



RESEARCH ARTICLE

A STUDY TO ASSESS EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING ORGAN DONATION AND TRANSPLANTATION AMONG STUDENTS OF A SELECTED COLLEGE, WEST BENGAL.

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Abstract

A quantitative interventional study was conducted on assessment of effectiveness of structured teaching programme on knowledge regarding organ donation and transplantation among 152 students of a selected college, Kalyani, Nadia, West Bengal. Non-probability convenience sampling technique was used. Using a validated knowledge questionnaire data was collected respectively on first and eighth day, before and after presenting structured and validated teaching programme. In findings, 96.71% students were of more than 20 years age, majority were male students (61.84), Hindu by religion (96.71%) and 45.39% students were aware of the word 'Organ donation and transplantation' before attending teaching programme. In post-test, maximum 91% (139) students had good knowledge and no one had poor knowledge. The post test knowledge score statistically and significantly differed from pre-test knowledge score at 0.05 level of significance. Hence the administration of structured teaching programme was effective.

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Introduction:-

Mortality and morbidity due to irreversible non-communicable diseases is a difficult burden of any health care system. Organ transplantation is one of the most preferred treatment for many of the end-stage organ diseases as it offers a better quality of life and has a better long-term survival benefits.¹ However, the primary hindrance to the organ transplantation program worldwide is the shortage of donor organs.² There is gradually increasing discrepancy between the number of persons on the waiting list for organ transplantation and the available number of deceased donor organs. India is currently having a deceased donation rate of 0.05–0.08/million population compared to rates which is more than 20/million in Spain, US, and France.³ Because of such low donation rate, patients requiring transplantation waiting for a long time. Patients with end-stage renal disease can be maintained on dialysis till they get the donor organ. However, patients requiring heart, lung, and liver cannot be maintained for an extended time on mechanical devices. Therefore, there is a great need for increasing organ donation and harnessing of donor organs. Although the public is accustomed to blood donation, there is largely a hesitation about organ donation. For the success of the organ donation program, positive attitude of the public toward organ donation and the consent by relatives for organ donation in the event of brain death are required.

In India, due to the imbalance between availability and demand, kidneys were harvested from the poor Indians by exploiting their poverty. To ban this illegal business of organs, in the year 1994, the Government of India passed

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“the transplantation of human organs act.”⁴ Under this act, donation of organs by deceased persons was made legal and the transplantation between unrelated living individuals was made illegal and punishable. Nevertheless, due to lack of knowledge about the legal and procedural details of organ donation, kidneys are sold in the black, and frequently, the police uncover these illegal kidney transplant rackets.⁵ Thus, there is a great need for increasing awareness about the importance of organ donation and the legal provisions related to it. College students are young people who spread knowledge, in need for awareness in general public interest. So a structured teaching programme was planned to be administered among the College students to increase the knowledge level by interventions.

Objectives of the study

1. To assess the knowledge level of College students before administration of structured teaching program on organ donation and transplantation.
2. To formulate and validate structured teaching program on organ donation and transplantation.
3. To assess the knowledge level of College students after administration of structured teaching program on organ donation and transplantation.
4. To find out the effect of structured teaching program on organ donation and transplantation among College students.

Methodology:-

In this quantitative research study, Interventional Approach and Single group pre- test post- test design was used to evaluate the effectiveness of structured teaching programme regarding organ donation among 152 students of selected college, Kalyani, West Bengal. The sample was selected by non-probability convenient sampling technique. Students, who were not present on the scheduled date of pretest and teaching programme, were excluded from the research study. The study synopsis was approved by the Institutional Ethics Committee of College of Medicine & JNM Hospital, Kalyani, Nadia and administrative permission was retrieved from the Principal, Kalyani Mahavidyalaya to conduct study on the college students. The Questionnaire contains 4 items in demographic information of the participant and 9 multiple choice questions in the knowledge domain of ‘Organ Donation’. The questionnaire content and teaching programme content was validated by 5 experts of different field of health sciences and addition deletions were done. The reliability of the questionnaire was done by split half technique and the reliability score is 0.83.

On the first day, a Pre test knowledge questionnaire was given to be filled up by students and the validated structured teaching programme was carried out by presenting a Power point of educational material in Bengali. On eight th Day, a post test was executed on the same group as per prior notification. Data collection has been done in approximately eight days duration from 10th July to 17th July, 2019.

Results:-

Data presented in the table 1 showing the characteristics of college students in terms of age, gender, religion, Out of 152 college students, 05 (3.29 %) of them were within the age group of below 20 years From the presented data it is clear that more than half 61.84%) of the students were female and the rest (38.16%) were male. Data also reflected that out of 152 samples, the number of Hindu (96.71%) is comparatively higher than the number of Muslims (3.21%). Among 152 students, 83 (54.60%) students were unaware of the word ‘organ donation’ and 69 (45.39%) were aware. Among these 45.39% students, respectively 22(31.88%), 13 (18.84%) and 34 (49.28%) students were aware of the word Organ donation and transplantation respectively from Television, News paper, relatives and other persons.

Table 1:-Frequency & percentage distribution of the sample characteristics n=152. N1(Previously aware of the word organ donation)=69

Sl.No.	Demographic information	Frequency (f)	Percentage (%)
1.	Age in years		
a)	<20 yrs	05	3.29
b)	>20 yrs	147	96.71
2.	Gender		

a)	Male	94	61.84
b)	Female	58	38.16
3.	Religion		
a)	Hindu	147	96.71
b)	Muslim	5	3.29
c)	Christian	-	-
d)	Others	-	-
4.	Source of information previously		
a)	From Television	22	31.88
b)	From News paper	13	18.84
c)	From relatives and other persons	34	49.28

The knowledge scores obtained by the students were categorized into three broad score ranges based on possible minimum and maximum scores obtained by the students. Then the distribution of samples according to their levels of knowledge was analyzed by applying descriptive statistics and presented in terms of percentage and diagram.

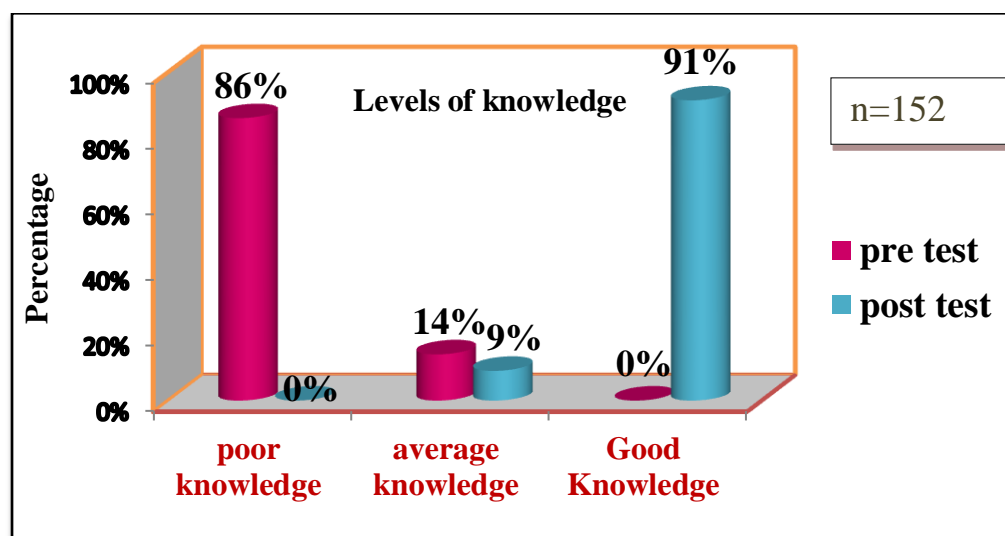


Fig 1:-Bar diagram showing the distribution of samples according to their levels of knowledge on organ donation and transplantation.

Key: 1-6: Poor Knowledge. **7-12:** Average Knowledge. **13-18:** Good Knowledge

Bar diagram in Fig 1 represents the level of knowledge on Organ Donation. From the above data it is evident that in pre test, out of 152 college students, majority 131 (86%) students had poor knowledge whereas 14% (21) students had average knowledge on Organ Donation and none of them had good knowledge. Further in post test, out of 152 students, No student showed poor knowledge whereas minimum 9% (13) students expressed average knowledge on Organ Donation and maximum 91% (139) students had good knowledge. Hence, it can be interpreted that the post test knowledge was better than that of the pre-test as the percentage of good knowledge was found to be higher among the students in post test.

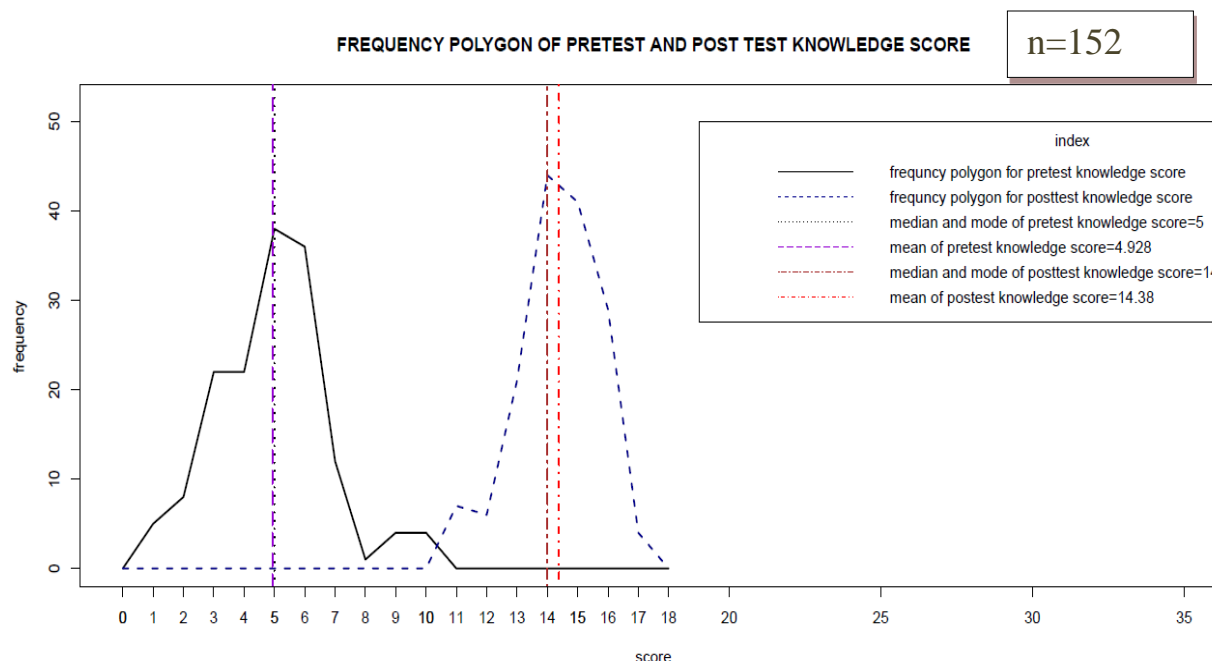


Fig 2:-Frequency polygon comparing the Pre-test and Post test knowledge score on Organ Donation

In frequency polygon (fig-2) of Pre-test and Post test knowledge score on Organ Donation it was interpreted that mean knowledge score was increased from 5 (pre-test) to 14.38 (post-test).

In order to yield the inferential statistics in the present study, following hypotheses was tested at 0.05 level of significance :

1. H_1 - There is a statistically significant difference between the knowledge level on Organ Donation before and after structured teaching programme.
2. H_0 -There is no statistically significant difference between the levels of knowledge on Organ Donation before and after structured teaching programme.

Table 2:-Mean, Mean difference, Standard deviation, Standard error of mean difference (SE_{MD}) and 't' value of mean of Pre-test and Post-test knowledge score on Organ Donation and transplantation before and after structured teaching programme.

n=152					
Knowledge score	Mean	Mean Difference	Standard Deviation	SE_{MD}	't' value
Pre-test group	4.93	9.45	1.85	0.18	50.67*
Post- test group	14.38		1.36		

't'(151 or ∞) = 1.96, $p < 0.05$. * significant.

Data presented in table 2 indicates that the mean pre-test knowledge score is 4.93 and mean post-test knowledge score is 14.38 with the mean difference of 9.45. Standard deviation of pre-test knowledge score is 1.85 and post-test knowledge score is 1.36. Standard error is 0.18. Unpaired t test is calculated to find out the significance of difference between two knowledge scores. The obtained 't' value is 50.67 which is greater than the critical region 't' value 1.96 at $df(151 \text{ or } \infty)$ at 0.05 level of significance. So the mean difference is true difference and not by chance and independent variable is effective to enhance dependent variable. Then, null hypothesis (H_0) is rejected and research hypothesis (H_1) is accepted.

So, it can be inferred that the post test knowledge score statistically and significantly differed pre-test knowledge score at above mentioned degree of freedom and probability. Hence the administration of structured teaching programme was effective.

Discussion:-

The purpose of this study was to assess the effectiveness of structured teaching programme in changing knowledge level of college students regarding Organ donation and transplantation. The results of the study were discussed according to the objectives of the study. There are so many literatures available on same topic but the target population is different.

In the present study, from the above data it is evident that in pre test, out of 152 college students, majority 131 (86%) students had poor knowledge whereas 14% (21) students had average knowledge on Organ Donation and none of them had good knowledge. Further in post test, out of 152 students, No student showed poor knowledge whereas minimum 9% (13) students expressed average knowledge on Organ Donation and maximum 91% (139) students had good knowledge. In the contrary the findings of the study conducted by G. Saleen S and Sharma E reveals that the pre-test knowledge i.e. 51.76% had inadequate knowledge 48.3% had moderate knowledge whereas in post-test, 85% had adequate knowledge and 15% had moderately adequate knowledge among first year B.Sc Nursing students.⁶

Pre-test and Post test knowledge score on Organ Donation it was interpreted that mean knowledge score was increased from 5 (pre-test) to 14.38 (post-test) and standard deviation of pre-test knowledge score is 1.85 and post-test knowledge score is 1.36. in pair wise comparison in this study. Supporting the trend, a study conducted among 30 adolescent boys, refers that the mean value is 5.6 before the structured teaching programme and 11.8 after the structured teaching programme. The Standard deviation value is 2.51 before structured teaching programme and 0.91 after structured teaching programme.⁷

The obtained 't' value in this study is 50.67 which signifies statistical difference between pre test and post test knowledge score as the effect of administering structured teaching programme. Supporting this finding a quiet similar study showed 't' value is 8.7 which is statistically significant at 0.05 level of significance i.e. there was effective difference between pre test and post test knowledge score among staff nurses. In Present study, 't' value is comparatively higher.⁸

Conclusion:-

Based on the findings, majority of students gained good knowledge after post test. The structured teaching programme had significantly increased knowledge regarding organ donation and transplantation. Further studies are recommended to increase general public awareness.

Conflict of interest:

None.

Reference:-

1. World Health Organization. Non-communicable disease : Key facts. Available from <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases> .
2. Beyar R. Challenges in Organ Transplantation. Rambam Maimonides Med J. 2011 Apr; 2(2): e0049. [PMC free article] [PubMed] [Google Scholar]
3. Rithalia A, McDaid C, Suekarran S, Myers L, Sowden A. Impact of presumed consent for organ donation on donation rates: A systematic review. BMJ. 2009;338:a3162. [PMC free article] [PubMed] [Google Scholar]
4. The Transplantation of Human Organs Act, 1994. New Delhi: Legislative Department; 2016. Ministry of Law, Justice and Company Affairs. [Google Scholar]
5. Simon R. TIME. New Delhi: 2008. Feb, [Last accessed on 2017 Mar 21]. India's Black Market Organ Scandal. Available from: <http://www.content.time.com/time/world/article/0,8599,1709006,00.html> . [Google Scholar]
6. Saleen S G, Sharma E. Effect of Structured Teaching Programme regarding Organ Donation on knowledge and attitude among Nursing students. IJRSR. 2016 July; 7(7): e12464-12467.
7. P.S.S. Pauline, Hemavathy V.A Study to Assess the Effectiveness of Structured Teaching Programme Regarding Organ Donation among Adolescent Boys in Selected School, Chennai. IJRSET. 2015 April; 4(4). available from http://www.ijrset.com/upload/2015/april/22_17.pdf
8. O.T. Anand. A study to assess the effectiveness of structured teaching programme on knowledge and attitude regarding legal aspects of Organ Donation among staff nurses in critical care and emergency units in selected hospitals at Mysore. Mysore. 2012 available from <http://52.172.27.147:8080/jspui/bitstream/123456789/8618/1/ANAND%20T.O.pdf>