



Organ Transplantation and Donation from the Point of View of Non-Medical Students at Belagavi - A Comparative Study between Selected Urban and Rural Area.

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ABSTRACT

Using descriptive and comparative research approach a study was done on 160 selected non-medical students. To assess "Organ transplantation and donation from the point of view of non-medical students at Belagavi - A comparative study between selected urban and rural area." The samples were selected by using simple random sampling technique. Data collection was done by using self-structured knowledge questionnaire and opinion scale regarding organ transplantation and organ donation. Collected data was tabulated and analysed in view of objectives of the study using descriptive and inferential statistics. The study revealed that majority of respondents (87.5%) transplantation, (95.6%) donation have a positive opinion, while a smaller percentage (12.5%) transplantation, (4.4%) donation holds a negative opinion. This indicates a predominantly favourable perception of organ transplantation and organ donation among the rural as well as urban respondents, with a small minority expressing negative views.

Key words: Organ transplantation, Organ donation.

INTRODUCTION

Organ transplantation is a medical procedure in which another person's organ is removed and implanted into a recipient organ. It is therapeutic approach. The procedure is carried out to replace an organ that is lost or has been destroyed. The thymus, pancreas, brain, gut, liver, lungs, kidney, and heart are some of the recipient organs. Tissues like bones and tendons, the cornea, skin, heart valve, nerves, and veins. The kidneys, liver, and heart are all frequently replaced organs and are ranked first, second, and third, respectively. Musculoskeletal grafts and corneas are often replaced by tissue transplants.¹ In the eighteenth century, the first organ transplant was performed. Researchers began successfully transplanting organs in the mid-1900s, despite the relatively high failure rate of the initial stage of the transplantation process. These days, restorative treatments are used to treat organs like the kidneys, eyes, livers, pancreas, hearts, lungs, heart-lungs, and intestines.² When a person permits the organ of their to be taken away ethically, either by permission while the donor was living or after death is defined as organ donation. Around 6000 patients pass away each year while awaiting an organ donation. Getting a position on a waiting list implies that the likelihood of not receiving a transplant remains between 10 and 30 percent. This is due to the scarcity of transplantation organs worldwide. One of the major issues contributing to the scarcity of organs is because of public attributes such as myths, religious misconceptions, and misunderstanding.³ Most contributions are made only after the donor's death. Organ and tissue transplantation saves the lives of those whose organs or tissues fail, but most organ donations only take place after the donor's death. One element that influences the donation of organs is the availability of information on organ transplantation and donation.⁴

Despite a high rate of failure in the early stages, the overall success rate of transplant surgery has improved, and organ transplant surgery is the best treatment for patients with end-stage organ disorders and organ dysfunction. Organ transplant surgery can save thousands of lives and boosts the recipient's quality of life while also increasing long-term survival rates.⁵ In the context of India, the demand for organ donations far exceeds the available supply. Presently, there are over 3,00,000 patients awaiting organ donations. (Perappadan, 2023) Although India performs the second largest number of transplants globally, it lags behind several European and American countries in the donation rate. (A, 2021) According to the Global Observatory on Donation and Transplantation, India's rate of organ donation has risen from 0.05 per million people to 0.8 per million people in a duration of few years. However, India's organ donation rates contrast sharply with Croatia's 36.5 donors, Spain's 35.3, donors and the United States 26 donors per ten lakh populations, respectively. (Pace Hospital, 2023) Consequently, the shortfall in organ transplants leads to around 20 deaths daily due to the scarcity of available organs. (Drishti IAS, 2023) For the past ten years, the rate of deceased organ donation in India has consistently remained below one donor per million

individuals. Although there has been a modest increase in donors from 6916 in 2014 to 16041 in 2022, 85% of these donations come from living donors. Despite an annual demand for 200,000 kidney transplants, only 10,000 transplants are performed yearly, further exacerbating the shortage⁶

MATERIAL AND METHODS

Research Approach

In this study descriptive and comparative approach was used.

Research Design:

Comparative and explorative research design was used in the study.

Variables

Independent variable: students of selected non-medical colleges

Dependent variables: opinion regarding organ transplantation and donation

Research Setting

The study was conducted in

- a. SG Balekundri Institute of Technology College, Belagavi
- b. Maratha Mandal Engineering College, Belagavi
- c. Jain College of Engineering, Belagavi

Samples

The samples for this study were students studying in selected non-medical colleges of Belagavi.

Sample Size

The sample size of the present study was 160.

Sampling Technique

Simple random sampling technique was used in this study.

Development and Description of tool

In the present study, a structured opinion scale regarding organ transplantation and organ donation were developed. The following steps were carried out in preparation of the tool:

- Literature review
- Validity of the tool
- Pretesting
- Reliability check

The structured questionnaire consists of three sections:

Section 1: Items on selected demographic variables (age, gender, educational status, area of residence, family income) and organ transplantation and organ donation related information (source of information regarding organ transplantation and organ donation).

Section 2: It consists of three-point opinion Likert scale with 10 questions to assess point of view of non-medical student regarding organ transplantation.

Section 3: It consists of three-point opinion Likert scale with 20 questions to assess point of view of non-medical student regarding organ donation.

RESULTS

Findings related to socio-economic demographic variables of the subjects

Age In the present study, Majority of the respondent 36 (22.5%) belonged to the age group of 21 and 22 years respectively, 22(13.8%) belonged to 19 years, 32(20.0%) belonged to 20 years,30(18.8) belonged to 23 years while 4(2.5%) belonged to 24 years. **Education** Among 160 participants, All of the respondents 160 (100%) are educated and studying engineering. **Gender** In the present study among 160 study subjects, majority 43(26.9%) were female and 117(73.1%) were male. **Religion** In current study maximum 135(84.4%) of the participants were Hindu, 13(8.1%) were Christian, 12(7.5%) were

muslim. **Area of residence** Among 160 respondents, 80(50.0%) were residing in rural area and 80(50.0%) in urban area. **Food habit** In the present study majority 145(90.6%) of the participants consumed Mixed diet and 15(9.4%) consumed vegetarian diet.

Awareness of organ transplantation and organ donation

Among 160 respondents, 160(100%) of the participants had idea of organ transplantation donation.

Table No - 1: Awareness of respondents regarding organ transplantation and organ donation

Are you aware of organ transplantation donation		
	Number (N)	Percent (%)
Yes	160	100.0
No	0	0.0
Total	160	100.0

Source of information

In current study all 160 respondents (100%) identified media as their source of information about organ donation. This data highlights the significant role of media in raising awareness about organ transplantation and organ donation among the respondents.

Table No. 2: Source of information to respondents regarding organ transplantation and organ donation

Source of information		
Source	Number (N)	Percent (%)
Media	160	100.0
Total	160	100.0

Opinion of respondents regarding organ transplantation and organ donation

In the present study, Compare the opinion of non-medical college students towards organ transplantation and donation in selected urban and rural and has been classified into three categories; Agree, Neutral or partially agree and disagree. Majority of respondents (87.5%) transplantation, (95.6%) donation have a positive opinion, while a smaller percentage (12.5%) transplantation, (4.4%) donation holds a negative opinion. This indicates a predominantly favorable perception of organ transplantation and organ donation among the respondents, with a small minority expressing negative views.

Table No. 3: Opinion of respondents regarding organ transplantation

Opinion regarding organ transplantation		
Opinion	Number (N)	Percent (%)
Positive	140	87.5
Negative	20	12.5
Total	160	100.0

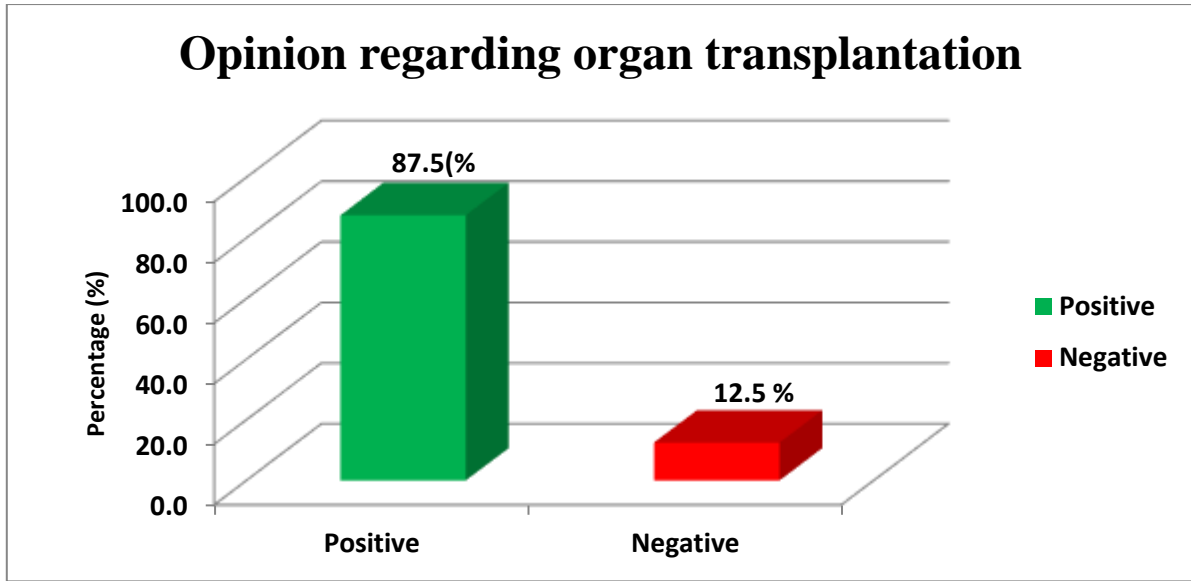


Table No. 10: opinion of respondents regarding organ donation

Attitude regarding organ donation		
Attitude	Number (N)	Percent (%)
Positive	153	95.6
Negative	7	4.4
Total	160	100.0

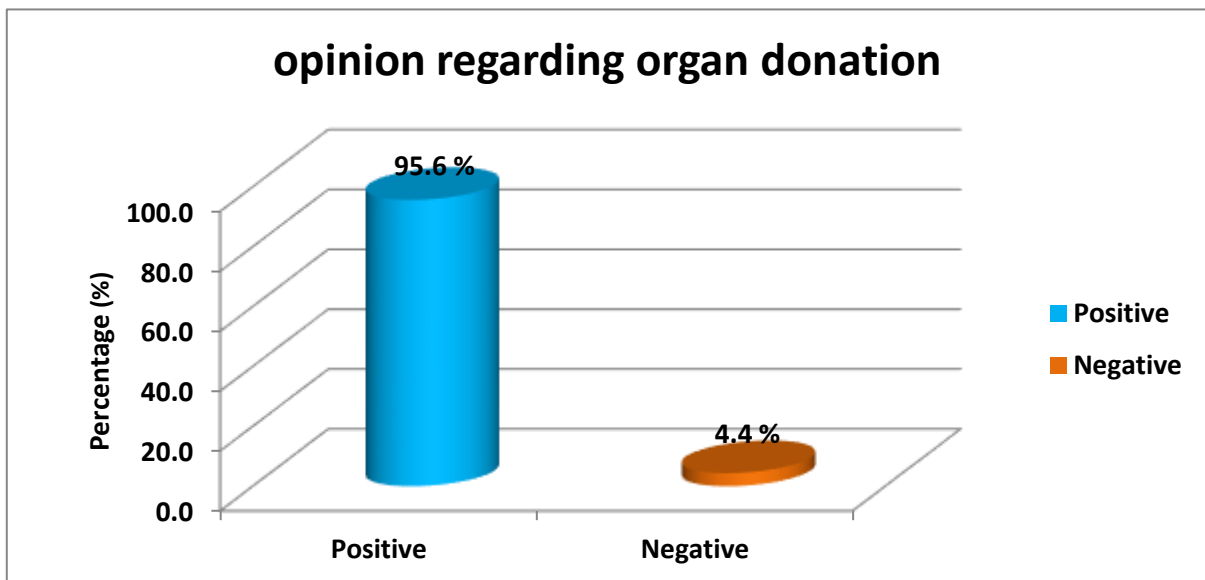


Figure No - 7: Cylinder graph diagram showing opinions of respondents regarding organ donation.

Findings on association between demographic variables with organ transplantation.

In current study, the association between demographic variables with organ transplantation was done using Chi-square/Fisher’s Exact test. There were 7 variables placed in demographic characteristics. The study revealed that no any significant association between levels of opinion towards organ transplantation with demographic characteristics like age, education, gender, area of residence, food habit and source of information.

Religion appears to have a statistically significant impact, indicating its potential influence on attitudes towards organ donation. There was significant relation between opinion of respondents regarding organ transplantation and religion of respondents. Fisher’s Exact test statistics was employed to investigate the association between respondents' opinions regarding organ transplantation and their religion. The data reveals differences in the proportion

of positive and negative opinions across religious groups, with a statistically significant p-value of 0.010. Hindus show the highest proportion of positive opinions (90.4%), followed by Christians (84.6%) and Muslims (58.3%). Muslims exhibit the highest proportion of negative opinions (41.7%), followed by Christians (15.4%) and Hindus (9.6%). The p-value (0.010) indicates a significant association between religion and opinions regarding organ transplantation. This suggests that religious affiliation may influence respondents' opinions about organ transplantation in this sample

Table No. 4: Association between opinion of respondents regarding organ donation and demographic variables of respondents

Opinion regarding organ donation					
Demographic variables		Opinion		Total	p-value
		Positive	Negative		
Age in years	19	21 (95.5%)	1 (4.5%)	22 (100.0%)	0.012*
	20	30 (93.8%)	2 (6.3%)	32 (100.0%)	
	21	36 (100.0%)	0 (0.0%)	36 (100.0%)	
	22	35 (97.2%)	1 (2.8%)	36 (100.0%)	
	23	29 (96.7%)	1 (3.3%)	30 (100.0%)	
	24	2 (50.0%)	2 (50.0%)	4 (100.0%)	
Gender	Male	110 (94.0%)	7 (6.0%)	117 (100.0%)	1.191
	Female	43 (100.0%)	0 (0.0%)	43 (100.0%)	
Religion	Hindu	131 (97.0%)	4 (3.0%)	135 (100.0%)	0.018*
	Muslim	9 (75.0%)	3 (25.0%)	12 (100.0%)	
	Christian	13 (100.0%)	0 (0.0%)	13 (100.0%)	
Food habits	Mixed	138 (95.2%)	7 (4.8%)	145 (100.0%)	1.000
	Vegetarian	15 (100.0%)	0 (0.0%)	15 (100.0%)	
Total		153 (95.6%)	7 (4.4%)	160 (100.0%)	

CONCLUSION

This comparative study investigated the results showed there is similarity between the point of view of both Rural and urban non-medical college students and it indicates a predominantly favourable perception of organ transplantation and organ donation among the rural as well as urban respondents, with a small minority expressing negative views

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