

## Knowledge and attitude of Medical Students and nurses towards Organ Donation

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### Abstract

**Background:** The attitude of healthcare workers towards organ donation can either facilitate or hinder the process of organ donation. Therefore the healthcare workers can play an important role regarding the education of the general public regarding organ donation. Hence healthcare workers knowledge and attitude should be studied, so that they can educate or spread awareness of organ donation. Therefore this study was planned to study knowledge and attitude of medical students and nurses towards organ donation. **Methods:** The study was done using 20 questions of knowledge and attitude towards organ donation. Total 200 participants, 100 each of medical students and nurses were taken for the study. The questionnaires were given to all the participants, their responses were collected and analyzed using IBM SPSS statistics version 20 software. **Results:** The results had shown that the medical students were having more knowledge regarding organ donation than that of the nursing participants and the difference was found to be statistically significant. (Student's t test,  $p < 0.05$ ) In reference to the attitude questionnaires, the medical students had more positive attitude than nurses. The study shown that though medical students had more knowledge and attitude regarding organ donation than nurses, they were still lacking in sufficient knowledge and attitude. **Conclusion:** Seminars, symposiums and educational programs should be arranged on a regular basis to increase the knowledge and to develop positive attitude regarding organ donation among the health care professionals.

**Key words:** Organ donation, Medical students, Nurses

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### Introduction

In the developing scientific world, as the new medical facilities are increasing, the demand for the organ transplant is also increasing. Subsequently, organ shortage also becoming a global concern.<sup>1</sup> Organ transplant is a highly effective therapeutic alternative procedure to replace the failed organs, but it is restricted by the need to obtain the donations of organ.<sup>2</sup> Generation of human organs through organ donation is a complex process consisting of many technical as well as organizational factors. However, its final result depends closely on the final decision of people who are unrelated to the health system.<sup>3</sup> This means that part of the

efforts in the field of research and intervention on transplant should also be aimed at the factors that condition the personal decisions in this matter.<sup>4</sup> During the past few decades, organ donation has increased widespread as the modality of treatment and in fact, is usually the only option of treatment in many end organ diseases. But this form of treatment needs consideration of many factors like ethical or medico-legal aspects. Knowledge, attitude and behavior of healthcare professionals are important factors in fostering an environment that can encourage and promote organ donation among the entire population. Since medical students are the future doctors of the country, their positive attitude and high level of

knowledge can create a positive environment and promote organ donation.<sup>5</sup> Awareness programs, personal beliefs and experiences of prior contact with healthcare services influence individual and societal attitudes and awareness regarding organ donation. In India, consent of the next of kin is mandatory before organs can be recovered from a deceased donor. The attitudes of healthcare workers who closely interact with the family of the deceased can influence their decision.<sup>6</sup> It has been suggested that the low conversion rate of potential organ donors to actual donors is perhaps due to the indifferent attitude of staff working in these critical care areas. Therefore, it becomes important to assess the knowledge and attitude of healthcare personnel towards organ donation.<sup>7</sup> hence, this study was carried out to determine the present level of knowledge and attitude of medical students and nurses towards organ donation.

### Materials and Methods

The study was consisted of 100 medical college students and 100 nurses of the medical colleges and adjacent multispecialty hospitals. The study

was done with the help of 20 specially prepared questionnaires which were validated by doing pilot study. The questionnaires were consisting of 10 questions each of knowledge and attitude towards organ donation. Approval from the ethical committee was taken before start of the study and informed consent was also taken from all the participants before start of the study.

### Results

All the participants in the study were given their responses. All the responses were collected, tabulated and analyzed. The comparison of the scores of the knowledge of organ donation in medical students and nurses shown that the knowledge of the medical students were higher as compared to that of nurses and the difference was found to be statistically different. (Student's t test,  $p < 0.05$ ) (Table 1)

In response to the attitude questionnaires, participants had shown a variable response and in response to most of the questions, medical college students shown a more positive response than nursing population. (Table 2)

**Table 1:** Comparison of the knowledge scores of the medical students and nurses by student's t test.

Students	Number of participants	Score Mean SD	T value	P value
Medical students	100	7.60 1.59		
Nurses	100	5.87 1.06	3.5058	0.0016

**Table 2:** Responses given by the participants for the questionnaires of the attitude regarding organ donation.

SN.	Questions	Medical students		Nurses	
		Agree (%)	Disagree (%)	Agree (%)	Disagree (%)
1.	Worry organ will go to recipient of different religion	34	66	44	54
2.	Not willing to receive organ/tissue of donor of other religion	23	77	35	65
3.	Family members do not support the idea of organ donation	36	64	55	45
4.	Not willing to discuss with family about organ/tissue donation	41	59	53	47
5.	Afraid of surgical procedure	12	88	32	68
6.	Believe one's body should remain intact after death	46	54	77	23
7.	Think that a person is not really dead when organ is harvested	10	90	22	78
8.	There is fear of disfigurement of body after organ donation	24	76	34	66
9.	A deceased useful organ should not be wasted, everyone should sign up for organ/tissue donation	11	89	23	77
10	Inappropriate for health care providers to bring the issue of deceased donation When people grieve over the death of loved one	42	58	76	24

## **Discussion**

There is disparity between organ supply and organ demand as there is thousands of individuals with end-organ failure patients awaiting transplantation in various countries.<sup>8</sup> In addition to governmental and infrastructural support, a successful organ donation programme requires awareness in society and commitment of healthcare professionals. A positive attitude of healthcare workers towards life-saving organ donation programme could be a first step towards realizing this goal.<sup>7,9</sup> Organ donation and transplantation is the most important treatment modality of many end organ diseases. Even then, the gap between demand and supply is quite high. Many patients die while waiting for a transplant. This scenario is seen in most of the countries nowadays including India. One of the main reasons behind this is lack of knowledge among the entire population and many myths and beliefs accepted by people with respect to organ donation. Health professionals can play a major role of improving the attitude of general public by creating awareness amongst them and improving their knowledge. It has been shown in previous studies as well that health professionals can positively influence the opinions and attitudes of patients and their relatives, leading to higher rates of organ procurement.<sup>5,10-13</sup> Therefore, a realistic approach would necessitate an assessment of knowledge and attitude of healthcare workers towards organ donation. An organ transplant is the moving of a whole or partial organ from one body to another (or from a donor site on the patient's own body), for the purpose of replacing the recipient's damaged or failing organ with a working one from the donor site. Organ donors can be living or deceased (previously referred to as cadaveric). Organ donation is also referred to the removal of the tissue of human body from a person who has recently died, or from a living donor, for the purpose of transplantation. People of all ages may be organ and tissue donors.<sup>14</sup>

As future doctors, medical students will take up the role of promoting organ donation. However, many lack relevant basic knowledge and are influenced by personal attitudes and biases held by the general public, which impinge on health care professionalism. Insufficient knowledge and failure to identify possible donors are

considered important contributing factors responsible for the shortage of available organs. There is also a discrepancy between attitudes and actions. While the majority of health care professionals support organ donation, only a small proportion had an actual commitment through signing an organ donation card or registering to become an organ donor. Attitudes, knowledge, and actions are interrelated and previous studies showed that culture and religion were important external influences affecting the decision process.<sup>15,16,17,18</sup> In Turkey, many factors influence public attitudes toward organ donation. In addition to socio-demographic characteristics such as age, sex, education, and economic status, religion and superstition play an important role, and the willingness to donate one's own or a relative's organs have not changed.<sup>19</sup> Over the years the demand for organs transplant was in the increasing trend. Subsequently, shortage of organs also becomes a global concern.<sup>1</sup> Medical professionals have an important role in the procurement of transplantation organs, and they could be partly responsible for the lack of organs needed for transplantation. Nurses around the world have shown a positive attitude to organ transplants, despite cultural and traditional differences.<sup>12,20</sup> We are facing two problems currently, on one hand there is a shortage of organ donors. Each organ of body has its own waiting list, but the lists share common characteristics there are more organs needed than are available. Though many lives are saved through organ donation, many people die while waiting on a list. On an average about 106 people are added to an organ waiting list every day and 18 people die each day for an organ. On the other hand, there is an alarming situation in the Third World countries of "organ tourism" Every year thousands of people from Europe, Middle East, United States and Australia come to India, Pakistan, China, Egypt, Philippines, and other countries in search of poor donors, who are willing to give one of their kidneys for financial compensation. Pakistan is one of the favorite resorts worldwide as far as the "transplant tourism" is concerned.<sup>14</sup> Lack of educational programs on organ donation and transplantation has been pointed out before as one of the main reasons for organ shortage. Refusal to consent to organ donation is often

based on prejudices, and many potential donors are lost due to limited information and communication.<sup>21,22</sup>

Well-directed programs need to be applied to continuously alert young adults to the topic of organ donation and to raise awareness of organ shortage. In an extensive study that developed a comprehensive model on the relative importance of cognitive, attitudinal, and social dimensions on the organ donor registration process, D'Alessandro et al. demonstrated that social-based communications had the second greatest impact on support of organ donation and actual donor registration.<sup>22,23</sup>

### Conclusion

Knowledge and attitude toward organ donation are connected with education level and years of work experience. Educational training of health care workers to change the attitude regarding organ donation and legacy is much needed. Adding new information on timely basis can develop a positive attitude among all members of the health care professionals.

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