



KNOWLEDGE AND ATTITUDE OF COLLEGE STUDENTS REGARDING ORGAN DONATION

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KEYWORDS :

BACKGROUND AND INTRODUCTION:

Organ donation is a topic which carries many opinions. It is a religious, philosophical, psychological, ethical and legal issue. The laws of different countries allow either the potential organ donor to consent or dissent to the donation during his or her lifetime, or allow the potential donor's relatives to consent or dissent. Due to cultural issues and different legislative possibilities, the number of donation per million people varies substantially in different countries. Organ donation need not effect common funerary practices. In most cases, simple, effective steps can be taken to provide a traditional funeral and even a viewing or visitation should be desired. Organ donation is not only for the young. People of all ages may designate themselves to be organ and tissue donors after their death whether from an illness or an accident. Donation of organs can also be made by living donor, the best example being kidney donation [3].

The concept behind organ donation is simple: remove a healthy organ of the body, such as a heart or kidney, from a donor; transplant that organ into a recipient, a patient whose organ is failing. The operation will give the recipient a second chance at leading a healthy life [2].

Organ donation saves thousands of lives worldwide. According to WHO, kidney transplantation are carried out but more than 91 countries. Around 66000 kidney donations, 21000 liver donations and 6000 heart donation were transplanted globally by 2005. Still thousands of patients were waiting for organ transplantation [4].

In India, there is a poor Organ Donation Rate (0.26 per million) compared to some of the better performing countries such as America (26 per million), Spain (35.3 per million), and Croatia (36.5 per million) [6].

In India, there is a requirement of 1 to 2 lakh kidneys but only about 5,000 transplantations are being done annually. Similarly, only 1000 liver transplants are performed against a requirement of 30,000. The main reason which was identified for this was that there were very less number of organ donations from among the deceased [7].

In India, 500,000 people die because of non-availability of organs. 200,000 people die of liver disease. 50,000 people die from heart disease. 150,000 people are waiting for transplant but only 5,000 get one. 1,000,000 lakh people suffer from corneal blindness and are waiting for transplant. Nationally, with a population of 1.2 billion people, the statistics stand at 0.08 persons as organ donors per million population (PMP). This is very small and insignificant number compared to the statistics around the world [8].

Organ and tissue transplantation has become literally a life saving hope for many people.

One organ donor can save 8 lives and change the lives of more than 50 people. There are many terminal diseases like heart failure, terminal lung illness, kidney failure etc that can be

cured by transplantation. Organ donation is legal by law because the Government of India has enacted "The Transplantation of Human Organs Act 1994" Act No.42, which has allowed organ donation and legalized brain death. Lack of awareness along with myths and misconceptions add to the low percentage of organ donation [9].

Assessment of knowledge and attitude on organ donation is essential and important for better understanding of the community people on different aspects of organ donation. It will further help in improving health education initiatives thereby removing the hurdles behind organ donation.

Hence, keeping in mind the above findings, and taking into consideration researcher's personal experiences and interest, the study aims to assess the knowledge and attitude of college students regarding organ donation.

Statement of the problem

Assessment of the knowledge and attitude of college students regarding organ donation with a view to develop an information booklet in selected colleges, West Bengal.

Objectives of the study

1. To determine the knowledge level of college students regarding organ donation.
2. To find out the attitude of college students regarding organ donation.
3. To find out the relationship between knowledge and attitude of college students regarding organ donation.

Methodology

Research approach

To accomplish the objectives of the study, survey research approach was considered to be the most appropriate approach for the study.

Research design

Keeping the objectives of the study in view a two phase descriptive study design was adopted.

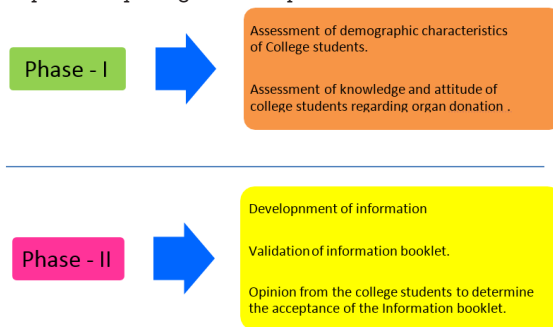


Figure 2: Schematic representation of research design Variables of the study Research variables

- Knowledge of college students regarding organ donation.

- Attitude of college students regarding organ donation.

Demographic Variables

- Age
- Gender
- Educational stream
- Standard of class

Setting of the study

The study was conducted at

- Maulana Azad College, Kolkata
- Chittaranjan College, Kolkata

Population

The population comprises of all college students studying degree programme in selected colleges of West Bengal.

Sample

College students studying degree programme in general course of Arts and Commerce in Maulana Azad College and Chittaranjan College, Kolkata.

Sample Size

160 college students studying degree programme in general course of Arts and Commerce general in selected colleges of West Bengal.

Sampling criteria

Inclusion Criteria

- College students above 18 years of age.
- College students who can read, write and comprehend English.

Exclusion Criteria

- College students from science .

Sampling technique

In this study, non-probability convenient sampling followed by simple random sampling technique was adopted to select the respondents.

- Two colleges were selected, Maulana Azad College, Kolkata and Chittaranjan College, Kolkata by non-probability convenient sampling.
- From each college 40 students from Arts and Commerce general stream respectively were selected making a total of 160 students.
- Students were chosen by simple random sampling (Lottery Method) in the presence of all students in the class.

Ethical considerations

Ethical permission

- Ethical permission was obtained from the ethical committee of IPGMER, SSKM Hospital.
- Written consent was taken from each respondent.

Data collection tools and techniques

Table 1 Data collection tools and techniques

Tool No.	Tools	Variables to be Measured Techniques/Methods
I	Semi Structured Questionnaire	Demographic variables of Paper Pencil college students
II	Structured Questionnaire	Knowledge regarding organ Paper Pencil donation.
III	Attitude scale	Attitude towards organ donation Paper Pencil
IV	Opinionnaire	Opinion regarding information Paper Pencil booklet on organ donation

Description of the tools

Tool I

Demographic proforma

Semi structured questionnaire comprises of 10 items regarding demographic characteristics of college students.

Tool II

Structured knowledge questionnaire

The structured questionnaire had three content areas in the blue print i.e. concept of organ donation, organ donation process and transplantation of human organ act. It comprises of knowledge questionnaire (20 items) regarding organ donation. Each correct answer carries 1 mark and every incorrect answer carries 0 mark. So the total scoring of section II is 20. The grading has been given below

Excellent	= >80%	(> 16)
Very Good	= 69- 80%	(14-16)
Good	= 59- 70%	(12-13)
Fair	= 49- 60%	(10-11)
Poor	= <50%	(<10)

Tool III

Attitude scale

It is a 5 point Likert Scale comprising of 20 items regarding attitude towards organ donation.

The tool was given for validation to 9 experts. All the experts agreed on all the item so no modification of the tool was required. The highest score is four (4) and the lowest score is zero (0). The total attitude score for the 20 items was eighty (80).

The grading of the attitude scale has been given below

Highly Favourable	= > 66
Moderately Favourable	= 66-42
Unfavourable	= < 42

Validity of the tool

After preparing the Tools, the semi-structured demographic proforma, structured knowledge questionnaire and the attitude scale, they were given to nine experts from the field of Medical and Surgical Nursing and Community Health Nursing Department. The experts were requested to give opinion and suggestion regarding the appropriateness, accuracy and relevance of the items.

Reliability of the tool

Reliability of the Tool II and Tool III was done by administering it to 20 college students to check the clarity of the items, time taken to complete, practicability and feasibility of the tool.

The reliability of Tool-II was established by using the Split half method. Correlation coefficient followed by Spearman Brown prophecy formula was calculated and found to be 0.95 indicating reliability of the tool. The reliability of Tool-III was established by using the Cronbach's Alpha. Correlation coefficient was calculated and found to be 0.83 indicating reliability of the tool.

Procedure of data collection

Based on the study design, researcher completed the first phase of study during the pilot study. The semi-structured questionnaire, structured knowledge questionnaire and attitude scale to assess the demographic characteristics, knowledge and attitude respectively were administered to 160 college students after obtaining administrative approval. The study was conducted at Maulana Azad College, Kolkata and Chittaranjan College, Kolkata. The purpose of the study was explained to the college students and their role was discussed to get free and frank responses. Consent was taken from the 160 college students who were willing to participate in the study. Information was collected using paper pencil. The time taken was more or less 25-30 minutes by each student.

Final data collection

The final study was conducted after taking formal permission from the Principals of Maulana Azad College and Chittaranjan College, Kolkata respectively. The information booklet on organ donation was administered to 160 college students to whom structured knowledge questionnaire and attitude scale were administered. Then opinionnaire on acceptability of the information booklet was given to the same 160 college students. The opinionnaires were collected after

three (3) days of administration. The researcher completed the second phase of the study during the final study.

Analysis and Interpretation

Section I Findings related to demographic characteristic of the college students

Table 2 Frequency and percentage distribution of college students according to their age, gender, educational stream and standard of class.

Characteristics	Frequency	Percentage (%)
n=160		
Age in year		
18-20	144	90
21-23	13	8.12
24-16	03	1.88
Gender		
Male	69	43.12
Female	91	56.88
Stream of education		
Arts	80	50
Commerce	80	50
Standard		
First year	80	50
Second Year	80	50

Table 3 depicts the classification of college students by age, gender, educational stream and standard of class. It is evident from the result that 90% of the college students were between the age group of 18-20 years, compared to 8.12% and 1.88% respectively in the age group of 21-23 and 24-26 years respectively.

Majority of the college students (56.88%) were female as compared to (43.12%) male.

The data in the above table also indicated that 50% of the college students were from Arts stream and the other 50% were from Commerce stream. It also showed that first and second year college students were in the same percentage (50%).

Section II Findings related to knowledge level of the college students regarding organ donation.

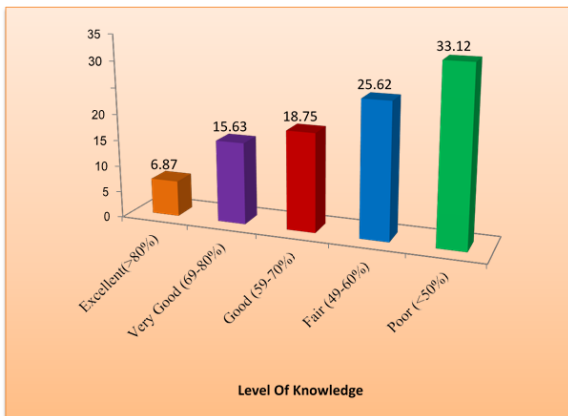


Figure 1. Bar Diagram showing the percentage distribution of college students according to their knowledge level

Figure 3 depicts the percentage distribution of knowledge scores obtained by the college students. The result showed that most of the college students (33.12%) had poor knowledge, 25.62% of the college students had fair knowledge, 18.75% of them had good knowledge, 15.63% of them had very good knowledge and only 6.87% of the college students had excellent knowledge on organ donation.

Table 3. Distribution of range, mean, median and standard deviation of knowledge score obtained by the college students regarding organ donation.

Variable	Range	Mean	Median	Standard Deviation
Knowledge	1-19	11.1	11	04

Maximum possible score = 20
Minimum possible score = 0

Data presented in the table 7 revealed that the knowledge score obtained by the college students ranged from 1-19 out of a total score of 20, mean was 11.1 and median was 11. The standard deviation calculated was 4 which showed that there was much variation of scores from the mean which signified that the knowledge scores were widely dispersed.

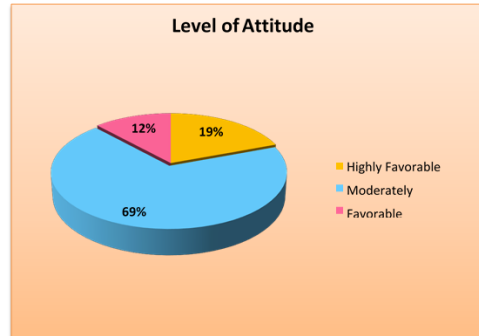


Figure 2. Pie diagram showing the percentage distribution of college students according to their level of attitude.

Figure 2 depicts the percentage distribution of the college students according to their level of attitude regarding organ donation. The data showed that majority of the college students that is 69% had moderately favorable attitude towards organ donation.

Whereas 19% of the college students had highly favorable attitude and 12% of them had unfavorable attitude towards organ donation.

Table 4. Distribution of range, mean, median and standard deviation of attitude score of the college students

Variable	Range	Mean	Median	Standard Deviation
Attitude	23-80	54.19	53.5	12.01

Maximum possible score = 80
Minimum possible score = 0

Data presented in table 4 showed the range, mean, median and standard deviation of attitude score of college students. It revealed that the attitude score obtained by the college students ranged from 23-80, mean was 54.19 and median was 53.5. The standard deviation was calculated and found to be 12.01 which showed that there was a variation of the scores from the mean and signified that the attitude scores were widely dispersed.

Section IV Findings related to the relationship between knowledge and attitude of college students regarding organ donation

Table 5 Correlation co-efficient and their significance between knowledge score of the college students and their attitude towards organ donation.

Variables	r-value	t- value
Knowledge score VS Attitude Score	0.49	7.08*

$t = 3.9$ df(158), $p < 0.001$

Data presented in table 10 showed that 'r' value computed between knowledge and attitude score of the college students regarding organ donation was 0.49, which indicated that there was moderately positive correlation between the two variables.

The calculated 't' value of 7.08 for df (158) at 0.001 level of significance, is greater than the table value. Hence it can be concluded that the college students who had a good knowledge towards organ donation also had favorable attitude towards the same.

Development and validation of information booklet

After assessing the knowledge and attitude of college students regarding organ donation, the researcher developed an information booklet after extensive text and non text literature review. The booklet was given to experts from various field and necessary modifications were done as per the suggestion of the expert. Content validity index was 0.93, where the referring value is 0.75.

DISCUSSION

The findings of the present study revealed that majority of the college students (33.12%) had poor level of knowledge regarding organ donation, 25.62% of the college students had fair knowledge, 18.75% of them had good knowledge, 15.63% of them had very good knowledge and only 6.87% of the college students had excellent level of knowledge.

The findings of this study is consistent to a study conducted by **Kumar V (2015)**. The study showed that out of the 100 participants 57% had low level of knowledge, 43% had moderate level of knowledge and none of them had high level of knowledge[31].

The findings of the present study revealed that majority of the college students (69%) had moderately favorable attitude towards organ donation, 19% of college students had highly favorable attitude and only 12% of them had unfavorable attitude towards organ donation.

The findings of this study is consistent with the study conducted by **Keerthana P, Laiju L, Monteiro M, Thomas N, D'souza R, Shetty A (2016)**. The result of the study revealed that 96% of the participants had favourable attitude and 4% had unfavourable attitude towards organ donation[22].

In this study the 'r' value computed between knowledge and attitude score of the college students regarding organ donation was 0.49, which indicated that there was moderately positive correlation between the two variables.

This result is contradicted in the study conducted by **Jose A (2014)**. The study showed that there was highly positive correlation between knowledge and attitude regarding common misconceptions involved in organ donation. The obtained 'r' value was 0.870[33].

CONCLUSION

On the basis of the data analysed, it can be concluded that the knowledge level of most of the college students was found to be poor but their attitude towards organ donation was moderately favourable.. There was positive relationship between the knowledge and attitude of the college students regarding organ donation. The information booklet was well accepted among the college students.

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