

KNOWLEDGE REGARDING EYE DONATION AMONG NURSING STUDENTS OF A TERTIARY CARE HOSPITAL

Oshan Dev¹, Nisha Kumari Shah²

¹ Nobel Medical College Teaching Hospital, Morang, Nepal

² Birgunj Nursing Campus, Institute of Medicine, Tribhuvan University, Parsa, Nepal

Correspondence: Nisha Kumari Shah, Teaching Assistant, Department of Child Health Nursing, Birgunj Nursing Campus, Institute of Medicine, Tribhuvan University, Nepal

Email: Shahneesha2023@gmail.com, Phone no: 9805334565

ABSTRACT

Background: Eye donation is a process in which an individual donates one's eyes after his/her death. Eye donation involves the recovery, preparation and delivery of donated eyes for corneal transplants and research. The objective of the study was to assess the knowledge regarding eye donation among nursing students.

Methods: A descriptive cross-sectional research design was adopted to assess the knowledge regarding eye donation among nursing students of Nobel Medical College Teaching Hospital. A self-administered structured questionnaire was adopted for data collection. Non-probability total enumerative sampling technique was used to select the sample which was 79. Data collected were entered into SSPS version 16 & analyzed by using descriptive statistics and inferential statistics.

Results: The findings of the study showed that, nearly half (45.6%) of the respondents had moderate knowledge regarding eye donation and there was statistically significant association between level of knowledge regarding eye donation with mother educational status.

Conclusions: The findings of the study concluded that nearly half of the respondents had moderate knowledge regarding eye donation. There was statistically significant association between level of knowledge regarding eye donation with mother's educational level. The findings of the study further concluded that, it is necessary to increase knowledge of students by adding the content regarding eye donation in the curriculum.

Keywords: Eye donation, knowledge, nursing students

INTRODUCTION

Eye donation is an act of donating one's eye after his/her death.¹ Globally, at least 2.2 billion people have a near or distance vision impairment.² Nepal is one of the first countries in South Asia to launch VISION 2020: The Right to Sight a global campaign initiated by World Health Organization on November 19, 1999. Strategic plan for eye care services in Nepal was developed by the Ministry of Health/Apex Body for Eye Health from 2002-2020.³

Eye donation involves the recovery, preparation and delivery of donated eyes for corneal transplants and research. The first successful corneal transplant was performed in 1905, and the first eye bank was founded in 1944. According to estimation provided by the World Health Organization (WHO), someone goes blind every five seconds, which is extremely alarming when

80% of known visual impairments are either curable or preventable.⁴

The eye bank of Til ganga Institute of Ophthalmology is an unprecedented facility in Nepal and is supported by International Federation of Eye and Tissue Bank (IFETB) and was started from September 13th, 1994 AD. The first Donor was Chini Maya Tuladhar and the first corneal transplantation took place on 19th year. According to the data of 2021, the number of people pledging for eye donation in Nepal eye bank was 7, 11,052.⁵

METHODS

A quantitative cross-sectional descriptive study was conducted in Nobel Medical College Teaching Hospital. Non-probability total enumerative sampling technique was used for the selection of 79 nursing students. Samples were PCL Nursing 2nd and 3rd year students.

Self-administered structured questionnaire was prepared. The questionnaire consisted of two parts. Part- I consisted of questions related to the socio demographic variables of the respondents including the age, religion, father's education, mother's education, academic year, history of eye donation in family and source of information. Part II consisted of questions related to the knowledge regarding eye donation which included total 22 questionnaires. There were 6 multiple response questions and 14 multiple choice questions. For multiple choice questions, correct answer was given 1mark and for incorrect answer was given 0 marks. For multiple response questions, each correct answer was given 1mark. The total score was 35.

Pretesting was done in Birat Health College, Biratnagar. Ethical approval was taken from IRC of Nobel Medical College Teaching Hospital. Similarly, permission from Nursing Director and respective Class Co-ordinator were also taken. Verbal and Written consent were taken from each respondent. Confidentiality was maintained by not disclosing the information to anyone and used only for research purpose. Anonymity was maintained through coding. Self-introduction was given and the purpose of the study was explained to all selected respondents prior to the data collection and the duration of data collection was 25-30 minutes.

The completed forms were checked to ensure completeness of the information. The collected data was coded then, entered in Microsoft Excel 2010 and converted into SPSS (Statistical Package for Social Science) version 25 for statistical analysis. Frequency and percentage were calculated for descriptive statistics along with appropriate tabular presentation. Chi-square test was used to find out the association between the knowledge regarding eye donation with selected socio-demographic variables.

RESULTS

Table 1. Socio-demographic data of the respondents
n=79

Characteristics	Number	Percent
Age in years		
< 20years	67	84.8
≥20years	12	15.2
Religion		
Hindu	68	86.1
Buddhist	6	7.6
Christian	2	2.5
Kirat	3	3.8

Characteristics	Number	Percent
Academic year		
PCL Nursing 2 nd year	39	49.4
PCL Nursing 3 rd year	40	50.6
Father's education		
Can read and write	78	98.7
Cannot read and write	1	1.3
If can read and write		
Informal	4	5.1
Basic(Grade1-8)	14	17.7
Secondary(Grade9-12)	42	53.2
University(Above12)	18	22.8
Mother's education		
Can read and write	76	96.2
Cannot read and write	3	3.8
If can read and write		
Informal	6	7.6
Basic(Grade1-8)	17	21.5
Secondary(Grade9-12)	46	58.2
University(Above12)	7	8.9
Is there any history of eye donation in family?		
Yes	0	0.0
No	79	100.0
Source of information		
Television	50	63.3
Internet	56	70.9
Newspaper	29	36.7
Friends/Relatives	31	39.2
Books	37	49.9

Table 1 shows socio-demographic characteristics of respondents that most (84.8%) of the respondents fall under age group of <20years. Similarly in religion, most (86.1%) of respondents were Hindu. Half (50.6%) of the respondents were from PCL Nursing 3rd year. Regarding respondents' father's educational status, nearly all (98.7%) of respondents can read and write and among them more than half (53.2%) of respondents studied above secondary (Grade 9-12). Nearly all of respondents' mothers (96.2%) can read and write and among them more than half (58.2%) had studied above secondary (Grade 9-12). Regarding history of eye donation in family, all (100%) of the respondent's family had no any history of eye donation. In relation to the source of information, majority (70.9%) of the respondents had information regarding eye donation through internet.

Table 2. Level of knowledge regarding eye donation**n=79**

Knowledge level	Number	Percent
Good knowledge	27	34.2
Moderate knowledge	36	45.6
Poor knowledge	16	20.3

Table 2 shows that nearly half (45.6%) of the respondents had moderate level of knowledge regarding eye donation.

Table 3. Association between respondent's level of knowledge with socio-demographic variables**n=79**

Characteristics	Knowledge			P value
	Poor No. (%)	Moderate No. (%)	Good No. (%)	
Age				
< 20 years	23 (34.3%)	30 (44.8%)	14 (20.9%)	0.926
≥ 20 years	4 (33.3%)	6 (50.0%)	2 (16.7%)	
Religion				
Hindu	23 (33.8%)	30 (44.1%)	15 (22.1%)	0.598
Others ©	4 (36.4%)	6 (54.5%)	1 (9.1%)	
Academic year				
PCL Nursing 2nd year	11(28.2%)	19(48.7%)	9(23.1%)	0.529
PCL Nursing 3rd year	16(40.0%)	17(42.5%)	7(17.5%)	
Father's education				
Can read and write	27(34.6%)	36(46.2%)	15(19.2%)	0.136
Can't read and write	0(0.0%)	0(0.0%)	1(100.0%)	
Mother's education				
Can read and write	27(35.5%)	35(46.1%)	14(18.4%)	0.106
Can't read and write	0(0.0%)	1(33.3%)	2(66.7%)	
If can read and write				
Below secondary®	13(56.5%)	7(30.4%)	3(13.0%)	0.027
Above secondary £	14(26.4%)	28(52.8%)	11(20.8%)	

Note: Significant ($p < 0.05$), chi square test), ®= Informal, Basic (Grade1-8),

£= Secondary (Grade9-12), University (Above12), ©=Buddhist,Christian,Kirat

Table 3 shows, there was no significant association between level of knowledge and socio-demographic variables whereas there was statistically significant association between level of knowledge regarding eye donation with mother's educational level.

DISCUSSION

The above finding was supported by the study conducted in 2021 which showed that majority of the respondents (61.5%) had moderate knowledge, 34.6% of the respondents had poor knowledge and only few (3.9%) of the respondents had good knowledge.⁵ Similarly, the study was also supported by study conducted in 2015 which showed that majority (79.7%) of the respondents

had average knowledge, (17.7%) had poor knowledge and (2.7%) had good knowledge regarding eye donation.¹⁵

Similarly, regarding the second objective the above findings were supported by the study conducted 2021 which showed association of level of knowledge with source of information (0.000) at < 0.05 level of significance and level of knowledge was not significantly associated with respondent's religion (0.61) and academic year (0.211) at < 0.05 level of significance.⁵ The above findings were supported by the study conducted in 2017 which showed association of level of knowledge with respondent's mother education (0.0001) at < 0.05 level of significance and there wasn't significant association of knowledge with religion (0.0001) at < 0.05 level of significance.¹¹

CONCLUSIONS

The findings of the study concluded that nearly half of the respondents had moderate knowledge regarding eye donation. The level of knowledge tends to vary according to mother's educational level. The findings of the study further concluded that, it is necessary to increase knowledge of students by adding the content regarding eye donation in the curriculum.

ACKNOWLEDGEMENTS

The author would like to express the deepest appreciation to all the participants who have provided enormous support and co-operation during the study.

CONFLICT OF INTEREST

There is no conflict of interest during study.

REFERENCES

- Basnet A, Basnet P S, Lamichhane R S, Shrestha P. Awareness, Knowledge and Willingness Regarding Eye Donation among Dental Students of Kist Medical College and Teaching Hospital, Lalitpur, Nepal. *Journal of Chitwan Medical College*. 2019 Jun 21;9(28):47-53. DOI: <http://doi.org/10.3126/jcmc.v9i2.24533>
- World Health Organization. Vision impairment and blindness. October 2021 [cited on 2022 Jul 10] Available from: <https://www.who.int/news-room/fact-sheets/detail/blindness-and-visual-impairment>
- Nepal EH. Eye Care in Nepal. *Eye Health Nepal*. 2020 [Cited on 2022 Jul 10] Available from: <https://www.eyehelthnepal.com/eye-care-in-nepal/>
- Kacheri A, Mudho I R, Chougule S, Reny R, Kamath S, Kamath R. 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*. Feb; 2022:e5206043. DOI:<https://doi.org/10.1155/2022/5206043>
- Maharjan R K, Bajracharya N, Awale S. Knowledge and Attitude Regarding Eye Donation among Students of Kathmandu University School of Management; A Cross-Sectional Online Survey. *International Journal of Health Science and Research*. 2021;11(5):313-22. DOI: <https://doi.org/10.52403/ijhsr.20210549>
- Dhaliwa I U. Enhancing eye donation rates. Training students to be motivators. *Indian J Ophthalmol*. 2002 Sep;50(3):209-12. Available from: <https://pubmed.ncbi.nlm.nih.gov/12355696/>
- Singh M M, Rahi M, Pagare D, Ingle GK. Medical students' perception on eye donation in Delhi. *Indian J Ophthalmol*. 2007 Feb;55(1):49-53. Available from DOI:10.4103/0301-4738.29495.
- Raj A, Dhasmana R, Bahadur H, Bhandari SS. Awareness, Knowledge and attitude regarding eye donation in school going children in Uttarakhand. *International Journal Community Medicine and Public Health*. 2018 Apr 24;5(5):1909-15. DOI: <http://dx.doi.org/10.18203/2394-6040.ijcmph20181697>
- Jena P, Jena D, Kar M, Nayak R. A study on knowledge regarding eye donation among first year nursing students of a nursing school and college of Berhampur, Odisha. *International Journal of Research in Medical Sciences*. 2017 Oct 27;5(11):4942-5. DOI: <http://dx.doi.org/10.18203/2320-6012.ijrms20174949>
- Kaiti R, Dhunge I P, Pradhan A, Chaudhry M. Knowledge and Attitude on Eye Donation among Undergraduate Medical Students of Kathmandu University School of Medical Sciences, Nepal. *Kathmandu Univ Med J*. 2021 Mar;19(73):3-8. Available from: <https://pubmed.ncbi.nlm.nih.gov/34812150/>
- Gupta P C, Duggal M, Jamir L, Sharma D, Kankaria A, Sathyanath S, et al. Knowledge and Attitude Toward Corneal Donation Among High School Children in Northern India. *Cornea*. 2017 May;36(5):611-6. doi:10.1097/ICO.0000000000001164
- Lal B, Usgaonkar U, Narvekar H, Venugopal D. Awareness and knowledge on eye donation among Allied Health Sciences, medical, and nursing students in Goa. *Journal of Current Ophthalmology*. 2018 Sep;30(3):255-62. DOI: <http://www.journals.elsevier.com/journal-of-current-ophthalmology>
- Chowdhury R K, Dora J, Das P. Awareness of eye donation among medical and nursing students: A comparative study. *Indian Journal of Ophthalmology*. 2021 Jun;69(6):1511-5. doi:10.4103/ijo.IJO_2053_20
- Jena P, Jena D, Kar M, Jena P, Nayak R. A study on knowledge regarding eye donation among first year nursing students of a nursing school and college of Berhampur. Odisha. *Int J Res Med Sci*. 2017 Nov;5(11):4942-5. doi: <https://doi.org/10.18203/2320-6012.ijrms20174949>
- Silva F D. Knowledge and attitude towards eye donation among adolescents of a nursing institute in Mangalore. *International Journal of Advanced Research*. 2015 Aug;3(8):727-731. Available from: [ISSN 2320-5407 International Journal of Advanced Research \(2015\), Volume 3, Issue 8, 727 - 731 \(journalijar.com\)](https://www.ijar.com/)