

“A study to assess the effectiveness of structured teaching programme on knowledge and attitude regarding organ donation among teachers of selected Government Senior Secondary Schools Mandi, (H.P.) 2023”.

¹Ms. Neha Rana, ²Mrs. Varsha Verma, ³Mrs. Nidhi Gupta,

¹M. Sc. Nursing student, ²Associate Professor, ³Nursing Tutor,

M.Sc. (N) Dept. Medical Surgical Nursing,

Shri Lal Bahadur Shastri Govt. Medical College and Hospital, Mandi at Nerchowk (H.P.) 175008, India

[1vjn9622@gmail.com](mailto:vjn9622@gmail.com), [2shreyvarshapatil@gmail.com](mailto:shreyvarshapatil@gmail.com), [3nidhikoundal@gmail.com](mailto:nidhikoundal@gmail.com)

ABSTRACT

Introduction: Organ donation involves the act of giving an organ or a portion of it for transplantation into another individual. It is the only effective intervention for patients with end-stage organ failure, offering both life-saving and life-enhancing benefits. Despite this, there is a substantial global shortfall in organ donations, especially in Asia, with India lagging behind other countries in the region.

Objective: To assess the effectiveness of structured teaching programme on knowledge and attitude regarding organ donation among teachers of selected Government Senior Secondary Schools Mandi, (H.P.)

Methodology: A Pre-Experimental study (One Group Per-Test Post-Test Design) was used. Sixty teachers were selected using a convenient sampling technique. Data were collected using a structured knowledge questionnaire (30 items) and a modified attitude scale (12 items).

Results: Results showed that most participants were middle-aged (41–45 years) and female (58.3%). The mean knowledge score improved from 13.55 (SD = 4.31) to 23.67 (SD = 2.26), while the mean attitude score increased from 30.95 (SD = 8.08) to 41.48 (SD = 6.38).

Conclusion: The findings indicate that the structured teaching programme significantly enhanced both knowledge and attitudes, highlighting its effectiveness in promoting awareness about organ donation.

Key Words: Knowledge, Attitude, Organ donation, Transplantation, Structured teaching program.

INTRODUCTION

“You are a piece of the puzzle of someone else’s life. You may never know where you fit, but others will fill the holes in their lives with pieces of you.”

-Bonnie Arbon

1.1 BACKGROUND OF THE STUDY

The creature in *Frankenstein* was created by assembling body parts from deceased individuals and brought to life using electrical energy from lightning. Although *Frankenstein* is a work of fiction by Mary Shelley, the concept of using body parts from others has become a reality in modern times. The concept of transplanting animal or human organs has existed for centuries, but the first successful human-to-human tissue transplant (specifically, a cornea transplant) occurred on December 7, 1905. In India, the practice of organ donation and transplantation was legalized through the "Transplantation of Organ Act, 1994".^[1]

We are currently facing two significant challenges related to organ donation. First, there is a severe shortage of individuals willing to donate organs. Each type of organ has its own waiting list, but they all share a common issue: the demand for organs far exceeds the available supply. While organ donation has saved countless lives, many individuals tragically die while waiting for a transplant. Second, there is a growing and troubling trend of "organ tourism," particularly in developing countries. Every year, a considerable number of people from Europe, the Middle East, the United States, and Australia travel to nations such as India, Pakistan, China, Egypt, and the Philippines. They seek out economically disadvantaged individuals who are willing to sell one of their kidneys in exchange for financial compensation.^[2]

Organ and tissue transplantation has emerged as a beacon of hope, offering a lifeline to countless individuals. A single organ donor can save up to eight lives and enhance the well-being of more than 50 people. For those battling terminal conditions like heart failure, advanced chronic diseases, or kidney failure, transplantation provides a crucial opportunity for recovery and a chance at a renewed life.^[3]

Organ donation refers to the act of providing an organ or a portion of it for transplantation into another individual. Transplantation of organs stands as the sole viable option for saving the lives of patients facing terminal organ failure and enhancing their overall well-being. Despite the progress in organ transplantation, a significant disparity remains between the supply of donated organs and the growing demand, leading to the tragic loss of many lives. Over the past two decades, the number of organ transplants has steadily increased, with particularly positive outcomes observed among children and young adults.^[4]

India's deceased organ donor contribution remains relatively low, accounting for less than 20% of all organ transplants. In 2022, India performed 15,556 organ transplants, yet only 2,765 of these organs came from deceased donors, despite ongoing efforts to increase cadaver organ donations. While there has been a positive trend, with cadaver donations rising from 837 in 2013 to 2,765 in 2022, the gap between the demand and supply remains significant.^[5]

As of January 2023, global transplant statistics indicate the following numbers of transplants performed by organ: Kidney-25,499, Liver-9,528, Pancreas-108, Heart-4,111, Lung-2,692, and Other-950. In 2022, the numbers of patients on the waiting list by organ were: Kidney-88,901, Liver-10,625,

Pancreas-857, Heart-3,365, Lung-960, and Other-2,141. The total number of deceased and living donors in 2022 were: Living-6,466 and Deceased-14,903. On average, approximately 106 individuals are added to the organ waiting list every day, while 18 people lose their lives daily due to the unavailability of organs. ^[6]

As per the details provided by the Union Ministry of Health and Family Welfare in the Rajya Sabha, in response to a query posed by Parimal Nathwani, a Member of Parliament from Andhra Pradesh, Himachal Pradesh recorded a total of four organ donations. This includes two instances in 2021 and two instances in 2022. Out of which in two cases the donor had died while in two cases donors were alive. ^[7]

Organ donation in India has yet to gain significant traction. Even among the educated population, knowledge and attitudes toward organ transplantation remain inadequate. The primary factors contributing to the organ shortage in the country include a lack of public awareness and accurate information, as well as persistent myths and misconceptions, often fueled by religious and cultural barriers.

Therefore, raising public awareness and providing accurate information are crucial for the success of the organ donation program in India. However, in practice, the identification of brain death and obtaining consent from the next of kin are often deprioritized by doctors and hospital staff. This shift in focus is partly due to their heavy workloads, but more significantly, it stems from a lack of proper understanding and a less than ideal attitude toward organ donation. ^[8]

1.2 NEED FOR THE STUDY

The scarcity of organs is a prevalent issue globally, with Asia facing considerable challenges in this regard. However, India falls significantly behind other countries in Asia. Despite the fact that there is an abundance of potential organ donors among individuals who die naturally or due to accidents, numerous patients are unable to find suitable donors. In India, there is a significant gap between the demand for organ transplants and the available supply. It is estimated that around 180,000 individuals suffer from renal failure annually.

However, the number of renal transplants conducted remains quite low, with only approximately 6,000 performed. In India, it is estimated that around 200,000 patients succumb to liver failure or liver cancer each year, and timely liver transplants could save about 10-15% of these individuals. Consequently, there is a requirement for about 25,000-30,000 liver transplants annually, but the actual number performed is only around 1,500. Similarly, approximately 50,000 individuals experience heart failure annually, yet merely 10 to 15 heart transplants are carried out in India each year. As for cornea transplants, approximately 25,000 are performed annually, but the demand stands at 1Lakh. ^[9]

Following a decline in organ donation figures during the initial year of the Covid-19 pandemic, there was an increase in organ donations in 2021. India currently has an organ donation rate of about 0.52 per million people. In stark contrast, Spain, which boasts the highest organ donation rate globally, stands

at 49.6 per million population. Unlike India, where individuals need to proactively register as organ donors and require family consent posthumously, Spain operates under an opt-out system, assuming individuals are willing donors unless explicitly stated otherwise.

Despite the overall increase in organ donation, the proportion of donations from deceased individuals remains lower than those from living donors. In 2021, only 14.07% of all harvested organs were obtained from deceased donors, a decrease from 16.77% in 2019. Out of the 12,387 organs harvested in 2021, only 1,743, slightly more than 14% were obtained from deceased donors. The number of organs harvested in 2021 approached the highest figure recorded in the past five years, which were 12,746 in 2019. Additionally, there is an imbalance in deceased donations across different regions. In 2021, only two states were responsible for deceased organ donations, with the top five states—Telangana, Tamil Nadu, Maharashtra, Gujarat, and Karnataka—contributing over 85% of the total donations. Goa witnessed the harvesting of two organs from a deceased donor. ^[10]

A descriptive cross-sectional study was conducted involving 372 school teachers in the Villupuram district of Tamil Nadu, India. The study used a survey questionnaire to evaluate knowledge, attitude, and performance regarding organ transplants and donation. The teachers' mean scores were 7.61 ± 2.74 for knowledge, 8.81 ± 2.08 for attitude, and 0.38 ± 0.11 for performance. Linear regression analysis revealed that both knowledge ($p < 0.001$) and attitude ($p < 0.05$) were positively associated with organ donation performance. The most common reason for unwillingness to donate organs was a lack of family support. The study recommends comprehensive health teaching campaigns for teachers to raise the number of potential organ donors, highlighting that teachers, by altering their attitudes, can act as examples for students, families, and the broader community. ^[11]

According to this study, teachers play a crucial role in educating children and teenagers and can significantly influence their perspectives. To increase the potential number of organ donors, teachers should be supported through comprehensive health education campaigns. By changing their own attitudes, teachers can serve as role models for students, families, and the wider community. Therefore, further research is necessary to enhance and improve the knowledge and attitudes of school teachers.

Also, during hospital duties, I have observed that there are so many deaths occur and most of the deaths are of young individuals and none of them had done organ donation due to the lack of awareness, and cultural and religious beliefs. Despite the high number of deaths, there is still a critical need for organ donors. The study of organ donation is driven by the urgent need to address the severe shortage of organs available for transplantation.

1.3 PROBLEM STATEMENT

A Pre-Experimental Study to assess the effectiveness of Structured Teaching Program on Knowledge and Attitude regarding Organ Donation among teachers of selected Government Senior Secondary Schools Mandi, (H.P). 2023.

OBJECTIVES

1. To assess the knowledge and attitude regarding organ donation among teachers of selected Government Senior Secondary Schools Mandi, (H.P).
2. To develop and administer the structured teaching programme regarding organ donation among teachers of selected Government Senior Secondary Schools Mandi, (H.P).
3. To assess the effectiveness of structured teaching programme on knowledge and attitude regarding organ donation among teachers of selected Government Senior Secondary Schools Mandi, (H.P).
4. To determine the co-relation between knowledge and attitude regarding organ donation among teachers of selected Government Senior Secondary Schools Mandi, (H.P). 2023.
5. To find out the association of level of knowledge and attitude regarding organ donation among teachers of selected Government Senior Secondary Schools Mandi, (H.P), with their selected demographic variables.

1.4 OPERATIONAL DEFINITION

Assess: It refers to determine the importance or value of computer assisted training to promote knowledge regarding organ donation.

Effectiveness: It refers to the degree to what extent the objectives are achieved regarding organ donation through computer assisted teaching.

Structured Teaching Program: It is a systematically developed instructional programme using instructional aids, designed to provide information regarding organ donation.

Knowledge: It refers to familiarity, awareness or understanding of organ donation acquired through experience or education by perceiving, discovering or learning.

Attitude: It refers to a predisposition or a tendency to respond positively or negatively towards organ donation.

Organ donation: It refers to the process of giving or donating cells or other biological tissues for the purpose of transfusion or transplantation.

Teacher: Also known as school teacher or formally an educator is a person who helps students to acquire knowledge, competence, or virtue, via the practice of teaching.

1.5 HYPOTHESIS

H₀₁: There will be no significant difference between the pretest and post-test level of knowledge and attitude regarding organ donation among teachers of selected Government Senior Secondary Schools Mandi, (H.P).

H₁: There will be a significant difference between the pretest and post-test level of knowledge and attitude regarding organ donation among teachers of selected Government Senior Secondary Schools Mandi, (H.P).

H₂: There will be a significant correlation between knowledge and attitude regarding organ donation among teachers of selected Government Senior Secondary Schools Mandi, (H.P).

H₃: There will be a significant association between the post-test level of knowledge and attitude regarding organ donation among teachers of selected Government Senior Secondary Schools Mandi, (H.P), with their selected demographic variables.

1.6 ASSUMPTIONS

- Teachers of selected Government Senior Secondary Schools may have some knowledge regarding organ donation.
- Structured Teaching Program will help to improve knowledge of teachers of selected Government Senior Secondary Schools Mandi, (H.P).
- Teachers of selected Government Senior Secondary Schools can impart knowledge to student to improve the health and living standard of the people by donating their organs.
- Knowledge regarding organ donation can create a positive attitude to donate organs.
- Knowledge regarding organ donation can help the teachers to understand the rumors, myths, misconceptions and facts regarding organ donation.

1.7 DELIMITATIONS

- The study is limited to those who are willing to participate.
- The study is limited to only 60 samples.
- The study is limited to only selected Government Senior Secondary Schools Mandi, (H.P).
- The study is limited to teachers of selected Government Senior Secondary Schools Mandi, (H.P).

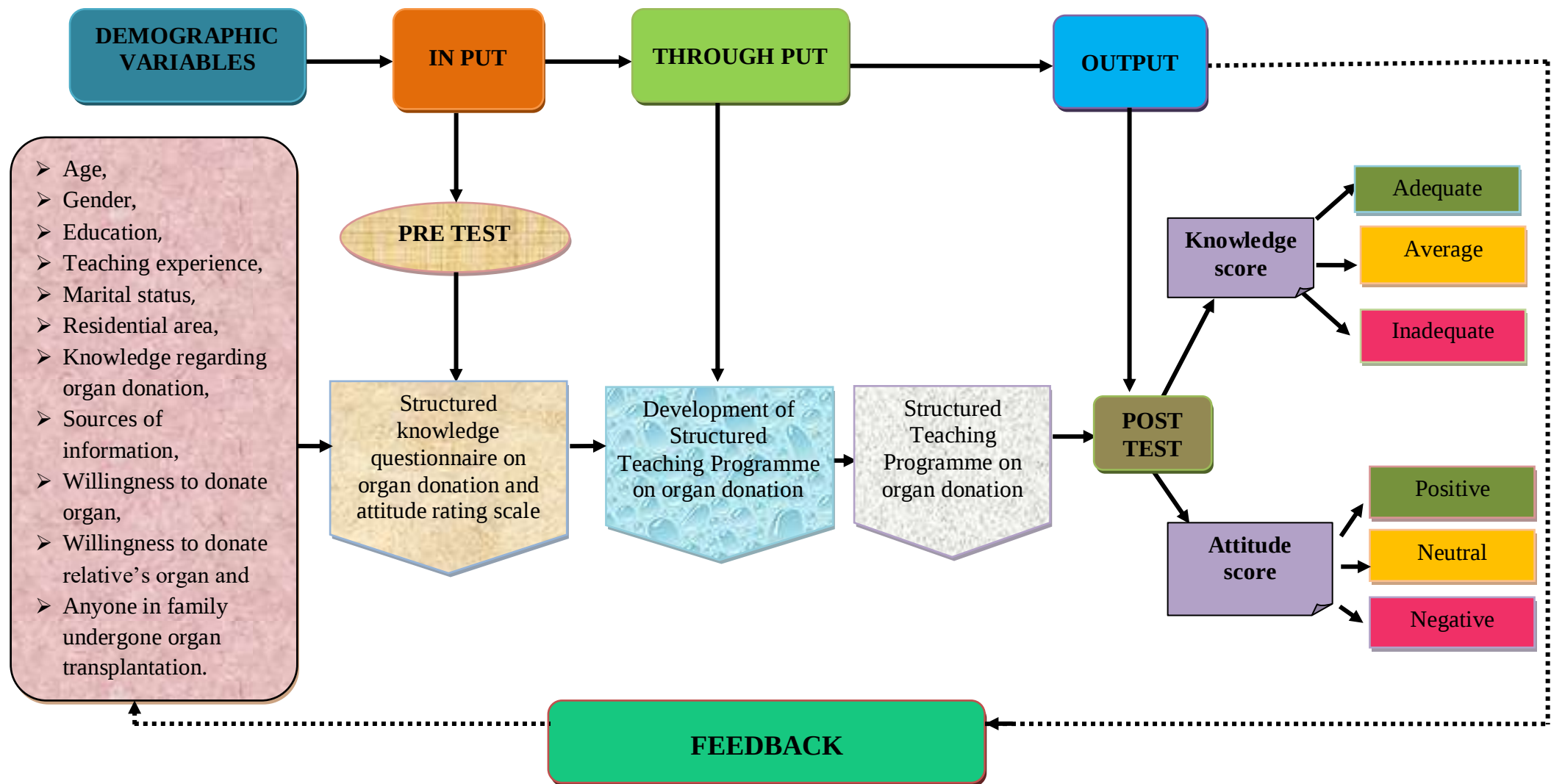


Fig: Conceptual Framework Model based on Modified General System Theory (Betralanff & J W Kenny)

RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem. Methodology is a significant part of any research which enables the researcher to organize the procedure of collecting reliable data for the problem under study or investigation.

According to Polit and Beck (2004) research methods are the techniques used by the researcher to structure a study to gather and analyze information relevant to research question.

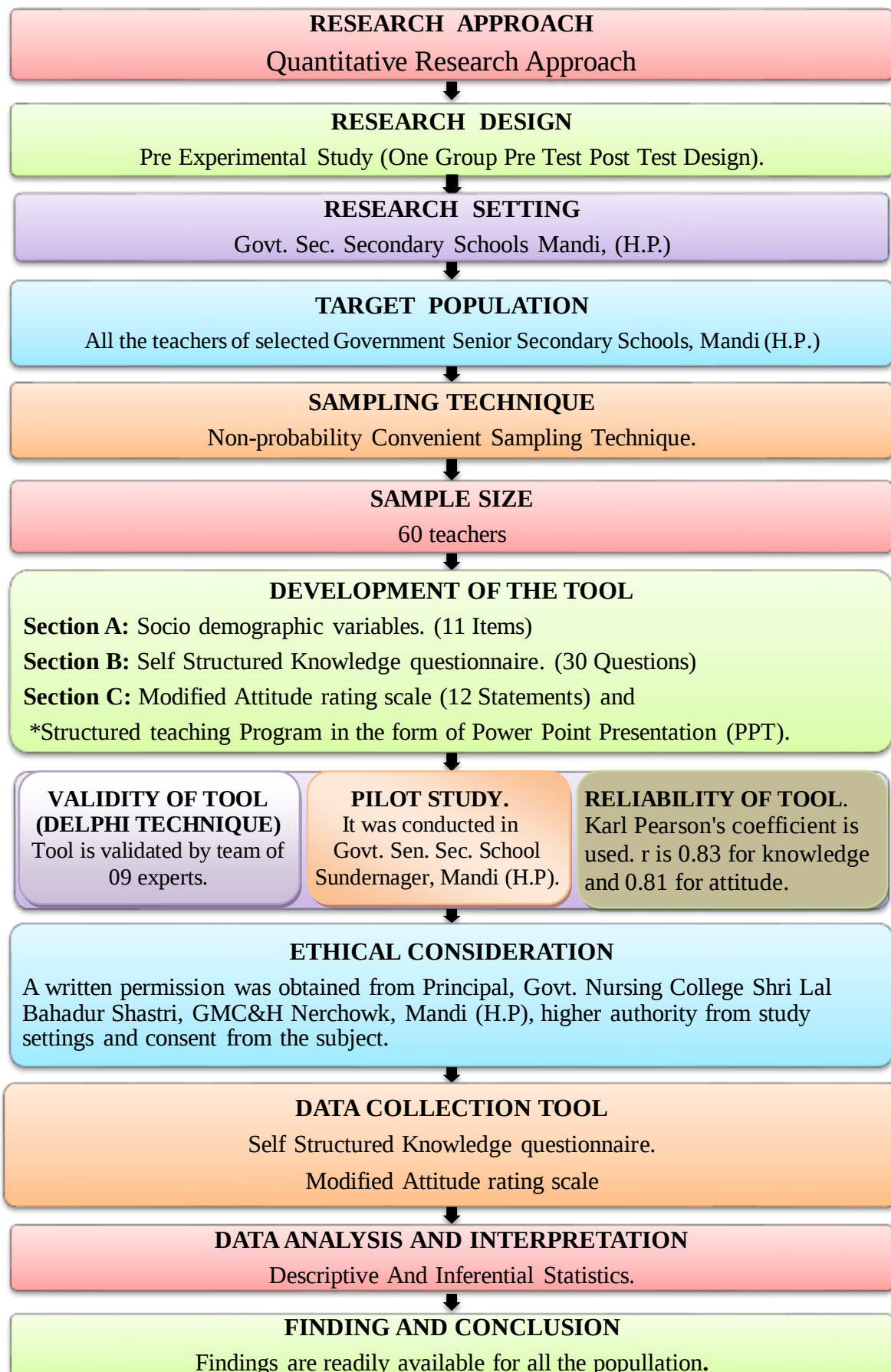


FIG. 2: SCHEMATIC REPRESENTATION OF RESEARCH METHODOLOGY

DESCRIPTION OF THE TOOL

Description of the tool refers to the explanation of the content of the tool. The researcher listed the number of items and the scoring for each item in the tool.

The tool for data collection consists of following sections:-

Section A: It consists of selected Socio demographic variables such as Age, Gender, Education, Teaching experience, Marital status, Residential area, knowledge regarding organ donation, Sources of information, Willingness to donate organ, Willingness to donate relative’s organ and anyone in family undergone organ transplantation. This part consists of 11 items.

Section B: Self Structured Knowledge Questionnaire to assess the knowledge of teachers of selected Government Senior Secondary School, Mandi (H.P.) regarding organ donation. This part consists of 30 multiple choice questions which were used to assess the knowledge regarding organ donation before and after the Structured Teaching Program. Knowledge regarding organ donation was measured in terms of knowledge score. Each correct answer was given a score of one mark and wrong answer or unanswered was given a score of zero. The maximum score was 30 and the minimum score was Zero.

Table 3.1: Range Measure of the Knowledge Score

Score	Interpretation
0-10	Inadequate Knowledge
11-20	Average Knowledge
21-30	Adequate Knowledge
Maximum Score=30	Minimum Score=0

Section C: Modified Attitude rating scale to assess the attitude of teachers of selected Government Senior Secondary School, Mandi (H.P.) regarding organ donation. It allows the participants to express their opinion regarding organ donation. The scale consists of 12 statements to assess the tendency of the participants towards organ donation. Each statement has five options like Strongly Agree, Agree, Neutral, Disagree, Strongly disagree and the maximum score was 60 and the minimum score was 12. Scoring was distributed as follows:

Table 3.2: Scoring for Positive Statement

Attitude	Score
Strongly Agree	5
Agree	4
Neutral	3
Disagree	2
Strongly Disagree	1

Table 3.3: Scoring for Negative Statement

Attitude	Score
Strongly Disagree	5
Disagree	4
Neutral	3
Agree	2
Strongly Agree	1

Table 3.4: Range Measure of the Attitude Score

Score	Interpretation
12-28	Negative Attitude
29-44	Neutral Attitude
45-60	Positive Attitude
Maximum Score=60	Minimum Score=12

3.13 ETHICAL CONSIDERATION

For the present study, Ethical values were taking into consideration. The study was accepted by the research ethical committee of the college. Prior permission was obtained from the concerned authorities of the selected Govt. Sec. Sen. Schools of Mandi (H.P.). Purpose of the study was explained to the samples and informed written consent was taken. Confidentiality was promised and ensured. The participants were given freedom to quit from study in between if they are not willing to participate. No routine duties were altered or withheld. No physical or psychological pain was caused.

3.14 DATA COLLECTION PROCEDURE

Phase I: Screening Phase

The main study was conducted in Government Sec. Sen. Girls School Bhangrotu, Mandi (H.P), Government Sec. Sen. Boys School Bhangrotu, Mandi (H.P) and Government Sec. Sen. School Kanaid, Mandi (H.P). Data was collected for 4 weeks in month of May 2024. After obtaining official permission from the concerned authorities screening was done with the help of the teachers working in the schools to select the samples. Total of 60 teachers were selected by convenient sampling technique in which 25 were males and 35 were females.

Phase II: Data collection & Implementation Phase

After the permission from the higher authority, the samples are covered in 3 sessions. Firstly, the participants from Government Sec. Sen. Girls School Bhangrotu, Mandi (H.P) was explained about the purpose and need of the study, and consent was taken from them, and pre pre-test was conducted on the same date. Then structured teaching program regarding organ donation was administered to the selected participants. Then, after seven days of teaching, the post-test was conducted on the same selected participant. The same procedure was repeated on the teachers of Government Sec. Sen. Boys School Bhangrotu, Mandi (H.P), and Government Sec. Sen. School Kanaid, Mandi (H.P).

Phase III: Termination Phase

The tool was verified for completion. The participants were assured about the confidentiality of the data. The participants were made comfortable.

3.15 PLAN OF DATA ANALYSIS

Data analysis is the systematic organization and synthesis of research data and testing of the research hypothesis using that data.

The data collected from the subjects were edited, coded and entered in excel sheet. The data were analyzed and using descriptive and inferential statistics by manual. A probability of less than 0.05 was considered to be significant. The following plan of analysis was developed:

- Description of the subjects with respect to demographic variables was presented in terms of frequency and percentage.
- Mean, Standard Deviation, and Mean difference, Range was used to evaluate the knowledge and attitude of teachers regarding organ donation.
- Statistical significance of the effectiveness of Structured Teaching program was analysed using Paired 't' test.
- Data on association between post test score on knowledge and attitude and the selected background factors were explained by using chi- square (χ^2).
- Correlation between knowledge and attitude was analyzed by using Karl Pearson Correlation Coefficient.

DATA ANALYSIS AND INTERPRETATION

Data analysis is the systemic organization and synthesis of research data and the testing of research data and the testing of research hypothesis using data. Interpretation is the adequate exposition of the facts presented in terms of purpose of the study.

The analysis and interpretation of data of this study was based on the data collected by structured knowledge questionnaire and attitude rating scale. The data were entered into coding sheet, and calculation done manually by using descriptive and inferential statistics. A probability value of less than 0.05 ($p \leq 0.05$) was considered to be statistically significant.

Organization of Analyzed Data:

The analyzed data was organized according to the objectives and presented under the following sections:

Section A: Finding related to frequency and percentage distribution of selected demographic variables of teachers of Government Senior Secondary Schools Mandi, (H.P.) participated in the study.

Section B: Finding related to pre-test and post-test knowledge and attitude scores and effectiveness of structured teaching programme regarding organ donation among teachers of selected Government Senior Secondary Schools Mandi, (H.P.).

Section C: Finding related to correlation between post test level of knowledge and attitude regarding organ donation among teachers of selected Government Senior Secondary Schools Mandi, (H.P.).

Section D: Finding related to association between level of knowledge and attitude with their selected demographic variables among teachers of selected Government Senior Secondary Schools Mandi, (H.P.).

SECTION-A

FREQUENCY AND PERCENTAGE DISTRIBUTION OF SELECTED DEMOGRAPHIC VARIABLES OF TEACHERS.

Table 4.1: Frequency and Percentage distribution of selected Socio-Demographic variables among teachers.

N= 60

Variables	Options	f (%)
Age	Up to 30 Years	1(1.7)
	31-35 Years	7(11.7)
	36-40 Years	10(16.7)
	41-45 Years	19(31.7)
	46-50 Years	5(8.3)
	>50 Years	18(30.0)
Gender	Male	25(41.7)
	Female	35(58.3)
Marital Status	Married	57(95.0)
	Unmarried	3(5.0)
Education	Graduation+ B.Ed.	9(15.0)
	Post graduation + B.Ed.	48(80.0)
	B.Ed. + PhD	3(5.0)
Teaching Experience	Less than 5 years	5(8.3)
	5-15 years	25(41.7)
	15- 25 years	23(38.3)
	> 25 years	7(11.7)
Residential Area	Rural area	17(28.3)
	Urban area	43(71.7)
Information About Organ Donation	No	1(1.7)
	Yes	59(98.3)
Source of information	Media	33(55)
	Health professionals	19(31.67)

	Family members and relatives	5(8.33)
	Friends and neighbors	3(5)
Organ donation history of family members	No	53(88.3)
	Yes	7(11.7)
History of a family member's organ transplant	No	55(91.7)
	Yes	5(8.3)
Willing to donate an organ	No	38(63.3)
	Yes	22(36.7)
Willing to donate a relative's organ after death	No	45(75.0)
	Yes	15(25.0)

Table 4.1 revealed that the majority of respondents fall within the middle-aged groups (41-45 years at 31.7% and >50 years at 30.0%). There's a smaller representation of younger adults (Up to 30 years at 1.7%). Females participated slightly more than males (58.3% vs. 41.7%). The overwhelming majority (95.0%) is married and rests of the participant were unmarried (5%). A high proportion (80.0%) holds post-graduate degrees with a B.Ed., suggesting a well-educated sample. A significant portion of respondents (41.7%) have 5-15 years of teaching experience, followed by those with 15-25 years (38.3%). Most respondents (71.7%) reside in urban areas. Nearly all respondents (98.3%) have some information about organ donation, indicating a high level of awareness. Media (55%) is the primary source of information about organ donation, followed by health professionals (31.67%). This suggests that public awareness campaigns might be playing a significant role.

SECTION B

PRE-TEST & POST-TEST KNOWLEDGE AND ATTITUDE SCORES AND EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME REGARDING ORGAN DONATION AMONG TEACHERS.

Table 4.2: Frequency & percentage distribution of pre-test and post-test levels of knowledge regarding organ donation.

N= 60

LEVEL OF KNOWLEDGE	SCORE	PRE TEST f (%)	POST TEST f (%)
INADEQUATE KNOWLEDGE.	0-10	18(30)	0(0)
MODERATE KNOWLEDGE.	11-20	36(60)	6(10)
ADEQUATE KNOWLEDGE.	21-30	6(10)	54(90)
Maximum Score=30		Minimum Score=0	

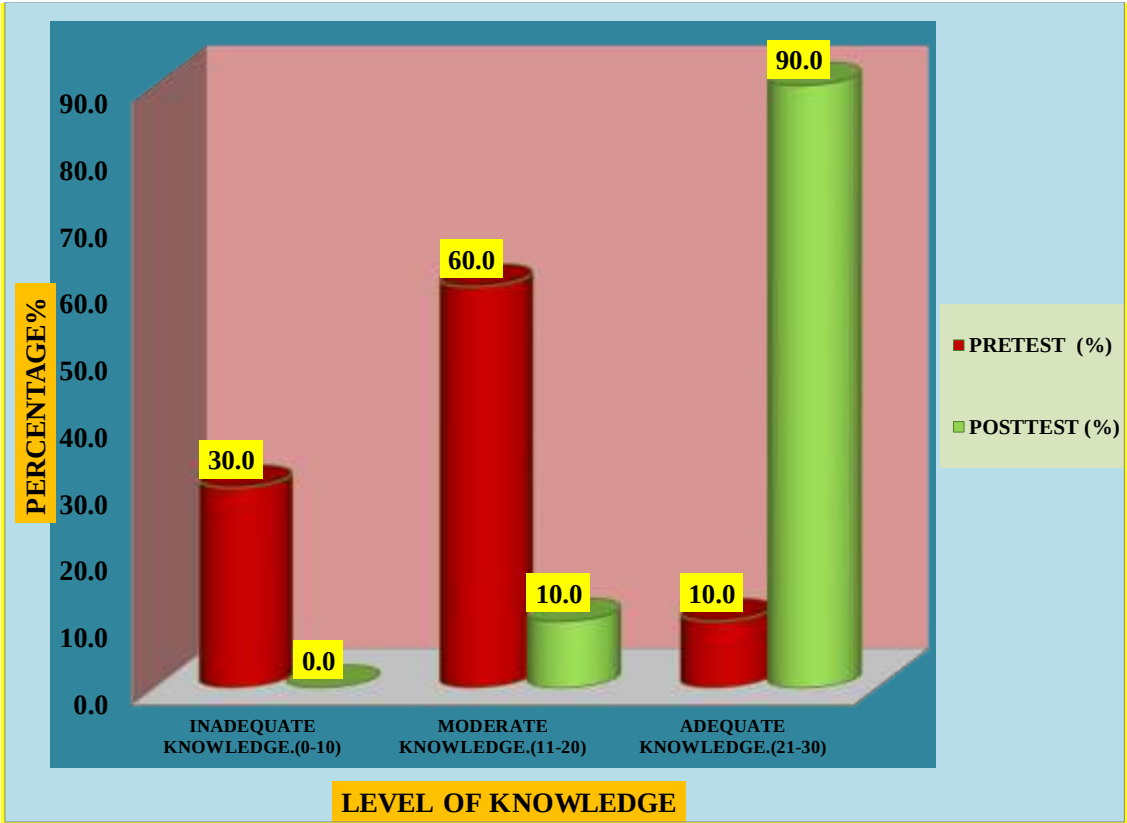


Fig. 7: Cylindrical Diagram representing percentage distribution of pre-test and post-test level of knowledge.

Table 4.3: Comparison of pre-test and post-test knowledge scores regarding organ donation.

N=60

Knowledge Scores	Mean±S.D.	Mean %	Range	Mean Diff.	Paired 't' Test	p value	Table Value at 0.05
Pretest Knowledge	13.55±4.308	45.20	16	10.120	26.29	<0.001***	2.00
Posttest Knowledge	23.67±2.26	78.90	08				
Maximum=30				Minimum=0			
Highly Significant***							

Table 4.4: Comparison of pre-test and post-test knowledge scores regarding organ donation, showing effectiveness.

N= 60

KNOWLEDGE SCORE (EFFECTIVENESS)					
Pre-Test Knowledge Mean	Post-Test Knowledge Mean	Difference	Pre-Test Knowledge Mean%	Post-test Knowledge Mean%	Difference%
13.55	23.67	10.12	45.20	78.90	33.7

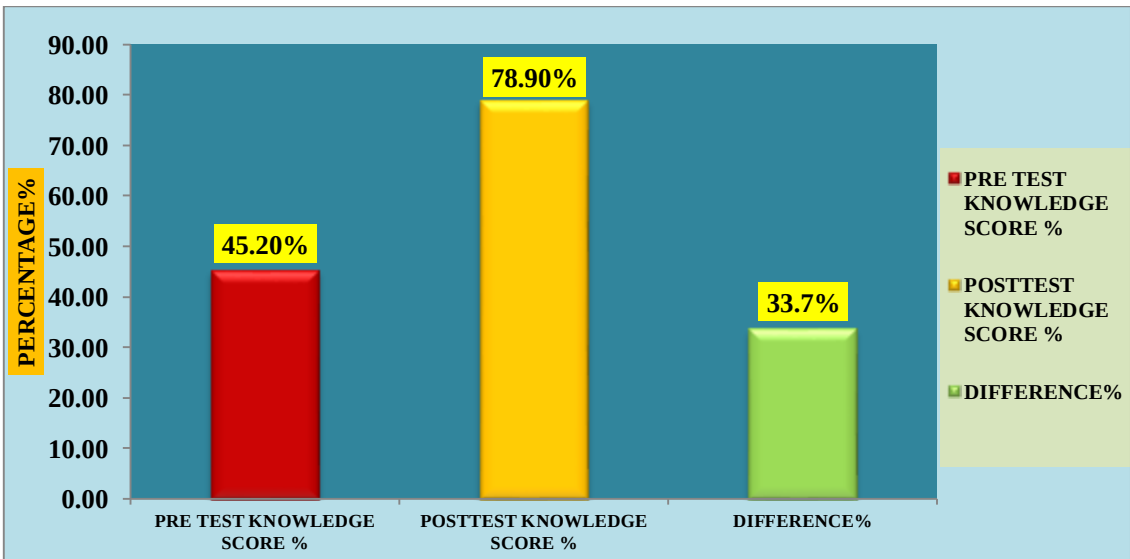


Fig. 9: Bar diagram representing comparison of pre-test and post-test level of knowledge representing effectiveness.

Table 4.4 and Fig. 9 depicts that the average pre-test score was 13.55, which translates to approximately 45.20% on the test (assuming a maximum score of 30). After the intervention, the average score increased to 23.67, representing roughly 78.90% on the test. This translates to an average gain of 10.12 points (or 33.72%) in knowledge. While the table shows the average changes, it's important to remember that individual scores might vary. However, the significant increase in the average score suggests that the intervention was effective in improving knowledge for most participants.

Table 4.5: Frequency & percentage distribution of pre-test and post-test level of attitude regarding organ donation.

N= 60

SCORE LEVEL	PRE TEST f (%)	POST TEST f (%)
NEGATIVE (12-28)	21(35%)	0(0%)
NEUTRAL (29-44)	35(58.3%)	45(75%)
POSITIVE (45-60)	4(6.7%)	15(25%)
Maximum Score=60		Minimum Score=12

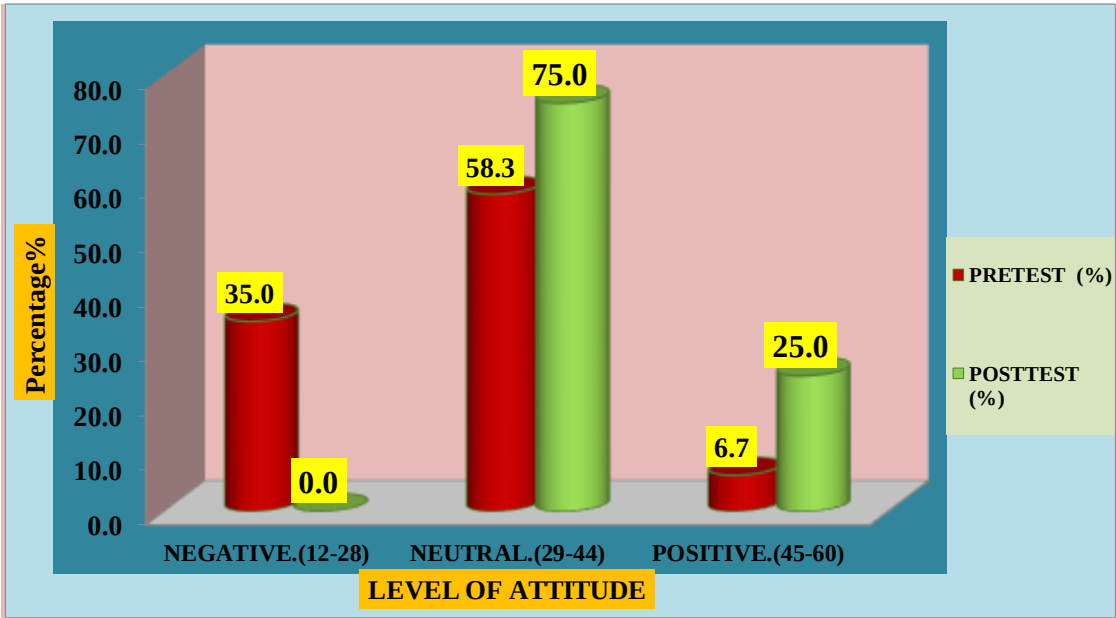


Fig. 10: Cylindrical Diagram representing percentage distribution of pre-test and post-test level of Attitude

Table 4.6: Comparison of pre-test and post-test scores of attitude regarding organ donation.

N=60

Attitude Scores	Mean±S.D.	Range	Mean Diff.	Paired t' Test	P value	Table Value at 0.05
Pretest Attitude	30.95±8.705	29	10.530	18.07	<0.001*	2.00
Posttest Attitude	41.48±6.382	28			**	
Maximum=60			Minimum=12			
Highly Significant***						

Table 4.7: Comparison of pre-test and post-test Scores of Attitude regarding organ donation.

N=60

ATTITUDE SCORE (EFFECTIVENESS)					
Pre-test attitude Mean	Post-test attitude Mean	Difference	Pre-test attitude Mean%	Posttest attitude Mean %	Difference %
30.95	41.48	10.53	51.58	69.14	17.56

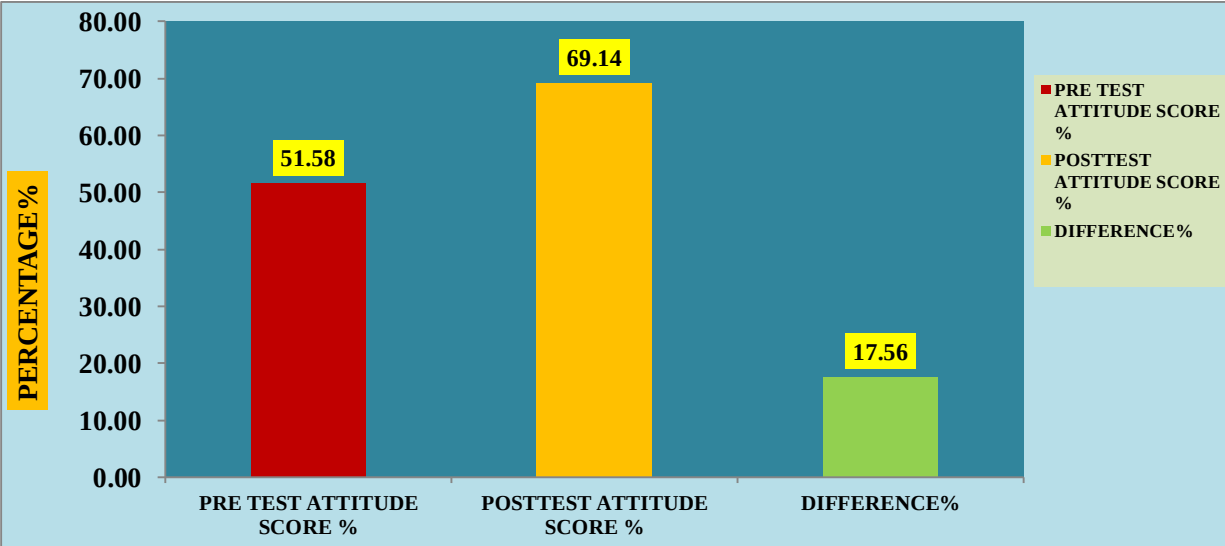


Fig. 12: Bar diagram representing comparison of pre-test and post-test level of Attitude representing effectiveness.

Table 4.7 and Fig. 12 depict that the pre-test attitude mean percentage is 51.58, which reflects the average level of positive sentiment before the intervention. And post-test attitude mean percentage is 69.14, which reflects a significant increase in positive sentiment after the intervention. The mean difference was 10.53, which means on average, participants' scores increased by over 10 points after the intervention. This translates to an average gain of over 17.5% in terms of percentage points (difference %).

Since the calculated p-value (< 0.001) is much smaller than the significance level (0.05), the null hypothesis is rejected. This means there is a statistically significant difference between the pre-test and post-test knowledge ad attitude scores. Hence, research hypothesis H_1 , was accepted.

SECTION C

CORRELATION BETWEEN POST TEST LEVEL OF KNOWLEDGE AND ATTITUDE REGARDING ORGAN DONATION AMONG TEACHERS.

Table 4.8: Co-relation between post-test level of knowledge and attitude regarding organ donation

N=60

	Mean	SD	'r'	p Value	Table Value
Post Knowledge	23.667	2.260	0.385	0.002**	0.254
Post Attitude	41.48	6.382			
Significant**					

Table 4.8 depict that the Pearson's correlation coefficient between post-knowledge and post-attitude score is 0.385. This indicates a **moderate positive correlation**. The p-value of 0.002 is less than the significance level of 0.05, so the correlation is considered statistically significant. In simpler terms, this means there is a positive relationship between a person's post-knowledge and their post-attitude.

ASSOCIATION BETWEEN LEVEL OF KNOWLEDGE AND ATTITUDE WITH THEIR SELECTED DEMOGRAPHIC VARIABLES AMONG TEACHERS.

The pre-test and post-test levels of knowledge towards organ donation (Adequate, Moderately Adequate and Inadequate) associated with various socio-demographic characteristics among participants (N=60). The findings suggest that there is no significant association between Pre-test levels of knowledge and socio-demographic variables. Whereas socio-demographic variable (Education) has a significant association with the post-test levels of knowledge with the Chi square (χ^2) value of 6.528 (p-value = 0.038).

The pre-test and post-test levels of knowledge towards organ donation (Adequate, Moderately Adequate and Inadequate) associated with various socio-demographic characteristics among participants (N=60). The findings suggest that there is no significant association between Pre-test levels of knowledge and socio-demographic variables. Whereas socio-demographic variable (Education) has a significant association with the post-test levels of knowledge with the Chi square (χ^2) value of 6.528 (p-value = 0.038).

DISCUSSION

It was inferred that for knowledge in pretest the overall mean score was 13.55, Standard deviation was 4.308, mean percentage 45.20% and range was 7-23. The obtained overall post tests mean score was 23.67 and standard deviation was 2.26, mean difference 78.90% and the range were 19-27. The mean difference was 10.120.

It was inferred that for attitude in pretest the overall mean score was 30.95, standard deviation was 8.705, mean percentage was 51.58% and range was 18-47. The obtained over all post test mean was 41.48 and standard deviation was 6.382 mean percentage was 69.14% and the range was 30-58. The mean difference was 10.530.

The above findings were supported by **Vijayata, Diksha Sharma, Sain Priya (2024)**. A Pre-experimental study (one-group pretest-posttest design) was conducted to assess the effect of a structured teaching program on organ donation in improving knowledge and attitude among students of the selected School of Jammu. The study revealed that for knowledge in pretest the overall mean score was 7.93. The obtained overall post-test mean score was 15.35 and the mean difference was 7.42. The computed “t” value (19.32) was found to be significant at 0.05 level of significance. And for attitude in pretest the overall mean score was 28.47. The obtained overall post-test mean was 39.22 and the mean difference was 10.75. The computed ‘t’ value (19.256) was found to be significant at 0.05 level of significance.

S J Devi, B Nirmala Jyothi. (2019). A Quasi-experimental study (one-group pre-test and post-test design) was conducted among adolescents at selected junior colleges in Guntur District, Andhra Pradesh, 100 subjects were purposively sampled and divided into an experimental group (n=50) and a control group (n=50). The result showed that the pre-test mean knowledge scores were 22.82 ± 6.33 for the experimental group and 21.7 ± 6.46 for the control group. Post-test mean knowledge scores increased to 33.74 ± 3.84 for the experimental group, compared to 22.52 ± 6.36 for the control group. Pre-test mean attitude scores were 63.20 ± 5.88 for the experimental group and 67.76 ± 7.84 for the control group, with post-test scores rising to 81.80 ± 5.90 for the experimental group and 69.52 ± 7.37 for the control group, which indicated that the structured teaching program (STP) effectively improved both knowledge and attitudes towards organ donation among the subjects.

CONCLUSION

In conclusion, the structured teaching program proved to be an effective tool for improving knowledge and attitudes regarding organ donation among teachers. However, future research should aim to address the limitations identified in this study. The positive impact observed underscores the importance of incorporating organ donation education into professional development programs for educators, which can ultimately contribute to increased awareness and donor registrations within the community.

ACKNOWLEDGEMENT

The authors thank the Principal, **M.Sc. (N) Dept. Medical Surgical Nursing, Shri Lal Bahadur Shastri Govt. Medical College and Hospital, Mandi at Nerchowk (H.P.)** and Abhishek Rana, Dept. of biotechnology and bioinformatics, NEHU Shillong, for guidance in writing the manuscript.

REFERENCE

1. Alex, P., Kiran, K.G., Baisil, S. and Badiger, S., 2017. "Knowledge and attitude regarding organ donation and transplantation among medical students of a medical college in South India" *Int J Community Med Public Health*, 4(9), pp.3449-3454.
2. Khan, N., Masood, Z. and Zahra, S., 2011. "Knowledge and attitude of people towards organ donation" *Journal of University Medical & Dental College*, 2(2), pp.15-21.
3. Kaur, R., Begum, N.S. and Kaur, A., 2015. "A Quasi Experimental Study to assess the Effectiveness of Structured Teaching Programme on Knowledge and Attitude regarding Organ Donation among Young Adults in Selected Colleges of Jalandhar, Punjab 2014" *Asian Journal of Nursing Education and Research*, 5(1), pp.140-145.
4. Job, K. and Antony, A., 2018. "Organ Donation and Transplantation:" Life after. *Organ Donation and Transplantation: Current Status and Future Challenges* " p.17.
5. Agrawal, S., Binsaleem, S., Al-Homrani, M., Al-Juhayim, A. and Al-Harbi, A., 2017. "Knowledge and attitude towards organ donation among adult population in Al-Kharj, Saudi Arabia" *Saudi Journal of Kidney Diseases and Transplantation*, 28(1), pp.81-89.
6. Organ Donation Statistics [Internet]. Organdonor.gov [Cited 26 April 23]. Available from: <https://www.organdonor.gov/learn/organ-donation-statistics>
7. 4 Organs Donated In 3 Years, Concept Yet To Pick Up In Hp [Internet]. [Cited 05 May 23]. Available from: <https://timesofindia.indiatimes.com/city/chandigarh/4-organs-donated-in-3-years-concept-yet-to-pick-up-in-hp/articleshow/99022057.cms>
8. Adithyan, G.S., Mariappan, M. and Nayana, K.B., 2017. "A study on knowledge and attitude about organ donation among medical students in Kerala" *Indian Journal of Transplantation*, 11(3), pp.133-137.
9. National Organ Transplant Programme [Internet]. [Cited 01 May 23]. Available from: https://dghs.gov.in/content/1353_3_NationalOrganTransplantProgramme.aspx
10. Rise in Organ Donation [Internet]. [Cited 01 May 23]. Available from: <https://www.drishtiias.com/daily-updates/daily-news-analysis/rise-in-organ-donation>
11. Venkatesan, K., Sivadasan, D., Thangavel, N., Alshahrani, S.H., Paulsamy, P., Muthugounder, K., Prabahar, K., Elhassan, G.O., Krishnaraju, K., SheikhAlavudeen, S. and Venkatesan, K., 2022. [Retracted] "Strategies to Improve Organ Donor Pool: A Study on the Knowledge, Attitudes, and Performance of Higher Secondary School Teachers Towards the Organ Donation" *BioMed Research International*, 2022(1), p.5438492.