



SHAPING FUTURE DONORS: EXPLORING AWARENESS AND ATTITUDES ON ORGAN DONATION AMONG COLLEGE STUDENTS

Community Health Nursing

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ABSTRACT

Organ donation is a life-saving intervention that remains underutilized worldwide. Despite advancements in transplantation, a significant gap persists between the demand and supply of organs, resulting in long waiting lists. In India, donor rates are particularly low. College students play a vital role in raising awareness and educating society about organ donation. As adolescents represent the future of society, they bear a significant responsibility to cultivate positive attitudes and promote awareness regarding organ donation. This study aims to assess the knowledge and attitudes of college students regarding organ donation. This descriptive cross-sectional study was conducted among 200 undergraduate college students in New Delhi to assess knowledge and attitudes regarding organ donation. A structured, self-administered questionnaire (including knowledge items and a 5-point Likert attitude scale) was used. Data were analysed using descriptive statistics. Ethical approval and informed consent were obtained. Over half of students had moderate ("average") knowledge levels (53%), with 42% demonstrating good knowledge. On attitudes, 57% of respondents expressed a positive attitude toward organ donation, while 42.97% were neutral and 0.03% had negative attitude. Only 7.5% demonstrated adequate understanding of brain death. A weak positive correlation was observed between knowledge and attitude ($r=0.20$, $p<0.01$). These findings align with prior studies showing students often have positive donation attitudes but gaps in detailed knowledge. Although students exhibited favourable attitudes but incomplete knowledge about organ donation. Enhancing education and training programs on organ donation is recommended to improve awareness and promote donation practices.

KEYWORDS

Organ Donation, College Students, Knowledge, Attitude, Brain Death, Awareness, Transplantation

INTRODUCTION

"Life is a gift, and it offers us the privilege, opportunity, and responsibility to give something back — by becoming an organ donor."
-Tony Robbins

Organ donation is a life-saving intervention for patients with end-stage organ failure, helping reduce morbidity and mortality. Despite advances in transplantation, a major gap remains between organ demand and availability, leaving many patients on waiting lists due to donor shortages.

In India, organ donation is regulated under the Transplantation of Human Organs Act. Globally, the World Health Organization reported that in 2022, 91 countries conducted living donor transplants and 71 conducted deceased donor transplants, yet demand continues to exceed supply. In India, the National Organ and Tissue Transplant Organization reported over 1,000 deceased organ donors in 2023. Regionally, Delhi recorded a rise in living donations from 1,197 in 2020 to 4,348 in 2024.

Despite these advancements, the persistent shortage of donor organs remains a critical challenge. Lack of awareness, misconceptions and inadequate knowledge among the general population are major contributing factors to low organ donation rates in India.

Need and Scope of the Study

Despite its life-saving potential, organ donation rates remain low due to lack of awareness, misconceptions, and cultural beliefs.

College students, as future influencers, play a key role in spreading awareness, making their assessment important in bridging the demand-supply gap. This study supports the need for targeted educational programs and supportive policies to promote voluntary organ donation.

Objectives

- To assess the knowledge regarding organ donation among college students.
- To assess the attitude regarding organ donation among college students.
- To find the association between knowledge regarding organ donation among college students with selected sociodemographic variables.

MATERIALS AND METHODS

The study adopted a quantitative, non-experimental research design and was conducted in a selected college in New Delhi. The study population included students from various academic streams and years who met the inclusion criteria and were available during the data collection period.

A total of 200 students were selected using a sample size calculated through Yamane's formula. Stratified random sampling was employed to ensure proper representation across different academic streams. Participants were included based on their willingness and availability, while those with prior formal education on organ donation or relevant family exposure were excluded to minimize bias.

Prior written permission was obtained from the Principal of the selected college, and approval was secured from the Institutional Ethics Committee, as the study involved minimal risk. Informed written consent was obtained from all participants, ensuring confidentiality and anonymity of their responses.

A self-structured questionnaire was developed for the study and was validated and tested for reliability by experts in Community Health Nursing and organ transplantation, ensuring its accuracy and appropriateness. The tool demonstrated adequate face, content and construct validity for assessing knowledge and attitudes toward organ donation.

It consists of three sections focussing on knowledge and attitude. Section A included a demographic proforma with seven items such as age, gender, stream of study, family income, prior awareness of organ donation and source of information. Section B comprised 15 questions assessing knowledge related to general information, awareness, and registration procedures for organ donation, while Section C focused on assessing attitudes.

All items were multiple-choice with a single correct response. Section A was non-scoring, whereas in Section B, each correct answer was awarded one mark and scores were categorized into low, moderate and high levels of knowledge. Section C used a 5-point Likert scale to assess attitudes, which were classified as negative, neutral or positive.

The tool was distributed to participants in a standardized manner, ensuring uniformity and consistency in responses. All participants

were provided with the same set of questions with identical wording, ensuring reliability and comparability of the collected data.

The collected data were organized, entered into an Excel spreadsheet, and validated with expert consultation. Analysis was conducted using descriptive and inferential statistics based on the study objectives.

Frequency and percentage described sociodemographic variables, while mean and standard deviation summarized knowledge scores. The chi-square test was used to assess associations and statistical significance.

RESULTS

Demographic Variables of Adolescents

Table 1: Frequency and Percentage Distribution of Demographic Variables. n=200

S. No	Demographic Variables	Frequency (f)	Percentage (%)
1	Age in years		
	18-20 years	194	97
	20-22 years	5	2.5
	22-24 years	1	0.5
2	Gender		
	Male Female	62 138	31 69
3	Stream of study		
	Arts	102	51
	Commerce	32	16
	Science	66	33
4	Monthly income of family		
	Rs 1,35,169/month and above	44	22
	Rs 67587- 135168/ month	50	25
	Rs 50560- 67586/ month	31	15.5
	Rs 33793-50559/ month	26	13
	Rs 20274- 33792/ month	20	10
	Rs 6768- 20273/ month Rs 6767 /month and below	12 17	6 8.5
5	Type of family		
	Nuclear	140	70
	Joint	55	27.5
	Extended	5	2.5
6	Do you know about organ donation		
	Yes No	200 0	100 0
7	Source of information		
	Friends, Family members	31	15.5
	Mass media	50	25
	Print media	7	3.5
	All the above	112	56

Table 1 represents data from 200 participants, most were aged 18–20 years (97%), female (69%) and from the arts stream (51%). The majority belonged to nuclear families (70%) and had a family income of 67,587–1,35,168 (25%). All were aware of organ donation, with multiple sources being the main source of information (56%).

Level of Knowledge and Attitude

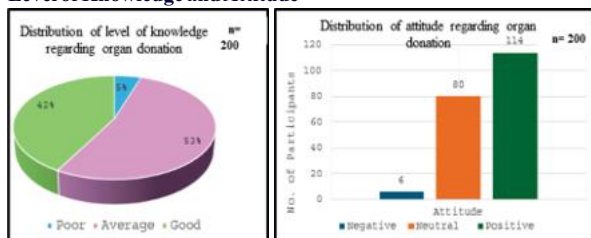


Fig 1: Distribution of Level of Knowledge and Attitude Regarding Organ Donation Among College Students

The findings revealed that the majority of students (53%) demonstrated average knowledge, while 42% had good knowledge and 5% had poor knowledge, with a mean knowledge score of 9.88 ± 2.33 (median = 10), indicating a moderate level of knowledge. In terms of attitude, 57% of students exhibited a positive attitude and 42.97% showed a neutral attitude, with 0.03% demonstrated a negative attitude. The mean attitude score was 73.69 ± 8.48 (median = 72), reflecting an overall favourable attitude among the participants.

Association of Knowledge Regarding Organ Donation Among College Students With Selected Socio Demographic Variables.

Table 2: Association Between Knowledge Regarding Organ Donation Among College Students With Selected Socio Demographic Variables. n=200

Demographic Variables	Knowledge			Chi-square (χ^2)	p- value
	Poor	Average	Good		
Gender				11.78	0.003
Male	0	43	19		
Female	10	63	65		
Type of Family				14.66	0.005
Nuclear	6	78	56		
Joint	2	26	27		
Extended	2	2	1		

(df= 2, 4)

The association between knowledge regarding organ donation and selected sociodemographic variables was analysed using the chi-square test. The findings revealed that gender ($\chi^2 = 11.78$, df = 2, p = 0.003) and type of family ($\chi^2 = 14.66$, df = 4, p = 0.005) showed a statistically significant association with knowledge at $p < 0.05$.

However, other variables such as age, stream of study, monthly family income and source of information were not significantly associated with knowledge levels among the participants.

DISCUSSION

The findings of the present study are consistent with several previous studies assessing knowledge and attitude regarding organ donation. A descriptive study conducted among college students in West Bengal reported that 52.78% had fair knowledge and 72.78% had a favourable attitude. Similarly, in the present study, the majority of students demonstrated average (53%) and good (42%) knowledge, along with a predominantly positive attitude (57%), though a considerable proportion showed neutral attitudes (43%).

A cross-sectional study among MBBS students in Kerala found that 73% had above-average knowledge but a relatively lower proportion exhibited positive attitudes. Another study conducted among medical interns and residents in Gujarat revealed inadequate knowledge among most participants, despite a high percentage demonstrating positive attitudes (88.8%). In contrast, the present study showed comparatively better knowledge distribution, though the proportion of positive attitude was moderate.

A study among nursing students in Kashmir reported predominantly average and poor knowledge levels, along with a higher proportion of negative attitudes. However, in the present study, students demonstrated better knowledge levels and a more favourable attitude, with no negative attitude observed.

Overall, while variations exist across studies, the findings suggest that although knowledge levels may differ, attitudes toward organ donation are generally positive. This highlights the need for enhanced educational interventions to further improve knowledge and strengthen positive attitudes among students.

Strengths: Stratified Random Sampling; Use of validated tools; In-depth descriptive exploration

Limitations: Single- institution study; Small sample size limiting generalisability

Implications for Practice and Recommendations

Nurses play a vital role in promoting organ donation through patient education and community awareness. They help clarify misconceptions, provide accurate information, and encourage individuals and families to consider organ donation. Strengthening nursing students' knowledge can further enhance public awareness and acceptance.

It is recommended that similar studies be conducted on larger and more diverse populations to improve generalizability. Educational interventions such as awareness campaigns, workshops, and training programs for healthcare professionals are essential to improve knowledge and promote active participation in organ donation advocacy.

CONCLUSION

The present study concludes that college students demonstrated a

moderate level of knowledge and a generally positive attitude toward organ donation. Although a considerable proportion of students had good knowledge, gaps still exist, indicating the need for further educational interventions.

The positive attitude observed among the majority of participants suggests a favourable outlook toward organ donation; however, the presence of neutral attitudes highlights the need for strengthening awareness and motivation.

Therefore, enhancing knowledge through structured educational programs and awareness initiatives can further improve attitudes and contribute to increasing organ donation practices in the community.

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