



# A STUDY TO ASSESS THE AWARENESS AND PERCEPTION OF ADOLESCENTS ABOUT EYE DONATION IN SELECTED PU COLLEGES IN MANGALURU

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## ABSTRACT

Blindness is a worldwide problem. Corneal blindness accounts for 0.9% of blindness in India. Approximately 0.12 million people are corneal blind. Restoration of their vision is possible only through transplantation. Though 45000 eyes are collected every year, it does not meet half the requirement. Well-informed adolescents could be expected to enhance eye donation rates. To study the awareness and perception among the adolescents is assessed. This study was conducted in 100 adolescents. The results of the study indicate that although awareness regarding eye donation is average, there is a lack of motivation related to eye donation.

## Objectives of the Study

- To assess the awareness of adolescents regarding eye donation.
- To assess the perception of adolescents regarding eye donation.
- To find out the correlation between awareness and perception of adolescents regarding eye donation.
- To find out the association between awareness of adolescents regarding eye donation and selected demographic variables.
- To find out the association between perceptions score of adolescents regarding eye donation and selected demographic variables.

## Methods

A descriptive survey approach was adopted to determine the awareness and perception towards eye donation among adolescents. The study was conducted in a selected P U College Mangalore. The accessible population in the study was 100 students who are studying in PADUA College Mangalore.

## Results

It was observed that out of 100 students: Majority (63%) of the respondents were aged between 17-18 years. The percentage of male samples (50%) and female samples (50%) are equal. The maximum percentage (52%) subjects belonged to Hindu religion. Majority (59%) of did not know whether any of their family members had donated their eyes. Majority (89%) of subject's family members had not pledged to donate their eyes. Majority (93%) participant's acquaintances had not donated their eyes. Maximum percentage (68%) of the students had average awareness and 28% had poor awareness and only 4% had good awareness level regarding eye donation. Majority (82%) of students had good level of perception and 13% of students had average perception and only 5% of students had very good level of perception. There was a moderately positive correlation between awareness and perception among adolescents regarding eye donation. But the selected demographic variables have no significant association with the awareness level of students. The selected demographic variables have no significant association with the perception except religion of students (Chi-square=11.53).

## Interpretation and conclusion

The study concluded that out of 100 student's maximum percentage of students are having an average knowledge about eye donation and a good level of perception.

**Keywords:** Eye donation, awareness, perception, adolescents.

## INTRODUCTION

Eye is a peripheral organ of sight. It works like camera to perceive the image. Blindness is the condition which hampers the vision up to finger counting negative.[1] There are various causes of blindness of which some are preventable and some curable. Cataract is the one having satisfactory surgical answers operative are widely practiced all over the world. [2] Eye donation means donating the eye of the person after death for transplantation with the family consent. Anyone can be donor, irrespective of age, blood group, religion, anyone with cataract or spectacles can donate eyes. Persons suffering from hypertension, diabetics can also donate eyes. One can donate eyes of the departed relatives through they have never registered as eye donors. To donate the eyes of the departed, contact the nearest eye bank at anytime of the day or night. [2] Eyes have to be removed within 6-8 hours after death. Removal of eye will be taking only 15-20 minutes. It will be done right at the place where the body is at anytime of the day or night, without disfiguring the face and without any expense to the donor family. However 10ml of the decreased blood will collect for required tests. A comparative study was conducted to assess the knowledge and perception between the medical and engineering college students on eye donation in Pondicherry in 2016. Data was collected 679 students through structured questionnaire. The result revealed that all the students were aware of eye donation. Awareness on various parameters is higher among the medical students. The study was concluded that creations of awareness on donation can greatly improved current statistics. [3] Awareness about eye donation is very important among students because if they abandon their ignorance and start to donate eyes, a new revolution in eye donation can easily brought. For doing these on students have to unite and acting for the great. Students will have to acquaint basic concept of eye donation, after this India can acquire the target of large scale eye donation from Indian youth. So our main aim is to educate about different concept of eye donation. [4]

## Objectives of the study

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- To find out the association between awareness of adolescents regarding eye donation and selected demographic variables.
- To find out the association between perceptions score of adolescents regarding eye donation and selected demographic variables.

## METHODOLOGY

### Research Approach

A descriptive survey approach was adopted to determine the awareness and perception towards eye donation among adolescents in selected PU colleges in Mangalore.

### Research Design

Descriptive research design is used in the study. The selection of the design depends on the purpose and variables of the study. The purpose of a design is to achieve greater control and then improve the validity of the study in examine the research problem.

### Variables

**Dependant variable:** It is the out come or response due to the effect of the independent variable, which researcher wants to predict or explain. In this study awareness and perception of adolescent regarding eye donation are the dependent variable.

**Demographic variable:** The characteristics and attributes of the study subjects are considered demographic variables. In this present study demographic variable are age, sex, religion, family members have donated their eye, and family members have pledged to donate their eyes and acquaintances who have donated their eyes.

**Setting of the study:** Setting is the physical occasion and condition in which data collection take place in the study. The study was conducted in selected PU colleges in Mangalore.

**Population:** Population is the entire aggregation of cases that meet a designated set of criteria. In this study the population is adolescent students of PADUA PU college in Mangalore.

**Sample:** Sample refers to subset of a population selected to participate in a research study. In the study, the sample size is 100 adolescents' students in Padua PU College, Mangalore.

**Sampling Technique:** Non-probability convenience sampling technique.

### Criteria for selection of sample

#### Inclusion criteria:

- The study includes adolescents who:
- Are studying in the selected PU colleges of Mangalore.
- Are between the age group of 16 and 18 years.
- Can able to read and write in English.

#### Exclusion criteria

- The study excludes the adolescents:-
- Who are not willing to participate in the study

### Data collection procedure

- Subjects were selected according to the selection criteria.
- Informed consent was obtained from the sample.
- Questionnaire was administered to 100 adolescents in selected PU College in Mangalore.

RESULTS

Organization of the study findings

- The data is analyzed and presented under the following headings:
- Section A: Description of demographic variables
- Section B: Description of awareness score towards eye donation
- Section C: Description of perceptual score towards eye donation
- Section D: Correlation between awareness and perception towards eye donation.
- Section E: Association between awareness level and selected demographic variables.
- Section F: Association between perception and selected demographic variable.

Section A: Description of demographic variables

This section deals with the description of demographic characteristics of sample and has been presented in the form of frequency and percentage in table 1.

Table1: Frequency and percentage distribution of sample characteristics according to demographic variables.

n=100

No	Demographicvariables	Frequency(f)	Percentage(%)
1	Ageinyears		
	15-16	30	30%
	17-18	63	63%
	18-19	7	7%
	>20	0	0%
2	Gender		
	Male	50	50%
	Female	50	50%
3	Religion		
	a)Hindu	52	52%
	b)Muslim	5	5%
	c)Christian	40	40%
	d)Other	3	3%



4	Which of your family members have donated their eyes?		
	Grandparents	21	21%
	Parents	20	20%
	Siblings	0	0%
	Any other	59	59%
5	Which of your family members have pledged to donate their eye?		
	Grandfather	10	10%
	Grandmother	0	0%
	Father	1	1%
	Mother	0	0%
	Brother	0	0%
	Sister	0	0%
	None	89	89%
6	Which of your acquaintances have donated their eyes?		
	Neighbors	22	22%
	Friends	44	44%
	Classmates	11	11%
	None	92	92%

The data presented in the table reveals the following findings.

The data intable (1) shows that the highest percentages (63%) ofsample were in the age group of 17–18 years where as the lowest percentage of 18=19 years were (7%) and none of the age group is greater than 20 years. The data in table (3) and figure (4) shows that the percentage of male samples and female samples are same. The data in table (3) and figure (5) shows that highest percentages (52%) of samples were in the Hindu group of religion whereas the lowest percentages of them (3%)were in the other groupof religion. The data in table (3) and figure (6) shows that the highest percentage is inothers (59%) and the lowest percentage is parents (20%). The data in table (3) and figure (7) shows that the highest percentage (89%) is none category and lowest percentage is in father (1%) category. The data in table (3) and figure (8) shows that the highest percentage (93%) belongs to none category and lowest percentage is in (1%) classmate’s category. The demographic data are shownin figure 3-8.

SECTION B

Description of awareness about eye donation

This section deals with the description of awareness about eye donation.

Table 2: Frequency and percentage distribution ofadolescentsaccording totheir level of awareness. n=100

Levelof awareness	Score	Frequency	Percentage distribution
Poor	0-4	28	28%
Average	5-8	68	68%
Good	9-12	4	4%

Table (2) shows the frequency and percentage distribution of students according to their level of awareness. Table shows that 68% of students have an average levelofawareness regarding eye donation. Among 100 studentsonly4% have a good levelof awareness regarding eye donation. Also it shows that 28% of students have poor level of awareness.

Table3: Description of awareness score

n=100

	Total score	Minimum obtained score	Maximum obtained score	Mean	S.D	Mean percentage	Median
Total awareness score	12	0	12	5.37	1.91	44.75%	6

The data presented in the table (3) shows that mean percentage of awarenessscore of adolescents regarding eye donation was 44.75%.

SECTION C

Descriptionof perception towards eye donation

This section deals with the description of perception regarding eye donation

Table4: Frequency and percentage distribution of Subject according to their level of perception  
n=100

Perception	Score	Frequency	Percentage distribution
Unfavorable	1-20	0	0%
Moderatelyfavorable	21-40	13	13%
Favorable	41-60	82	82%
Highlyfavorable	61-80	5	5%

The data presented in the table (5) shows frequency and percentagedistribution of subjects according to their level of perception regarding eye donation.It shows that majority of the sample had good level of perception regarding eye donation (82%) and 5% of sample had very good level of perception regarding eye donation.

Table6: Description of perception Score

n=100

	Total income	Minimum obtained score	Maximum obtained score	Mean	SD	Mean %	Median
Total perception score	70	1	70	46.87	6.36	66.9%	47

The data presented in the table shows (6) the mean percentage of perception score of adolescents regarding eye donation was 66.9%

SECTION D

Correlation between awareness and perception of adolescents regarding eye donation.

In order to find out the relationship between awareness and perception of adolescents regarding eye donation the following null hypothesis was stated:

Ho2:-There will be no significant correlation between awareness and perception regarding eye donation.

Table7: Correlation between awareness and perception regarding eye donation.

n=100

Variables	Mean	StandardDeviation	Value
Awareness	5.37	1.91	0.00023
Perception	46.87	6.36	0.00023

$x^2(\text{Awareness})=0.00023, x^2(\text{perception})=0.00023$

The data from table 7 reveals that there was a moderately positive correlation between awareness and perception among adolescents regarding eye donation. So the null hypothesis was rejected and the research hypothesis was accepted.

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SECTION E

Association between awareness level and selected demographic variables.

This section deals with the association of between awareness level andselected demographic variables like age, sex, religion; whichof your family members and acquaintance have denoted or pledged to denote their eyes. The chi-square test was used to find the association between awareness level and selected demographic variables.In order to find the association between awareness level and selected demographic variables, the following hypothesis was formed.

Ho:There will be no significant association between awareness level and selected demographic variables.

Table8:-Association between awareness level and selected demographic variables.

n=100

Demographic variables	<6	≥6	X <sup>2</sup> value
Ageinyears			
15-16	15	13	2.031
17-18	35	32	
18-19	1	4	
>20	0	0	
Gender			
Male	28	24	0.65
Female	21	27	
Religion			
Hindu	27	25	2.341
Muslim	2	5	
Christian	19	18	
Other	1	3	

Which of your family member have donated eyes?			
Grandparents	6	9	
Parents	13	9	
Siblings	30	33	1.39
Any other	0	0	
Which of your family members have pledged to donate their eyes?			
Grandfather	5	5	.0049
Grandmother	0	0	
Father	1	0	
Mother	0	0	
Brother	0	0	
Sister	0	0	
None	43	46	
Which of your acquaintance have donated their eyes?			
Neighbors	1	1	
Friends	1	4	
Classmates	1	0	0.702
None	47	45	

Table 8 shows the association between awareness level and selected demographic variables. it is seen that the selected demographic variables have no significant association with the awareness level of adolescents. Hence the null hypothesis is accepted for all the selected demographic variables. [ $\chi^2_{(1)}[\text{Table value}] = 3.84$ ,  $\chi^2_{(2)}[\text{Table value}] = 5.99$ ,  $\chi^2_{(3)}[\text{Table value}] = 7.82$ ].

## SECTION F

### Association between perception and selected demographic variables

This section deals with the association between perception and selected demographic variables. The chi-square test was used to find the association between perception and selected demographic variables.

In order to find the association between perception and selected demographic variables, the following null hypothesis was formed.

Ho: There will be no significant association between perception and selected demographic variables

Table9:-Association between perception and selected demographic variables.

n=100

Demographic variables.	<47	≥47	X2value
Age in years 15-16	15	12	1.1
17-18	30	38	
18-19	2	3	
>20	0	0	
Gender Male	23	29	0.971
Female	25	23	
Religion Hindu	17	35	11.53
Muslim	2	3	
Christian	26	13	
Other	3	1	

Which of your family member have donated their eyes? Grandparents	3	12	5.56
Parents	12	10	
Siblings	0	0	
Anyother	33	30	
Which of your family member have pledged to donate their eyes? Grandfather	5	5	0.248
Grandmother	0	0	
Father	0	1	
Mother	0	0	
Brother	0	0	
Sister	0	0	
None	43	46	0.548
Which of your acquaintance have donated their eyes? Neighbors	1	1	
Friends	2	3	
Classmates	0	1	
None	45	47	

Table 10 shows the association between the perception and selected demographic variables. From table 10, it is seen that except religion all other demographic variables have no significant association with the perception of students regarding eye donation. However there is significant association of perception with religion of students (chi square=11.53).Hence the null hypotheses is rejected for religion and accepted for the remaining selected demographic variables.[ $\chi^2(1)$  [Table value]= 3.84,  $\chi^2(2)$ [Table value]= 5.99,  $\chi^2(3)$ [Table value]= 7.82].

## DISCUSSION

A study examining the awareness and perception of eye donation among students revealed that 68% were aged 17-18, 50% were male and 50% female, and 52% were Hindu. The majority of students had donated their eyes outside the family, with 89% not pledging their eyes. Most family members did not pledge their eyes, and 93% had no acquaintances. The study found that 68% of students had an average level of awareness, while 82% had a good perception. There was a moderately positive correlation between awareness and perception among adolescents. However, no significant association was found between awareness and perception. Other studies

found that 86% of students were aware of eye donation, 27% were keen to pledge their eyes, and 33% were willing to donate their close relative's eyes. The lack of local eye donation should be taken seriously and measures should be taken by both government and non-government organizations.

## CONCLUSION

Eye donation is the act of donating one's eyes after death for corneal grafting to restore sight to blind people. Healthcare professionals have a responsibility to educate students about eye donation and its preservation process. A study found that 63% of respondents were aged 17-18, with 50% being male and 50% female. The majority belonged to Hindu religion, and 59% did not know if their family members had donated their eyes. The majority had average awareness and perception of eye donation, with no significant association between awareness and perception, except for religion.

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