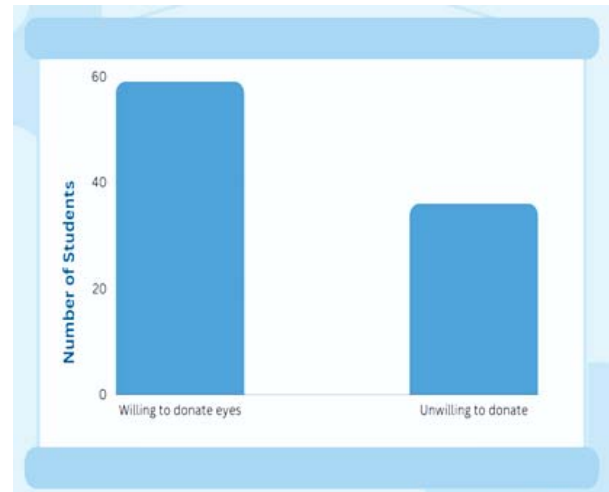
Exclusion criteria: students who were absent on the day of study.

Methods: A semi-structured questionnaire consisting of 10 questions was given to the students and their responses recorded and analyzed.

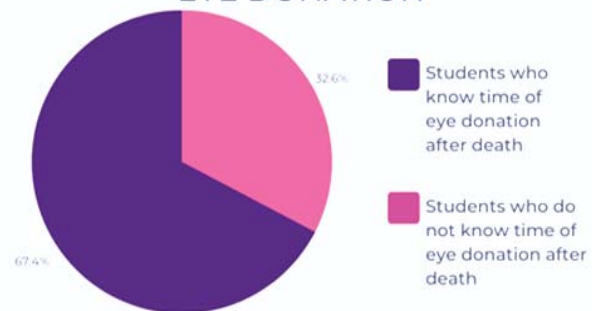
OBSERVATION AND RESULTS

Our study reveals that all the 95 students (100%) who were part of the study have heard about eye donation. The main sources of information for these students were found to be peer groups, educational institutions and electronic media. Out of these, 59

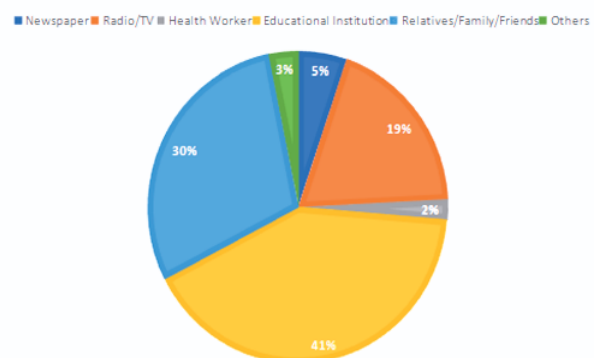
students (62.1%) showed willingness to donate eyes where as 36 students (37.89%) were unwilling to donate eyes, majority of them citing personal reasons. Other reasons being objection by family members and religious beliefs. 64 students (67.36%) knew that eyes can be donated upto 6 hours after death but only 29 students (30.52%) were aware about the eligibility criteria of eye donation; the rest 66 students (69.47%) were unaware on who can donate eyes. These 66 students were lacking knowledge regarding corneal blindness and corneal transplantation.



KNOWLEDGE ABOUT TIME OF EYE DONATION



SOURCES OF INFORMATION ON EYE DONATION



DISCUSSION

- Kacheri A. *et al.* conducted a study on 'Eye Donation: Awareness, Knowledge, Willingness, and Barriers among Paramedical and Allied Health Science Students at a Tertiary Care Teaching Hospital in South India' on 150 students. The study revealed that 93.3% students were aware about eye donation. 49% students were willing to donate, familial opposition was the main reason for those unwilling to donate.²
- Shadakshari SM *et al.* conducted a study on 'Awareness of Eye Donation Among Nursing Students' on 380 students. 72% of the students were aware about eye donation, 93% of them were willing to donate and 28% knew the ideal time of donation.³
- Chowdhury R.K. *et al.* conducted a study on 'Awareness of eye donation among medical and nursing students: A comparative study' on 112 medical and 115 nursing students. In their study, all medical students and 91% nursing students had heard about eye donation. The ideal time of donation was known to 69% medical students and 60.9% nursing students. 88.4% medical students and 79.1% nursing students were willing to donate eyes. Lack of awareness and familial objection were the reason for unwillingness to donate.⁴
- In our study, all the students had heard about eye donation. 62.1% students were willing to donate. 67.36% students knew the ideal time of eye donation but only 30.52% students knew the eligibility criteria of donation. Those unwilling to donate cited personal reasons, familial objection and religious beliefs.

CONCLUSION

According to our study, all the students were aware of eye donation and majority of them were willing to donate. The knowledge on ideal time of donation was known to many but the knowledge on other technical aspects of eye donation was found to be deficient. As nurses form the 1st line of patient care, they play a vital role in shaping opinions of patients and their relatives. Knowledge on various aspects of ocular diseases and eye donation needs to be imparted as their courses progresses so that

can educate and encourage the common public to donate eyes. This would increase the eye donation rates and ease the burden of blindness. Our eyes are a window connecting us to the outside world and it is necessary to preserve them.

Questionnaire used for the study

- Question 1 Have you heard about eye donation?
• Yes
• No (If No, go to Q6)
- Question 2 When did you hear about eye donation?
• In the last 1 year
• In the last 1-5 years
• 5 years back
• Never
- Question 3 How did you hear about it?
• Newspaper
• Radio/Television
• Health worker
• Education institution
• Family member/Relative/Friends
• Other sources
- Question 4 Can eyes only be donated after death?
• Yes
• No
• Do not know
- Question 5 Who can donate eyes?
• Any one irrespective of age after death
• Those who have not undergone cataract surgery
• Those who don't wear spectacles
• Only those below the age of 50 years
• Those without history of any chronic illness
• Others
• Do not know
- Question 6 Do you know of anyone who has donated eyes after death?
• Yes
• No
- Question 7 Will you donate your eyes after death?
• Yes
• No (If No, go to Q9)
- Question 8 If Yes, will you like to inform your family regarding your wish to donate?
• Yes
• No
- Question 9 Why don't you want to donate your eyes?
• Don't have time
• Religious beliefs
• Personal reasons
• It disturbs normal appearance of the body
• Others
- Question 10 Within how much time should the eyes be donated after death to maintain its quality?
• 0-6 hours
• 6-24 hours
• It is possible to donate even after 24 hours
• Do not know

REFERENCES

1. www.iapb.org/learn/vision-atlas.
2. Kacheri Aimanfatima, Mudhol Rekha, Chougule Sanjeev, Reny Rhema, Kamath Sagarika, Kamath Rajesh, Eye Donation: Awareness, Knowledge, Willingness, and Barriers among Paramedical and Allied Health Science Students at a Tertiary Care Teaching Hospital in South India, The Scientific World Journal, 2022 Feb 23, Article ID 5206043.
3. Shadakshari SM, Gagan YM, Awareness of Eye Donation Among Nursing Students, Ophthalmology and Allied Sciences, May-August 2018, volume 4 number 2.
4. Chowdhury Ravindra K., Dora Jayashree, Das Pooja, Awareness of eye donation among medical and nursing students: A comparative study, Indian Journal of Ophthalmology, 2021 Jun; 69(6):1511-1515.