

CHANGES IN KNOWLEDGE AND ATTITUDE AMONG MEDICAL STUDENTS TOWARDS ORGAN DONATION AND TRANSPLANTATION

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ABSTRACT

Introduction: A lot of advancement in the field of transplant surgeries is made recently. There is a rising gap between organ demand and supply. This is mainly due to lack of knowledge about organ donation and transplantation even among medical professionals.

Objectives: 1) The objective of present study is to assess the knowledge and attitudes about organ donation & transplantation among medical students during their first and final MBBS course. 2) To evaluate the role of 3 years of medical education on the students opinions. 3) To determine the misconception and ambiguities about organ donation and transplantation.

Materials and Methods: This is a questionnaire based study done on MBBS students when they were in first year, then after 3 year duration when they were in Final MBBS. The data were expressed as percentages (%) of answers to each questions. The results were subjected to student t test.

Implications: These observation of the present study show that the knowledge and attitudes of students did not significantly change during their routine three year medical curriculum. These observations will support the necessity for an education program which focuses on organ donation and transplantation. An education program regarding organ donation and transplantation is essential especially for medical students who will be the future doctors who will be the first person to build relationship with the potential donor's family. The main motivational force for organ donation was media. The perceived reasons by the students for not donating organs was of the reason that the donated organs may be misused. This study will improve the understanding and enable acceptability of organ donation by medical fraternity and the society as a whole.

KEY WORDS: Organ donation, Awareness, Knowledge.

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INTRODUCTION

A colossal advancement has been made in the field of transplant surgeries as of late. An organ donation from single person after brain death is capable of saving up to 9 lives and improving the lives of many others [1]. In these days organ shortage is a global issue. Most of the people don't make their minds due to various reasons. Most of the people are not aware of organ donation and transplantation. When compared to other countries the organ donation rate in India is very poor at 0.26 per million [2].

A live person can donate one kidney, a part of the lung, a part of the liver, blood and bone marrow which can easily be transplanted. In deceased organ donations (after brain death), more organs such as the heart, pancreas and cornea can be transplanted if the patient is on the ventilator till the organs are extracted [1]. Only healthy individuals can donate organs and the donor must be free of diseases including HIV [3-4].

An enormous difference has been created between organ supply and demand because of increase in the incidences of organ failures and lack of supply of organs. The waiting list of patients requiring organs is increasing day by day. Because of high number of road traffic accidents in India there is a lot of potential for deceased organ donations if utilized legitimately. Only few hospitals and committed NGOs in the country have shown that deceased donation as a feasible option [2,5].

Religious convictions are another viewpoint why people don't consent for organ donation. Many people are not willing to donate as they believe that the organ donated by them may be misused. An assurance that these organs will be utilized for good and not be a commodity in the organ market may encourage organ pledges [6,7]. Most of the medical students or doctors are not exposed to platforms for organ donation and lack of knowledge as to where they are located if any [1,8]. The knowledge, attitudes, and behaviours of the healthcare professionals are important factors in creating an environment that positively influence organ donation rate⁹. Thus, the present study was done on medical students. The objective of present

study is to assess the knowledge and attitudes on organ donation & transplantation and to evaluate the role of 3 years of medical education on the students opinions. To determine the misconception and ambiguities about organ donation and transplantation.

MATERIALS AND METHODS

This is a questionnaire based study done on medical students during their first year and then during their final year MBBS. The ethical clearance and informed consent from students were taken for the study. The pre-tested self administered questionnaires were distributed to students and the completed questionnaires were collected and the answers were kept confidential. Those students who are willing to take part in study voluntarily were included. The students who were absent during survey or not willing to give consent were excluded from the study. About 136 students participated in the survey during their first MBBS. Again the same questionnaire was distributed after 4 years to the same students when they were in Final MBBS and about 128 students answered the questionnaire. The questionnaire included questions on age, sex, demographic data and questions regarding attitudes towards organ donations and transplantation. The data were expressed as percentages (%) of answers to each questions. The results were subjected to student t test. P value <0.05 was considered significant.

RESULTS

About 136 students participated in the survey during their first MBBS and only 129 completed the questionnaire during their final year (69 men, 60 women; mean age 23.5 years, range 22–25). 78 (60.5%) were from urban background and 51(39.5%) were from rural background. About 42 (30.9%) students were vegetarians.

Knowledge regarding organ donation & transplantation:

About 95% first MBBS and 98% final MBBS students were aware of the term organ donation and transplantation. Majority heard about organ donation via print and electronic media. Only 13.9% knew that there was a law for organ donation.

Attitude towards organ donation: Majority of the students (91% in first and 89% in their final MBBS) were ready to donate their organs after their death. The female students had a more positive attitude towards organ donation than male students in both the first and the fourth year evaluation (P value 0.02 and P value 0.03 respectively). The students upbringing either in urban or rural areas and religious beliefs did not have any influence on the attitudes of organ donation.

About 9% of first MBBS students and 11% of final MBBS students had a negative attitude towards organ donation. They did not change their minds during the 3 years of medical studies. 6% expressed their doubts regarding the proper utilization of organ that are donated, while others justified their opinion on religious grounds. None of the students had signed the donor card with any organization. About 59% first MBBS students and 64% were ready to donate their organs to their family members. Around 98% were in favour of promoting organ donation in the future.

Attitude towards transplantation:

89% of first MBBS students and 98.5% final MBBS students agreed that organ transplantation is a life saving procedure in patients with end stage organ diseases. 91% of the final MBBS students would accept an organ from a human donor if necessary (99% in their first MBBS) and 96% would accept an artificial organ (95% in the first year). About 9% first MBBS and 3% final MBBS students were not agreeing for organ transplantation. Gender, urban or rural background, vegetarians or non vegetarians did not influence the attitude towards organ transplantation in either first or final MBBS students.

Problems with transplantation:

About 94% of the final MBBS students and 92.1% of the first MBBS students knew that organ transplantation is sometimes the only therapeutic option in many end stage organ diseases. The main reason for unwillingness to be a donor was "fear of misuse of donated organ". Majority of the medical students both in first (93%) and final MBBS (89%) didn't agree to donate organs of family members after their death.

DISCUSSION

The transplantation of organ is the most preferred management in end stage organ failure which has better survival benefits. The demand for organs exceeds the number of organ donors around the world. Therefore, awareness regarding organ donation and transplantation is extremely important for overcoming this shortage. Health care professionals play an important role in encouraging the people for organ donation. A positive attitude among doctors and medical students regarding organ donation may be an important factor in improving the organ donation rate of the society as a whole [10].

Educating the medical fraternity during their early careers may improve the problem of organ shortage. Thus, the present study was done on medical students to compare the knowledge and attitudes for organ donation and transplantation that can be seen in the students after 3 years of regular medical course.

The present study shows that most medical students (91% in first and 89% in their final MBBS) had positive attitude towards organ donation. The young people have more positive attitude towards organ donation than others [11]. In Spain, three teenagers out of every 4 were ready to donate their organs [12]. In Turkey, a study done on university students showed that about 49.5% had agreed for organ donation after their death and about 13.8% had already signed the will regarding the same [13]. A study done Burra P et al [14]., on medical students observed that there was positive attitudes among students towards organ donation. There was no improvement in the attitudes of medical students even after 3 years of medical education. Similar results were observed in the present study also which makes an educational program regarding organ donation and transplantation necessary during their regular medical curriculum.

A study done on young adults in UK by Coad et al [15] observed that about 95% of participants were aware of the term organ donation and transplantation and only 1.7% had donated an organ. A study on dental students also showed that about 98.6% were aware about organ

donation and transplantation and 3.4% have donated their organs [16]. The awareness among the students was similar to our study (95% in 1st year MBBS and 98% in final year MBBS).

In our study female students had a more positive attitude towards organ donation than male students in both the first and the fourth year evaluation which was also observed by Burra et al [14]. Mekahli et al. [9] observed that as females had more emotional values than males they had more positive attitudes towards organ donation.

The higher positive attitude towards donation was observed among first year students compared to final year students. This observation was in contrast to other studies which showed final years had higher positive attitudes towards donation [16,17].

In the present study about 99% of first MBBS and 91% of the final MBBS students would accept an organ from a human donor if necessary and 95% in first MBBS and 96% in final MBBS would accept an artificial organ. These results were in accordance to study done by Canova D et al [18]. The final MBBS students were reported greater acceptance for artificial organs.

About 9% first MBBS and 3% final MBBS students were not agreeing for organ transplantation. Gender, urban or rural background, vegetarians or non vegetarians did not influence the attitude towards organ transplantation in either first or final MBBS students.

Majority of the people who are unwilling to donate their body had a very little knowledge and main hindering factor was the misuse of organs which are donated. It could be solved by media, voluntary organisation or by conducting more awareness camps on a regular basis. The results show that inspite of three year medical education, the student's knowledge and attitudes about transplantation and donation did not significantly improve.

The limitations of the present study was that it was conducted only one set of medical students in a single institute and hence our results cannot be generalized to the society as a whole. More studies should be done to rectify the low

rate of organ donation. More awareness programs should be conducted to create awareness about organ donation.

CONCLUSION

The main motivational force for organ donation was media. The perceived reasons by the students for not donating organs were that the organs may be misused. This study will improve the understanding and enable acceptability of organ donation by medical fraternity and the society as a whole.

These observations of the present study show that the knowledge and attitudes of students did not significantly change during their routine three year medical curriculum. These observations will support the necessarily for an education program which focuses on organ donation and transplantation. An education program regarding organ donation and transplantation is essential especially for medical students who will be the future doctors who will be the first person to build relationship with the potential donor's family.

Conflicts of Interests: None

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