

## AWARENESS OF ORGAN DONATION AMONG MEDICAL STUDENTS OF JAIPUR CITY

<sup>1</sup>Rajesh Kumar Verma, <sup>2</sup>Vivek Rawat, <sup>3</sup>Naveen Kumar Simatwal, <sup>4</sup>Subhash Chaudhary

<sup>1</sup>Associate Professor, Deptt. of Forensic Medicine, S.M.S. Medical College, Jaipur,

<sup>2</sup>Associate Professor, Deptt. of Forensic Medicine, N.I.M.S., Medical College, Jaipur

<sup>3</sup>Senior Demonstrator, Deptt. of Forensic Medicine S.M.S. Medical College, Jaipur

<sup>4</sup>Resident Doctor, Deptt. of Forensic Medicine, N.I.M.S.R.C. Medical College, Jaipur

### ABSTRACT

**Background and Objectives:** Organ donation is the process of surgically removing an organ or tissue from donor and placing it into a recipient. The present study was conducted to assess the awareness, knowledge, and attitude regarding organ donation among medical students of Jaipur city, Rajasthan.

**Methods:** A cross-sectional descriptive study was conducted among the second year undergraduates at tertiary centre to evaluate the awareness, knowledge, and attitude regarding Organ Donation.

**Results:** Among the study population, 90% were aware of the term ‘Organ Donation,’ 60% students were aware of the “organ transplantation act.” About 60 % students wanted to be a part of any Organ Donation group and also motivate others for organ donation.

**Interpretation and Conclusion:** A well organized approach is required to raise awareness among the youth about various aspects of Organ Donation which is necessary to eliminate the setbacks that affect the rate of availability of donor organs. Motivating messages and facts are some of the means of intervention to bring about changes regarding perceptions and intentions about Organ Donation among the students. Shortage of donor organs can be resolved by raising awareness and educating the youth about various aspects of Organ Donation since they comprise of the majority of the population.

**Keywords:** *Coma, Donor, Organ Donation, Transplantation.*

**Corresponding Author:** Dr. Naveen Kumar Simatwal, Senior Demonstrator, Dept. of Forensic Medicine S.M.S. Medical College, Jaipur. Email: naveen.simatwal@gmail.com  
Phone no. +91 9024288040

## INTRODUCTION

Organ donation (OD) has been one of the greatest milestones in modern science that has been a new ray of hope. Transplantation is defined as the transfer of human tissues or organs from a donor to a recipient<sup>1</sup> and legalized in India in 1994.<sup>2</sup> Organ donations are yet to gain momentum in India. The knowledge and attitude of a community toward organ transplantation is far from gratifying, even among the educated sections of the society. The major concerns causing organ shortage in the country are lack of awareness and correct knowledge among public, myths and misconception clouding organ donation due to religious and cultural barriers, etc. Hence, imparting correct knowledge and awareness about the issue to the public is quite essential for the success of organ donation program in India. The health professionals, especially medical doctors, do have a key role in imparting correct knowledge and eliminating the barriers regarding organ donation among the public since they are the first individuals to create a relationship with a potential donor's family. However, the ground reality in India is that the identification of brain death and requesting consent from the next to kin is often given less priority by the doctors and hospital staffs. This change in attitude is partially because of the overwork they have and more due to the lack of proper knowledge and attitude toward this issue.<sup>3</sup> Initially, it was thought that socio cultural and religious issues and lack of knowledge on the issue are the major determinants that restrict organ donation. At present, it is apparent that there are many other factors such as lack of institutional

mechanisms, organizational support, and legal and ethical issues.<sup>3,4</sup> The medical students and doctors with correct vision and knowledge regarding the recent developments in the domain of organ donation can be the champions in this cause and can establish a robust organ donation program in the country by hand-holding other stakeholders. Medical experts' knowledge, attitudes, and practices are crucial in promoting an ambience that positively impacts organ donation and acquisition rate.<sup>5,6</sup> Therefore, it is paramount to understand and weigh the knowledge, attitude, and practice about organ donation among the medical students – for the probable success of the organ donation programs. However, there are very few studies conducted among medical students in India, especially in Rajasthan, in this regard. In most of the studies conducted among medical students in India, it was found that there exist gaps in the level of knowledge and their attitude toward organ donation. The number of individuals waiting for organ and tissue transplantation is increasing day by day.<sup>3</sup> Organs such as “part of liver” and “kidney” can be donated by healthy controls.<sup>4</sup> Wig et al stated, that there is a need for educating people regarding organ donation to the number of donor organs and awareness of donation.<sup>6</sup> The objective of the study is to assess the knowledge and attitude of medical students in Jaipur City regarding organ donation.

## MATERIALS AND METHODS

A cross-sectional descriptive study was conducted among the second year students of undergraduate students in

N.I.M.S.R.C.(Medical College), Jaipur City to evaluate the awareness, knowledge, and attitude regarding Organ Donation. The estimated sample size for the study was 120, which were determined by “G” powered statistical software based on 80% power with an alpha error of 0.05. A self-administered English questionnaire was used to perform this survey during July 2017 was designed and standardized in the Medical College and Hospital. The questionnaire includes 30 questions which comprised of either yes or no inventories or multiple choice questions in addition to students demographics. The participants were informed of the purpose of the study, and they were also informed that the participation in the study was voluntary. The questionnaire was distributed to the students during the lecture hours, and the participants were instructed not to discuss the questions among themselves. Sufficient time was given to them to fill the questionnaires. After answering, the answer sheets were collected for evaluation. The collected data were entered into Microsoft excel sheets. The data were analyzed using SPSS (Statistical Package for the Social Sciences) software version 21 (IBM SPSS Statistics, Jaipur, India) and the descriptive statistics such as number and percentage were calculated for the collected data.

## RESULTS AND DISCUSSION

A total of 120 students participated in the study, out of which 45 were males and 75 were females. Among the study population, 108 (90%) were aware and 12 (10%) were not aware of the term OD. A total of 72 (60%) students were aware and 48 (40%) were not

aware of the “organ transplantation act.” Sixty (50%) students had the knowledge about the risks involved in OD. Seventy eight (65%) students felt the need for laws to govern the process of OD. Knowledge about the human donor card was observed among 42 (35%) students among the study population. 73 (60.80%) wanted to be a part of any OD group and also motivate others for OD.

Shortage of OD is one of the major problems our medical field is facing currently. This is due to the lack of awareness and false perceptions about OD among the population. Appropriate measures to educate and create awareness among the major group of the population, i.e., young individuals are vital to improve the availability of the amount of donor organs to the recipients in line. Therefore, we as medical professionals should play a major role in spreading positive knowledge toward OD among the people. Therefore, the present study was carried out to assess the awareness, knowledge, and attitude regarding OD among final year students of medical, Jaipur City. In the present study the willingness for organ donation, number who had pledged organs, source of information about donation, source of organs, beliefs about live and cadaver donors and choice of recipient by donor were analyzed. In the present study, it was observed that 90% of the study population were aware of term OD whereas in a study conducted by Bharambe et al.,<sup>4</sup> it was observed that awareness regarding OD was 98.7% in the first year of MBBS and increasing to 100% by the third year which is similar to a study reported by Bapat et al.<sup>7</sup> and Ali et al.<sup>8</sup> carried out in medical colleges in South India and Karachi, Pakistan, where

the observations were 97% and 97.5%, respectively.

In the present study, it was found that 40 % of the students reported media, 20 % internet, 18 % family, and 22 % friends as the major source of their knowledge regarding OD whereas a study carried out by Bilgel et al<sup>9</sup> reported 72.1% and 22.7% media and medical education as the source of knowledge, respectively, and a study conducted by Bapat et al.<sup>7</sup> stated that 61%, 60%, 31%, and 51% reported television, newspaper, radio, and magazines, respectively. Hence, it is observed that media have been the major source of information regarding OD among the students. About 60 % were aware of the organ transplantation act and 65% felt the need for laws to govern the process of OD. About 55 % were aware that the government legalizes brain death or coma as a form of death so that the organs of the donor can be donated. A study conducted by Wig et al<sup>10</sup> suggested only a small number of individuals were aware that the brain death is legal in India. A study conducted by Ramadurg and Gupta<sup>2</sup> showed that only 12.9% were aware about the laws legalizing brain death in India. This deficiency might be due to lack of knowledge about legal terminologies and information. Tontus et al<sup>11</sup> state that the most important factor for the shortage of donor organs is due to lack of information regarding the legal and procedural details among health care professionals themselves. About 55 % of the study population in the present study were willing to be a donor, and their preferences of the recipient were 35 % for family members, 25 % for friends, and 40 % for unknown individuals. The reasons for opting against OD

were that 8% did not believe in OD, 14% was not willing to go through the disfigurement involved, 30% did not believe in the legal system, and 50% stated that their family would not approve. About 30% were not willing to consider OD. About 55 % responded that only major organs such as eye, heart, liver, and kidney could be donated; however, 20% thought that all the organs could be donated, 25% were not sure of the above. A study conducted by Ramadurg and Gupta<sup>2</sup> of 70 medical students found that only 27% of the study population knew of the organs that can be donated. In another study, Ali et al<sup>8</sup> found that according to students' opinion, kidney, cornea, blood, and platelets were the most commonly donated organs and tissues. A study carried out by Edwin and Raja reported awareness regarding eye donation was 88%, kidney 33% and 27% liver among the study group. This observation was similar to that reported by Annadurai et al, who studied the knowledge of nonmedical college students regarding the organs that can be donated and found that above 80% were aware of eye and kidney donations and below 15% had knowledge regarding other OD.<sup>13</sup> Thus, there was high level of awareness regarding donation of eye, kidney, heart, and liver, and there was considerably low knowledge regarding the donation of other organs. In this study, an attempt was made to demonstrate the lack of knowledge on OD among health science and non health science students. Hence, the study emphasizes the need of a proper intervention which includes knowledge and positive messages to bring about the necessary changes in the perceptions and intentions of the students regarding OD.

**CONCLUSION:**

A well organized approach is required to raise awareness among the youth about various aspects of OD which is necessary to eliminate the setbacks that affect the rate of availability of donor organs. Motivating messages and facts are some of the means of intervention to bring about changes regarding perceptions and intentions about OD among the students. Other educational tools such as advertisements, campaigns, exhibitions, and lectures can improve the awareness and attitude about OD among the population. Since media is the major role in communication these days, they should take up the initiative of broadcasting the legislative laws that are involved in the process of OD.

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