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Eye Donation Awareness Among Nursing Staff Of Tertiary Health Care Teaching Hospital In Aurangabad

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Abstract

Purpose: Study the awareness for eye donation among Nursing staff at tertiary health care teaching hospital.

Methods: This is a prospective cross-sectional study. A predesigned questionnaire of 19 questions was distributed among all the participants over a period of 6 months.

Results: 163 participants belonged to age group of 20-30 years. 82.9% were previously aware about eye donation of which 42.5% attributed their awareness to health workers. However, other aspects assessed had much lower awareness rates; 47.3% were unaware there is no age limit restricting the donation of eyes. 53.45% were aware of optimal time period for retrieval of tissue, ideal part transplanted (64.47%), donation by donors using spectacles (47.6%). 56% (154) were unaware of eye donation after cataract surgery, 57.1% responded about having knowledge of eye bank in vicinity, 61.81% were aware that only first degree relative can give consent for eye donation. 69.09% were willing to pledge their eyes.

Conclusion: There needs to be more effort made to guarantee that knowledge is passed on to our healthcare professionals, who will subsequently share it with the general public and raise donation rates. Knowledge levels appear to be below expectations.

Keywords: Eye donation, nursing staff, awareness

Introduction

Visual impairment has physical, emotional, social, and economical consequences and is a crucial element influencing one's quality of life. A total of 1.285 million people is estimated to be visually impaired worldwide of which 39 million are categorised as blind [(1)]

In India, approximately 68 lakh people suffer from corneal blindness in at least one eye; of these, 10 lakh people are blind in both their eyes.

The National Blindness and Visual Impairment Survey 2019 reported that corneal blindness was the leading cause of blindness among patients aged less than 50 years in India, accounting for 37.5% of the cases and was the second leading cause of blindness among patients above the age of 50 years. [(2)]

Bilateral corneal blindness is one of the most common causes of blindness, accounting for 12% of the world's blind people. [(3)]

Causes of corneal blindness includes ocular trauma, microbial keratitis, trachoma, vitamin A deficiency, ophthalmia neonatorum, harmful traditional medicines, onchocerciasis and leprosy. [(3)]

There is requirement of at least 2.77 lakh corneas annually to combat corneal blindness, but to our dismay, the annual procurement of corneas is mere 63,256 on an average. [(3)]

Additionally, utilization rates of tissues range from 33 to 49% due to the poor quality of the tissue or clinical reasons. There is a huge gap between the need and availability of healthy corneas for transplantation. [4]

Between April 2019 and March 2020 (the year before pandemic) there was a total of 50,953 eye donations in the country. After pandemic between year April 2020 and March 2021 the number reduced to 12,998 according to Eye Bank Association of India. [5]

Hospital Cornea Retrieval Programme (HCRP) aims at the retrieval of cornea tissue from eligible and willing donors after death in the hospital. And an established team consist of ICU nursing staff, grief counsellor and eye bank staff. Since the ICU nursing staff is an evolved health-care providers for the community, they are expected to influence and positively increase the eye-donation rates in hospitals. Hence, this study was designed to assess nursing staff awareness and attitude towards eye donation and their willingness to pledge their eyes.

Materials And Methods

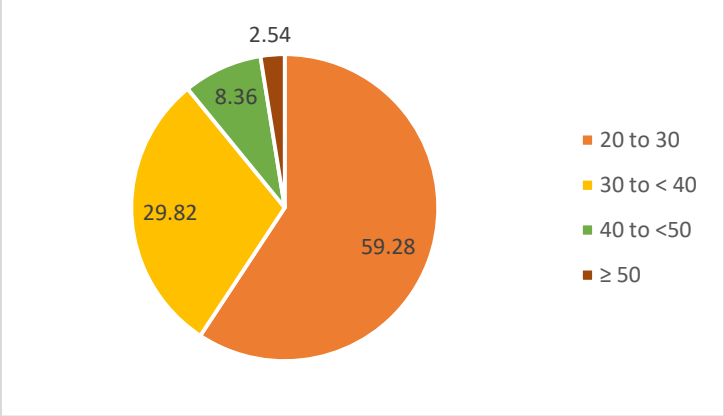
This is a prospective cross-sectional study done over a period of 6 months. Nursing staff at a tertiary care teaching hospital were selected and a convenience sample strategy was used to select participants and gather data. Nursing health professionals were given a predesigned structured questionnaire comprising of 19 questions. Written consent and the demographic details of the respondents were obtained prior to their participation. It was used to estimate the awareness of eye donation and willingness to pledge eyes for donation. The responses were noted accordingly.

Inclusion Criteria: All nursing health professionals were included

MS Excel version 10 was used to compile and analyse the data, and the results were obtained using percentage and descriptive statistics.

Results

According to Age distribution



The maximum number of participants belonged to age group of 20 to 30 years.

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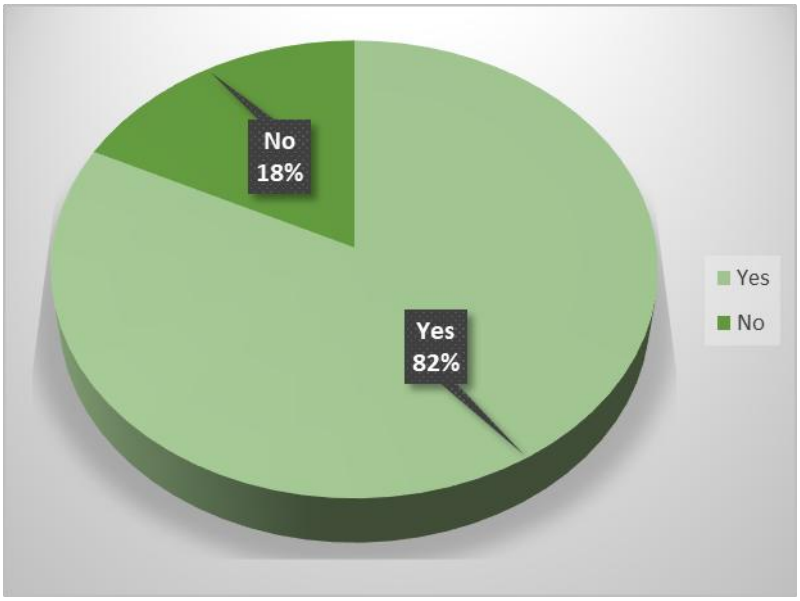
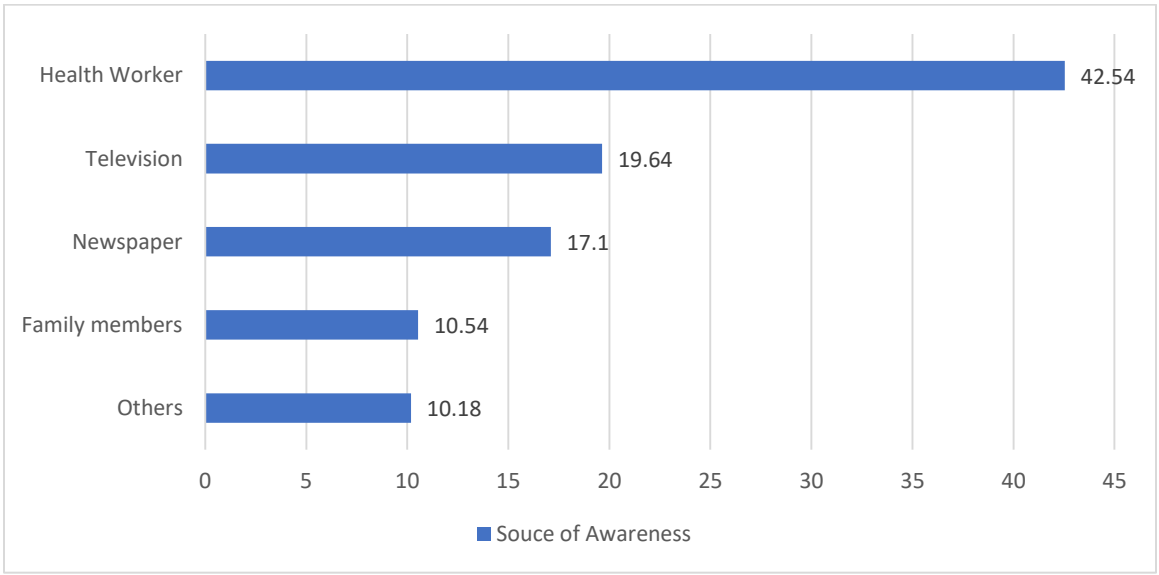
Awareness of Eye Donation



82% participants were aware of about eye donation

Source of Awareness



Showing the knowledge of participants for eye donation

Sr. No	Questions	Common Response	Percentage (%)
1	Age limit of Eye Donation	Unaware	47.30%

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2	Optimal time of retrieval	Within 6 hours	53.45%
3	Appropriate knowledge about part to be transplanted	Cornea	64.47%
4	Can people using spectacles donate eyes?	Yes	47.30%
5	Does eye donation need prior consent?	Yes	47.23%
6	Can eye donation be done after cataract surgery?	No	56%
7	Knowledge of eye bank in vicinity	Yes	57.10%
8	Who can give consent for eye donation?	First degree relative	61.81%
9	Willing to pledge eyes?	Yes	69.09%
10	Reason for eye donation?	Noble cause	46.90%

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11	Reason for not donating eyes?	Lack of awareness	29.09%

Discussion

According to the findings of this study, 82.9% of participants were aware of eye donations, which is still shy of the required 100 percent optimal result considering the healthcare background of the participants. A similar study conducted by **Sushma et al.** [6] among medical and paramedical students in tertiary care hospital revealed a 99.2 percent awareness rate. In a study by **Priyadarshan B et al**, among the south Indian population, 50.7% of participants were aware of eye donation. [7] Similarly in a study by **Suresh K et al**, on rural and hospital-based population 98% of the subjects among 425 were aware about the eye donation. [8]

When asked about the sources of their awareness regarding eye donation, majority of the participants (42.5%) stated that the health worker is their primary source of information. In a study done by **Aimanfatima Kacheri et al** [1] majority of the participants (46%) stated that the media is their primary source of information. A study carried out by **Nekar et al.** [7] revealed that 69.1 percent of the participants identified media to be their primary source of information (44.8% from television and 24.3% from newspapers). This discrepancy from our study was due to the fact that these studies included all college students and our study included participants from health care sector i.e., nursing professionals.

In our study 47.3% were unaware there is no age limit restricting the donation of eyes. In a study by **Aimanfatima Kacheri et al** [1] 67% of students were aware that age limit was not a restriction for eye donation.

In our study 53.45% were aware about the optimal time of retrieval i.e., within 6 hours. In a similar study by **Aimanfatima Kacheri et al** [1] 54% (81), were well aware of the optimal time for retrieval of eyes after death. In a study **Nekar et al.** [7] majority (61%) knows that eyes should be donated within 6 hours. In a study done by **Gupta A et al** [9] 32.8% knew that the ideal time for donation is within 6 hours of death.

In our study, 64.47% had appropriate knowledge about the part to be transplanted while eye donation i.e., cornea. In a study done by **Aimanfatima Kacheri et al** [1] 85 (56%) were aware that the cornea is transplanted, while 42 (32%) were not aware of which part of the eye is transplanted during eye donation. In the study done by **Nekar et al.** [7] majority 62.2% of students thought that whole eye is transplanted to restore the vision. In study done by **Gupta A et al** [9], on nursing students' large number of students 74.4% knew that the donated eye is used for corneal grafting. [9]

In our study 47.6% (131) were aware that people using spectacles can donate their eyes while 40.36% (111) were unaware about it and 12% (33) had no clue about it. In a study by **Aimanfatima Kacheri et al** [1] 52% (78) were unaware that people using spectacles can donate their eyes.

In our study 47.27% (130) were aware that eye donation requires prior consent. In a study by **Aimanfatima Kacheri et al** [1] 81% (122) were aware that eye donation requires prior consent.

In our study 57.1% (157) responded about having knowledge of eye bank in vicinity. 63% (94) of students in a study by **Aimanfatima Kacheri et al**. [1] were aware that their hospital has an eye bank. In the study by **Nekar et al.** [7], 74.1% of participants were unaware of any eye banks in the area, but they were aware that hospitals with eye banks were the best locations for collecting eyes. In the study by **Gupta A et al.** [9], only 62 (32.9%) nursing students were aware of the proper location for an eye donation.

In our study out of 275 participants 69.09% (190) were willing to pledge their eyes and 30.91% were not willing to pledge their eyes. Out of 150 students in a study by Aimanfatima Kacheri et al. [1], 73 (49%) were willing to pledge their eyes and 77 (51%) were unwilling to pledge their eyes.

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In our study 29.09% (80) stated “lack of awareness,” 18.5% (51) stated “objection by family,” 7.27% (20) stated religious restriction, 11.27% (31) stated reason as disfigurement of body, 6.9% (26) were unsure about the appropriate use of donated eyes while 24.3% (67) thought health related restrictions as reasons for non-willingness to donate eyes. In a study by **Aimanfatima Kacheri et al.** (1), 14% (11) of participants gave reasons for not registering as donors, including "lack of awareness," "objection by family," 22% (17), "unacceptable idea of the removal of eyes," and "will be born blind in the subsequent birth." 63% (48) of participants gave reasons for such opposition.

Conclusion

The nursing professionals who will support our healthcare system in the future are essential to promote eye donation because of their level of knowledge and awareness. These nursing staff have maximum interaction with the patients thus they can counsel the potential donors and their families for eye donation. This will strengthen the Hospital Cornea Retrieval Programme. But failing to share this knowledge could have severe effects because one can lose a lot of potential donors. India's transfer demands cannot be met by current corneal donation rates, and each chance lost exacerbates this problem. This report is crucial because it shows how uninformed our young healthcare professionals are.

To create change, a lot of work must go into conveying knowledge. Media should be used to spread awareness since it is a potent weapon for making sure that information is transmitted in a way that has a long-lasting effect on the audience. Analysing the broad lack of knowledge is necessary so that it can be effectively addressed.

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