



“A STUDY TO ASSESS THE KNOWLEDGE AND ATTITUDE TOWARDS ORGAN DONATION AMONG FIRST YEAR STUDENTS OF SELECTED PARAMEDICAL COLLEGES IN RAICHUR”

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ABSTRACT

Background: Organ donation is an act that could save a life of person and extend his life span when he is treated with timely transplantation. Despite, there is a wide gap in the desired and available organs for transplantation. To find the causes that created gaps between the donation and transplantation, this study was an effort to unfold the barriers and factors contributing the process of organ donation among paramedical students.

Objectives 1.To assess the knowledge and attitude level of paramedical students towards organ donation. 2. To find the correlation between knowledge score and attitude score of paramedical students towards organ donation. 3.To determine the association between knowledge and attitudes of paramedical students towards organ donation with selected demographic variables.

Methodology: A descriptive cross-sectional study was carried out in the paramedical colleges, Raichur after an ethical clearance from the committee and written consent from all the study participants. Sample size (n=100) students were selected by simple random technique for this study. A semi structured questionnaire with likert scale was the tool for data collection. Frequency, percentage, Chi square, Karl Pearson tests were used for the analysis of data to find association and correlation among variables.

Results: Twenty three percent of students were having excellent knowledge about organ donation. Students with good and average knowledge were 46% and 24%. Attitude score was excellent in 49% and good in 51%. The correlation between knowledge score and attitude score was moderately positive highly significant statistically. (p=0.000).

Conclusion: Knowledge towards organ donation was adequate, though there were students who were not aware of the concept of organ donation. The overall attitudes towards donation were good but willing to be a donor found to be low among students. The programs that increase the awareness and education regarding the importance of organ donation were felt need by the study participants.

Key words: Organ donation, Knowledge, Attitude, Paramedical student.

INTRODUCTION

Organ donation is defined as the process in which a living or deceased individual voluntarily donates an organ or tissue for transplantation into another person who requires it for survival or improved quality of life (1). The facts that patient those are waiting eagerly for organ transplantation which is possible during these days are falling short of available organs. Even though medical field has shown tremendous achievements in organ transplantation, procurement of donated organ poses great problem. Inadequacy of ‘donor’ is a worldwide issue and many patients with organ failure on list for organ transplantation depart from their life during this waiting period^[1, 2].

Every year 5 lakhs patients expire while waiting for an organ. One of the major reasons for organ scarcity is due to public attribute such as myth, religious beliefs, spiritual beliefs, influence of faith leaders, and misunderstanding of the concept “organ and cadaver donation”. Previous study have focused that knowledge and attitude play a key role in organ donation^[3, 4].

“Organ Donation Attitude Survey” (ODAS) emphasized the influence of four variables, namely; Education on organ and body donation, Experience of a person who had donated his kin’s organ and body after death, Awareness of a person who received a needed body organ and spiritual beliefs^[5, 6].

The statistics published by NOTTO (2022) shows the vast gap between the requirement and availability of organs for transplantation. The 200,000 corneal donations are needed annually, however only 50,000 are donated in India every year. People 3 out of 4 are awaiting corneal donation remain visually impaired. The statistics about other organs requirement and donation disparity is as follows.

Requirements		Availability
Kidneys	200,000	1684
Hearts	50,000	339
Livers	50,000	708

Though number of donors has increased from 0.0009%, still India is lagging behind globally in the process of organ donation and transplantation.

Thus the need to promote organ donation and create awareness among people is important. The Government of India has initiated an awareness program on organ donation to facilitate organ donation and to strengthen the health care system in 2024. This year ministry of Health and family welfare in collaboration with NOTTO has a “Angadan Jan Jagrukta Abhiyan” (Mass Awareness Campaign) to promote organ donation and dispel myths and misconceptions associated with organ donation. It also aims to encourage citizens of India to donate organs and tissues after death^[5]

OBJECTIVES OF THE STUDY:

The objectives of study are:

- 1) To assess the knowledge and attitude level of paramedical students towards organ donation.
- 2) To find correlation between knowledge and attitude of paramedical students towards organ donation.
- 3) To determine the association between knowledge and attitude of paramedical students towards organ donation with selected demographic variables.

Material and methods:

Study design: A crosssectional study was done for a period of 1 year.

Study population:

The 1st year paramedical students of Navodaya Paramedical College and Nandini Institute of Paramedical Sciences are the target population of current study.

SAMPLING TECHNIQUE

Simple random sampling technique was adopted to select the subjects.

SAMPLE SIZE

A total number of 100 first year paramedical students were selected as samples for the research

SAMPLING CRITERIA

Inclusion criteria

Students admitted to premedical courses in selected paramedical colleges at Raichur, who were

- First year students who were studying in selected paramedical colleges in Raichur.
- Students who were willing to become part of study.
- Both boys and girls who were studying in first year paramedical courses.

Exclusion criteria

- Students who were unavailable during data collection.
- Those who were not willing to take part in the study and those who were not well.

DATA COLLECTION TOOL

A semi structured questionnaire was used to collect desired data from respondents. Semi structured questionnaire was included with domains with items representing the participant's identification details (age, gender, religion, educational qualifications, types of family, socio economic status and source of information.), Knowledge (student's knowledge towards the basic terminologies such as donor and recipient living donation and cadaveric donation., parts of organs which can be used for transplantation etc) and Attitude (15 items which were constructed to assess the attitude of paramedical students towards organ donation, Support to organ donation, family agreement for organ donation. agreement to donate organ etc. The Likert Scale with 5 points was used to know the agreement or disagreement for the asked items) on organ donation. The reliability of the tool is obtained by administering the constructed tool on 10 paramedical students. (Paramedical college students who were not included in research study,). Reliability was obtained by Cronbach's Alpha test (0.790). After the result it was considered reliable, valid and feasible for conduction of research study. The time took hold by the students in completion of questionnaire was 45-50 minutes. After the completion of response to questionnaire brief explanation (15 minutes) lecture was given in order to create awareness on organ donation (explained about objectives, purpose, contents, need for awareness etc).

Data analysis:

- Data was entered in excel sheet.
- Calculating frequency distribution and percentage to show distribution of samples on the basis of knowledge and attitude of first year paramedical students towards organ donation.
- Chisquare test to determine the association of knowledge and attitude of first year paramedical students towards organ donation with socio demographic variables.
- To determine the correlation between knowledge and attitude by using Karl Pearson method of correlation.

RESULTS

TABLE -01 Knowledge level of first year paramedical students towards organ donation.

KNOWLEDGE LEVEL	FREQUENCY	PERCENTAGE
AVERAGE	24	24%
EXCELLENT	23	23%
GOOD	46	46%
POOR	7	7%
TOTAL	100	100%

The research carried out on first year paramedical students to assess the knowledge and attitude towards organ donation shown that 23% of students were having excellent knowledge and students with good knowledge were 46% and 24% students with an average knowledge towards organ donation. It was an unexpected result to know 7% of the students were having poor knowledge being in health care profession (table 1).

TABLE: 02 Attitude levels of students towards organ donation

ATTITUDE LEVEL	FREQUENCY	PERCENTAGE
EXCELLENT	49	49.0
GOOD	51	51.0
TOTAL	100	100.0

The attitude score towards organ donation among students of first year paramedical were satisfactory. Excellent score of 49% and good score of 51% were noted during study (table 2).

TABLE: 03 Table showing an association between demographic variable and knowledge level

		KNOWLEDGE LEVEL								TOTAL		Chi-square	P Value
		AVERAGE (n=24)		EXCELLENT (n=23)		GOOD (n=46)		POOR (n=7)					
		No.	%	No.	%	No.	%	No.	%	No.	%		
AGE	16YRS	0	0	1	4	5	11	0	0	6	6	9.517	0.147
	17YRS	18	75	11	48	29	63	3	43	61	61		
	ABOVE 18	6	25	11	48	12	26	4	57	33	33		
GENDER	FEMALE	14	58	14	61	28	61	2	29	58	58	2.723	0.436
	MALE	10	42	9	39	18	39	5	71	42	42		
RELIGION	CHRISTIAN	1	4	1	4	2	4	2	29	6	6	10.81	0.289
	HINDU	17	71	14	61	31	67	5	71	67	67		
	MUSLIM	6	25	7	30	10	22	0	0	23	23		
	OTHERS	0	0	1	4	3	7	0	0	4	4		
EDUCATIONAL QUALIFICATION	BACHELOR	1	4	3	13	4	9	0	0	8	8	13.206	0.153
	OTHERS	1	4	0	0	0	0	0	0	1	1		
	PUC	7	29	13	57	12	26	2	29	34	34		
	SSLC	15	63	7	30	30	65	5	71	57	57		
SOCIO ECONOMIC STATUS	BPL	5	21	3	13	6	13	1	14	15	15	1.533	0.957
	MIDDLE CLASS	16	67	17	74	31	67	5	71	69	69		
	UPPER CLASS	3	13	3	13	9	20	1	14	16	16		
TYPE OF FAMILY	EXT FAM	1	4	4	17	3	7	1	14	9	9	11.785	0.226
	JOINT FAMILY	11	46	8	35	17	37	6	86	42	42		
	NUCLEAR FAMILY	11	46	11	48	25	54	0	0	47	47		
	SINGLE PARENT	1	4	0	0	1	2	0	0	2	2		
SOURCE OF INFORMATION	OTHER	10	42	6	26	15	33	1	14	32	32	20.753	0.050
	PEER GROUP	0	0	0	0	2	4	1	14	3	3		
	PRINT MEDIA	3	13	7	30	12	26	3	43	25	25		
	SOCIAL MEDIA	11	46	10	43	17	37	2	29	40	40		

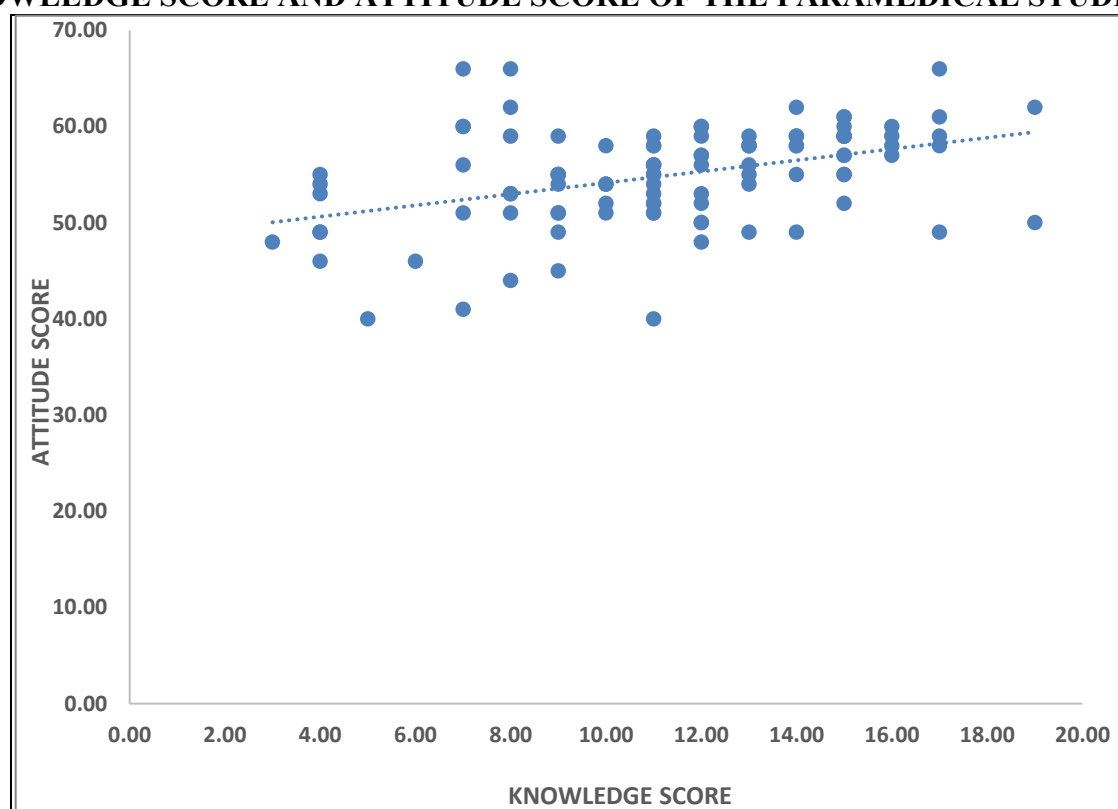
There was an association between knowledge level and source of information in this study. (p=0.050) (table 3).

TABLE; 04 Correlation between knowledge and attitude.

Correlations		KNOWLEDGE SCORE
ATTITUDE SCORE	Pearson Correlation	.410**
	Sig. (2-tailed)	0.000
	N	100
**, Correlation is significant at the 0.01 level (2-tailed).		

It was also found to have a weak positive (0.4) statistically significant correlation between knowledge level and attitude among students ($p=0.001$) towards organ donation (table 4, figure 1).

FIG: 01 THE SCATTERED DIAGRAM DISPLAYING THE CORRELATION BETWEEN KNOWLEDGE SCORE AND ATTITUDE SCORE OF THE PARAMEDICAL STUDENTS.



DISCUSSION

The present study assessed the knowledge and attitude regarding organ donation among first-year paramedical students. The findings revealed that nearly half of the participants demonstrated good knowledge (46%), while 23% exhibited excellent knowledge, and 24% had an average level of knowledge. However, it is noteworthy that 7% of the students showed poor knowledge, which is unexpected considering that paramedical students belong to the healthcare sector. Comparable studies in India have reported similar patterns, where moderate knowledge levels were more common among medical and paramedical students (6,7). The presence of a subgroup with poor knowledge indicates a need for structured educational interventions within the early stages of paramedical training.

The high level of positive attitude noted in this study is encouraging. A total of 49% of students demonstrated an excellent attitude, while 51% showed a good attitude toward organ donation. These results align with the findings of Bapat et al., who observed that although awareness levels vary, attitudes toward organ donation among youth and healthcare students tend to be largely positive (8). In study by Hamed H there was a significant association between student knowledge and positive attitude towards OD ($P = 0.003$) (9). Positive attitudes despite gaps in knowledge could

reflect societal acceptance of organ donation or influence from media and peer support as highlighted in earlier research (10,11).

Analysis of association between demographic variables and knowledge scores showed no significant association with age, gender, religion, socioeconomic status, or type of family, which is consistent with findings from previous studies indicating that demographic factors often do not strongly influence knowledge regarding organ donation (12). However, a significant association was found between source of information and knowledge level ($p = 0.050$). This underscores the impact of exposure to information sources such as print and social media. Other studies have similarly reported media as the most influential factor shaping awareness about organ donation among young adults (13,14).

The study also identified a weak but statistically significant positive correlation between knowledge and attitude ($r = 0.410$, $p < 0.001$). This implies that students with better knowledge tend to have a more favourable attitude toward organ donation. Several earlier studies corroborate this relationship, suggesting that improved knowledge can positively influence willingness to donate organs and reduce misconceptions or fears (15,16).

Overall, the study highlights that while attitudes toward organ donation among first-year paramedical students are overwhelmingly positive, gaps remain in knowledge—particularly among a minority of students. Given the crucial role that healthcare workers play in promoting organ donation, enhancing the curriculum with focused educational strategies, seminars, and awareness programs could significantly improve knowledge levels. Strengthening knowledge at an early stage of healthcare training is essential to improve public awareness and increase organ donation rates in the long term.

CONCLUSION

The study revealed, being in health care profession was not sufficient to have adequate knowledge towards organ donation. The exposure to clinical area and information sources also proved to play a vital role in gaining knowledge and having positive attitude towards organ donation. The correlation between knowledge and attitude signifies the need for awareness even among health care providers. Initiating program to promote, encourage and to motivate people for donor to be is strongly felt during research.

RECOMMENDATIONS/ WAY FORWARD

- An analytical study can be conducted on large scale to generalize the results.
- Hosting community-driven events that showcase the success stories of organ recipients and donors.
- Organizing seminars for health care providers, employing interactive simulations and case studies for donor identification and family counseling.

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