

Study of Eye-Donation Awareness among Medical Students of P.D.U. Govt. Medical College, Rajkot

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Abstract: ***Title-** Study Of Eye-Donation Awareness Among Medical Students Of P.D.U. Govt. Medical College,Rajkot. **Purpose:** To study of eye-donation awareness among medical students of P.D.U. govt. medical college, Rajkot. **Objectives:**To test the knowledge about eye donation awareness as a special feature among medicalstudents. To try to plan fill lacunae in eye donation awareness programme.To give the students some 'TAKE HOME MESSAGES'. To assess the need to include eye donation content in syllabus.To initiate leadership for campaigning of eye donation. **Method:** This study is cross sectional, descriptive type of study in which source of data is 450 undergraduate students of P.D.U. govt. Medical College ,Rajkot. **Inclusion criteria:** All students from 1st and 2nd year MBBS,P.D.U. Govt. Medical College, Rajkot. **Exclusion criteria:** 3rd year MBBS students excluded. **Results and Analysis:** In our study 450 medical students 259 from 1st year MBBS and 191 from 2nd year MBBS were studied. Medical students of first and second year MBBS were assessed for their awareness and attitude on eye donation. 72% did not know the correct place and contact for eye donation. 48% students did not know that eyes should be enucleated within 6 hours of death. 73% students did not know that a near relative of the donor should give consent for eye donation. 79.11% students did not know the fact that anybody can donate eyes. 53% of the students did not know that cornea is the part which is to be used after eye donation. Majority of the students reported Medical personnel as the major source of information (30.89%) on eye donation. Lack of awareness on eye donation was the major reason (47%) for not donating eyes. **Conclusion:** The awareness of eye donation among 2nd year medical students is higher as compared to first year medical students.*

Keywords: Corneal Blindness, Eye Donation, Awareness, Knowledge, Medical Students

1. Introduction

Eyes are one of the most important sensory organs in the human body because it renders vision and the power to see. Statistics show that cataract account for 43% of the blindness in India as compared to 4% corneal blindness. The Cornea is the clear tissue covering the front of the eye. It is a focusing element of the eye. The vision is dramatically reduced or lost if the cornea becomes cloudy. This loss of the vision is referred to as corneal blindness. Several corneal diseases affect children and adults and can affect both eyes making them blind. When the eye is affected only by corneal diseases, replacing with donor tissue will restore the vision in such people. Corneal transplantation surgery though it is not as common as cataract surgery is performed at several eye hospitals in the country. Eye donation is an act of donating one's eyes after his/her death. It is an act of charity, purely for the benefit of the society and is totally voluntary. The eye donation of the deceased can be authorized by the next of kith & kin even if the deceased did not pledge to donate his / her eyes before death. Age or systemic illness such as diabetes or hypertension, heart disease, kidney disease is not barriers for eye donations. The corneas of a person are unaffected even if they have undergone any eye surgeries in the past and hence will be useful can be transplanted in others.

There are wide spread social awareness programs and activities conducted across the country to impart the significance of eye donation and its usefulness to the visually impaired people. Till date, medical researchers and scientists are working on developing artificial cornea, but till that time, donating the eyes would be the best gift ever for a blind person suffering from corneal blindness. Donated eyes

can be used to restore vision in people who are suffering from corneal blindness. The front, clear and transparent tissue of the eye called as cornea can be used to restore vision in a corneal blind person. The other portions of the eye are also used for research and training purposes to develop cures for some of the common eye diseases. The main ease at corneal transplantation surgery is that no BGRh grouping is mandatory between the donor and recipient. Anybody can donate eyes. From each pair of donated eyes, two blind people will get vision and light in to their life, thus making it more divine.

Medical students are the future health care providers for the community. They belong to different educational backgrounds with a scientific base and have an inherent inclination to serve mankind. Well-informed medical students can be expected to influence eye-donation rates. They can be actively involved as volunteers in eye donation campaigns, wherein after proper training in counselling techniques, they can act as counsellors for eye donation while involving in any health issue in their family and neighbourhood. They can also motivate people for the same during their postings in community medicine.

Aims

To study eye donation awareness among medical students of P.D.U medical college, Rajkot.

Objectives

To test the knowledge about eye donation awareness as a special feature among medical students. To try to plan fill lacunae in eye donation awareness programme. To give the students some 'TAKE HOME MESSAGES'. To assess the

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need to include eye donation content in syllabus. To initiate leadership for campaigning of eye donation.

2. Material and Method

This study is cross sectional descriptive type of study in which source of data is 450 undergraduate students of P.D.U.Govt. Medical College, Rajkot.

Inclusion criteria:

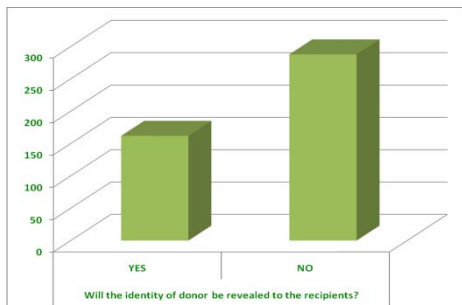
All students from 1st and 2nd year MBBS, P.D.U.Govt. Medical College, Rajkot.

Exclusion criteria:

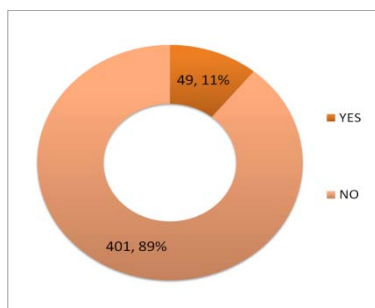
3rd year MBBS students excluded.

Time period of 20 minutes was given to each student for filling up of proforma. Prior introductory lecture was taken to acquaint the students about the dissertation and that the answers would not in any way affect their academics and non influential response was expected from them. The collected data would be kept confidential to the project. verbal informed consent to be obtained from all the students. if necessity then from the head of the department, predesigned, pretested, semistructured questionnaire developed for the purpose, containing questions about awareness of eye donation, source of information, their reasons for donating and not donating eyes, trying eliminate assumption of their answers to the questions and some basic information about corneal transplantation.

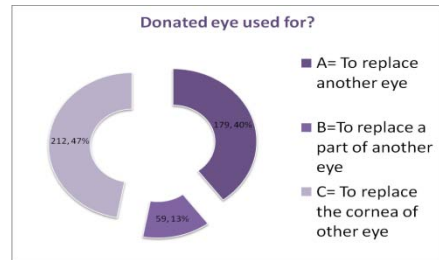
3. Results and Analysis



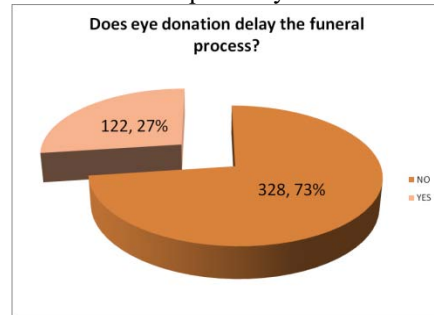
Majority of the students (64%) knew that the identity of the donor will not be revealed to the recipient.



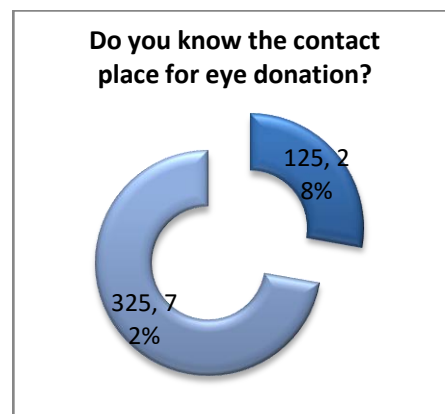
Only 11% of the students had history of eye donation in their families.



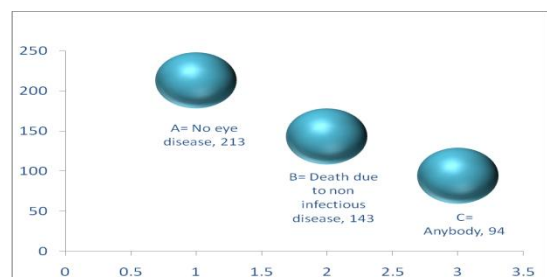
Above table shows that only 47% of the students knew that the donated eye is used to replace the cornea of the recipient eye.



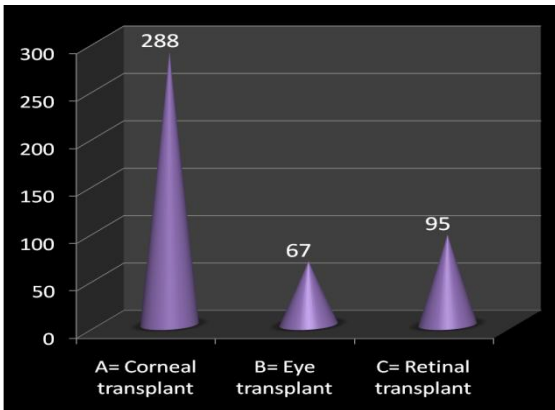
Above table shows that 122 out of 450 students (27%) students believed that eye donation causes delay in the funeral process which could lead to reduced donation rates.



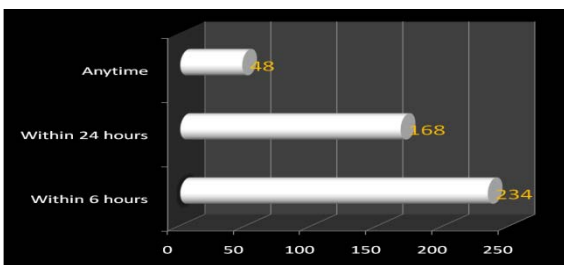
Above chart shows that majority (72%) of the students did not know the correct contact place for eye donation.



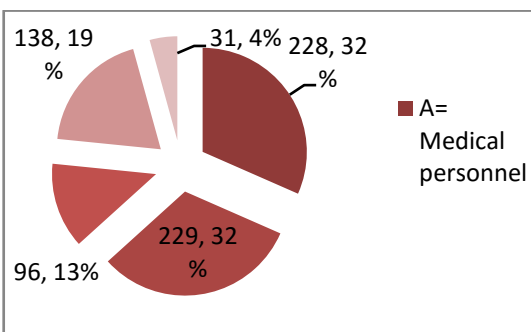
Above chart shows that only 20.89% of the students knew that anybody can donate eyes while around 48% believed that the donor should not have any disease.



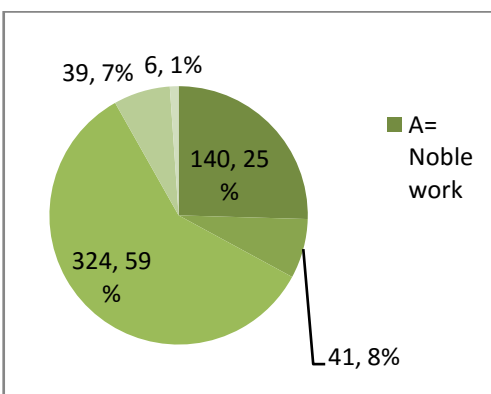
Above chart shows that majority of the students 64% knew the meaning of keratoplasty.



Above chart shows that majority of the students (52%) knew that the ideal time for eye donation is within 6 hours of the death of the donor.

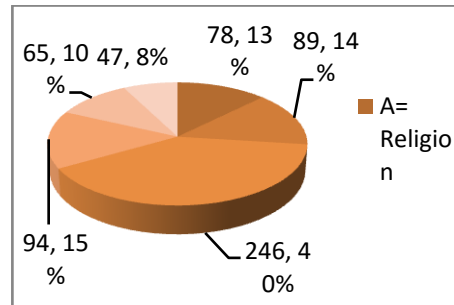


Above chart shows that the major source of information among medical students was that through medical personnel (32%) and television and newspaper (32%) played an equivalent role. Only 13% of the information for eye donation was through family members and 14% came to know about donation through internet.

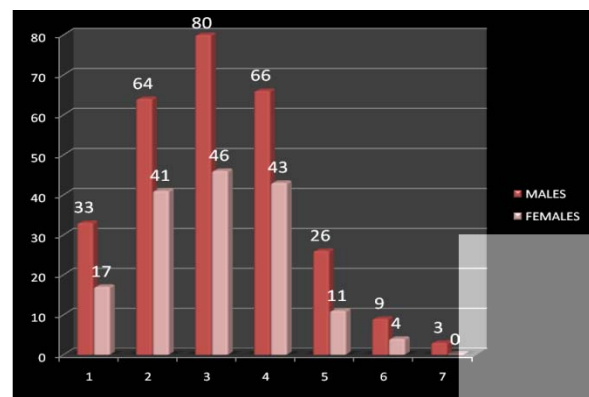


Above pie chart shows that majority of the students (59%) considered eye donation as it can give vision to the blind whereas 25% believed it to be a noble work and only 8% of the students were inspired by some friend or relative who

had donated eyes which signifies the low level of motivation for eye donation.



Above pie chart shows the lack of awareness was the major reason for not donating eyes (40%) and 15% of the students were afraid of the invasive procedure for eye donation. 13% considered religion to be an obstacle in the donation and 14% of the students were superstitious regarding the eye donation.



SCORE OF ADVANCED AWARENESS V/S TOTAL NUMBER OF MALES AND FEMALES IN EACH SCORE.

In 1st year MBBS, 48.26% had Good Advanced awareness about eye donation. In 2nd year MBBS, 57.59% had Good Advanced awareness about eye donation.

4. Discussion

The level of knowledge of medical students is important in promoting eye donations as they are the future potential doctors. If doctors approach and counsel the family members for donation then the possibility of eye donation is increased but if they lack sufficient knowledge about eye donation then many potential corneal donors may be lost. In our study, 450 medical students (259 from first year MBBS and 191 from second year MBBS) were surveyed about their awareness on eye donation. In our study 72% students did not know the contact place for eye donation. Similarly in the study by Sadana et al only 26% of the students knew about appropriate place for eye donation. Similarly according to study conducted by Singh et al among medical students in Delhi the contact place for donation was known to only 27.2%. Similarly in another study conducted by Kumar et al, only 12% of the medical students knew about contact place for eye donation. The knowledge that cornea is the part of eye which is used for transplantation was known to only 47% students in our study. In study by Gupta et al,

Surendranagar 56% students knew about the same. In study by Sadana et al cornea is removed separately and is used for grafting was known to 65.5% of the total students. According to study by Singh on medical students in Delhi a large number of students, 155 (86.1%) out of 180 knew that the donated eye is used for corneal grafting. Similarly according to Singh et al (Ambala) 90.6% knew that eye is used for corneal grafting. The medical students are from science stream during school; still only 47% of them knew that cornea is the part of the eye used for corneal transplantation which stress on the fact that teaching about organ donation should start in school itself. Our study shows that the major source of information among medical students was that through medical personnel (32%) and television and newspaper (32%) played an equivalent role. Only 13% of the information for eye donation was through family members and 14% came to know about donation through internet. In the study by Gupta et. al television was the most common source of information on eye donation. Only 13% answered that medical teacher or doctor was the source of information. 14% students knew about eye donation from camps which they had attended which shows that students should be trained as volunteers for eye donation campaign which can increase their knowledge about eye donation. Similarly according to the study conducted by Singh et al among medical students in Delhi also shows that television was the most common source of information on eye donation in 77.8%, followed by newspaper 72.8% and magazines 54.4% students. Study by Singh et al among Ambala students also shows that television is the most common source of information in 54.6% and only 28% had received it through curriculum. According to Sadana et al newspapers (64.75%) was the important sources of information on eye donation for majority of the students followed by doctors (60.75%) and television (51.25%). In our study the ideal time for eye donation is within six hours of death was known to only 52% students. It was observed by Gupta et.al that the same was known to 57% students. It was observed by Sadana et al that eye can be donated ideally within 6 hours of death was known to 67.5% of the students. According to study by Singh on medical students in Delhi less than 50% knew that the ideal time for donation is within six hours of death. According to study by Singh on medical students in Ambala 61% students were aware that eyes can be donated within 6 hours. According to study by Kumar et al 62.8% students were aware that eyes can be donated within 6 hours. Maximum knew that eye donation does not cause disfigurement of the donor. 27% answered that there is delay in funeral arrangements. In study by Gupta et. al 28% believed that there is a delay in the funeral process. In our study only 27% students knew that only near relative can give consent for eye donation. In Surendranagar study 88% answered that the consent of the relatives was necessary before removal of eyes. In Kumar et.al study the same was 18%. Vidusha et.al study had 71% students knowing that consent of near relative is necessary for eye donation. Our study shows that 64% knew that the donor or recipient family is not told who donated or received the cornea, In study by Gupta et.al 71% knew that identity is never revealed but 16% thought that human eyes can be bought or sold. In study by Sadana et. al around 22% of the students didn't know that donor eyes cannot be bought or sold. In a study conducted by Singh et al, among the medical students

at Delhi 9% agreed to that. Hence as suggested by Sadana et al it is necessary to instil and promote human values in medical education to discourage such an illegal trade strongly, which exploits the poor. In our study only 20.89% of the students knew that anybody can donate eyes and about 48% students believed that donor should not have any disease. In study by Gupta et.al 22% answered that cataract or any other ocular diseases or the use of spectacles render the corneas unfit for donation. Only 4% knew a person who had donated eyes and only 1% knew a person who had undergone corneal transplantation. Our study shows that majority of the students (59%) considered eye donation as it can give vision to the blind whereas 25% believed it to be a noble work and only 8% of the students were inspired by some friend or relative who had donated eyes which signifies the low level of motivation for eye donation. In study by Gupta et. al maximum students 79% knew that there is deficiency of donor tissues and 38% answered that religious authorities does not approve of donating one's eyes. Our findings suggests that there is a great need to educate students in medical profession about eye donation and the misconceptions regarding eye donation should be removed. This will enable them to become better future motivators for enhancing eye donation rates.

In Gupta et.al study the response to who can be an eye donor, 62% answered that donors' who have pledged their eyes before death can only donate eyes whereas 28% answered that anyone can donate, whereas 9% answered that the consent of the relatives was necessary for donating eyes. According to study conducted by Singh et al among medical students 'nearly 49.4% opined that donors' consent should be mandatory and it should be expressed before death, whereas according 15%, consent should be mandatory but may be given by another adult family member. According to 31.1%, consent is not necessary but can donate if the donor alone wishes and among 4.4%, consent is not necessary but can donate if the family members of the donors wish to do so. In study by Saldana et al only 28.2% out of 400 knew that consent of the family members is mandatory for eye donation after death of the person. Our study shows that all students knew about eye donation. In study by Singh et al at Ambala 96.6% students had heard about eye donation. Similarly in the study by Singh on Delhi medical students 99.4% were aware that eyes could be donated after death. According to Sadana highest number of students 98% out of 400 knew that eyes could be donated after death. In our study the lack of awareness was the major reason for not donating eyes (40%) and 15% of the students were afraid of the invasive procedure for eye donation. 13% considered religion to be an obstacle in the donation and 14% of the students were superstitious regarding the eye donation. Similarly according to the study by Gupta et al among medical students in Surendranagar lack of awareness was cited as an important reason for people not donating their eyes among 32.7% of students. Similarly in study by Sadana et. al lack of awareness was cited as an important reason in 48.9% students. 24.3% students cited that family member's objection was the reason for not donating their eyes. According to study conducted by Singh et al among medical students in Ambala, family member's objection was the main reason for not donating their eyes. Majority of the

students (52%) knew that the ideal time for eye donation is within 6 hours of the death of the donor. Majority of the students 64% knew the meaning of keratoplasty. In our study in 1st year MBBS, 56.66% students had average knowledge about the General aspects of eye donation whereas 28% had good knowledge about the same. In 2nd year MBBS, 37% students had average knowledge about the General aspects of eye donation whereas 49.3% had good knowledge about the same. In 1st year MBBS, 48.26% had Good Advanced awareness about eye donation while in 2nd year MBBS, 57.59% had Good Advanced awareness about eye donation.

5. Conclusion

Medical students of first and second year MBBS were assessed for their awareness and attitude on eye donation.

- 1) 72% did not know the correct place and contact for eye donation.
- 2) 48% students did not know that eyes should be enucleated within 6 hours of death.
- 3) 73% students did not know that a near relative of the donor should give consent for eye donation.
- 4) 79.11% students did not know the fact that anybody can donate eyes.
- 5) 53% of the students did not know that cornea is the part which is to be used after eye donation.
- 6) Majority of the students reported Medical personnel as the major source of information (32%) on eye donation.
- 7) Lack of awareness on eye donation was the major reason (40%) for not donating eyes.
- 8) The awareness of eye donation among 2nd year medical students is higher as compared to first year medical students.

The level of knowledge and attitude of medical students are important determinants in promoting eye donations as they are the future potential doctors. It is a matter of fact that health in a community or a society will surely improve when doctors play an active role in health education and become a good role model in the society. In many countries including India the decision to donate eyes ultimately lies with family members. Many potential donors may be missed if doctors fail to approach family members about the possibility of eye donation and if they lack sufficient knowledge about eye donation to answer questions or concerns of family members after death of the donors. In our country with so many cases of corneal blindness there is a strong need for developing effective means of procuring corneas. Corneal donations could be higher than those at present. There is a need to expose the medical students from 1st year itself about eye donation as they are the future health care providers. They should be trained to counsel and motivate the relatives of patients for eye donation. The major reason for not donating eyes was lack of awareness. Knowledge, attitude and actions are interrelated and previous studies have shown that culture and religion were important external influences which affected the decision making process. So, students require further information on the organ donation process and they need opportunities to examine their own beliefs and attitudes which can be addressed through educational interventions. There is a need of an intervention in the academic activities which incorporates the knowledge, motivational messages,

facts and figures, to bring necessary changes in the perceptions and intentions of the students regarding eye donation.

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