

KNOWLEDGE REGARDING ORGAN DONATION AMONG SENIOR SECONDARY SCHOOL CHILDREN IN CHAKEISIHANI. BHUBANEWSWAR – ODISHA.

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Abstract

Background: A precondition for a valuable and balanced dialogue regarding organ donation is accurate information. Many authors and organizations have made the case that it is the teacher's duty to enlighten the students of government schools about organ donation and to teach school children about organ donation. Aim and Objective: To determine the extent of organ donation knowledge among secondary school students. **Methodology:** The research method was non-experimental descriptive survey research. The sample size was 50 senior secondary school children in Chakeisihani, Bhubaneswar, India. Selected using purposive sampling technique. Structured knowledge questionnaire on organ donation was developed by refereeing various books and journals and the validity of the tool were obtained from 3 nursing experts and 2 medical experts. Reliability of the tool was test by test-retest method and it was calculated with 'Karl Pearson' Correlation Co-efficient method ($r = 0.75$). Data were collected through face-to-face interview method and descriptive and inferential statistics were used in analysing the data. **Results:** A total of 50 participants were interviewed about their knowledge towards organ donation 62 % (31/50) of the participants had inadequate knowledge about organ donation. 26 % of the participants were found to have moderate knowledge. The chi-square analysis shown the existence of statistically significant association between demographic variables like age, gender, fathers' education, mothers' education, type of family, previous knowledge regarding organ donation and source of information at the 'P' < 0.001 levels of significance. **Conclusion:** School teachers must educate their students towards organ donation and in the school curriculum lessons on organ and tissue donation should be added at the senior secondary certificate level.

Key Words: *Assess, Knowledge, Organ donation, Secondary school children.*

Introduction

In countries like India, human organs are in great need. Serious shortage of organ transplantation is prevailing at current point of time. For any end – stage organ failure, organ transplantation is an accepted treatment. The total number of brain fatalities caused by accidents is about 1.5 million a year.¹The organ donation rate in the Indian states such as Odisha has been weak over the last decade. Organ donation is whilst someone permits an organ of theirs to be removed, legally both via by means of consent whilst the donor is alive or after loss of life with the assent of subsequent of kin.² Common transplantations consist of

kidneys, heart, liver, pancreas, bones, lungs, intestines, bone marrow, corneas and skin. Some organs and tissues may be donated with the aid of using dwelling donors, together with a kidney or a part of the liver, a part of the pancreas, a part of the lungs, or a part of the intestines. Although possibly alive, most donations take place only after the donor dies.³

The timely donation and transplantation of organs can significantly reduce the number of fatalities brought on by an organ failure. But when it comes to India., there is a severe shortage of organs that are suitable for transplantation. “The dismal organ donation rate (ODR) for India is 0.34 per million people (PMP).⁴ In contrast to the demand for 1.75 lakh kidney transplants in 2015, only 5000 transplants were performed. Similarly, of the 50,000 persons with end stage liver disease who died, just 1,000 had a liver transplant. In the instance of heart or lung transplants, the statistics are distressingly dismal.⁵ It is necessary to act on two levels to ensure cadaver organ donation: the health care professionals and the general population particularly school children.⁶ If trained, health care professional can play a significant role in educating school children and their families about organ donation and in motivating them to donate.⁷

As a novel method to resolving the donor scarcity, the school students must be educated about transplantation and the need to assume the responsibility to give organs. A daily average of 79 people undergo organ transplants, while 22 people lose their lives while waiting for transplants that cannot be performed due to a lack of donor organs.⁸ Currently more than 1,2333,000 men, women and children require organ transplants to save their lives. In India, Particularly in Odisha, knowledge about organ donation is very poor. In order to raise awareness and foster a supportive attitude regarding organ donation, it is necessary to construct several sensitization programmes that can be planned and put into action.⁹ Therefore, this research has been chosen to knowledge among school students and to create a data base in nursing.

Problem Statement

A descriptive study to assess the knowledge regarding organ donation among the senior secondary school students in a selected school at Chakeisihani. Bhubaneswar.

Objectives

1. To determine the extent of organ donation knowledge among secondary school students at Chakeisihani, Bhubaneswar.
2. To associate knowledge regarding organ donation among secondary school students with the demographic variables

Materials and Methods

The researcher decided to use a non-experimental descriptive survey research methodology in order to complete the tasks that were outline for this particular study. The government senior secondary school in Chakeisihani. Bhubaneswar, served as the study setting. 50 students between the ages of 15 and 18 make up the sample for the study. The study's sample

recruitment was done using a purposive sampling technique. Students who agreed to participate in the study, students present on the day of data collection, and students of both genders were the inclusion criteria for the samples. Students who refused to participate in the study, those who were ill, and those who were missing during the times when the data was being collected were all omitted from this study. In order to collect data from the samples about their understanding of their organ donation, a questionnaire that had been predesigned was used. It was divided into two parts. The first component of the questionnaire describes the socio-demographic factors used to collect personal information from secondary school students, and the second section is a self-structured knowledge questionnaire used to gauge the students' level of familiarity with organ donation. It had 30 multiple choice questions with four possible answers. For each right answer selected by the samples, one mark was given. The total score is thirty for thirty items and the scores are divided into the following categories to indicate the level of knowledge.

Table 1.1: Criteria for measuring the knowledge level on organ donation

Scores	Percentage	Interpretation
21 - 30	67 – 100 %	Adequate Knowledge
11 - 20	34 – 66 %	Moderate Knowledge
0 - 10	0 – 33 %	Inadequate Knowledge

Excel was used to enter data in codes, and SPSS was utilized for analysis. The data were characterized using descriptive statistics, which comprised frequency, mean, standard deviation and percentages. The chi-square test was used to determine association between knowledge and samples socio-demographic variables and the 'p' value was calculated. A 'p' value of < than 0.05 was considered significant.

Data Analysis and Results

According to the objectives, the analysed data were arranged and presented in the following sections.

Section – A: Distribution of samples in terms of frequency and percentage for each demographic variable.

Section – B: Distribution of samples in terms of frequency and percentage based on level of knowledge on organ donation.

Section – C: Association between organ donation knowledge and demographic variables of the samples

Table – 2.1: Distribution of sample based on their age (years)

(n = 50)

Age	Frequency	Percentage
15 – 16 years	43	86.0 %
17 – 18 years	7	14 %

The frequency and percentage distribution of samples by age in years was depicted in Table 2.1 depicted the frequency and percentage wise distribution of samples according to age in years. An overwhelming majority of the subjects 43 (86.0 %) were in age 15 – 16 years

Table – 2.2: Distribution of sample based on their gender

(n = 50)

Gender	Frequency	Percentage
Females	30	60.0 %
Males	20	40.0 %

The frequency and percentage distribution of samples by gender are shown in Table 2.2. Compared to males, females outnumbered males by a margin of 30 (60.0 %) to 20 (40.0 %).

Table – 2.3: Distribution of sample based on their education of father

(n = 50)

Education of father	Frequency	Percentage
Illiterate	9	18.0 %
Primary education	7	14.0 %
Secondary education	12	24.0 %
Graduate	22	44.0 %

In Table 2.3 we see the frequency and percentage distribution of samples fathers' level of education. It was discovered that the majority of them 22 (44.0 %) had graduation, while those with a secondary education numbered 12 (24.0 %).

Table – 2.4: Distribution of sample based on their education of mother

(n = 50)

Education of mother	Frequency	Percentage
Illiterate	5	10.0 %
Primary education	16	32.0 %

Secondary education	20	40.0 %
Graduate	9	18.0 %

The frequency and percentage distribution of samples mothers' level of education were found in table 2.4. Twenty mothers have secondary education (40.0 %). Whereas sixteen had primary education (32.0 %).

Table – 2.5: Distribution of sample based on their family type

(n = 50)

Family type	Frequency	Percentage
Nuclear	21	42.0 %
Joint	28	46.0 %
Extended	1	2.0 %

Table 2.5 depicts the distribution of samples according to their family type. The Majority of the samples in this study, 28 (56.0 %) are from joint family, while 21 (42.0 %) are from nuclear families.

Table – 2.6: Distribution of sample based on their previous knowledge regarding organ donation

(n = 50)

Previous knowledge regarding organ donation	Frequency	Percentage
Yes	8	16.0 %
No	42	84.0 %

Regarding prior knowledge of organ donation, an overwhelming majority of the samples 42 (84.0 %) had no prior knowledge.

The pie – chart below illustrates the source of knowledge regarding organ donation. The Majority of the samples 3 (37.5 %) received information from parents, while an equal proportion of samples 2 (25.0 %) acquired information from social media and teachers.

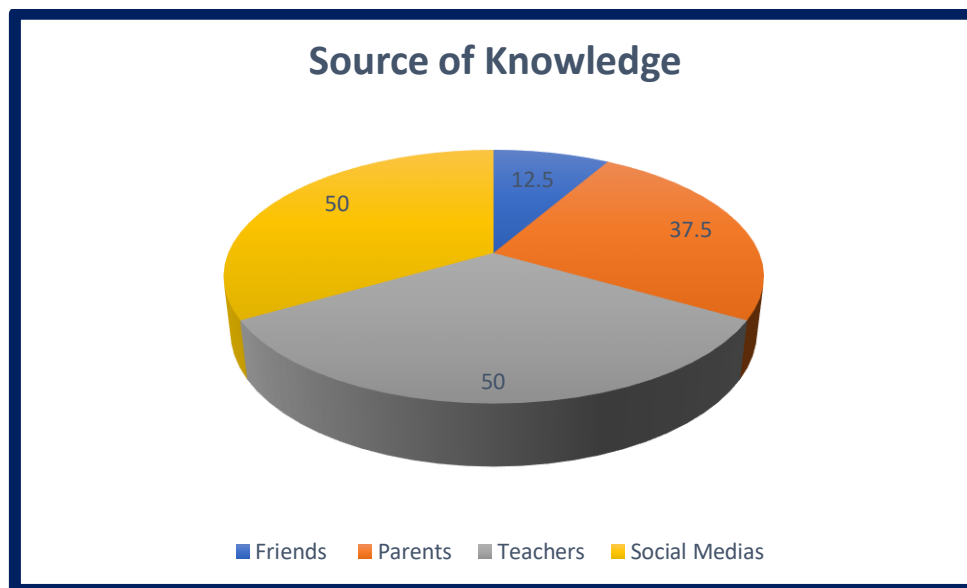


Figure – 1: Pie – Chart shows Percentage Wise Distribution of sample based on where they learned about regarding organ donation

The Funnel chart below depicts the organ donation knowledge of research participants. 31 (62.0 %) of the samples had inadequate knowledge. 13 (26.0 %) of the samples had moderate knowledge.

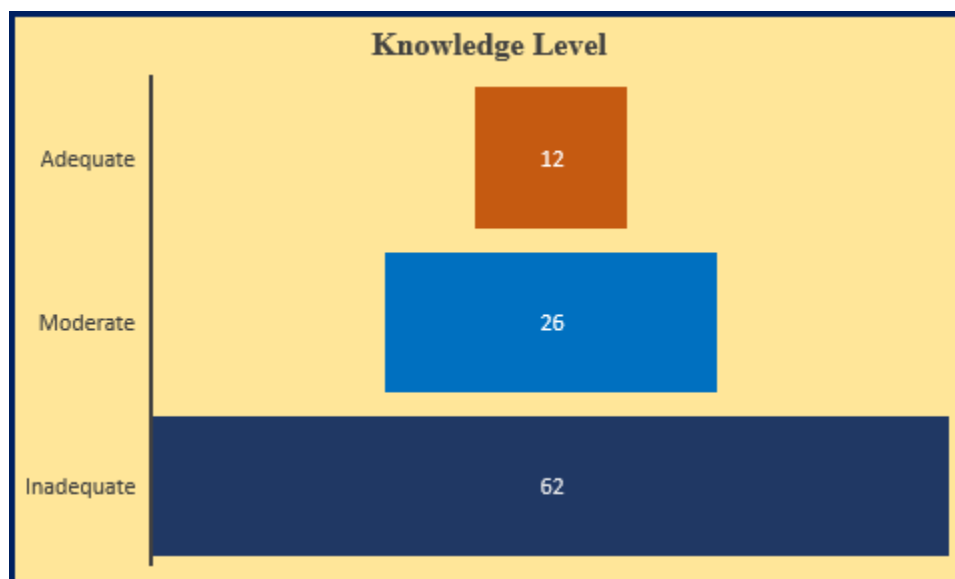


Figure – 2: Funnel Chart depicts the Percentage Distribution of sample based on their knowledge regarding organ donation

Table – 2.7: Association between Knowledge Regarding Organ Donation and Demographic Variables

(n = 50)

S. No	Demographic Variables		Knowledge Level			χ^2 Value (df =)	'P' Value
			Adequate	Moderate	Inadequate		
1	Age	15 - 16	0	12	31	42.33 (df = 2)	0.001*
			0.0%	27.9%	72.1%		
		17 - 18	6	1	0		
			85.7%	14.3%	0.0%		
2	Gender	Female	6	13	11	20.43 (df = 2)	0.001*
			20.0%	43.3%	36.7%		
		Male	0	0	20		
			0.0%	0.0%	100.0%		
3	Fathers Education	Illiterate	6	2	0	67.17 (df = 6)	0.001*
			75.0%	25.0%	0.0%		
		Primary	0	7	0		
			0.0%	100.0%	0.0%		
		Secondary	0	4	8		
			0.0%	33.3%	66.7%		
		Graduate	0	0	23		
			0.0%	0.0%	100.0%		
4	Mothers Education	Illiterate	0	5	0	61.25 (df = 6)	0.001*
			0.0%	100.0%	0.0%		
		Primary	0	6	10		
			0.0%	37.5%	62.5%		
		Secondary	0	0	21		
			0.0%	0.0%	100.0%		
		Graduate	6	2	0		
			75.0%	25.0%	0.0%		
5	Type of Family	Nuclear	5	13	2	48.34 (df = 4)	0.001*
			25.0%	65.0%	10.0%		
		Joint	0	0	29		
			0.0%	0.0%	100.0%		
		Extended	1	0	0		
			100.0%	0.0%	0.0%		
6	Previous Knowledge	Yes	6	2	0	37.40 (df = 2)	0.001*
			75.0%	25.0%	0.0%		
		No	0	11	31		
			0.0%	26.2%	73.8%		

* Significant at 'P' value < than 0.05

Table 2.7 shows the association between knowledge level and demographic variables of the samples. In this study it was found that all the demographic variables age ($\chi^2 = 42.33$, $df = 2$, 'P' < 0.00.1), gender ($\chi^2 = 20.43$, $df = 2$, 'P' < 0.00.1), fathers' education ($\chi^2 = 67.17$, $df = 2$, 'P' < 0.00.1) mothers' education ($\chi^2 = 61.25$, $df = 2$, 'P' < 0.00.1), type of family ($\chi^2 = 48.34$ $df = 4$, 'P' < 0.00.1) and Previous knowledge ($\chi^2 = 37.4$, $df = 2$, 'P' < 0.00.1) are associated with the level of knowledge.

Discussion

This study among the school students in Odisha assessed their knowledge towards organ donation. Majority of the students in this study 31 (62.0 %) had inadequate knowledge on organ donation. These students have to be educated towards organ donation its importance's, and the procedures to be followed in organ donation, this will improve the knowledge of the school students. The improvement of knowledge of these students will be a significant factor in organ procurement rates. The lack of organ donors is the main obstacle to transplantation in Odisha, as it is across the rest of India. The lack of student's awareness about organ / tissue donation and procurement is the cause of this shortage.

In Turkey, a survey was conducted among 200 high school students studying in a single high school using a 25-item questionnaire in which demographics of the research participants were assessed with 11 questions and 14 specific questions were for assessing the specific knowledge towards organ donation. Prior to the training program 24.9 % of 189 respondents said they would donate their organs after death, whereas, 38.4 % of the 138 respondents said they would do so after training.¹⁰

A cross – sectional study in Kerala showed that knowledge and attitude regarding organ donation were assessed among government medical college students at Trivandrum. Study was conducted among 194 final year MBBS students. The findings showed that a majority of students had adequate knowledge regarding organ donation.¹¹

A community based cross – sectional survey was conducted among 18 years age population in Kerala, regarding Organ donation. Results of the study demonstrate 97 % of the respondents had adequate knowledge, but only 53 % had good knowledge.¹²

Conclusion

The study's strength is that it is a school – based study and it is also one of the few studies in Odisha, that has assessed the knowledge of government senior secondary students towards organ donation. However greater emphasis must be placed on raising awareness of the concept of organ donation. The implication of this study are that it will aid in determining the best approach to educate senior secondary school children about organ donation.

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