

A Study to Assess the Effectiveness of Structured Teaching Programme Regarding Organ Donation among the College Students in a Selected College at Chennai

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ABSTRACT

Background of the study: According to WHO, organ donation is often the only treatment for end state organ failure, such as liver and heart failure. Globally the prevalence of knowledge of organ donation ranges from 60 to 85%, In India, every year nearly 5,00,000 people die because of non-availability of organs due to lack of knowledge.

Objective: To assess the effectiveness of structured teaching programme regarding organ donation among the selected college students in a selected college at Chennai.

Method: The selected study design was pre-experimental design (one group pre-test and post-test design). A purposive random sampling technique was used for the study. The sample size for the study consists of 50 students between the age group of 20-22 years. The data collection period was one weeks. Permission was obtained from the Head of the Department of Nursing to conducting the study. Self-Structured Questionnaires were administered and structured teaching programme on organ donation was given who undergone pre-test. During the slide show session, students asked many doubts and it was clarified. The post test was administered with the same tool to the same group after 7 days.

Result: The study findings shows that 18(36%) had inadequate knowledge, 32 (64%) had moderate knowledge, none of them had adequate knowledge in pre-test. In post- test 20(40%) had adequate knowledge, 26(52%) had moderate knowledge and 4 (8%) had inadequate knowledge. The study findings revealed that there was a significant improvement in the post test. The improvement mean score was in pre-test 7.08 and in post-test was 12.05 with 't' value 7.63 which shows high significant at $p < 0.05$. It shows the effectiveness of structured teaching programme.

Conclusion: The study concluded that structured teaching programme was effective in improving knowledge towards organ donation.

Key words: Organ donation, Structured teaching programme, Student

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INTRODUCTION

Organ donation is when a person allows an organ of their own to be removed and transplanted to another person, legally either by consent while the donor is alive or dead with the assent of the next of kin [1,2]. Common organs donations are heart, kidney, liver, cornea of the eye, bones, bone marrow, lungs, pancreas, intestine, skin [3]. A live person can donate his/her organs. Some of the donated organs donated by living donor, such as 1-kidney, part of the liver, part of the pancreas, parts of the lungs, part of the intestine [4].

Commonly accepted cold ischemia times for various Organs are :Heart - within 4hours, Eye - within 6 to 8 hours, Lung-4 to 6 hours, Liver - 6 to 10 hours, Pancreas - 12 to 18 hours, Intestine-6 to 12 hours, Kidney - 24 hours (may be extended up to 72hours if placed on mechanical

perfusion) [5]. Any age/sex, caste, religion, people who uses spectacle, diabetes mellitus, hypertension(increased blood pressure), asthma, and without any communicable disease person can donate his/her organs [6].

A person with age >90, HIV, disseminated cancer, melanoma, treated cancer within 3 years; neuro-degenerative disease due to infection can't donate their organs [7]. According to WHO , globally 6600 kidney donation, 21,000 liver donation and 6000 heart donation was transplanted [8].

Eye donation is the process of removing cornea of the eye from the donor after death [9] within 4-6 hours through surgical procedure [10]. Heart donation is the process of surgical removal of heart from a donor and planting the donor's heart to the receiver. Indication for heart transplantation is heart failure [11]. One of the major complications of heart transplantation is organ rejection particularly within first 6 months [12]. Kidney donation is the process of surgical removal of kidney from a healthy person and placed it into the receiver. . Even a live person

can donate his/her 1-kidney [13]. A person with end stage renal disease needs kidney transplantation [14]. The receiver should avoid fruits like grapefruit, pomegranate, and green tea products after transplantation [15].

Globally the prevalence of knowledge of organ donation ranges from 60 to 85% which varies between countries [16]. Liver donation is the process of surgical removal of complete or partial part of liver can be donated it may be from a living or cadaveric person [17]. Liver transplantation is need in case of end-stage liver disease [18]. Bone marrow donation and transplantation is a process to replace unhealthy bone marrow with healthy bone marrow. Bone marrow is the soft, spongy tissue inside the bone cells which turns into blood cells [19]. Complications can include graft-versus-host disease (GVHD), graft failure, bleeding in the lungs, brain, vital organs and other parts of the body etc. There are some types of bone marrow donation and transplantation such as Autologous, Allogeneic transplants [20].

Almost 115,860 people in the United States are currently waiting for life saving organ transplants. More than 138 million people registered as organ donor in 2018, world widely [21]. In India, every year nearly 5, 00,000 people die because of non-availability of organs and this number expected to grow due to scarcity of organ donors. Currently, the state of Tamil Nadu leading the cause of

organ donation and is considered to be the best state in terms of organ donation, when compare to other states. In 2017, the state had 176 cadaver donors who contributed 673 organs [22]. "One Donor Can save Up to 8 Lives Through Donation and Heal Upto50 through Tissue Donation" [23].

METHODOLOGY

The selected study design was pre-experimental design (one group pre-test and post-test design). A purposive random sampling technique was used for the study. The sample size for the study consists of 50 students between the age group of 20-22 years. The data collection period was 2 weeks. Permission was obtained from the Head of Nursing Department to conducting the study. Self-structured questionnaires were administered and structured teaching programme on organ donation was given who undergone pre-test. During the slide show session, students asked many doubts and it was clarified. The post test was administered with the same tool to the same group after 7 days.

RESULTS

Obtained results are mentioned in the Tables 1 to Table 4 and Figures and Figure 2.

Table 1: Distribution of sample according to demographic variables section I.

S.NO	Demographic variables	Frequency (n=50)	Percentage (%)
1	AGE		
	18-19 years	1	2%
	20-21 years	44	88%
	22-23 years	5	10%
2	Gender		
	Male	8	16%
	Female	42	84%
3	Religion		
	Hindu	42	84%
	Christian	6	12%
	Muslim	2	4%
	Others	0	0%
4	Socio-economic status		
	Low	3	6%
	Middle	46	92%
	High	1	2%
5	Food pattern		
	Vegetarian	8	16%
	Non-vegetarian	42	84%
6	Type of family		

	Nuclear	40	80%
	Joined	10	20%
7	Are you willing		
	To donate organs?		
	Yes	42	84%
	No	8	16%
8	Source of information get through?		
	Newspaper	12	24%
	Television& internet	30	60%
	Close relatives	3	6%
	Other source	5	10%

Table 2: Frequency and percentage distribution of knowledge on organ donation in pre-test and post-test section II.

S.no	Level of knowledge	Pre-test		Post-test	
		N	%	N	%
1	Inadequate knowledge	18	36%	4	8%
2	Moderate knowledge	32	64%	26	52%
3	Adequate knowledge	0	0%	20	40%

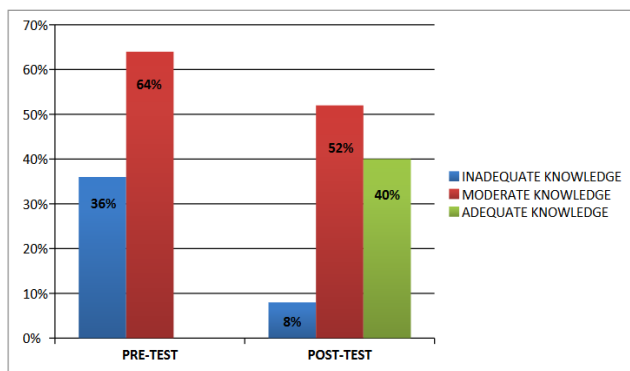


Figure 1: Percentage distribution in pre-test and post-test.

Table 3: Comparison of pre-test and post-test mean and knowledge section III (N=50).

S.no	Variables	Mean	Standard deviation	't' value
1	PRE-TEST	7.08	2.73	
2	POST-TEST	12.05	3.74	7.63

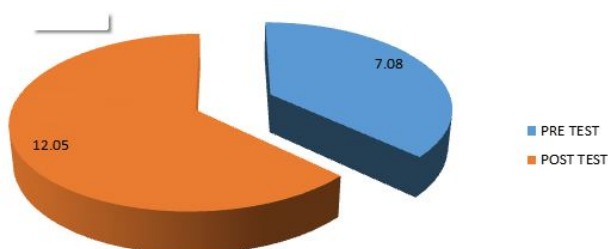


Figure 2: Comparison of pre-test and post-test mean.

Table 4: Association of knowledge gain score with selected demographic variables section IV.

Categories	Demographic variables	Inadequate knowledge		Moderate knowledge		Adequate knowledge		Chi-square	
		N	%	N	%	N	%	N	%
Age	18-19years	0	0	0	0	1	2	28.738 (s)	
	20-21years	4	8	22	44	18	36		
	22-23years	0	0	4	8	1	2		
Gender	Male	0	0	3	6	5	10	2.34(NS)	
	Female	4	8	23	46	15	30		
Religion	Hindu	4	8	21	42	17	34	2.6369(NS)	
	Christian	0	0	3	6	3	6		
	Muslim	0	0	2	4	0	0		
	others	0	0	0	0	0	0		
Socio-Economic Status	Low	0	0	3	6	1	2	2.5048 (NS)	
	Middle	4	8	23	26	18	36		
	High	0	0	0	0	1	2		
Food Pattern	Vegetarian	0	0	4	8	3	6	1.154 (NS)	
	Non-vegetarian	4	8	22	44	7	34		
Type Of Family	Nuclear	4	8	4	8	16	32	13.903 (NS)	
	Joined	0	0	22	44	4	8		
Willingness To Donate Organ	Yes	0	0	22	44	16	32	13.903(S)	
	No								
Source Of Information Gain Through	Newspaper	0	0	9	18	3	6	6.935(NS)	
	Television & internet	3	6	14	28	13	26		
	Close relatives	1	2	1	2	1	2		
	Other source	0	0	2	4	3	6		

DISCUSSION

It shows the frequency and percentage distribution of level of knowledge in pre-test and post-test. In pre-test, 18(36%) had inadequate knowledge, and remaining 32(64%) had moderate level of knowledge and none of them had adequate knowledge in pre-test. InPost-test, 4(8%) had inadequate knowledge, 26(52%) had moderate knowledge and 20(40%) had adequate knowledge

Table presents the comparison of level of knowledge in pre-test and post-test. The overall improvement mean score in pre-test was 7.08and in post-test was 12.05. It was found that't' value 7.63 was statistically significant.

Meghana Goswami, et.al [24] assessed the effectiveness of planned teaching program on knowledge regarding organ donation among under graduate students. True experimental pre-test post-test control group design was adopted.100 final year students selected from selected Arts and Commerce College by using simple random sampling technique, administered self-structured knowledge questionnaire. The study result shows the mean score 15+0.12 in pre-test and 22+0.40 in post-test.

There is a significant in level of knowledge. The study concluded that there was a need of different instructional strategies to enhance the awareness regarding organ donation in the community.

Pauline Sheela Priya, et al. [25] conducted a study to assess the effectiveness of structured teaching programme regarding organ donation among adolescent boys in a selected school, chennai. Quasi experimental research design was selected, the study population was at the age group of 16-19years old, 30 samples were selected by using non-probability convenient, self-structured questionnaires were used for data collection. the result show the improvement mean score in pre-test was 5.6, S.D-2.51and in post-test was 11.8, S.D -0.91. It was found that't' value 17.2 statistically significant. The conclusion of the study was there is a significant improvement in level of knowledge.

The demographic variables such as age, willingness to donate organs showed significant association with the knowledge after structured teaching programme, at $p < 0.05$ level and there was no association between gender, religion, socioeconomic status, food pattern, source of information gain and type of family.

CONCLUSION

The study findings revealed that there was a significant improvement in the post-test. The improvement mean score was 4.97 with 't' value (t=7.63) which highly significant at $p < 0.05$ shows the effectiveness of structured teaching programme. The finding of the study demonstrated that the education session increase the knowledge and compliance.

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ETHICAL APPROVAL

The study was approved by the Institutional Ethics Committee.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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