

Effectiveness Of Structured Teaching Programme On Knowledge Regarding Organ Donation Among Undergraduate Students In Selected College At Bareilly, U.P.

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ABSTRACT

Organ donation represents a vital medical breakthrough that has greatly enhanced both the lifespan and quality of life for patients suffering from advanced organ failure. Even with progress in transplantation techniques and growing public awareness efforts, there is still a significant disparity between the demand for organ transplants and the supply of available donor organs. Objectives: To assess the knowledge regarding organ donation among undergraduate students. To evaluate the effectiveness of structured teaching programme regarding organ donation among undergraduate students. To find out the association of pretest knowledge score regarding organ donation among undergraduate students with their selected demographic variables. Materials and Methods: This study was conducted at Adarsh Mahavidyalaya Hardua, Nawabganj, Bareilly. A total of 60 UG students were selected using a purposive sampling technique. Data were collected using a validated self-structured questionnaire comprising 30 questions covering socio-demographics. Descriptive statistics and Chi-square tests were applied to analyze the data using SPSS version 25. Ethical clearance and informed consent were obtained. Conclusion: Result shows low to moderate knowledge need to conduct more studies on organ donation through seminar etc.

Keywords: Effectiveness, Structured teaching Programme, Knowledge, Organ donation, Undergraduate Students.

INTRODUCTION

Life is a dynamic process. You were born with the ability to change someone's life. We can't help everyone but everyone can help someone. The gift of donated organ and tissue provides recipients with the opportunity to regain health and productive period of life.^[1]

Organ donation represents a vital medical breakthrough that has greatly enhanced both the lifespan and quality of life for patients suffering from advanced organ failure. Even with progress in transplantation techniques and growing public awareness efforts, there is still a significant disparity between the demand for organ transplants and the supply of available donor organs.^[2]

Organ donation is the noble, voluntary act of giving organs (heart, lungs, liver, kidneys, etc.) or tissues

(cornea, skin, bone) from a living or deceased person to another for transplantation to save or improve a life.

The process of organ donation, whereby healthy organs and tissues are transplanted from a donor to a recipient, has emerged as a life-saving and life-enhancing procedure for a wide range of critical illnesses. Despite its proven effectiveness, the success of organ transplantation is heavily dependent on the availability of donors, which remains critically low, especially in countries like India.^[3]

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.

Relevant conflicts of interest/financial disclosures: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

OBJECTIVE:

- To assess the knowledge regarding organ donation among undergraduate students.
- To evaluate the effectiveness of structured teaching programme regarding organ donation among undergraduate students.
- To find out the association of pretest knowledge score regarding organ donation among undergraduate students with their selected demographic variables.

HYPOTHESES

- H1: There will be significance difference between pre- test & post- test knowledge score regarding organ donation among undergraduate students.
- H2: There will be significant association between pretest knowledge score with their selected demographic variables among undergraduate students regarding organ donation.

MATERIALS & METHODS:

A quantitative, pre-experimental, one-group pre-test–post-test study was conducted to evaluate the effectiveness of a Structured Teaching Programme (STP) on knowledge regarding Organ donation among Undergraduate Students. The study was carried out at Adarsh Mahavidyalaya Hardua, Nawabganj, Bareilly, U.P, India. Sixty Undergraduate Students were recruited using a non-probability purposive sampling technique based on predefined inclusion and exclusion criteria. Baseline knowledge was assessed using a validated, self-administered structured questionnaire consisting of demographic variables and 30 multiple-choice items related to Organ donation . Following the pre-test, participants received a standardized Structured Teaching Programme delivered through lectures, interactive discussions, and audiovisual presentations. A post-test was conducted seven days after the intervention, using the same questionnaire to assess the change in knowledge. Content validity of the instrument was established by a panel of nursing experts, and reliability was confirmed using the split-half method ($r = 0.90$), indicating high internal consistency.

Ethical approval was obtained from the Institutional Ethics Committee, and written informed consent was obtained from all participants before enrolment. Data were analyzed using descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics. The paired t-test was used to compare pre-test and post-test knowledge scores, while the chi-square test was applied to determine the association between pre-test knowledge scores and selected demographic variables. Statistical significance was established at a p-value of <0.05 .

DATA COLLECTION PROCEDURE:

Data collection was carried out after obtaining approval from the Institutional Ethics Committee of Rohilkhand College of Nursing and administrative permission from Adarsh Mahavidyalaya Hardua, Nawabganj, Bareilly, U.P. Eligible Undergraduate Students who met the inclusion criteria were recruited using a non-probability purposive sampling technique. The investigator explained the purpose and objectives of the study to all potential participants, and written informed consent was obtained prior to enrolment. Baseline data were collected using a structured questionnaire comprising demographic characteristics and a 30-item knowledge questionnaire on Organ donation. Following the pre-test assessment, participants received a Structured Teaching Programme (STP) delivered by the investigator in small groups using lectures, PowerPoint presentations, interactive discussions, and audiovisual aids. The educational session lasted approximately 45–60 minutes and covered the Introduction, Definition, criteria, types of donation & transplantation, organs and tissues can be donated, investigations, process, transplant rejection reaction, benefits, legal aspect, NOTTO, role of nurse. Participants were encouraged to ask questions and actively engage throughout the session. A post-test was administered seven days after the intervention using the same validated questionnaire to evaluate changes in knowledge. All completed questionnaires were reviewed for completeness, coded, and entered the statistical database for analysis while maintaining participant confidentiality throughout the study.

ANALYSIS AND INTERPRETATION:

S.No.	DEMOGRAPHIC VARIABLES	TOTAL FREQUENCY	PERCENTAGE (%)
1	Age group		
	17 - 20 years	11	18.3%
	21 - 24 years	20	33.3%
	25 - 27 years	29	48.3%
	Above 27 year	0	0%
2	Gender		
	Male	27	45%
	Female	33	55%
3	Family income per month:		
	Below 10000	8	13.3%
	10001-20000	33	55%
	20001-30000	8	13.3%
	Above 30000	11	18.3%
4	Place of residence		
	Rural	33	55%
	urban	27	45%
5	Willing to donate organ		
	Yes	32	53.3%
	No	28	46.6%
6	Family history of organ donation		
	Yes	0	0%
	No	60	100%
7	Any previous knowledge of organ donation		
	Yes	8	13.33%

	No	52	86.6%
8	Source of information		
	Books and Journals	02	3.3%
	Newspaper and Magazines	01	1.6%
	From family members and friends	9	15%
	From Social media	48	80%

Table No. 1: Frequency wise distribution of demographic performa (N=60)

Test	Mean	S D	Mean difference	T value
Pre test	8.816	6.116	13.20	15.40
Post test	22.02	5.19		

Table no. 2: Comparison of mean and SD of pre and post-test knowledge score of undergraduate students regarding organ donation. (N=60)

Table 2 shows the comparison between Pre test and Post test the Pre test mean is 8.816 and Poat test mean is 22.02 the mean difference is 13.20. T value is 15.40 significant at p value 0.01 as H1 is accepted. These

findings indicate that the educational programme was effective in significantly improving the knowledge of undergraduate students regarding surgical organ donation.

S. No.	Demographic variable	Level of knowledge			Total	Chi-square	p value
		Adequate	Moderate	Inadequate			
1	Age group						
	17-20year	0	5	6	11	2.3242	Not significant At p<0.05
	21-24 year	0	12	8	20		
	25-27 years	0	11	18	29		
	27 year above	0	0	0	0		
2	Gender						
	a) Male	0	17	10	27	0.1796	Not significant At p<0.05
	b)Female	0	19	14	33		
3	Family Income:						
	Below 10000	0	1	7	8	21.19	significant At p<0.05

	10001-20000	0	5	28	33		
	20001-30000	0	6	2	8		
	Above 30000	0	10	1	11		
4	Place of residence						
	Rural	0	17	10	27	0.1796	Not significant
	urban	0	19	14	33		At p<0.05
5	Willing to donate organ						
	a)Yes	0	10	12	32	4.4681	Not significant
	b)no	0	5	23	28		At p<0.05
6	Family history of organ donation						
	a)Yes	0	0	0	0	0	Not significant
	b)No	0	28	32	60		At p<0.05
7	Any previous knowledge of organ donation						
	a. Yes	0	4	4	8	0.3846	Not significant
	b. no	0	32	20	52		At p<0.05
8	Source of information						
	a. Books and Journals	0	02	0	02		
	b. Newspaper and Magazines	0	01	0	01	5.4759	Not significant
	c. family members and friends	0	04	05	09		At p<0.05
	d. From Social media	0	16	32	48		

* significant at 0.05

Table No. 3 : Association between pre-test knowledge and socio-demographic variables among undergraduate students regarding surgical organ donation.

Knowledge Scores according to Demographic Variables Distribution in Study Population

The distribution of knowledge scores varied significantly across several demographic factors in

the study population. Family type shows statistically significant association with knowledge levels (chi square = 21.19). as **Research hypothesis (H2) is accepted.**

DISCUSSION:

COMPARISON OF PRE-TEST AND POST-TEST KNOWLEDGE SCORE REGARDING

The above mentioned table 5 represents that the post-test mean is greater because they went through treatment (STP) than compared to pre-test mean. The calculated paired 't' test was found to be highly statistically significant at $p < 0.001$. **Hence, the Effectiveness of Structured Teaching Programme on knowledge regarding organ donation among Undergraduate students. We can accept research Hypotheses (H1)**

ASSOCIATION OF PRE-TEST KNOWLEDGE SCORES WITH THEIR SELECTED DEMOGRAPHIC VARIABLES.

There is no significant association between the level of knowledge regarding **Organ donation among undergraduate students** with their selected demographic variables except **Family Income**. Hence, **(H₂) is accepted** for the demographic variables (family type).

CONCLUSION

Present study, it was concluded that the Level of knowledge regarding organ donation among UG students had somewhat moderately, inadequate knowledge. That shown in table No. 6 The distribution of knowledge scores varied significantly across several demographic factors in the study population. **Family type shows statistically significant association** with knowledge levels (chi square = 21.19). as **Research hypotheses (H2) is accepted.**

REFERENCES

1. Goswami M, Beth M, Vidyanagar-Tarsadi G. Effectiveness of planned teaching programme on knowledge regarding organ donation among under graduate students. 2019 [cited 2026 Mar 18]; Available from: <http://mbnc.edu.in/download/2018/Jornal/35.%20Meghana%20Goswami.pdf>
2. James M. A study to assess the effectiveness of structured teaching program on knowledge about

organ donation and solid organs transplantation among the medical college students at selected medical colleges, in Kerala. Inn J Nur H Care [Internet]. 2025 [cited 2026 Mar 18];10–7. Available from: <https://innovationaljournals.com/index.php/ijnh/article/view/1059>

3. Sharma K, Devi S, Sharma P. Effectiveness of a structured teaching programme on knowledge regarding organ donation among students of selected colleges in Distt. Mandi, (H.P.). Int J Adv Res Nurs [Internet]. 2025 [cited 2026 Mar 18];8(2):524–31. Available from: <https://www.nursingjournal.net/archives/2025.v8.i2.G.584>
4. Organ donation and transplantation saves and heals many lives. It involves donating healthy organs to people who need them to live [Internet]. Cleveland Clinic. 2023 [cited 2026 Mar 18]. Available from: <https://my.clevelandclinic.org/health/treatments/11750-organ-donation-and-transplantation>
5. ORGAN DONATION AWARENESS. National organ & tissue transplant organization [Internet]. Share.google. [cited 2026 Mar 18]. Available from: <https://share.google/kDIo5Zsj3P6L4p1kw>
6. World Health Organization & Organización Nacional de Transplants (ONT). Global Observatory on Donation and Transplantation. [Internet]. 2025 [cited 2025 Jan 25]. Available at: <https://www.transplant-observatory.org/>
7. National Organ and Tissue Transplant Organisation (NOTTO), Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India. Updated NOTTO Annual Report. 2024. Available at: https://notto.mohfw.gov.in/WriteReadData/Portal/News/858_1_Updated_NOTTO_ANNUAL_REPORT__08-05-24_.pdf

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