

Pre - Experimental Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge and Attitude regarding Organ Donation among Adults residing at Selected Rural Area of District Mohali, Punjab (2022)

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“Making a donation is the ultimate sign of solidarity. Actions speak louder than words.”

- Ibrahim Hooker

1. Introduction

When a deceased individual's next of kin authorizes the removal of his or her organ, that person has consented to organ donation. There are a number of organs that may be donated to those in need, including the “kidneys, heart and pancreas”. Organs from the “liver, pancreas, lungs, and intestines” of living donors are all acceptable. Though living gifts are feasible, the majority of them occur after death. . .¹

The “Transplantation of Human Organs and Tissues Act, 1994” governs organ donation in India. In accordance with this legislation, both dead and live donors may give their organs. As a kind of demise, it also includes brain death.² “National Organ and Tissue Transplant Organization” serves as the country's top organ procurement, allocation, and distribution agency. . .³ A dead donor's kidneys, liver, lungs, pancreas, and intestines are among the six life - saving organs that may be given. According to medical experts, the uterus isn't considered a life - saving organ.⁴

Organ failure kills hundreds of thousands of Indians annually. Organ transplantation might save many deaths. The nation lacks transplantable organs. First, the government must create a nationwide register of organ donors and receivers. When transplanting a heart or lung, time is of the importance. A central database showing demand and supply may reduce time gaps and guarantee a brain - dead patient's organ gets delivered in time to save a life.⁵

Today, cornea, kidney, liver, and other organs are transplanted. Any transplant requires a healthy organ. Organ scarcity is transplantation's biggest difficulty. Education level correlates with organ donation awareness. Denial of brain - death, belief in miracles, religious beliefs, and organ trafficking make families hesitant to donate organs. Urban or rural living impacts organ donation.⁶

Lack of public information and a negative attitude may create organ shortages. Organ donation in India has a number of

challenges, including a general lack of knowledge of brain death, religious beliefs and superstitions regarding reincarnation, concerns about organ usage, health risks associated with organ donation, and a lack of unanimity among family members.⁸

In India, public support for organ donation is still nascent. Even among the most educated members of society, the public's understanding and attitude regarding organ donation is lacking. Due to the country's organ shortage, most people are uninformed of the situation, and cultural and religious variations have led to many ideas and preconceptions regarding organ donation.⁹

Sociocultural and religious difficulties and lack of awareness about the topic were first regarded to be the main reasons why people are reluctant to donate organs, however this is no longer the case. Many additional obstacles, such as a lack of institutional procedures, organisational support, and legal and ethical difficulties, are clearly evident at this time.¹⁰

The assumed consent system and the family consent system are the two most often used methods of organ donation. In the U. S., U. K., Germany, and the Netherlands, organ donors must acquire their families' approval. Singapore, Belgium, and Spain" use presumed consent. By default, this system allows organ donation, unless the donor has stated an unequivocal opposition to it while still alive. This approach does not need the approval of one's family. Organ donation is twice as common per million people in countries that use assumed consent as opposed to countries that use family approval, with rates ranging from 20 to 40 per million. As a result of this, physicians from the “AIIMS, New Delhi”, have recently proposed initiating "Presumption of Consent" in India.¹¹

Tamil Nadu's "Dead organ donation and transplantation programme" has inspired several other states to follow suit. There were 10.4 organ donations per million people in Puducherry in 2014, followed by Chandigarh with 5.7 per million people. For the year, Tamil Nadu had the highest number of dead organ donors with 136 donations. Andhra Pradesh's "Jeevan dan" and Maharashtra's "Zonal Transplant Coordination Center" are already enabling organ transplantation in these states.¹

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2. Need of the Study

End - stage organ illness and organ failure are the most common reasons for organ transplantation, making it the therapy of choice. It provides a higher standard of living while also increasing one's chances of surviving. To put it another way, organ retrieval is critical.

An estimated 2, 20, 000 individuals wait for kidney transplants each year, but only 15, 000 are successful. Every year, about 50, 000 individuals lose their lives in the transplant waiting room. Many people are waiting for transplants, but there aren't enough organs to go around. 0.5 donors per 10 lakh persons in India. More individuals need to stand forward and donate their organs in order to save the lives of others who are dying because of organ failure. Religious or superstitious beliefs, as well as misunderstandings among individuals, may be to blame for a lack of donations.¹⁷

An investigation of organ donation in India has determined that the lack of public knowledge is the primary cause of the poor status of organ donation in India, and that a public awareness campaign is necessary to encourage organ donation.¹

According to research, people have an favourable view about organ donation. Higher education levels increase organ donation. Human body donation is as important as research and saving lives. People must be aware of these needs to promote future health and help medical practitioners develop. Organ donation may be made easier by increasing public awareness and improving institutional capacity, as outlined in a well - structured educational programme. Adults should be tested on their understanding about organ donation. Because of this, individuals need to be educated and encouraged to donate their organs.

India conducted the second - most transplants globally in 2019, although its national donation rate of 0.65 per million population (2019) is much lower than Western countries like Spain (35.1 per million population), the U. S. (21.9 per million population), and the U. K. (15.5 per million population). World Health Organization: 0.01 percent of Indians donate organs after death. Low or non - existent contributions are caused by lack of public information, religious or superstitious ideas, and misconceptions.¹⁸ Many studies on organ donation have come from wealthy nations. In India, there is a dearth of information. Our study's goal is to fill up these knowledge gaps on organ donation among adults via a systematic educational approach.

Research Statement:

"A pre - experimental study to assess the effectiveness of structured teaching programme on knowledge and attitude regarding organ donation among adults residing in selected rural area of District Mohali Punjab".

Objectives

- 1) "To assess the pre - test knowledge and attitude regarding organ donation among adults.
- 2) To develop and administer structured teaching programme regarding organ donation.

- 3) To assess the post - test knowledge and attitude regarding organ donation among adults.
- 4) To evaluate the effectiveness of structured teaching programme regarding organ donation among adults.
- 5) To find out the relationship between knowledge and attitude regarding organ donation.
- 6) To find out the association between post - test knowledge score regarding organ donation with selected socio - demographic variables.

Operational Definitions: -

Assess, Effectiveness, Structured teaching programme, Knowledge, Attitude, Organ donation, Adults

Hypothesis: -

- **H₁:** There will be a significant difference between the pre - test and post - test knowledge score regarding organ donation among adults ($\leq p=0.05$).
- **H₂:** There will be a significant difference between the pre - test and post - test attitude score regarding organ donation among adults as measured by attitude ($\leq p=0.05$).

Delimitations:

- The study was delimited to adults: -
- residing in a rural area of Mohali Punjab.
- with and above the age of eighteen years.

Research Variables: -

- **Socio - demographic variables:** - Age, gender, religion, family type, education status, monthly income of family and any information regarding organ donation.
- **Dependent variables:** - Knowledge and Attitude
- **Independent variables:** - Structured Teaching Programme"

3. Review of Literature

What does it mean to do a "literature review"? It means to go back and re - examine the existing literature on the subject. A literature review is a compilation of research articles written by renowned academics and experts. Researcher's interests may be placed into context by looking at how other researchers have dealt with comparable issues in the past, as well as providing context for the current study. An extensive examination of published papers, books, and websites was used in this investigation.²²

Mohan, et. al. (2020) an in - depth look at the Indian viewpoint on organ donation. The Community Health Management Journal For the purposes of this study, the following terms and concepts were examined: "organ donation, " "donor organs, " "organ donors, " "legal considerations, " "the procedure of pledging organs by a living individual. " They come to the conclusion that organ donation and transplantation have opened up new vistas for scientific advancement and social growth. Organ donation in India seems to be lagging behind other countries because of challenges such as a lack of public and medical professional education, religious objections, organisational obstacles, and legal and ethical concerns. India has a large pool of unused deceased donors due to vehicle accidents. Hospitals and NGOs in the country have proven deceased donation viable.²³

Chaudhary Shivani, et. al. (2020) before performing an experiment, researchers in northern India surveyed nursing students regarding organ donation. The research looked at first - year B. Sc. Nursing students' views and knowledge regarding organ donation before and after the test, as well as the relationship between those attitudes and demographics. A 60 - person purposive sample was chosen. Structured instruction increased students' attitudes and comprehension; the study found. Post - test nursing student knowledge and attitude towards organ donation were unrelated. This study shows that a well - planned teaching programme improves students' knowledge and attitudes.²⁴

N. Gracious, et. al. (2019) case study on deceased organ donation. The research aims to explain rising and diminishing brain death contributions. The Kerala network for organ sharing was founded in 2012 by the Kerala government to coordinate brain death certification, fair organ distribution, and openness and accountability throughout the whole post - brain death donation procedure. A statute recognising brain death permitted organ donation in 1994. This qualitative study employed purposeful sampling of stakeholders, in - depth interviews, and focus groups.²⁵

Tamuli RP, et. al. (2019) research on the attitudes and awareness of organ donation in North East India among students and postgraduates. Data was collected from 360 individuals, 180 of whom were undergraduate students and the other 180 of whom were faculty members with a postgraduate degree. Only three families have donated organs in the previous five years, and 79.17% of participants are aware of organ donation. 3.3% of participants are organ donors. 12.5% of those asked claimed religious attitudes may prevent some locals from donating or receiving organs. Organ donation rates are low because of a lack of public knowledge, according to more than half of the survey participants 51.67%.¹

Paul S, et. al. (2019) cross - sectional study of organ donation knowledge, attitude, and practice patterns to discover whether there was a link between participant comprehension and aspects of interest. 73.3% have heard of organ donation. Most participants were women between 31 and 40, illiterate, and earning less than Rs.5000 a month. The most often mentioned organ for organ donation was the eye. The vast majority of those in attendance had no idea that India had enacted legislation governing organ donation. Six percent of the participants had completed a cadaveric donation form, despite the fact that no one had given an organ. Participants with post - secondary education had superior understanding than those with just a high school diploma. Knowledge and family income are significantly related. They conclude that despite a dearth of public information about organ donation, the community favors it.²⁶

Darlington D, et. al. (2019) cross - sectional research of medical students at a tertiary care centres in South India to examine their knowledge, attitude, and practice of organ donation. They surveyed 480 medical students using a questionnaire. More than 88.5 percent of the 480 participants completed the questionnaire. All four batches of students had knowledge scores that were significantly lower than the national average. Practice, and attitude were the two areas in

which first and third - year students performed better. In all three categories, females outnumbered men. It is disturbing that all of the medical students' knowledge scores are so low. This suggests that significant adjustments are needed in the medical curriculum in order to properly prepare the country's physicians. Medical students' attitudes may have a long - term impact on the practice of medicine.²⁷

Devi K, et. al. (2018) studying the attitudes and behaviours of young people in rural Puducherry, the researchers performed a community - based study on organ donation awareness. One hundred people were chosen at random from rural service regions for this study. Face - to - face interviews employed a pre - tested questionnaire. In rural parts of Pondicherry. Organ donation knowledge was satisfactory for 66% of the survey participants. Understanding the importance of organ donation was shown to be a significant predictor of employment. Television has risen to prominence as a go - to resource for news. Only 19 percent of those polled have given an organ to a stranger in need. All of the blood donors (19%) were volunteers. Donations may be spurred on as a result of increased awareness. The media and physicians should be involved in educating the public about health issues.¹⁶

Bharambe VK, et. al. (2018) they gathered data on health - care personnel' knowledge and attitudes concerning organ donation. People of all ages and backgrounds were asked to complete a survey. Students at the University were contacted, as were seniors at "Jyesta Nagrik Sangh" senior citizen societies and the Pensioner's Association. Organ donation cannot be carried out until the prospective donor signs the donor card before death, while about the same amount (45.3 percent) felt that this is true even when the donor hasn't signed the donor card before death. The number of people who would accept an organ given by a death row inmate was 46.8%, while the number of people who requested financial assistance for the organ donor or the donor's family was 30.3 percent. 91% of respondents said they would join a local organ donation awareness organization and encourage others to donate their organs if one were to be established in their town. In the end, 73.6% of the rural Lanja population was ready to give organs. Brain death and organ donation education should be prioritized.⁶

Sarveswaran G, et. al. (2018) used to recruit 257 randomly chosen adults (aged 18 and older) to undertake a community - based cross - sectional research to learn about their attitudes on and practices around organ donation. Pretested semi - structured questionnaires were used to gather the data. Less than a third of the participants in the survey had appropriate understanding about organ donation, according to the researchers. Only six people signed up for organ donation, despite the fact that the majority of them were in favor of it.⁸

Jagadeesh AT, et. al. (2018) did a cross - sectional research on developing targeted measures to increase organ donor registrations among professional drivers. More than 300 people were asked about their knowledge and attitudes towards organ donation with a standardized, orally - administered questionnaire. Multivariate analysis was used to discover the most important factors that influence a person's desire to practice. Most of our students had poor knowledge and attitude ratings. Better scores were associated to more

organ donation intentions, demonstrating a favourable association between knowledge and attitude. Lack of family support and concern about medical research were obstacles to organ donation. Public health education, behaviour change communication, and legal action are needed to increase organ donor registration.²⁸

Sindhu A, et. al. (2017) a cross - sectional study of medical students' understanding about organ donation was conducted at a specific college. It is the goal of this study to determine the level of knowledge regarding organ donation among medical students. An organ donation questionnaire was developed, according to the published study, to gauge public awareness of the practice. All MBBS final year students who agreed to participate in the research verbally were included. According to the results of this survey, 87% of students were aware that brain death may occur as a result of a car accident. Research shows that medical students lack understanding about organ donation, and this knowledge gap must be addressed urgently in order to increase the donation rate in our country.²⁹

Adithyan GS, et. al. (2017) examined the attitudes and knowledge of medical students towards organ donation by a cross - sectional survey. A self - administered questionnaire was used to collect data from final year MBBS students. Student sociodemographic, understanding of organ donation and attitudes regarding organ donation were all included in the study. While most students were aware of the need of organ donation, they refused to give their own bodies, whether they were cadaveric or alive, according to the results of the research. Students of medicine, according to the results, need multidisciplinary educational interventions to better understand the issue from all angles.³⁰

Deshmukh Jaya, et. al. (2017) the pre - experimental research employed the pretest - posttest approach to test the efficiency of a planned education programme on people' understanding about organ donation. One hundred people were chosen at random from a pool of potential participants who satisfied the study's requirements for inclusion. The data was collected using a "self - structured questionnaire". According to the results, just 13% of participants had strong knowledge before to the exam, but that number rose to 57% after the test. There is a strong belief that the proposed educational campaign will help individuals better understand the importance of organ donation.³¹

Ramachandran N, et. al. (2016) they studied organ donation awareness and attitudes in rural Puducherry, India. This study examines sociodemographic factors affecting their awareness. This study examined 360 people from four Puducherry villages. Pretested questionnaires were used to conduct face - to - face interviews. Eighty - eight percent of those polled were aware of the importance of organ donation. Overall, among the 317 participants, 98.8 percent of them were between the ages of 18 to 30 years, 91 percent were male, 100 percent of them were high school and above graduates, and 92 percent.³²

Sam N, et. al. (2015) they surveyed 486 final - year medical, dental, engineering, arts and science students in south India regarding organ donation. 68% of 486 students felt that organ

donation should be regulated. 35% of students knew about the donor card. 63% of respondents indicated they'd join an organ donation organisation and urge others to do likewise.³⁶

4. Research Methodology

Research approach: - Quantitative research approach was adopted.

Research design: - A pre - experimental "one group pre - test post - test research design" was adopted.

Research setting: - This study was conducted in Sohana Village of District Mohali Punjab.

Target population: - All individuals over the age of 18 years and above who live in a rural area of Punjab's Mohali district are enrolled.

Sample size: - Sample size was 100 participants.

Sampling technique: - Convenient sampling technique

Inclusion criteria: Adults were included in the study:

- Who were 18 years old and above and live in a rural part of Punjab's Mohali district.
- Willing to take part in the investigation.
- Who were not currently unwell.
- Presence at the time of the data gathering.

Description of tools:

Section 1: "Socio - demographic variables of study participants".

Section 2: "Self - structured questionnaire to assess the knowledge regarding organ donation. Each correct answer was scored as one and wrong answer as zero." The score was interpreted as:

| Level of Knowledge | Scoring |
|---------------------|------------|
| Adequate | 76 to 100% |
| Moderately adequate | 50 to 75% |
| Inadequate | < 50% |

Section 3: "Five - point Likert scale to assess the attitude: Strongly agree, Agree, Neutral, Disagree, strongly disagree."

Validity of the tool:

Seven experts in medical, clinical nursing, and nursing education evaluated the tool's appearance, content, and criteria validity. After a discussion with the guide, their suggestions were included.

Reliability of tool

It was calculated with "test - retest method by using Karl Pearson coefficient of correlation" i. e., $r=0.814$.

Structured teaching programme

Structured teaching programme was developed on organ donation.

5. Analysis and interpretation of the data

Non - probability sampling was used in this study to choose 100 people who matched the inclusion criteria. "Social demographics, self - structured knowledge questionnaires, and a Likert scale" were used to collect the data. Excel was

used to enter the data. Research participants were analysed and assessed. A thorough analysis and interpretation of the collected data was carried out in light of the research questions and hypotheses. IBM SPSS version 26 was used to analyse and interpret the data.

Organization and Presentation of data:

The obtained data was organized, analyzed, tabulated and interpreted by employing descriptive and inferential statistics. Analysis and Interpretation of data was based on the objectives. The data was organized and presented in tabulation and graphical manners according to the following sections:

Section 1: “Finding related to distribution of socio demographic variables of study participants.

Section 2: Findings related to pre - test level of knowledge and attitude regarding organ donation of study participants.

Section 3: Findings related to post - test level of knowledge and attitude regarding organ donation of study participants.

Section 4: Findings related to effectiveness of structured teaching programme on knowledge and attitude regarding organ donation of study participants.

Section 5: Findings related to correlation between knowledge and attitude regarding organ donation of study participants.

Section 6: Findings related to association between post - test level of knowledge score regarding organ donation of study participants with selected socio - demographic variables.

Section I: Findings related to distribution of selected socio demographic variables of study participants”.

Table 1: “Socio - demographic variables of participants”, N=100

| Socio – Demographic Variables | Options | Percentage | Frequency |
|--|--|------------|-----------|
| Age in years | 18 - 32years | 17.0% | 17 |
| | 33 - 46 years | 39.0% | 39 |
| | 47 - 60 years | 32.0% | 32 |
| | Above 60 years | 12.0% | 12 |
| Gender | Male | 54.0% | 54 |
| | Female | 46.0% | 46 |
| Religion | Hindu | 56.0% | 56 |
| | Christian | 3.0% | 3 |
| | Muslims | 4.0% | 4 |
| | Sikh | 37.0% | 37 |
| | Others | 0.0% | 0 |
| Type of family | Joint family | 53.0% | 53 |
| | Nuclear family | 40.0% | 40 |
| | Extended family | 7.0% | 7 |
| Educational status | No formal education but can read and write | 0.0% | 0 |
| | 8th Pass | 17.0% | 17 |
| | 10th Pass | 26.0% | 26 |
| | 10+2 Pass | 31.0% | 31 |
| | Graduate | 23.0% | 23 |
| | Post - graduate | 3.0% | 3 |
| Monthly income of family (Rs.) | Below Rs.5000 | 16.0% | 16 |
| | Rs.5001 - 10000 | 17.0% | 17 |
| | Rs.10001 - 15000 | 15.0% | 15 |
| | Rs.15001 - 20000 | 24.0% | 24 |
| | Above Rs.20000 | 28.0% | 28 |
| Any information regarding organ donation | Yes | 88.0% | 88 |
| | No | 12.0% | 12 |
| Source of information | Health personnel | 32.0% | 32 |
| | Relatives | 12.0% | 12 |
| | Mass media | 18.0% | 18 |
| | School/College | 26.0% | 26 |
| | Others | 0% | 0 |

Table 1 depicts that subjects were aged 33 to 46. (39 percent). In terms of gender, 54 (54 percent) of the population was male and 46 (46 percent) was female. According to religion, 56 (56 percent) of the population was Hindu, 37 (37 percent) was Sikh, 4 (4 percent) was Muslim, and 3 (3 percent) was Christian. The majority of people, 53 (53 percent), belong to a nuclear family, while 40 (40 percent) belong to a joint family and 7 (7 percent) belong to an extended family. As shown by their level of education, the bulk of respondents (31 percent) were 10+2pass, 26 percent were 10th pass, 23 percent were graduates, 17 percent were 8th pass, and 3

percent were postgraduates. According to monthly family income (Rs), the majority of 28 (28 percent) had monthly family income over Rs.20000. As for organ donation information, the majority of 88 (88 percent) had organ donation information. The majority of participants 32 (32 percent) obtained organ donation information from medical staff.

Section- 2: “Findings related to pre - test of knowledge and attitude of study participants”

Table 2: Findings related to frequency and percentage distribution of pre - test level of knowledge score

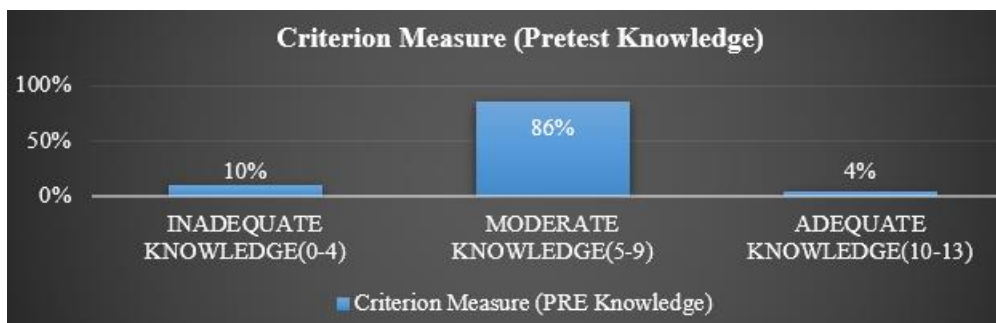


Figure 11: Findings related to Pre - test level of Knowledge score

Table 3: Pre - test level of Knowledge score of study participants, N = 100

| Descriptive Statistics | Mean Score | S. D. | Median Score | Maximum | Minimum | Range | Mean% |
|----------------------------|------------|-------|--------------|---------|---------|-------|-------|
| Pre - Test Knowledge Score | 6.10 | 2.008 | 6 | 12 | 1 | 11 | 46.90 |

Maximum=13 Minimum=0

Table 3 shows that Mean score was 6.10, standard deviation was 2.008, median score was 6, maximum score was 12, lowest score was 1, scoring range was 11, and mean percentage was 46.90.

Table 4 displays the majority of respondents, 95 (95 percent), had a neutral opinion about organ donation, while 3 (3 percent) had a good attitude and 2 (2 percent) had a negative attitude.

Table 4: “Frequency and Percentage distribution of Pre - test level of Attitude score of study participants”

Criteria Measure Pre - Test Attitude Score N= 100

| Category Score | Pre - test | |
|--------------------|------------|------------|
| | Frequency | Percentage |
| Negative (0 - 20) | 2 | 2% |
| Neutral (21 - 40) | 95 | 95% |
| Positive (41 - 60) | 3 | 3% |

Maximum=60 Minimum =0

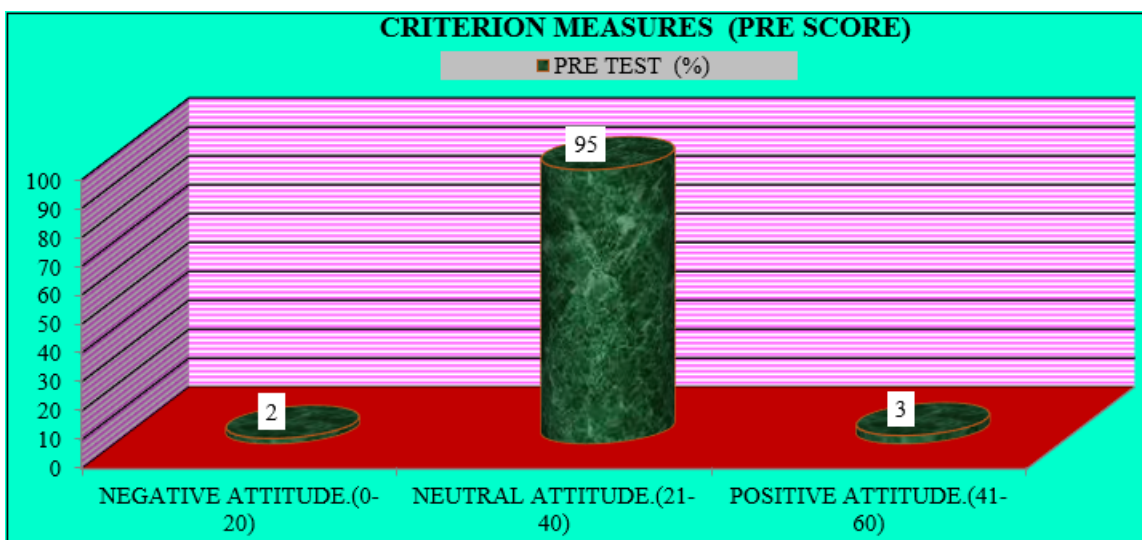


Figure 12: Findings related to Pre - test level of Attitude score

Table 5: Pre - test level of Attitude score of study participants, N=100

| Descriptive Statistics | Mean Score | S. D. | Median Score | Maximum | Minimum | Range | Mean% |
|---------------------------|------------|-------|--------------|---------|---------|-------|-------|
| Pre - Test Attitude Score | 31.09 | 5.297 | 30 | 46 | 17 | 29 | 51.80 |

Table 5 shows the mean score was 31.09, the standard deviation was 5.29, the median score was 30, the maximum score was 46, the lowest score was 17, and the range of scores was 29. The mean percentage was 51.80.

Section III: “Findings related to assessment of the post - test of knowledge and attitude in study participants”

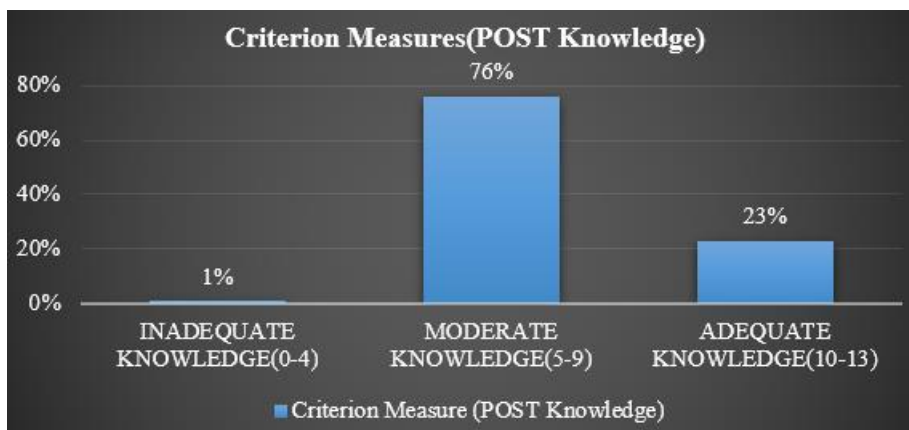


Figure 13: Findings related to Post - test level of Knowledge score

Table 7: Post - test level of Knowledge score of study participants, N = 100

| Descriptive Statistics | Mean Score | S. D. | Median Score | Maximum | Minimum | Range | Mean% |
|-----------------------------|------------|-------|--------------|---------|---------|-------|-------|
| Post - Test Knowledge Score | 8.36 | 1.755 | 8 | 13 | 3 | 10 | 64.30 |

Maximum=13 Minimum=0

According to the data in Table 7, the median score was 8, the maximum score was 13, the lowest score was 3, and the average percentage was 64.30, with the mean score being 8.36 and the standard deviation being 1.755.

Table 8: Frequency and Percentage distribution of Post - test level of Attitude of study participants, N= 100

| Category Score | Post - test | |
|--------------------|-------------|------------|
| | Frequency | Percentage |
| NEGATIVE (0 - 20) | 0 | 0% |
| NEUTRAL (21 - 40) | 39 | 39% |
| POSITIVE (41 - 60) | 61 | 61% |

Maximum=60 Minimum =0

Table 8 shows that 61% of people had a positive attitude about organ donation, followed by 39% who had a neutral attitude, and 0% had a negative attitude.

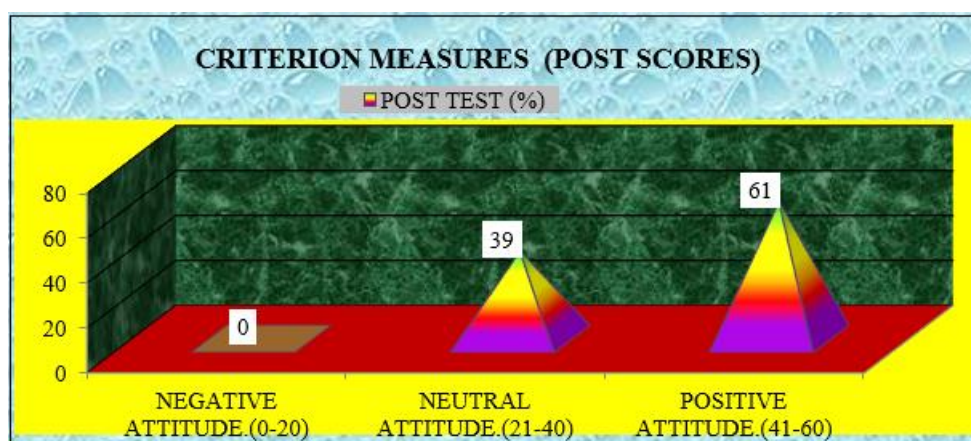


Figure 14: Findings related to Post - test level of Attitude score

Table 9: Post- test level of Attitude of study participants, N = 100

| Descriptive Statistics | Mean Score | S. D. | Median Score | Maximum | Minimum | Range | Mean% |
|----------------------------|------------|-------|--------------|---------|---------|-------|-------|
| Post - Test Attitude Score | 41.75 | 5.725 | 42 | 56 | 29 | 27 | 69.60 |

Maximum=60 Minimum=0

Table 9 displays the descriptive data of Post - test Attitude score: mean score 41.75, standard deviation 5.725, median score 42, maximum score 56, minimum score 29, range 27 and mean percentage 69.60.

Section- 4: “Findings related to effectiveness of structured teaching programme on knowledge and attitude of study participants”

Table10: Frequency and Percentage distribution of Pre - test & Post - test level of Knowledge score, N= 100

| Category Score | Pre - test | | Post - test | |
|--------------------|------------|------------|-------------|------------|
| | Frequency | Percentage | Frequency | Percentage |
| INADEQUATE (0 - 4) | 10 | 10% | 1 | 1% |
| MODERATE (4 - 9) | 86 | 86% | 76 | 76% |
| ADEQUATE (10 - 13) | 4 | 4% | 23 | 23% |

Maximum=13 Minimum = 0

Table 8 displays that majority of respondents, 86 (86 percent), had moderate knowledge about organ donation, followed by 10 (10 percent) with inadequate knowledge and 4 (4 percent) with adequate knowledge.

Comparatively, the Post - test level of Organ Donation Knowledge among Adults Residing in Selected Rural Areas of District Mohali, Punjab. The majority of adults, 76 (76 percent), had moderate knowledge about organ donation, followed by 23 (23 percent) with adequate knowledge and 1 (1 percent) with inadequate knowledge.

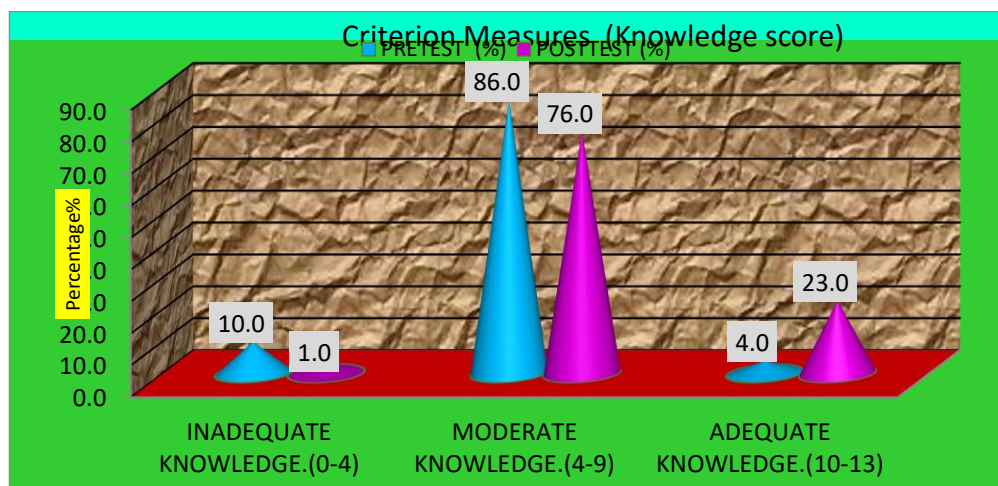


Figure No 15: “Pre - test & Post - test level of Knowledge score”

Table 11: “Comparison of Pre - test & Post - test level of Knowledge score”

Paired t - test

| Knowledge Score | Mean | SD | Mean Diff | t | P value |
|-----------------|------|-------|-----------|----------|---------|
| Pre - test | 6.1 | 2.008 | 2.260 | 12.956** | <0.001 |
| Post - test | 8.36 | 1.755 | | | |

**Significance Level 0.05 Maximum = 13 Minimum = 0

Table 11 depicts that Mean Pre - test Knowledge score was 6.1 ±2.008; post - test score was 8.36 ±1.755. The Pre - test - Post - test Knowledge score difference was 2.260. Statistically, t=12.956 was significant.

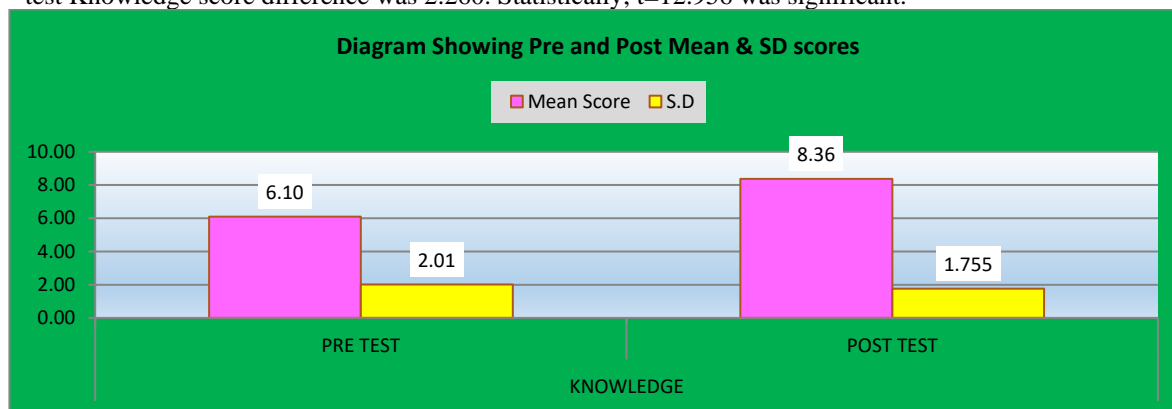


Figure No 16: “Comparison of Pre - test & Post - test level of Knowledge score”

Table12: “Criteria measure of Pre - test & Post - test level of Attitude score”

N= 100

Criteria Measure Attitude Score

| Category Score | Pre - test | | Post - test | |
|--------------------|------------|------------|-------------|------------|
| | Frequency | Percentage | Frequency | Percentage |
| NEGATIVE (0 - 20) | 2 | 2% | 0 | 0% |
| NEUTRAL (21 - 40) | 95 | 95% | 39 | 39% |
| POSITIVE (41 - 60) | 3 | 3% | 61 | 61% |

Maximum=60 Minimum =0

Table 12 displays the Pre - Test Level of Attitude; The majority of respondents, 95 (95 percent), had a neutral attitude about organ donation, while 3 (3 percent) had a positive attitude and 2 (2 percent) had a negative attitude.

In contrast, the Post - test level of Attitude score; was much lower than the Pre - test level. The results indicated that the majority of individuals, 61 (61 percent), had a positive attitude about organ donation, while 39 (39 percent) had a neutral view and none had a negative attitude.

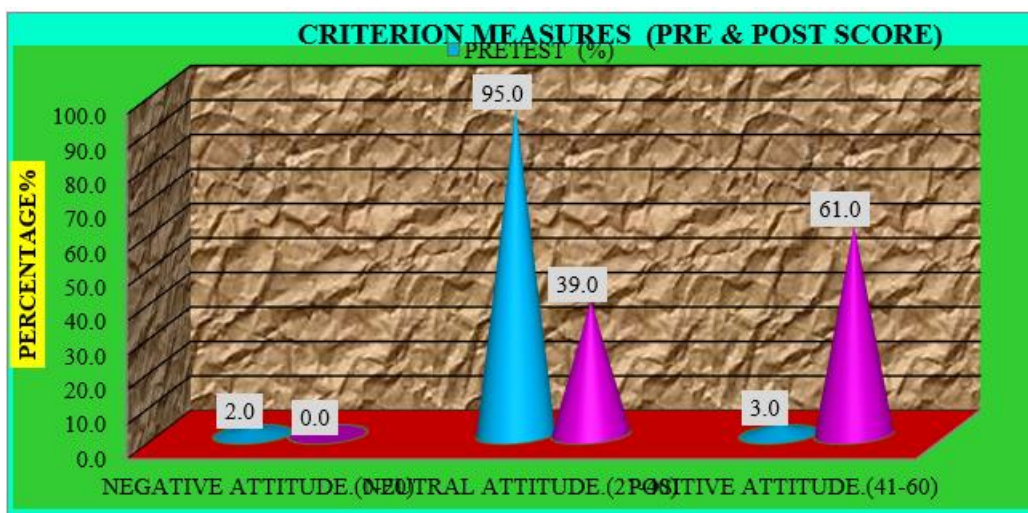


Figure 17: Pre - test & Post - test level of Attitude score

Table 13: Comparison of Pre - test & Post- test level of Attitude score

| Paired t - test | | | | | |
|-----------------|-------|-------|-----------|----------|---------|
| Attitude Score | Mean | SD | Mean Diff | T | P value |
| Pre - test | 31.09 | 5.297 | 10.660 | 23.726** | <0.001 |
| Post - test | 41.75 | 5.725 | | | |

**Significance Level 0.05 Maximum = 60 Minimum = 0

Table 13 reveals that mean Pre - test Attitude score was 31.09 ±5.297, whereas mean Post - test Attitude score was 41.75 ±5.725. Pre - test - to - post - test attitude score difference was 10.660. Statistically, t=23, 726 was significant. Therefore, we accept the alternative hypothesis. Structured teaching increased participants' knowledge and attitudes.

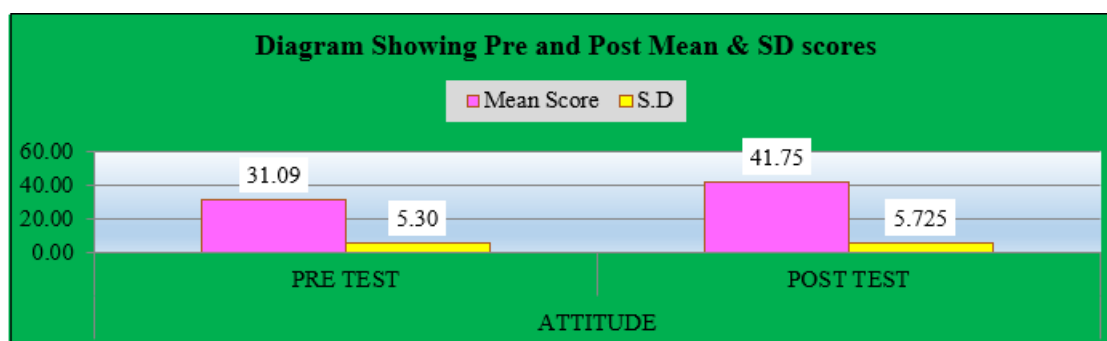


Figure 18: Comparison of Pre - test & Post- test level of Attitude score

Section 5: “Findings related to correlation between knowledge and attitude score of study participants”

Table 14: Correlation between Knowledge and Attitude score

| Pearson’s Correlation | Pair | |
|-----------------------|-----------------|----------------|
| | Knowledge Score | Attitude Score |
| Post - test | 8.36 | 41.75 |
| Mean | 1.755 | 5.725 |
| SD | 100 | |
| N | 0.387 | |
| Correlation | Significant | |
| Result | | |

Table 19 revealed that mean & standard deviation value for Knowledge score was 8.36±1.755 and Attitude score was 41.75±5.725. The value of r was 0.387, which showed a positive correlation which was statistically significant.

Section 6: “Findings related to association between post - test knowledge and attitude of study participants”

Table 15: “Association between Post - test Knowledge score with their selected socio - demographic variables”
Association of Posttest Knowledge Scores of Selected Socio - Demographic Variables”, N=100

| Variables | Options | Adequate Knowledge | Moderate Knowledge | Inadequate Knowledge | Chi Test | P Value | df | Table Value | Result |
|--|--|--------------------|--------------------|----------------------|----------|---------|----|-------------|-----------------|
| Age in years | 18 - 32 years | 7 | 10 | 0 | 15.185 | 0.019 | 6 | 12.592 | Significant |
| | 33 - 46 years | 11 | 28 | 0 | | | | | |
| | 47 - 60 years | 5 | 27 | 0 | | | | | |
| | Above 60 years | 0 | 11 | 1 | | | | | |
| Gender | Male | 15 | 38 | 1 | 2.506 | 0.286 | 2 | 5.991 | Not Significant |
| | Female | 8 | 38 | 0 | | | | | |
| Religion | Hindu | 13 | 42 | 1 | 3.393 | 0.758 | 6 | 12.592 | Not Significant |
| | Christian | 0 | 3 | 0 | | | | | |
| | Muslims | 2 | 2 | 0 | | | | | |
| | Sikh | 8 | 29 | 0 | | | | | |
| | Others | 0 | 0 | 0 | | | | | |
| Type of family | Joint family | 17 | 35 | 1 | 10.616 | 0.031 | 4 | 9.488 | Significant |
| | Nuclear family | 3 | 37 | 0 | | | | | |
| | Extended family | 3 | 4 | 0 | | | | | |
| Educational status | No formal education but can read and write | 0 | 0 | 0 | 11.121 | 0.195 | 8 | 15.507 | Not Significant |
| | 8th Pass | 1 | 15 | 1 | | | | | |
| | 10th Pass | 6 | 20 | 0 | | | | | |
| | 10+2 Pass | 6 | 25 | 0 | | | | | |
| | Graduate | 9 | 14 | 0 | | | | | |
| Monthly income of family (Rs.) | Post - graduate | 1 | 2 | 0 | 5.614 | 0.690 | 8 | 15.507 | Not Significant |
| | Below Rs.5000 | 4 | 11 | 1 | | | | | |
| | Rs.5001 - 10000 | 4 | 13 | 0 | | | | | |
| | Rs.10001 - 15000 | 3 | 12 | 0 | | | | | |
| | Rs.15001 - 20000 | 5 | 19 | 0 | | | | | |
| Any information regarding organ donation | Above Rs.20000 | 7 | 21 | 0 | 1.852 | 0.396 | 2 | 5.991 | Not Significant |
| | Yes | 22 | 65 | 1 | | | | | |
| Source of information | No | 1 | 11 | 0 | 15.650 | 0.048 | 8 | 15.507 | Significant |
| | Health personnel | 3 | 28 | 1 | | | | | |
| | Relatives | 4 | 8 | 0 | | | | | |
| | Mass media | 3 | 15 | 0 | | | | | |
| | School/College | 12 | 14 | 0 | | | | | |
| | Others | 0 | 0 | 0 | | | | | |

Table 17 depicts that demographic variables like age (p=0.019), type of family (p=0.031) and source of information (p=0.048) regarding organ donation were significant at level of 0.05%. Demographic variables like gender (p=0.286), religion (p=0.758), educational status (p=0.195), monthly income of family (p=0.690) and any information regarding organ donation (p=0.396) were non - significant at level of 0.05%.

Table 16: Association between Post - test Attitude score of study participants, N=100
“Association of Posttest Attitude scores of Selected Socio - Demographic Variables.”

| Variables | Options | Positive Attitude | Neutral Attitude | Negative Attitude | Chi Test | P Value | Df | Table Value | Result |
|----------------|----------------|-------------------|------------------|-------------------|----------|---------|----|-------------|-----------------|
| Age in years | 18 - 32 years | 9 | 8 | 0 | 1.914 | 0.590 | 3 | 7.815 | Not Significant |
| | 33 - 46 years | 25 | 14 | 0 | | | | | |
| | 47 - 60 years | 18 | 14 | 0 | | | | | |
| | Above 60 years | 9 | 3 | 0 | | | | | |
| Gender | Male | 37 | 17 | 0 | 2.789 | 0.095 | 1 | 3.841 | Not Significant |
| | Female | 24 | 22 | 0 | | | | | |
| Religion | Hindu | 33 | 23 | 0 | 0.577 | 0.902 | 3 | 7.815 | Not Significant |
| | Christian | 2 | 1 | 0 | | | | | |
| | Muslims | 2 | 2 | 0 | | | | | |
| | Sikh | 24 | 13 | 0 | | | | | |
| | Others | 0 | 0 | 0 | | | | | |
| Type of family | Joint family | 31 | 22 | 0 | 0.498 | 0.780 | 2 | 5.991 | Not Significant |
| | Nuclear family | 25 | 15 | 0 | | | | | |

| | | | | | | | | | |
|--|--|----|----|---|-------|-------|---|-------|-----------------|
| | Extended family | 5 | 2 | 0 | | | | | |
| Educational status | No formal education but can read and write | 0 | 0 | 0 | 7.796 | 0.099 | 4 | 9.488 | Not Significant |
| | 8th Pass | 9 | 8 | 0 | | | | | |
| | 10th Pass | 11 | 15 | 0 | | | | | |
| | 10+2 Pass | 21 | 10 | 0 | | | | | |
| | Graduate | 18 | 5 | 0 | | | | | |
| | Post - graduate | 2 | 1 | 0 | | | | | |
| Monthly income of family (Rs) | Below Rs 5000 | 7 | 9 | 0 | 4.053 | 0.399 | 4 | 9.488 | Not Significant |
| | Rs 5001 - 10000 | 11 | 6 | 0 | | | | | |
| | Rs 10001 - 15000 | 10 | 5 | 0 | | | | | |
| | Rs 15001 - 20000 | 13 | 11 | 0 | | | | | |
| | Above Rs 20000 | 20 | 8 | 0 | | | | | |
| Any information regarding organ donation | Yes | 58 | 30 | 0 | 7.429 | 0.006 | 1 | 3.841 | Significant |
| | No | 3 | 9 | 0 | | | | | |
| Source of information | Health personnel | 21 | 11 | 0 | 8.455 | 0.076 | 4 | 9.488 | Not Significant |
| | Relatives | 7 | 5 | 0 | | | | | |
| | Mass media | 11 | 7 | 0 | | | | | |
| | School/College | 19 | 7 | 0 | | | | | |
| | Others | 0 | 0 | 0 | | | | | |

Table 18 depicts that demographic variables like age ($p=0.590$), gender ($p=0.095$), religion (0.902), type of family ($p=0.780$), educational status ($p=0.099$), monthly income of family ($p=0.399$) and source of information regarding organ donation ($p=0.076$) were non - significant at level of 0.05%. Demographic variable like any information regarding organ donation ($p=0.006$) was significant at level of 0.05%.

6. Discussion

This chapter discusses the discussion of the study based on the research's aims and hypotheses, with the proper statistical analysis and the study's results. The study's findings are examined in relation to the results acquired by the researcher. This research was done to “assess the effectiveness of a structured education programme on the knowledge and attitudes of individuals living in a rural region of District Mohali, Punjab, about organ donation.” This research comprised a total of 100 people from a designated rural location who met the inclusion criteria.

Objectives

- 1) “To assess the pre - test knowledge and attitude regarding organ donation among adults.
- 2) To develop and administer structured teaching programme regarding organ donation.
- 3) To assess the post - test knowledge and attitude regarding organ donation among adults.
- 4) To evaluate the effectiveness of structured teaching programme regarding organ donation among adults.
- 5) To find out the relationship between knowledge and attitude regarding organ donation.
- 6) To find out the association between post - test knowledge score regarding organ donation with selected socio - demographic variables.”

Objective 1: “To assess the pre - test knowledge and attitude regarding organ donation among adults.”

The mean score of knowledge was 6.10 ± 2.008 , and the mean percentage was 46.90. A pre - test level of Attitude score; 95% had neutral attitude, 3% had positive attitude, and 2% had negative attitude. Mean attitude pre - test score was 31.09, standard deviation was 5.297, median score was 30, highest score was 46, and lowest score was 17.

Similarly, **Jalala Azmandian, (2013)** Education increased understanding of lung, pancreas, and bone marrow from 7.3% to 95%, respectively, in the pre - school years; this increased to 91% to 91.77% to 81% in the post - school years. During the first two weeks after training, the average attitude of nurses regarding organ donation climbed to 76.9 (8.7), up from 67.5 (13.7) previously.³⁹

Objective 3: “To assess the post - test knowledge and attitude regarding organ donation among adults.”

Post - test knowledge score was 76 (76%) moderate knowledge, 23 (23%) adequate information, and 1 (1%) inadequate knowledge about organ donation. Post - test attitude score was 61 (61%) positive attitude, 39 (39%) neutral attitude, and none had negative attitude about organ donation. Participants' knowledge and attitudes towards organ

donation improved. Similarly, **Chaudhary Shivani, Bodh Suman, Kumari Anita, et al (2020)** Studied nursing students' knowledge and attitudes towards organ donation in northern India. This research was pre - experimental. Purposive sampling was utilized on 60 samples. Pre - test knowledge 10.6 ± 2.9 . Pre - test attitude 10.2 ± 6.56 . Post - test knowledge 26.5 ± 4.56 Post - test attitude 23 ± 4.02 After the instructional programme, nursing students' knowledge and attitude improved. This research suggests that organized education increases knowledge and attitude.²⁴

Objective 4: “To evaluate the effectiveness of structured teaching programme regarding organ donation among adults”.

Post - test mean knowledge score was 8.36 ± 1.755 . Post - test knowledge scores were 2.260 points higher. Significantly, $t=12.956$. Post - test attitude mean was 41.75 ± 5.725 . Pre - to - post Attitude score difference: 10.660. $t=23.726$ was significant. Accepting the alternate theory. Organ donation knowledge and attitude increased with systematic instruction. Similarly, **Deshmukh, Jaya. (2017)** they used a pretest - posttest method to examine the efficiency of a planned organ donation education programme. Before intervention, 13% of study samples had high knowledge, 83% had average knowledge, and 4% had bad knowledge about organ donation. After intervention, 57% had good knowledge, 43% had average knowledge, and none had poor knowledge about organ donation. 13 percent of participants had excellent understanding in the pretest, and 57 percent did afterwards. The research found that the proposed education programme increases adult understanding about organ donation.³¹

Objective 5: “To find out the relationship between knowledge and attitude regarding organ donation.”

It showed that mean & standard deviation value for Knowledge score was 8.36 ± 1.755 and Attitude score was 41.75 ± 5.725 . The value of r was 0.387, which showed a positive correlation which was statistically significant. Similarly, **Heyke M. Chacko, (2014)** Analyzed teens' knowledge and attitude about eye donation to find their correlation. Teens' mean knowledge and attitude scores were 57% and 70.5, respectively.⁴⁰

Objective 6: “To find out the association between post - test knowledge and attitude score regarding organ donation with selected socio - demographic variables”.

Here demographic variables like age ($p=0.019$), type of family ($p=0.031$) and source of information ($p=0.048$) regarding organ donation were significant at level of 0.05%. Demographic variables like gender ($p=0.286$), religion ($p=0.758$), educational status ($p=0.195$), monthly income of family ($p=0.690$) and any information regarding organ donation ($p=0.396$) were non - significant at level of 0.05%.

Association between post - test attitude score with socio demographic variables of study participants. Chi square test was applied to find statistically significant association. Here demographic variables like age ($p=0.590$), gender ($p=0.095$), religion (0.902), type of family ($p=0.780$), educational status ($p=0.099$), monthly income of family ($p=0.399$) and source of

information regarding organ donation ($p=0.076$) were non - significant at level of 0.05%. Demographic variable like any information regarding organ donation ($p=0.006$) was significant at level of 0.05%. Similarly, **Jonathan Ling, (2013)** cross - sectional research performed in the United Kingdom. The majority of respondents were in favor of donating the organs of family members, with females being more inclined than males to consent to do so.⁴¹

7. Summary, Findings and Conclusion

This chapter deals with the summary, conclusion of the study, and implications for nursing and nursing research, as well as study limitations and recommendations for further research.

7.1 Summary

The present study was conducted to “assess the effectiveness of structured teaching programme on knowledge and attitude regarding organ donation among adults residing in selected rural area of District Mohali Punjab”. The objectives of the study were:

A “pre - experimental research design was used in the study. The final tool for data collection had three divisions: Section A - Socio - demographic variables of study participants, Section B - Self structured knowledge questionnaire and Section C - Likert attitude scale”. “Based on King’s Goal Attainment theory, the investigator has created a conceptual framework for this research study. In this human system are in constant contact, interaction with their environment to attain goal. The reaction, interaction and transaction leads to attainment of goals. The permission for the study was obtained from the Principal Rattan Professional Education College, Mohali. The ethical approval was obtained from the research and ethical committee of Rattan Professional Education College, Sohana, Mohali Punjab”.

7.2 Major Findings

This study was undertaken to assess the effectiveness of structured teaching programme on knowledge and attitude regarding organ donation among adults residing in selected rural area of Mohali Punjab ($n=100$).

- Pre - test knowledge score mean was 6.1 ± 2.008 ; post - test score mean was 8.36 ± 1.755 . Pre - test and post - test knowledge scores differed by 2.260. Statistically, $t=12.956$ was significant. Pre - test attitude mean was 31.09 ± 5.297 ; post - test attitude mean was 41.75 ± 5.725 . The Pre - test - to - Post - test Attitude score difference was 10.660. Statistically, $t=23.726$ was significant. Thus, alternative hypothesis is accepted. Structured teaching programmes increase research participants' knowledge and attitudes.
- Relationship between Post - test Knowledge and Attitude; the value of r was 0.387, which showed a positive correlation which was statistically significant.
- Here demographic variables like age ($p=0.019$), type of family ($p=0.031$) and source of information ($p=0.048$) regarding organ donation were significant at level of 0.05%. Demographic variables like gender ($p=0.286$), religion ($p=0.758$), educational status ($p=0.195$), monthly income of family ($p=0.690$) and any information

regarding organ donation ($p=0.396$) were non - significant at level of 0.05%.

- Here demographic variables like age ($p=0.590$), gender ($p=0.095$), religion (0.902), type of family ($p=0.780$), educational status ($p=0.099$), monthly income of family ($p=0.399$) and source of information regarding organ donation ($p=0.076$) were non - significant at level of 0.05%. Demographic variable like any information regarding organ donation ($p=0.006$) was significant at level of 0.05%.

7.3 Conclusion

People who are still living can save one life by donating their organs, whereas patients who have passed away and have no brain activity may save the lives of three to eight other people. It was the primary goal of the research to examine the impact of a structured education programme on persons' knowledge and attitudes towards organ donation in a designated rural region of the country. The results of the statistical analysis showed a substantial difference in knowledge and attitude between the pre - and post - test groups

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