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## Research Article

### EFFECT OF STRUCTURED TEACHING PROGRAMME REGARDING ORGAN DONATION ON KNOWLEDGE AND ATTITUDE AMONG NURSING STUDENTS

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#### ARTICLE INFO

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#### ABSTRACT

**Background:** The debate over the optimum ways to reform organ donation and transplantation legislation has been underscored by individual countries' successes and failures. The availability of potential donors, transplantation infrastructure (capacity, coordination, and training), healthcare expenditures, and public awareness/attitudes have also been identified as contributing factors. Thus, legislative reform alone is not sufficient to optimally change donation rates. So this study was undertaken for promotion of organ donation through teaching programme to improve the knowledge and attitude of college students.

**Aim:** To assess the effect of structured teaching programme regarding organ donation on knowledge and attitude among 1st year B.Sc Nursing students.

**Methods and Material:** Pre experimental design was adopted for this study. 60 samples were selected by purposive sampling technique. The data was collected by using self structured questionnaire and three point likert scale developed by the researcher. The tool was validated by experts and the reliability was established through the test-retest method. The pilot study was conducted on 6 subjects of Rajiv Gandhi College of Nursing, Jammu. The Karl Pearson's coefficient of correlation was computed and the reliability was found to be 0.80 for knowledge and 0.90 for attitude. The tool was administered for pre test to 60 1st year B.Sc Nursing students of BEE ENN College of Nursing, Jammu. Teaching programme was administered and after a gap of one week, retest was given. The collected data was tabulated, analyzed and interpreted by using descriptive and inferential statistics.

**Results:** The findings showed that the pre-test knowledge i.e, 31(51.76%) had inadequate knowledge and 29 (48.3%) had moderately adequate knowledge whereas in post-test, 51(85%) had adequate knowledge and 9 (15%) had moderately adequate knowledge. And the attitude, in pre-test 25 (41.7%) had neutral and 35 (58.3%) had negative attitude. The post-test attitude revealed that all subjects i.e, 60 (100%) had positive attitude. Paired't' test was applied to assess the effect of teaching programme on attitude of subjects. The obtained't' value was found to be highly significant at the level of  $p < 0.05$ . It was inferred that the 1st year B.Sc Nursing students exposed to the planned teaching program had significant increase in post-test knowledge and attitude. There was no significant association between the post test level of knowledge and attitude of 1st year B.Sc Nursing students regarding organ donation with the selected demographic variables. The investigator feels that, organ donation is a social issue element. So the organ donation knowledge is not constrained with any of the demographic variables like age, religion, marital status and previous exposure about organ donation information.

**Conclusion:** Better knowledge may ultimately translate into the act of donation. Effective measures should be taken to educate people with relevant information with the involvement of media, doctors and religious scholars.

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#### INTRODUCTION

**Introduction:** An organ transplant is a moving of a whole or partial organ from one body to another (or from donor site on patient's own body) for the purpose of replacing the recipient's damaged or failing organ with a working one from donor's site organ donor can be living or deceased. It also referred as removal of tissue of human body from a person who has

recently died from living donor for the purpose of transplantation.

In developed countries organ donation rate is 20-30 percent for every million people of population. Organ transplantation has been known as treatment way for patients who suffer from organ failure. Thousands of patients are waiting for getting organ while many of them die during their expectations. However many of patients who suffer from organ failure does not have the same chance for transplantation. Organ donation

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and transplanting activities are dependent legislation attitude of general public and health care professionals as level of organization and co-ordination of transplantation unit. Attitude towards organization in general public can be influenced by factors such as level of related knowledge, level of education, religion ethnicity, gender and traditional values have also been identified as predictors of donation practices.

Organ transplantation is one of the most spectacular endeavors till date. Medical advances have contributed tremendously to its success ratio and have led to a significant increase in the number of transplants being performed. But there is a shortage for organs and low response to cadaver organ donation. Though the first cadaver organ transplant was conducted nearly five years ago in Karnataka such donations still remain a sporadic event in the state. There are over 1.5 lakh people in need of kidneys in the country; over 1 lakh need liver and nearly 50,000 need heart transplant. Each day an average of 75 people receive organ transplants, however, an average of 20 people died each day waiting for transplants that can't take place because of the shortage of donated organs.

According to NPCB (National Programme For Control Blindness) 2012-13 report, India lacks corneas required for eye transplantations in 2012-2013 the country collected only 4417 cornea against the requirement of 80,000-1, 00,000 per year. More than a million Indians, mostly children's suffer from blindness because of a damaged cornea. Overall, globally the prevalence of knowledge for organ donation ranges from 60% to 85% using different knowledge variables.

This trend has been reported to vary with the development status of the country. Motivation to donate has been shown to have an association with knowledge and awareness of organ donation. Most of the research evidence on this subject is from the more developed countries. In a study from USA that included 278 respondents, 69.1% knew that blood-type made a difference in donation ( $p = 0.000$ ), 61.6% knew that transplant survival rates were high ( $p = 0.000$ ), and 75.9% knew that transplants could come from living donors ( $p = 0.000$ ). Another study done in European Union determined that more educated, younger age, and expressing some sort of political affiliation determined willingness to donate one's own organs and consent to the donation of those of a relative.

In 1994, the government of India passed the transplantation of Human organs Act legalized the concept of brain death and for the first time facilitated organ procurement from heart beating, brain dead donors. However this concept has not caught on well in India for want of public education and awareness this is turn is perpetuating the commercial sale of human organs due to the widening gap between the demand and supply. Thousands of lives are lost in India annually from heart and liver failure since transplantation of unpaired organs like heart, liver and pancreas is either difficult or impossible from living donors this is only possible on a large scale if these organs are available from cadaver donors.

So this study was undertaken for promotion of organ donation through teaching programme to improve the knowledge and attitude of college students. So that all world religions including Hinduism, Islam, Christianity, Buddhism and Judaism support organ donation, considering it as an act of

charity. A study to assess the effectiveness of structured teaching programme regarding organ donation on knowledge and attitude among 1st year B.Sc Nursing students at selected nursing college in Jammu. The aim of study is to assess the effect of structured teaching programme regarding organ donation on knowledge and attitude among 1st year B.Sc Nursing students and to find its association with attitude with selected demographic variables (age, sex, education, place, religion, year of education, prior information).

**Subjects and Methods:** The research approach used for this study is experimental approach. A pre experimental research design was adopted with one group pre-test, post-test design. The study was conducted at primary schools in Madurai. In this study, purposive sampling technique was used to select the samples. 60 B.Sc Nursing 1<sup>st</sup> year students were selected. Data collection was done by using self structured interview questionnaire. The questionnaire was prepared to assess the level of knowledge and the three point Likert scale was used to assess the level of attitude among 1<sup>st</sup> year B.Sc Nursing students regarding organ donation.

The investigator made the planned teaching program with review of literature and with the expert's opinion. The average time taken for the teaching program was around one hour. Data was collected for a period of six weeks. A convenient time and date was fixed for data collection and planned teaching program. Pre test was given to students. Then students were gathered in one classroom and the teaching program was administered after the needed explanation.

The post-test was administered to the same group with same structured questionnaire with a gap of one week. The pilot study was conducted on 6 subjects (10% of the sample population) of Rajiv Gandhi College of Nursing, Jammu. The Karl Pearson's coefficient of correlation was computed and the reliability was found to be 0.80 for knowledge and 0.90 for attitude. The tool was found to be reliable. The data was analyzed in terms of the objectives of the study using descriptive and inferential statistics.

## RESULTS

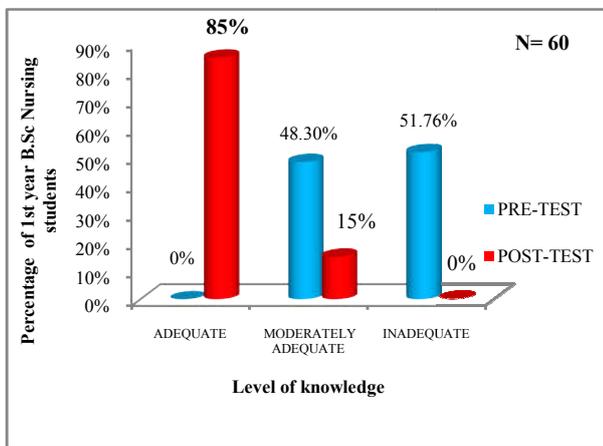
Table 1 reveals the percentage distribution of study subjects as per their socio demographic profile. According to their age, majority of subjects 99.3% had age between 18-20 years followed by 3.33% had 21-23 and 24-26 years of age. 91.6% were females and rest 8.33% were males.

As per their religion, 76.6% belongs to hindu religion, 13.3% were muslims, 5% were buddisht, 3.3% were sikh and remaining 1.6% were Christians. And 66.6% had prior information regarding organ donation where as 33.3% were not had any prior information.

According to their place of residence, 55% belongs to rural area and 45% belongs to urban area.

**Table 1** Distribution of study subjects as per their demographic variables (N=60)

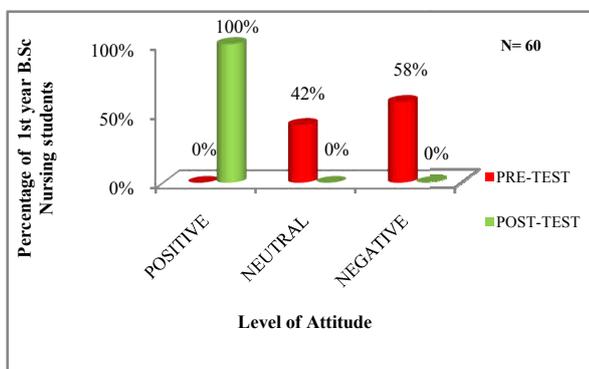
S. No	Demographic variables	Frequency (f)	Percentage (%)
<b>Age</b>			
1	• 18-20 years	56.0	93.30
	• 21-23 years	02.0	03.33
	• 24-26 years	02.0	03.33
<b>Sex</b>			
2	• Male	05.0	08.33
	• Female	55.0	91.60
<b>Religion</b>			
3	• Hindu	46.0	76.61
	• Muslim	08.0	13.30
	• Sikh	02.0	03.30
	• Christian	01.0	01.60
	• Buddhism	03.0	05.00
<b>Prior information</b>			
4	• Yes	20.0	33.3
	• No	40.0	66.6
<b>Place of residence</b>			
5	• Rural	33.0	55.0
	• Urban	27.0	45.0



**Figure1** Comparison of pre and post test knowledge score of subjects regarding organ donation

\*Paired t test (t = 4.714, p < 0.05)

The above figure reveals pre-test knowledge i.e, 31(51.76%) had inadequate knowledge and 29 (48.3%) had moderately adequate knowledge whereas in post-test 51(85%) had adequate knowledge and 9 (15%) had moderately adequate knowledge. Paired ‘t’ test was applied to assess the effect of teaching programme on knowledge of subjects.



**Figure2** Comparison of pre and post test attitude score of subjects regarding organ donation

\*Paired t test (t = 25.23, p < 0.05)

The obtained ‘t’ value was found to be highly significant ( p < 0.05). It was inferred that the 1st year B.Sc Nursing students exposed to the planned teaching program had significant increase in post-test knowledge.

The above figure reveals that in pre-test 25 (41.7%) had neutral and 35 (58.3%) had negative attitude. The post-test attitude revealed that all subjects i.e, 60 (100%) had positive attitude. Paired‘t’ test was applied to assess the effect of teaching programme on attitude of subjects. The obtained‘t’ value was found to be highly significant at the level of p < 0.05. It is inferred that the 1st year B.Sc Nursing students exposed to the planned teaching program had significant increase in post-test attitude.

**DISCUSSION**

Organ Transplantation is a boon to medical industry as it has helped in saving the lives of those who would have died otherwise. There is a great need for human organs for transplantation. In fact, the need far exceeds the supply of transplantable organs. This disparity has led to the formulation of various legislations, attempting to regulate the scarce resources (transplantable human organs) and to help establish an equitable system to allocate the organs where they can do the most good. We aimed to study the effect of planned teaching programme on knowledge and attitude regarding organ donation among medical students. Our study showed a lower prevalence of adequate knowledge (0%) regarding organ donation when compared to 65.5% reported by an earlier study in Pakistan. This difference can be explained on the basis of two reasons. Firstly, this could be because of the difference in the study population; ours being the non-patient population while the previous survey was done on the patient population coming to a private tertiary care hospital. Secondly, different knowledge variables have been used in our study as compared to the previous study for the assessment of knowledge status of respondents with regards to organ donation.

In this study, it was shown that 66.6% had prior information regarding organ donation where as 33.3% were not had any prior information. A study done in Lagos, Nigeria also reported that 60% respondents were aware of organ donation in general. This awareness could possibly have arisen from discourses with doctors or nurses or even fellow patients at the hospital on the subject of organ donation and possible donors. Pamphlets encountered at medical centers could have also enhanced the knowledge of the respondents of the previous study regarding organ donation. Personal experience with organ donation after the death of a family member could also aggrandize the level of awareness of the respondents in the previous study. In our study, exposure to planned teaching programme regarding organ donation results in significant increase in the knowledge and attitude among students (p<0.05). These findings are consistent with the study done by Tokalak I *et al.* which showed that the educational programme greatly enhance the students level of knowledge related to many aspects of organ donation and transplantation and significantly expanded awareness (p<0.001).

57% of respondents were in favor of organ donation and its promotion in the future. This is lower when compared to data from a study done in Brazil which reported that 87% of respondents were in favor of organ donation. We can explain

this difference on the basis of the reservation some people might have in view of the recent mushrooming growth of organ trade and trafficking in the country. The negativity projected by the image of organ trade can have a detrimental effect even on the organ donation for altruistic purposes because it weakens the fiber of confidence of the people in the transparency and authenticity of the process.

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