

## Awareness About Eye Donation Among Urban/Rural Population

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### Abstract

**Aim of Study:** To find out the awareness of eye donation in people to find out their knowledge and interest in eye donation with the help of a easy survey questionnaire.

**Need of Study:** Globally 6 to 8 million people out of 45 million population going blind due to correctable ocular problems [1]. To prevent blindness globally eye donation is a hope but due to lack unawareness and myths on eye donation people hesitate to donate eyes and the reality is there is nothing wrong in donating eyes. Eye donation is not a common practice in our population. The eye donation can be done upto 6 hours after death. To increase the awareness regarding eye donation we conducted this survey. In our survey eye donation among the rural as well as urban general population especially younger population was of great importance.

**Keywords:** Eye Donation; Population; Organ

### Introduction

Eye donation awareness was concerned with two things, first is eye that is a organ of human body and second thing is donation is a procedure which should be known by everyone. In this procedure which should be pledged and done by any individual to help reduce the burden of blindness and make people to see the colourful world. It requires consent of the deceased's family member and a death certificate for cornea to be retrieved. Eye donation can be pledged by filling a eye donation form. Eye donation is a beautiful gift towards mankind for the people who are blind.

The points to be considered for eye donation are presence of systemic diseases eye disorders carcinomas in diseased. Eye disorders which are contraindicated for donation are.

There are many eye conditions like

- Keratoconus
- Fuchs dystrophy
- Corneal scar
- Opacities
- Corneal ulcers
- Complications with previous eye surgeries,
- Blind patient.

### Who cannot donate eyes

- Person with aids
- Hepatitis B, C
- Septicaemia
- Acute leukemia (blood cancer)

- tetanus
- cholera
- infectious disease like meningitis
- encephalitis
- tested with covid 19 positive [5]
- pulmonary computed tomography with opacities [5].

[4] The pre requisition for a good cornea, corneal endothelial count will be  $>2200$  cells/mm<sup>2</sup> but lower count cornea is not for transplantation can be used for clinical research purposes [2,3].

#### Easy eye donation guidelines

- Individual can take a pledge for eye donation voluntarily. Eye donation official inform the family members about the donation so that they can inform the eye bank within 6 hours of death for donation [6].
- Different blood groups, eye disease like cataract or use of glasses have no effect on eye donation [6].
- Eye donation registration can be done online as well as offline by filling an easy form.
- Grief counselling is done by optometrist/ophthalmologist/eye bank official. Donor/relatives are ensured that there will be no ocular disfigurement and told about the further use of donor cornea for transplantation or medical research purpose [7].
- Collection procedure takes only 20 minutes and no special space is required [6].

#### Grief counselling

There are special team of social workers who come and educate/communicate with family at the point of time to motivate them for the donation known as the 'grief counsellors' [7].

The Grief counsellor talk about the facts of eye donation. They assure the confidentiality about donor recipient also provide certification of appreciation. They show gratitude of patiently listening to the donor's family [7].

#### Reasons affect eye donation

Majority shows lack of awareness about eye donation among general population. Improper education and lack of educational campaigns to provide people knowledge about the eye donation.

Social and religious myth among the general population [7].

#### Motivation among population

By providing more frequent educational eye awareness campaigns in school colleges villages, regular public meetings, screening of eye donation films, by making short movies tv shows on eye donation, by running active advertisements on eye donation on social media platforms as well as on television, theatres etc.

So this survey questionnaire is made for finding the awareness of eye donation among the population of dist. Mohali Punjab.

An Individual's eye donation can give a beautiful colourful world to two blind persons at a time. It takes only 10 to 15 minutes after death for cornea so it will give no scar or disfigurement to face but will definitely help alive blind person to see the world which they even not imagined before.

#### Method

This prospective study was done with the method of survey questionnaire in 500 participants at rural areas in Mohali Punjab who answered all the questions. The questionnaire gave us the idea about the awareness of eye donation among the population and their interest in eye donation. This guide us towards explanation of some favourable factors in patients willing to donate eyes to prevent blindness. This survey questionnaire included 10 easy questions and every question was needed to answer for knowing the awareness in the people about eye donation so, the 10 questions were explained to the individual in the language best understood by them. All the questions and options were explained before the individual was handed the questionnaire, the awareness about eye donation was given to all the participants and all the feedback and data was collected for further analysis.

#### Inclusion criteria

This survey was performed on 500 individuals; Aged from 18-60 years or above. Both Female and Male gender from different religions were included in this study respectively.

#### Exclusion criteria

The exclusion criteria followed in this study, children or individuals less than 18 years were not included apart from this people with prosthetic implant, native who went corneal

transplantation or any other corneal disfigured ocular structures were also excluded for this survey.

## Result

Total 500 people's feedback is taken in the form of survey questionnaire. 500 of 500 participants successfully attempted all the questions and completely understood each and every question given to them.

Questions	Option A	Option B	Option C
1. Are you aware of donating eyes?	342	88	70
2. When can be eyes donated?	70	350	80
3. Do you know how to apply for donation of eye?	150	250	100
4. Does eye donation effect funeral process?	250	100	150
5. Do you know the location where eye can be donated?	300	100	100
6. According to you does eye donation fisfigure the face?	256	94	150
7. Age at which eye can be donated?	90	260	150
8. Person wearing spectacles can donate eyes?	130	220	150
9. Which part of eye is donated?	140	220	140
10. Will you motivate others to donate eyes?	500	0	0

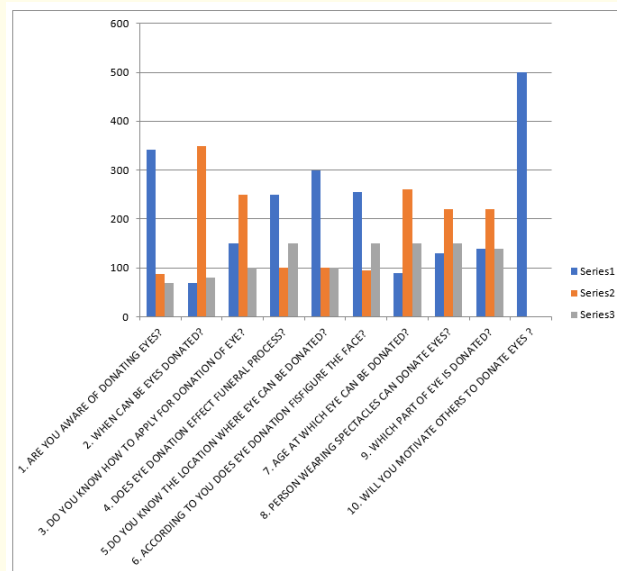
**Table 1**

From 500 participants 62% were males and 38% were females. According to the survey questionnaire every question had three simple options according to table 1 shown above.

The graphical representation of the survey questionnaire shows three different colours in figure 1.

### Question specific response

According to this graphical representation it shows that out of 500 how much people response to three different options that is decoded by three different colours and every question is written below the bar for more understanding about the topic.



**Figure 1**

Series 1 shows people who choose first option.

Series 2 shows choose second option.

Series 3 shows who choose third option.

### According to graph of survey questionnaire

Question 1. Are you aware of eye donation?

345 people out of 500 chose option A (YES) 69%, 88 people responded with Option B (NO) i.e. 17.6%, whereas option C (never heard) was chosen by 70 people i.e. 14% this shows that 69% people were aware about eye donation but 17.6% were unaware about the donation and 14% even not heard about it.

Question 2. When can the eyes be donated?

Option A (DURING LIFE) was chosen by 70/500 people i.e. 14%, Option B (AFTER DEATH) by 350/500 people i.e. 70%, Option C (DONT KNOW) by 80/500 i.e. 16% of people.

Question 3. DO you know how to apply for eye donation?

Option A (YES) selected by only 150/500 i.e. 30% know about the procedures but on the other hand Option B (NO) is chosen by 250/500 people i.e. 50% don't know about the formalities procedures. Option C (YES BUT NEVER APPLIED) chosen by 100/500 i.e. 20%.

Question 4. Does eye donation affects the funeral process(kriya karma)?

Option A (YES) chosen by 250/500 people i.e. 50% Option B (NO) chosen by 100/500 people i.e. 20% that some people having knowledge about it and option C (SOMETIMES) chosen by 150/500 30% of people i.e. 30%.

Question 5. Do you know the location where eyes can be donated?

Option A (HOSPITAL) selected by 300/500 i.e. 60% second option B (ANYWHERE) chosen by 100/500 i.e. 20% and third option (DONT KNOW) selected by 100/500 i.e. 20%.

Question 6. According to you, does eye donation disfigure the shape of the face?

Option A(YES) selected by 256/500 i.e. 51.2% that is not true but a myth counselling is given to each participant after attempting survey, Option B (NO)94/500 Chosen this i.e.18.8%, Option C(DONT KNOW) chosen by 150/500 i.e. 30% people.

Question 7. At what age, can the eye be donated?

Option A was chosen by 90/500 i.e. 18%,whereas second option B (20-60) chosen by 260/500 i.e. 52% people. however, Option C(DONT KNOW) was selected by 150/500 i.e. 30% people.

Question 8. Can a person using glasses donate eyes?

Option A (YES) chosen by 130/500 people i.e.26% whereas second option B (NO)selected by 220/500 i.e.44% of people and last option C (NO IDEA) chosen by 150/500. i.e. 30%.

Question 9. Which part of eye is donated?

Option A (some part of eye) chosen by 140/500 i.e.28% of people whereas second option B (WHOLE EYE) chosen by 220/500 i.e.44% of people and last one option C (NO IDEA) is chosen by 140/500 i.e.28% of people who participated in the survey questionnaire.

Question 10. Will you motivate others to donate eyes?

Option A (YES) chosen by 500/500 i.e. 100% of the population participated in this survey whereas Option B (NO) was not selected

by anyone participated and third last option (DEPENDS) was also not selected by anyone 0/500 i.e. 0% that s the great part of this survey at least people showing some interest in this topic.

## Discussion

People participated in this survey questionnaire came out with different questions and wanted to know more and more about eye donation. Some showed interest in particular questions, some people discussed about the myth and religious beliefs related to eye donation. Majority of people wanted to motivate others after the counselling session and also wanted their kids to know more about it. People with spectacles, post lasik, post operative everyone including post covid19 patients participated in this survey questionnaire study.

## Conclusion

Although awareness is not that much found in the population but the counselling after survey help people to know more about eye donation importance and the surprising benefits of one person eye donation can give sight to two blind people concept fills the people out with a great motivation somehow biggest source of lacking eye donation is lack of knowledge in population especially the myths that is taking it to the next level people think its something harmful it causes loss and all but after counselling it gives a hope that people will go and pledge their eyes for a great achievement and which leads their soul to a beautiful journey even after death.

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