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Research Article

Study to Assess the Awareness and Perception Regarding Eye Donation among Students Studying in Selected Colleges in Bengaluru

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Abstract

Background: Corneal transplantation is the most successful among all forms of organ transplant procedures. Organ donation is a sensitive issue all over the world. Ironically, the impact of a shortage of donor eyes is most glaring in the developing conservative Asian countries like India. **Aim:** The aim of this study was to assess the awareness and perception of college students regarding eye donation and to associate the relationship between the level of awareness and perception with selected socio-demographic variables. **Materials and Methods:** The researcher adopted a descriptive design for the study. Sixty college students studying in Sri Krishna Degree and PU College, Bengaluru, were selected, and data were collected using socio-demographic data and knowledge questionnaire. The data were analyzed in terms of the objectives of the study using descriptive statistics. **Results:** The overall mean score of awareness regarding eye donation found to be 74.1% and an overall mean score of perception regarding eye donation was found to be 72.01% among the respondents. The mean score was highest (74.6%) in respondents whose mothers were postgraduates than others. The result established non-significant association (t = 0.54 NS at $P > 0.05$ level) between age and knowledge aspect. The mean score was highest (74–82%) in respondents whose mothers were unemployed than others. The result established non-significant association (t = 0.51 NS at $P > 0.05$ level) between age and knowledge aspect. **Conclusion:** The college students were having adequate awareness and perception regarding eye donation, and there was a significant association between the levels of awareness and perception regarding eye donation with socio-demographic variables like a place of stay.

Key words: Awareness, eye donation, perception, socio-demographic variables

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Introduction

It is estimated that there are about 180 million people in the world who are blind, of who 20 million live in India.[1] The importance of corneal disease as a major cause of blindness in the world today remains second only to cataract.[2] The prevalence of traditional causes of corneal blindness, such as trachoma, onchocerciasis, and leprosy, has reduced, so ocular trauma and corneal ulcer are more important.[3]

Most of the corneally blind are blind from their childhood and, therefore, cannot be educated and become non-earning members of the family. If they are not treated and cured, they remain a burden to their family and the country for the rest of their lives.[4]

Corneal transplantation is the most successful among all forms of organ transplant procedures. Organ donation is a sensitive issue all over the world.[5] Ironically, the impact of a shortage of donor eyes is most glaring in the developing conservative Asian countries like India, where

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corneal diseases account for a large proportion of curable blindness.[6] The collection of donor eyes is therefore a priority in any organized effort to alleviate the needless scourge of blindness. There are several impediments to the collection of donor eyes. An understanding of strategies that may be useful in overcoming these constrains is helpful.[7]

Recently, the factors affecting cornea procurement and attitude of the public regarding eye donation in the developed world have received attention but not much in the developing world.[8] The level of public education regarding eye donation has to be raised as an important first step to increase cornea procurement. Many studies have assessed the awareness and perception in different parts of the country. The study regarding awareness regarding eye donation is relatively less in this region.[9-11] With this in mind, the present study was done to assess the awareness and perception regarding eye donation among students studying in selected colleges in Bengaluru.

Background and objectives

The present study was an attempt to assess the awareness and perception of college students (18–25 years) regarding eye donation in the Sri Krishna PU and Degree College.

The objectives of this study wereare as follows:

1. To assess the awareness and perception of college students regarding eye donation
2. To associate the relationship between the level of awareness and perception with selected socio-demographic variables.

Materials and Methods

The researcher adopted a descriptive design for the study. Sixty college students studying in Sri Krishna Degree and PU College, Bengaluru, were selected, and data were collected using socio-demographic data and knowledge questionnaire. The data were analyzed in terms of the objectives of the study using descriptive statistics such as mean and standard deviation and inferential statistics on the basis of objectives and the hypothesis of the study.

Results

Findings related to awareness and perception regarding eye donation

The overall mean score of awareness regarding eye donation was found to be 74.16% and an overall mean score of perception regarding eye donation was found to be 72.01% among the respondents. Table 1 shows the salient findings from the background information.

Findings related to the association between awareness and perception regarding eye donation with demographic variables

The mean score was highest (73.68%) in male respondents than females. The result established non-significant association (t = 0.61 NS at $P > 0.05$ level) between age and knowledge aspect. The mean score was highest (76.26%) in respondents in the age group of 18 below years. The result established non-significant association (t = 0.86 NS at $P > 0.05$ level) between age and knowledge aspect. The mean score was highest (75.62%) in Hindus than the Muslims and Christians. The result established non-significant association (t = 1.4 NS at $P > 0.05$ level) between age and knowledge aspect. The mean score was

Table 1: The salient findings from the background information

Characteristics	Category	Respondents	
		Number	Percent
Age group	18–below	16	26.67
	19–20 years	31	51.67
	21–above	13	21.67
Sex	Male	30	50
	Female	30	50
Religion	Hindu	27	45
	Christian	18	30
	Muslim	11	18.33
	Others	4	6.67
Family income (monthly)	Below–Rs.5000/-	8	13.33
	Rs.5001–Rs.10,000/-	15	25
	Rs.10,001–Rs.15,000/-	27	45
	Above Rs.15,000/-	10	16.67
Type of family	Joint family	27	45
	Nuclear family	29	48.33
Education of the father	Illiterate	0	0
	Primary school	12	20
	High school	19	31.67
	Higher secondary	11	18.33
	Graduate	14	23.33
	Postgraduate	4	6.67
Education of the mother	Illiterate	0	0
	Primary school	18	30
	High school	15	25
	Higher secondary	14	23.33
	Graduate	9	15
	Postgraduate	4	6.67
Occupation of the father	Unemployed	4	6.67
	Private job	7	11.67
	Government service	17	28.33
	Business	22	36.67
	Self-employee	10	16.67
Occupation of the mother	Unemployed	18	30
	Private job	12	20
	Government service	15	25
	Business	8	13.33
	Self-employee	7	11.67

highest (44.53%) in respondents from extended family than those from nuclear and joint family. The result established non-significant association (t = 0.71 NS at $P > 0.05$ level) between age and knowledge aspect. The mean score was highest (74.68%) in respondents with family income Rs. 8000 and above. The result established non-significant association (t = 0.49 NS at $P > 0.05$ level) between age and knowledge aspect. The mean score was highest (74.14%) in respondents who were staying with their parents (home) than those staying in a hostel. The result established a significant association (t = 2.67 NS at $P > 0.05$ level) between age and knowledge aspect. The mean score was highest (75%) in respondents whose father has higher secondary education than others. The result established non-significant association (t = 0.67 NS at $P > 0.05$ level) between age and knowledge aspect. The mean score was highest (74.6%) in respondents whose mothers were postgraduates than others. The result established non-significant association (t = 0.54 NS at $P > 0.05$ level) between age and knowledge aspect.

The mean score was highest (73.08%) in respondents whose fathers were businessmen than others. The result established non-significant association (t = 0.79 NS at $P > 0.05$ level) between age and knowledge aspect. The mean score was highest (74–82%) in respondents whose mothers were unemployed than others, as shown in Table 1. The result established non-significant association (t = 0.51 NS at $P > 0.05$ level) between age and knowledge aspect.

The result of the study showed a statistically significant association between the level of awareness and perception college students regarding eye donation and the place of stay.

Discussion

In our study, 72.01% participants knew about eye donation which is dissimilar to studies conducted by Vijayalakshmi *et al*., in Bengaluru, where 93.8% knew, Singh *et al*. in an urban slum in New Delhi, where 65.72% knew, and Krishnaiah *et al*. in rural Andhra Pradesh, where 28% knew.[12-14] This difference is may be due to more of the rural population.

India has become the world's largest number of blind people. Statistics on eye donation here paint a rather dark picture for persons blind from corneal diseases.[15] Of the 37 million people across the globe who are blind, over 15 million are from India. Although the large proportion of corneal blindness adds to the social and economic burden every year, eye banking in India is at a nascent stage. However, 75% of the cases are avoidable blindness, and this could be due to the country's acute shortage of transplant surgeons and donated eyes for the treatment of corneal blindness. While India needs 2.5 lakh donated eyes every year, the country's 109 eye bank manages to collect a maximum of just 25000 eyes, and 30% of which cannot be used. Corneal transplantation is the most successful among all organ transplant procedures. However, throughout the developing world, there is a shortage of corneas. Therefore, to increase eye donation, it is essential to enhance awareness among potential donors and dispel their misconceptions.[15]

The awareness regarding eye donation should be increased so that the public's attitude would be more favorable to facilitate an increase in the number of corneas available for transplantation. The statistics on eye donation in India shows that there is a considerable and constantly growing backlog of corneal transplantation. In the present study, the investigators identified that both the rural and urban higher secondary school students had severed lack of knowledge regarding eye donation. The following studies support the findings of the current study: Krishnaiah *et al*. conducted a study on awareness of eye donation in the rural population of Indian 7775 subjects of all ages respective of the rural population of Andhra Pradesh, the result shows that out of 30.7% only 0.1% had pledged their eyes, that is, one-third of those aware of eye donation have not pledged their eyes an addition 50.6% needed more information to decide, it means only about one fifth of those aware of eye donation that has pledged their eyes.[14] Another study conducted by Biswas *et al*. on awareness of eye health care and eye donation among secondary level school students of North Kolkata concluded that media publicity to increase awareness of eye donation and eye health care is not enough. Strategies have to be developed to educate the students so that they can act as motivators for enhancing eye donation and increasing eye health-care awareness in the community.[16]

The following study contradicts the findings of the present study: A cross-sectional study done by Simon George and Prashob Mohan on awareness, knowledge, and attitude to eye donation among the residents of Thiruvananthapuram, Kerala State, India, concluded that although Thiruvananthapuram has a high level of awareness about eye donation, a significant number of people is unwilling to donate their eyes mainly due to their misconceptions.[17] It is expected that the number of individuals with unilateral corneal blindness in India will increase to 10.6 million by 2020.[18] Hence, as long as there is a properly documented will of the donor and written consent of relatives, no law prevents the removal of donor eyes for corneal grafting. Higher secondary school students are the future citizens of the country. If they are sufficiently got educated about eye donation, they can spread the message among their friends and family members. Thus, they will act as important motivators and ultimately enhance eye donation rates in our country.

Conclusion

The results of the study revealed that the college students were having adequate awareness and perception regarding eye donation and there was a significant association between the levels of awareness and perception regarding eye donation with socio-demographic variables like a place of stay.

References

1. Thylefors B, Negrel AD, Pararajasegaram R, Dadzie KY. Global data on blindness. Bull World Health Organ 1995;73:115-21.
2. Whitcher JP, Srinivasan M, Upadhyay MP. Corneal blindness: A global perspective. Bull World Health Organ 2001;79:214-21.
3. Kestelyn P, Maertens K. Eye diseases. In: Health in Central Africa Since 1885: Past, Present and Future. Belgium: Universiteit Gent; 1997.
4. Keerthana KE. Clinical and Lab Studies on Suspected Cases of Microbial Keratitis: A Hospital Based Study. Chennai: Doctoral Dissertation, Stanley Medical College; 2013.
5. Saini JS, Reddy MK, Jain AK, Ravindra MS, Jhaveria S, Raghuram L. Perspectives in eye banking. Indian J Ophthalmol 1996;44:47.
6. Gupta R. Risky Sex, Addictions, and Communicable Diseases in India: Implications for Health, Development, and Security. Washington, DC: Chemical and Biological Arms Control Institute; 2004.
7. Rao GN. The Barrie Jones lecture-eye care for the neglected population: Challenges and solutions. Eye (Lond) 2015;29:30.
8. Diamond GA, Michael C, Mussoline JF, Robert AD. Obtaining consent for eye donation. Am J Ophthalmol 1987;103:198-203.
9. Mack RJ, Mason P, Mathers WD. Obstacles to donor eye procurement and their solutions at the University of Iowa. Cornea 1995;14:249-52.
10. Doering JJ. Families experiences in consenting to eye donation of a recently deceased relative. Heart Lung 1996;25:72-8.
11. Saini JS. Realistic targets and strategies in eye banking. Indian J Ophthalmol 1997;45:141-2.
12. Vijayalakshmi P, Thiyagarajan S, Gandhi S, Thimmaiah R, Math SB. Knowledge, attitude and behaviour of the general population towards organ donation: An Indian perspective. Natl Med J India 2016;29:257-61.
13. Singh A, Gupta N, Ganger A, Vashist P, Tandon R. Awareness regarding eye donation in an urban Slum population: A community-based survey. Exp Clin Transplant 2018;16:730-5.
14. Krishnaiah S, Kovai V, Nutheti R, Shamanna BR, Thomas R, Rao GN. Awareness of eye donation in the rural population of India. Indian J Ophthalmol 2004;52:73-8.
15. Dhaliwal U. Enhancing eye donation rates. Training students to be motivators. Indian J Ophthalmol 2002;50:209-12.
16. Biswas J, Bandyopadhyay S, Das D, Mondal KK, Saha I, Ray B. A study in awareness about eye health care and eye donation among secondary level students of North Kolkata, India. Kathmandu Univ Med J (KUMJ) 2010;8:317-20.
17. George S, Mohan P. Awareness, knowledge and attitude regarding eye donation in Thiruvanantapuram district south India. Int J Recent Trends Sci Tech 2015;14:322-5.
18. Dandona R, Dandona L. Corneal blindness in a southern Indian population: Need for health promotion strategies. Br J Ophthalmol 2003;87:133-41.