Knowledge and Awareness Regarding Keratoplasty and Eye Donation in High Risk Occupations

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ABSTRACT

Purpose: To determine the attitude regarding corneal transplantation or eye donation among high-risk occupations.

Methodology: Descriptive cross sectional design was used in this study. Non-probability purposive sampling technique was used. People with age group between 25 to 60 years of either gender were included. Mechanics, Auto Drivers, Tailor, and Welders were included. Age below 25 and above 60 years was excluded. After informed consent, self-design questionnaire was used to collect data. Data was entered and analyzed in SPSS 25. Mann Whitney-U test was applied to find the significance of data. P-value < 0.05 was considered as significant.

Results: 64 participants (50.8%) heard about corneal transplantation or eye donation while 62 (49.2%) participants didn’t hear about eye donation. Forty one (41) participants (11.1%) said that only those people can donate who haven’t undergone cataract surgery. Eighty one (81) participants (64.3%) said that only more than 18 years old individuals can donate eyes. Forty Four (44) participants (34.9%) thought that blood group is a hurdle for donation of eye. P-value was 0.034 that is significant.

Conclusion: This study concluded that a large proportion of the population do not have proper knowledge regarding corneal transplantation and eye donation. The study reveals that high-risk occupation workers have low level of awareness and knowledge regarding corneal transplantation and eye donation.

Keywords: Cataract Surgery, Keratoplasty, Corneal Transplant, Cornea


INTRODUCTION

Sight is the capability to see the clearly by utilizing visible light reflected by objects in the environment. It is estimated that untreated myopia and presbyopia alone cost the world 24.4 billion dollars and 25.5 billion dollars in productivity losses each year.¹² One of the main reasons of blindness for which eye donation

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might restore vision is corneal disorders. Around 37 million visually impaired people in the whole world are willing candidates for corneal transplantation.4

One human cornea donated at death by someone who leaves a living legacy is the only thing that can replace a diseased human cornea.5 Corneal ulceration, Trachoma, xerophthalmia brought on by deficiency of vitamin A, the utilization of risky conventional medications, leprosy, ophthalmia neonatorum, onchocerciasis, and any ocular trauma are the main causes of corneal blindness.6

The most common reason for childhood blindness in developing nations is corneal scarring, which can be brought on by both infectious and non-infectious agents, including trachoma, xerophthalmia, dangerous traditional medicines, trauma and, leprosy, and Approximately 8 million people worldwide have corneal blindness as of right now.7

Even though more than half of the billion people with corneal blindness require corneal surgeries, Ethiopia only collects between 130 and 150 corneas annually.8,9 The ability to perform corneal transplants depends heavily on the availability of potential donors. This in turn depends on the willingness of close family members to donate pledged eyes and the attitude of various stakeholders.10,11 The pressing reason why higher education was firmly linked with good responses of donation of eye was participants with high education may have high awareness about donation of organs and subject matters, which may lead to a more positive attitude towards it.12,13

In general, a much higher percentage of respondents expressed favorable attitudes toward donation of cornea and agreed to donate their own corneas than the percentage of individuals that had already considered to donate their eyes, indicating an unexpected rise.14

A corneal transplant is a productive procedure for curing a variety of corneal conditions and has the potential to significantly enhance visual acuity.15

transplant that needs to be resolved.16 A recent international survey of eye banking and transplantation of cornea has revealed the stark disparity between the transfer and command of donor corneas, with 70 patients needing one acquired cornea.17

In medicine, most commonly transplanted tissue is the cornea. Allograft rejection is known as main reason behind corneal graft failure. The incidence of graft failure depends on the appearance of high-risk characteristics, most commonly corneal neovascularization. Corneal grafting is recorded successful in the absence of these risk factors.

METHODOLOGY

Descriptive cross sectional study design was used in this study. Non- probability purposive sampling technique was used. People with age group between 25 to 60 years of either gender were included. Mechanics, Auto Drivers, Tailor, and Welders were included. Age below 25 and above 60 years was excluded. After informed consent, Self-design questionnaire was used to collect data. Data was entered and analyzed in SPSS 25. Mann Whitney-U test was applied to find the significance of data. P-value < 0.05 was considered as significant.

RESULTS

Out of 126 participants, 64 participants (50.8%) heard about corneal transplantation or eye donation while 62 (49.2%) participants didn’t hear about eye donation. Overall, out of 100%, only 67% participants heard about corneal transplant. About 43 individuals (34.1%) had heard it from health care workers while 16 individuals (12.7%) responded that they have heard about corneal transplantation and eye donation from educational institutions. Internet or newspaper was source of awareness for 50 individuals (39.7%) while 17 individuals (13.5%) had heard about eye donation and corneal transplantation from family members and friends. Mann Whitney-U test was applied to find the significance (P-value=0.034) of data. P-value < 0.05 was considered as significant.
The present study revealed that individuals with high-risk occupations don't know about corneal transplantation. There is a huge misconception about corneal transplantation, how much time is required for donation, person with cataract surgery can donate or not. Individuals who think that person with cataract surgery cannot donate cornea. They need to be educated about corneal transplantation. Lack of eye banks and awareness regarding eye banks should be kept under consideration. This is also supporting lack of donors. Eye banks should be organized and promoted.

The present study concluded that a large proportion of the population do not have proper knowledge regarding corneal transplantation and eye donation. The study reveals that high-risk occupation workers have low level of awareness and knowledge regarding corneal transplantation and eye donation.

**Conflict of Interest:** None to Declare

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