



Organ donation: Knowledge and attitude among adolescents

Keerthana P¹, Luxna V Laiju¹, Marina Monteiro¹, Namitha Thomas¹, Renita Priya D'souza², Asha P Shetty³

¹Students, Final year B.Sc Nursing, Yenepoya Nursing College, Yenepoya
University, Mangaluru, Karnataka, India

²Assistant Professor, Department of Child Health Nursing, Yenepoya University, Mangaluru, Karnataka, India

³Principal, Yenepoya Nursing College, Yenepoya University, Mangaluru, Karnataka, India

Abstract: Transplantation is a successful procedure that prolongs the lives of people suffering from debilitating diseases. The shortage of transplantable organ is a global problem. Efforts aimed at narrowing the gap between demand and supply of organ transplantation has begun to focus on young people such as adolescents who are the potential donors. Teenagers represent the future of the community and their opinion directly affects other family members and friends. Therefore, teenagers who are in favor of donation become promoters of organ donation in their area of influence. A descriptive survey design was used to assess the knowledge and attitude of adolescents regarding organ donation. Study also aimed at finding the associated demographic factors with the knowledge and attitude regarding organ donation. A non-probability purposive sampling technique was used to select the 100 subjects from a private Pre University College at Mangaluru. The data was collected by using the structured knowledge questionnaire and attitude scale. Study result revealed that 2% had poor knowledge, 62% had average knowledge and 32% had good knowledge regarding organ donation and 96% had favorable attitude and 4% had unfavorable towards organ donation. The study result also revealed that there is a positive correlation between knowledge level and attitude scores and there is no significant association between knowledge scores and attitude scores with selected demographic variables. The study concludes that majority of adolescents had good knowledge and favorable attitude towards organ donation and they can be motivated for organ donation registration.

Key words: Adolescents, Attitude, Knowledge, Organ donation, Organ transplant

I. INTRODUCTION

Organ donation is the donation of biological tissue or an organ of the human body from a living or dead person to a living recipient in need of a transplantation. Transplantable organs and tissues are removed in a surgical procedure following a determination, based on the donor's medical and social history, of which are suitable for transplantation.¹ Statistics show that Australia has 11 organ donors per million, Britain has 27, Canada has 14, Spain has 35.1 donors, USA has 26 donors per million whereas India has only 0.08 donors per million population (PMP).² It is estimated that only 42% of eligible donors actually donate their organs for a variety of reasons, but primarily due to lack of consent.³

Teenagers represent the future of the community and their opinion directly affects other family members and friends. Therefore, teenagers who are in favor of donation become promoters of organ donation in their area of influence.⁴ Therefore, a favorable attitude of the teenager in this matter not only means a positive personal attitude towards donation, but it can also be the determining factor for authorizing donation when faced with the death of a family member.⁵

A study conducted in a rural population of south Kerala on knowledge and attitude regarding organ donation and common barriers which prevent people from volunteering for organ donation concluded that only 53% of the participants had a good knowledge regarding organ donation.⁶

A study conducted in Washington on level of knowledge and attitude of adolescents towards organ donation and to find effectiveness of education programme concluded that they had poor knowledge and lower levels of willingness to donate but after education programme there was significant change in knowledge and attitude and authors concluded that even a single classroom exposure can impact knowledge levels, correct misinformation, and effect opinion change on organ donation among an adolescent population.⁷

II. MATERIAL AND METHODS

A non-experimental descriptive design was used for the present study. The purposive sampling technique was used to select 100 adolescents studying at 1st and 2nd year PUC in private Pre University College at Mangaluru.

Adolescents who were not willing to participate were excluded. Ethical clearance certificate was obtained from the University's Ethical committee. All participants enrolled in the study were able to understand and write English. The purpose of the research was described in detail, and participant information sheet was given and made ensure that they have understood it prior to obtaining written informed consent from all participants and confidentiality of the data was ensured.

A pretested validated structured knowledge questionnaire and attitude scale were developed by the investigators was used for this study. The structured knowledge questionnaire consisted of two parts, in which first part was demographic variables such as age, gender, religion, class of study, type of family, educational qualification of father and mother, previous information with source. The second part consisted of 30 multiple choice questions based on organ donation. The attitude scale consisted of 16 statements where the 8 positive and 8 negative statements are organized alternatively. Each correct answer was scored 1 and incorrect answer scored 0. The scoring for attitude scale ranged from 5 to 1 for positive statements and 1 to 5 for negative statements. The grading of knowledge score was done as score between 21 and 30 as good, 0 to 10 as poor knowledge and 11-20 as moderate knowledge. The grading of attitude score was done as 41 and 80 as favorable, 1 to 40 as unfavorable attitude. The tool was given to the subjects experts to establish the content validity. Reliability of the tool was established was 0.9 for structured knowledge questionnaire, 0.75 for attitude scale and the tool was found to be reliable. Permission was obtained from concerned authority prior to the data collection and data was collected from a Pre University College at Mangaluru. The tool was explained in simple language and they were asked to choose the right answer from the options. It took 30-45 minutes for the subjects to complete the questionnaire and attitude scale. A pilot study was conducted previously to find the feasibility of the study and it was found to be feasible. The collected data was analyzed in terms of the objectives of the study.

III. RESULTS

Section 1: Demographic Performa

As shown in table 1 among 100 samples from whom the data was collected, 67% of the respondents were 16 years, 59% were male, 97% were Muslim, 78% belong to PUC first year, 60% belong to nuclear family, 48% of respondent's parents were having high school education and 68% of respondents did not receive previous information on organ donation.

Table 1: Distribution of Samples Based on Demographic Characteristics

N=100

Sl. no.	Demographic characteristics	Category	Frequency	Percentage
1	Age in years	16 17 18	67 26 7	67% 26% 7%
2	Gender	Male Female	59 41	59% 41%
3	Religion	Hindu Muslim Christian	3 97 0	3% 97% 0%
4	Educational Qualification	PUC first year PUC second year	78 22	78% 22%
5	Type of family	Nuclear Joint Extended	60 28 12	60% 28% 12%
6	Education of father	No formal education Primary education High school Education Higher secondary education Graduation and above	7 12 48 13 20	7% 12% 48% 13% 20%
7	Education of mother	No formal education Primary education High school education Higher secondary education Graduation and above	9 22 48 16 5	9% 22% 48% 16% 5%
8	Previous information	Yes No If yes ,source of information Mass media Teachers Parents and siblings Friends Any other	32 68 15 10 4 3 0 0	32% 68% 15% 10% 4% 3% 0% 0%

Section 2: Distribution of samples according to knowledge scores

As figure 1 shows analyzed data reveals that, 36% of samples had good knowledge, 62% had average knowledge and only 2% had poor knowledge regarding organ donation.

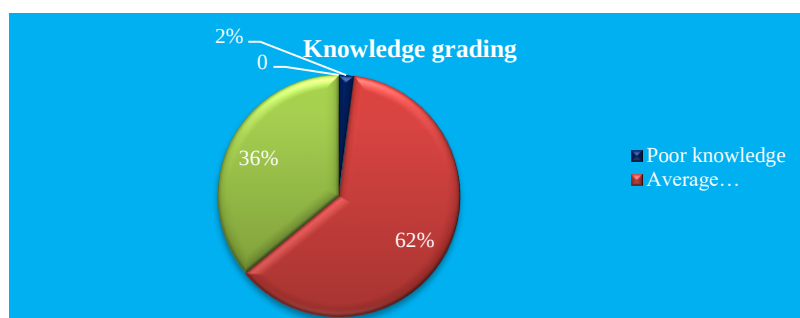


Figure 1: knowledge scoring of adolescents regarding organ donation

Section 3: Distribution of samples according to attitude scores

As figure 2 shows analyzed data reveals that, 96% of samples had favorable attitude and 4% had unfavorable attitude towards organ donation.

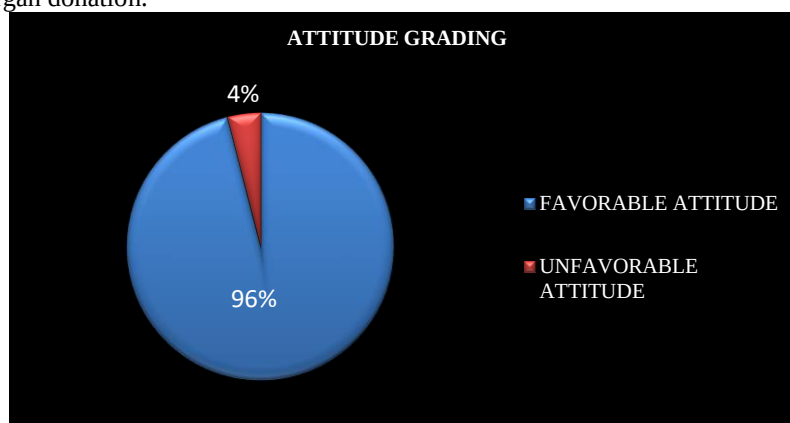


Figure 3: distribution of adolescents according to the grading of their attitude scores

Section 4: Association between knowledge level of adolescents with the selected demographic variables

The data analyzed shows that there was no significant association between knowledge level and selected demographic variables

Section 5: Association between attitude scores of adolescents with selected demographic variables

The data analyzed shows that there was no significant association between attitude scores and selected demographic variables

Section 6: Correlation between knowledge and attitude scores

The data analyzed shows that there is a positive correlation between knowledge level and attitude scores among adolescents regarding organ donation $r_{(100)}=0.267$ value at 0.01 level of significance.

IV. DISCUSSION

The study result shows that 67% are 16 years, 97% belongs to Muslim religion, 78% of them are in first year PUC, 60% of them belongs to nuclear family, 48% of the parents are having high school education and 68% of the adolescents have not received previous information regarding organ donation.

The present study revealed that 62% had moderate knowledge, 36% had good knowledge and 2% had poor knowledge. The study results are supported by a study which was conducted in rural Kerala, where the study was aimed to know the knowledge and attitude regarding organ donation among 18 years population. The study findings revealed that majority (97%) of the participants had heard about organ donation but only 53% had a good knowledge.⁶

The result of the present study revealed that 96% of adolescents had favourable attitude and 4% had unfavourable attitude towards organ donation. The study results are supported by a study which was conducted in rural Kerala, where the study was aimed to know the knowledge and attitude regarding organ donation among 18 years population. The study findings revealed that 48% had poor attitude towards being an organ donor. 50% thought that live organ donation can cause severe health problems. The study showed that organ specific willingness for donation among participants was highest for eye, followed by kidney and live.⁶

The study result revealed that there was no significant association between knowledge scores and attitude scores with selected demographic variables.

The study result are supported by a similar study conducted in Mangaluru with the aim to know the knowledge and attitude regarding organ donation among nursing students revealed that there is no significant association

between knowledge scores and the attitude scores with the demographic variables like age, gender, year of study and religion.⁸

The present study revealed that there is a positive correlation between knowledge scores and attitude level of adolescents regarding organ donation. A similar study results were found in Mangaluru where the study was aimed to know the knowledge and attitude regarding organ donation among nursing students and study findings revealed that there is a positive relationship between level of knowledge and attitude scores of nursing students on organ donation, but it is not significant ($r = 0.042$) at 0.05.⁸

V. CONCLUSION

As the adolescent's knowledge is adequate, and they are having favorable attitude towards organ donation, the health care professionals can motivate them to register for organ donation and be the organ donors.

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CONFLICT OF INTEREST

The authors declare that they have no competing interest.