

# Assess the Effect of Instructional Strategies on Knowledge and Attitude Regarding Organ Donation

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## How to cite this article:

Meghana Goswami / Assess the Effect of Instructional Strategies on Knowledge and Attitude Regarding Organ Donation. J Soc Welfare Manag. 2020;12(3):97-103.

## Abstract

*Background:* Organ donation is a gift of individual to help someone who suffer from improper or malfunction of their organ. According to National Organ and Tissue Transplantation Organization (NOTTO), 2017 statistical analysis showed that Gujarat was on 5th rank in organ donation in India. Each year, the number of people on the waiting list continues to grow, while the number of donors and transplants grows slowly because of the misconceptions, lack of knowledge and false beliefs prevailing in the community.

*Objective:* The main objective of the study was assessing the effectiveness of PTP on knowledge and attitude regarding organ donation among under graduate students.

*Method:* In the study quantitative (Evaluative) approach was adopted. True experimental pre-test post-test control group design was adopted. Total 100 final year undergraduate students selected as sample by simple random sampling technique. Data was collected by the tool which consist the selected socio demographic variables, self-administered structured knowledge questionnaire and Likert attitude scale regarding organ donation. Pre-test and post-test conducted for both the group, but PTP was given to experimental group only. Data analysis was done by descriptive and inferential statistics.

*Results:* The study findings depicted that there was a significant difference between the pre-test and post-test level of the knowledge and attitude score of experiment group than the control group. The calculated paired 't' test value of knowledge score was 18.04 and attitude score was 10.25, the calculated unpaired 't' test value of knowledge score was 12.89 and attitude score was 9.93, which was greater than tabulated value. So the given PTP was effective to enhance the knowledge and attitude of the undergraduate students. Pre-test knowledge and attitude association found between some selected socio-demographic variables. There was positive correlation between knowledge and attitude in experimental and control group.

*Conclusion:* So, this study concluded that PTP regarding organ donation enhanced the knowledge and improved the attitude towards organ donation among undergraduate students in experimental group. So different instructional media can be used to enhance the knowledge and change the attitude of the people. However, much awareness is taking regarding organ donation in the society and therefore various strategies must be initiated to address the issue.

**Keywords:** Attitude; Knowledge; Organ donation; Planned Teaching Programme.

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## Introduction

### Background

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. The medical advancement and technology have begun to save lives and the most miraculous achievement of modern medicine is organ transplantation which has the power to save the lives of the client.

In India, there is a wide gap between the no. of organ required and donor. Each year, the number of people on the waiting list continues to grow, while the number of donors and transplants grows slowly. In Britain the rate of deceased organ donation was 17 per million, in Spain it was 35 per million but in India only 0.8 per million. A large majority of organ donations in India are from live donors. Cadaver donations represent only about five percent of all donations. For about 160,000 patients in need of organs, only 12,000 donors are available.

According to current available statistical findings from Times of India report article on 10th July 2018, we can say that organ donation ratio and is awareness is increasing in society. But still there is lacking to reach at demandable target. Factors such as lack of awareness (about brain death), religious beliefs, and inadequate transplantation centers affect the country's organ donation program. There are persons who wish to donate their organ but the preventing factors are their misconceptions, lack of knowledge and false beliefs prevailing in their community.

Nimya Catherian Joy, Sr Salini SD, Rohini T. (2018) has conducted a quantitative approach with pre experimental one group pre-test post-test design to assess effect of Self Instructional Module (SIM) on knowledge regarding organ donation among degree students in a selected college at Ernakulum District in Kerala. Total 60 degree students selected by stratified random technique. The data was collected by using structured knowledge questionnaire. The data was analysed by using descriptive and inferential statistics. The study revealed that the mean post-test knowledge score was significantly higher than the mean pre-test knowledge score. Only area of residence is associated with knowledge score. The 't' value 21.58 was higher at  $p < 0.001$  level which show the effectiveness of SIM for improve the knowledge towards organ donation. The study suggested that instructional module is necessary to increase the awareness regarding organ donation.

The objectives of the study were 1. To assess the knowledge and attitude regarding organ donation. 2. To assess the effectiveness of instructional strategies. 3. To find out correlation between

knowledge and attitude. 4. To find out association between knowledge and attitude with their selected sociodemographic variables.

### *Conceptual framework*

In the present study modified conceptual framework of Imogene King Goal attainment theory (1981) was adopted.

### **Research Methodology**

- Research Approach: Quantitative (Evaluative)
- Research Design: True experimental design
- Research method: Pre-test post-test control group method
- Research setting: Naranlala College of Commerce and Management (experimental group) S.S Agrawal Commerce and Arts College (control group) at Navsari.
- Variables: Independent: PTP on Organ donation
- Dependent: Knowledge and attitude
- Research population: Under graduate student from arts and commerce stream from Gujarat state.
- Target population: Under graduate students for experimental group from Naranlala college of commerce and management and for control group S.S Agrawal commerce and arts college at Navsari
- Sample: Final year under graduate students from Naranlala college of commerce and management (experimental group) and of S.S Agrawal commerce and arts college (control group) at Navsari.
- Sample size: 100 (50- experimental 50- control)
- Sampling Technique: Probability sampling- Random sampling (lottery method). (Fig. 1)

### *Selection Criteria for Samples:*

Inclusion criteria: Students

- who were willing to participate.
- from Arts and Commerce stream.
- who are studying in third year.
- who know to read and write Gujarati and English.

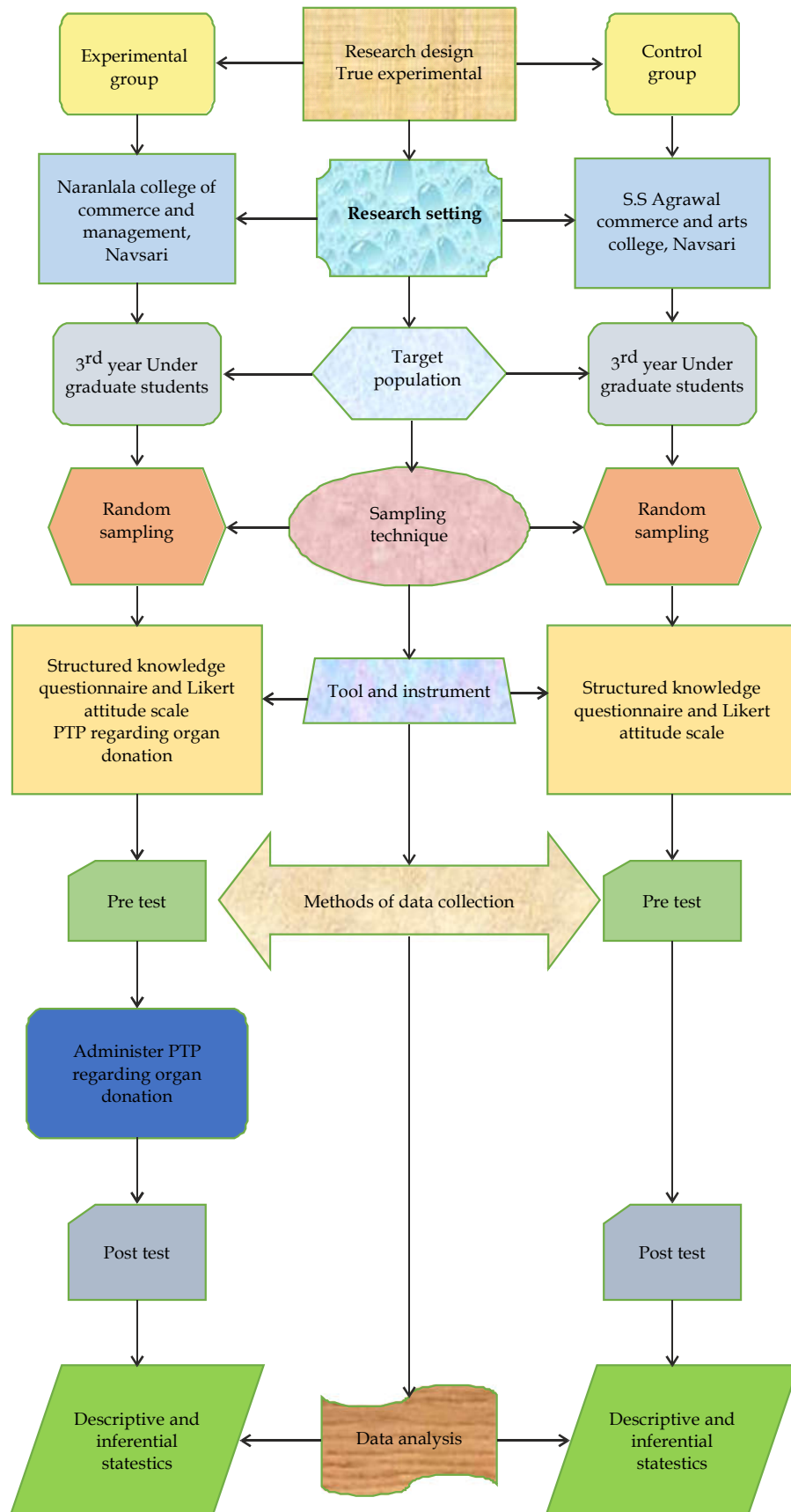


Figure 1: Schematic representation of research process.

**Exclusion criteria:**

Students who are not present during the time of study.

**Description of the tool**

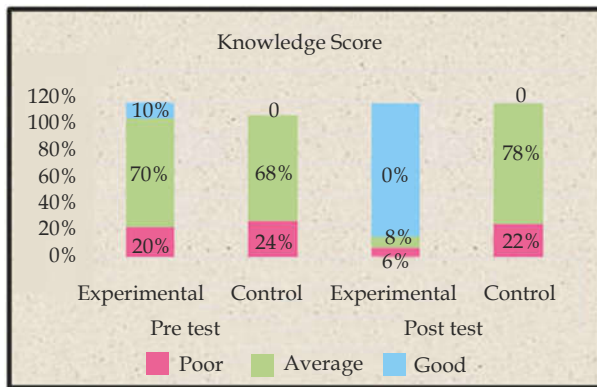
Section I: Performa for collecting socio demographic data which include age, gender, course of the study, religion, types of family, parents education, place of residence, have you heard about organ donation, sources of information. (Graph 1)

Section II: Structured knowledge questionnaire regarding organ donation which comprises 30 questions related to knowledge regarding organ donation. (Graph 2)

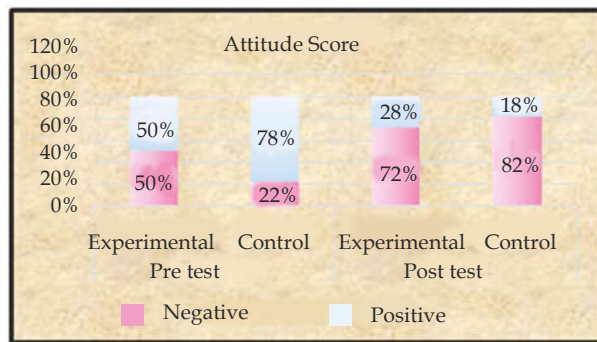
Section III: Likert scale on attitude regarding organ donation which included 20 questions.

**Results**

**Section 1: Knowledge regarding organ donation**



**Graph 1:** Bar diagram showing difference between pre-test post-test knowledge score of experimental and control group regarding organ donation.



**Graph 2:** Bar diagram showing difference between pre-test post-test attitude score of experimental and control group regarding organ donation.

**Section 2: Effectiveness of PTP**

**Table 1:** Mean difference, standard deviation of the difference and standard error of the mean difference and independent 't' value of post-test knowledge scores between experimental and control group. n1+ n2 = 100

Mean difference	SDD	SEMD	Unpaired 't' values		Degree of freedom
			Cal.	Tab.	
8.78	1.38	0.68	12.89	1.98	98

**Table 2:** Mean difference, standard deviation of the difference and standard error of the mean difference and independent 't' value of post-test attitude scores between experimental and control group. n1 + n2 = 100

Mean difference	SDD	SEMD	Unpaired 't' values		Degree of freedom
			Cal.	Tab.	
10.98	0.29	1.10	9.93	1.98	98

Table 1 and 2 reveals that calculated unpaired 't' value was greater than tabulated value. This indicates that the gain in knowledge and attitude score was statistically significant at 0.05 levels. Therefore, the PTP regarding organ donation was effective to improve the knowledge and attitude of samples.

Section 3: Association between knowledge and attitude regarding organ donation with their selected socio-demographic variables.

Pre-test knowledge score association found between parents education, habitant and heard about organ donation. Pre-test attitude score association found between course of the study, type of family, parent's education and heard about organ donation.

Section 4: Findings related to correlation between pre-test knowledge and attitude score regarding organ donation in both experimental and control group.

**Table 3:** Mean and correlation (r) values between pre-test knowledge score and attitude scores of samples in experimental group. n1 = 50

Group	Test	Mean	r value	Table value
Experimental group	Pre-test Knowledge	15	0.75	0.27
	Pre-test Attitude	41.68		

**Table 4:** Mean and correlation (r) values between pre-test knowledge score and attitude scores of samples in control group. n1 = 50

Group	Test	Mean	r value	Table value
Control group	Pre-test Knowledge	13.22	0.39	0.27
	Pre-test Attitude	36.56		

Table 3 and 4 reveals that calculated 'r' value was greater than tabulated value. This indicates that

there was positive correlation between knowledge and attitude in experimental as well as control group.

## Discussion

The study findings depicted that there was a significant difference between the pre-test and post-test level of the knowledge and attitude score of experiment group than the control group. The calculated paired 't' test value of knowledge and attitude score was greater than tabulated value. So the given PTP was effective to enhance the knowledge and attitude of the undergraduate students. Pre-test knowledge score association found between parents education, habitant and heard about organ donation. Pre-test attitude score association found between course of the study, type of family, parent's education and heard about organ donation. There was positive correlation between knowledge and attitude in experimental and control group.

This study supported by Mohan M.(2016) has done a quasi-experimental study to assess the effectiveness of Computer Assisted Instruction on Knowledge and Attitude regarding Organ Donation among the Arts Students at selected Arts and Science Colleges, Thanjavur District. Non-probability convenient sampling technique used to select 40 experimental and 40 control group samples. The pre-test data was collected by using the self-administered knowledge questionnaire to assess the knowledge and 5 Point Likert scale to assess the attitude. Comparison of pre-test and post-test knowledge score revealed that mean value 10.65 has significant to the post test mean value 23.47 and paired t test value was 21.73 which is significant at 0.05 level of experimental group. Where as in the control group the analysis that mean value 11.1 of pre-test has significant to the post test mean value 11.75 and paired t test value was 1, which is not significant at 0.05 level for control group. Attitude mean value 26.8 of pre-test has significant to the post test mean value 58.87 and paired t test value was 19.86 which is significant at 0.05 level for experimental group. Where as in the control group the analysis that mean value 26.2 of pre-test has significant to the post test mean value 28.67 and paired t test value was 1.16 which is not significant at 0.05 level for control group. There was a positive correlation between knowledge and attitude in both the group. Association found between some of the socio demographic variables with knowledge and attitude regarding organ

donation. The study conclude that instructional media is necessary to enhance the knowledge of the people regarding organ donation.

## Recommendations

On the basis of findings of the study following recommendations are offered for further research:

- Similar study can be under taken a large sample to generalize the findings.
- A comparative study can be conducted to assess the knowledge and attitude regarding organ donation between rural and urban population.
- An exploratory study can be conducted to assess the misconceptions regarding organ donation.
- Systematic review can be conducted regarding misconception on organ donation.

## Conclusion

So this study concluded that PTP regarding organ donation enhanced the knowledge and improved the attitude towards organ donation among undergraduate students in experimental group. So different instructional media can be used to enhance the knowledge and change the attitude of the people.

*Funding Sources:* No external funding

*Conflict of interest:* None

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