

**A Descriptive Study To Assess The Knowledge And Attitude Regarding Organ Donation Among People Of Selected Rural Community Of Bikaner With A View To Develop An Information Booklet.**

<sup>1</sup>Minakshi Sharma, M.Sc. Nursing, (Medical Surgical Nursing), Lecturer, St. Francis Hospital, College of Nursing, Ajmer

<sup>2</sup>Ghanshyam Jangir, M.Sc. Nursing (Medical Surgical Nursing), Lecturer, Govt. College of Nursing, S.P. Medical College, Bikaner

**Corresponding Author:** Ghanshyam Jangir, M.Sc. Nursing, (Medical Surgical Nursing), Lecturer, Govt. College of Nursing, S.P. Medical College, Bikaner

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**Abstract**

**Back ground:** Yet we all live as we are immortal when faced with death in the family or in the cause of professional work, we are completely unprepared and rudely shocked out of our illusions. Organ donation is a born to medical industry as it has helped in saving the lives of those who would have died. <sup>(1)</sup> The transplantation of an organ from one body to another is known as the organ transplant. Organ transplant is done to replace the recipient's damaged organ with the working organ of the donor so that the recipient could function normally. The emerging field of regenerative medicine is allowing scientists and engineers to create organs to be re-grown from the patient's own cells (stem cells or cells extracted from the failing organs).

In 1994, the government of India passed the transplantation of Human organs Act legalized the concept of brain death and for the first time facilitated organ procurement from heart beating, brain dead donors. However this concept has not caught on well in India for want of public education and awareness this is turn is perpetuating the commercial sale of human organs due to the widening gap between the demand and supply. Thousands of lives are lost in India annually from heart and liver failure since transplantation of unpaired organs

like heart, liver and pancreas is either difficult or impossible from living donors this is only possible on a large scale if these organs are available from cadaver donors.

There is a drastic lack of awareness among the general public in India about how immensely beneficial donating organs can prove to be for the recipients and their families. Most of the people needing transplantation belong to the young and middle age groups. Hence donating vital organs to a person belonging to these age groups can save a whole family from being ruined. There is also superstition and among people that by donating organs, they will be born deformed and disfigured in their next birth.

Hence urgent action is required on several fronts if the acute shortage of human organs in India has to be met. Awareness should be increased about the benefits of organ donations through the means of mass communication and superstitions among people should be fought by the way of religious injunctions. <sup>(2)</sup>

**Objectives:** 1. To assess the knowledge and attitude regarding organ donation among people in selected rural community of Bikaner. 2. To find out the association between knowledge and regarding organ donation and selected socio demographic variables. 3. To find out the

relationship between knowledge and attitude regarding organ donation among people of selected rural community of Bikaner.

**Materials and methods:** the present non experimental descriptive was conducted on rural community of Bikaner to assess knowledge and attitude regarding organ donation. Total 150 participants were selected using simple random sampling among rural population of community in Bikaner. A structured questionnaire was developed to assess background variable and knowledge regarding organ donation. A 5 point likert type attitude scale was designed to collect the response of participants regarding attitude was devised. **Results:** The result of the study revealed that mean score of knowledge among participants was 21.54, and attitude score was 43.3. 32 % participants has poor knowledge and 34 % average knowledge with 77 % participants are undecided, 11% has positive and 12% participants has negative attitude regarding organ donation. Knowledge score on organ donation and attitude were significantly associated with education and source of information. There was positive correlation between knowledge and attitude. **Conclusion:** The presented study concluded that rural community has poor knowledge and undecided attitude regarding organ donation. There is need to enhance perception and attitude regarding organ donation among rural community.

**Keywords:** Attitude, Knowledge, Organ donation, Rural community.

### Introduction

For all those who are born, there is one event which is certain and inevitable and that is death. Organs that can be transplanted are the heart, kidneys, liver, lungs, pancreas, intestine, and thymus. Tissues include bones, tendons, cornea, skin, heart valves, and veins. Worldwide, the kidneys are the most commonly transplanted organs while musculoskeletal transplants out number them by more

than tenfold. Replacing the organ may be the only treatment of choice for a patient who is chronically ill such as ESRD [End stage renal failure], tumors of heart, lung and liver. The recipients who are usually between 18-60 years, organ donation help the patient to lead an active and normal life.<sup>(3)</sup>

**PH Mishra et al (2004)** conducted descriptive study to assess the Knowledge, Attitude and Practice regarding organ donation was conducted in major government and private hospitals in Delhi among 183 Doctors, Nurses, Students and Public using a pre structured questionnaire. The findings revealed that only 25% had adequate knowledge and 53.04% of respondents had only partial knowledge and remaining in adequate knowledge, 3.30% of respondents had a positive Attitude towards organ donation whereas 46.70% had negative attitude 50% having neutral. The study recommended that there should be regular training of medical professionals to improve their attitude and motivation to talk to family of brain dead patients for organ donation.<sup>(4)</sup>

**M Therese (2009)** conducted a study to assess the knowledge and attitude on organ donation among 50 Baccalaureate nursing students studying in selected colleges in puducherry. The tool used for the study data collection was structured self report questionnaire to assess the knowledge and attitude regarding organ donation. The result shows that overall 90% had adequate knowledge and 10% had moderately adequate knowledge. The study concluded that over all knowledge and attitude toward organ donation are co-related and Bsc nursing students had adequate knowledge regarding organ donation.<sup>(5)</sup>

**Manojan KK et al (2014)** conducted a study on knowledge and attitude of people towards organ donation in rural Kerala. A community based cross sectional study was conducted in rural population of South Kerala. The

sample size was 100. Majority (97%) of the participation had heard about organ donation but only 53% had good knowledge. 48% had poor attitude towards being an organ donor.

Organ Transplantation is a boon to medical industry as it has helped in saving the lives of those who would have died otherwise. There is a great need for human organs for transplantation. In fact, the need for exceeds the supply of transplantable organs. There are several reasons for the shortage of organs. Perhaps the most common reason is that people are hesitant to donate organs because they don't have adequate knowledge regarding it. There has been lack of initiative from the government after the organ transplantation act was passed so there is a great need for education and motivation both from the part of people as well as government since main reason for organ shortage is just because of improper or incomplete knowledge of people in donating their organ.

#### **Materials and Methods**

This is non experimental descriptive study carried out in selected rural community of Bikaner with objectives to assess the knowledge and attitude among people of rural community Bikaner. A total of 150 study participants those fulfilling inclusion criteria selected randomly from the accessible population. A structured questionnaire consisting two part was prepared to collect data from participants. Part one to assess the background variable of participants i.e. age, gender, marital status, religion, type of family, education, and monthly income, part two to assess the knowledge regarding organ donation which consists of total 35 item related to different aspects of organ donation. A 5 point likert type attitude scale was used to assess the attitude of participants regarding organ donation. The knowledge score was categorized as poor,

average and good and attitude was categorized as negative, undecided and positive related to organ donation. The validity of tool was obtained by seeking opinion from experts in subjects and reliability of tool was satisfied. A pilot study was performed on a group of 10 % sample to test its clarity and easiness. Difficult statement were then modified and replaced. Analysis of data was done based on objectives as descriptive statistics by mean and percentage, and inferential statistics by chi square to find association between back ground variable and attitude on knowledge related to organ donation. A brief explanation about the main objectives of the study was done before giving the questionnaires. Ethical considerations were followed throughout the study steps.

**Objectives:** 1. To assess the knowledge and attitude regarding organ donation among people in selected rural community of Bikaner. 2. To find out the association between knowledge and attitude regarding organ donation and selected socio demographic variables. 3. To find out the relationship between knowledge and attitude regarding organ donation among people of selected rural community of Bikaner.

#### **Statistical Analysis**

The data was recorded into an Excel spread sheet after collection and was then analysed using statistical software SPSS. Descriptive statistics like frequency and percentage while continuous variable were reported using mean and standard deviation. Association between the variable were reported using chi square test for categorical variable and paret t test for continuous variable.

**Results**

Table 1: Distribution of samples according to their Demographic variables.

N=150

S. No.	Demographic Data		Frequency (F)	Percentage (%)
1.	Age in years	18-30	63	42
		31-40	29	19.33
		41-50	35	23.33
		51-70	23	15.34
2.	Gender	Male	72	48
		Female	78	52
3.	Marital Status	Single	41	27.33
		Married	100	66.67
		Divorced	04	2.67
		Widow	05	3.33
4.	Religion	Hindu	147	98
		Muslim	2	1.33
		Any other	01	0.67
5.	Type of the Family	Nuclear	80	53.33
		Joint	70	46.67
6.	Level of Education	Primary	41	27.33
		Secondary	35	23.33
		Senior Secondary	27	18
		Graduate & PG	47	31.34
7.	Monthly Income of family	<5000	27	18
		5000-9000	33	22
		9001-13000	32	21.33
		13001 >	58	38.67
8.	Dietary Habit	Vegetarian	136	90.67
		Non vegetarian	14	9.33
9.	Information Regarding Organ Donation	Yes	95	63.33
		No	55	36.67
10.	Source Of	Neighbors &	31	20.66
		family members	93	62

Knowledge	T.V. & mass media Health organization & professionals	26	17.33
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The above table depicts distribution of demographic variable in frequency and percentage.

**Table 2: Mean knowledge score regarding organ donation among participants.**

S.No.	Description	Score
1.	Mean	21.54
2.	Median	21
3.	Standard Deviation	6.0195

The knowledge score of participants regarding organ donation was mean 21.54, median 21, with standard deviation 6.01.

**Table 3: Association between knowledge and selected demographic variable.**

S. No.			Above Median	Below Median	Frequency	Chi Square	d.f.	Table value	
1.	Age in years	18-30	39	24	63	8.2035	03	(7.82)	S*
		31-40	13	16	29				
		41-50	12	23	35				
		51-70	14	09	23				
2.	Level of education	Primary	13	28	41	30.905 6	03	(7.82)	S*
		Secondary	11	24	35				
		Senior Secondary	15	12	27				
		Graduate & PG	39	08	47				
3.	Monthly income	<5000	18	09	27	9.0957	03	(7.82)	S*
		5001-9000	10	23	33				
		9001-13000	18	14	32				
		>13000	32	26	58				
4.	information Regarding Organ Donation	Yes	65	30	95	27.990 2	1	(3.84)	S*
		No	13	42	55				

\*significant at 0.05 level of significance. The knowledge of participants related to organ donation was significantly associated with demographic variable age, level of education, monthly income and previous information regarding organ donation, statistically these were significant at 0.05 level.

**Table 4: Mean attitude score of participants.**

S.No.	Description	Score
1.	Mean	43.3
2.	Median	44
3.	Standard Deviation	7.0566

The attitude of participants regarding organ donation was mean 43.3, median 44 with standard deviation 7.05.

**Table 5: Association attitude and selected demographic variable.**

S.No.	Demographic Variable		Above Median	Below Median	Frequency	Chi Square	d.f.	Table value	
1.	Level of education	Primary	14	27	41	12.7526	03	(7.82)	significant*
		Secondary	15	20	35				
		Senior Secondary	15	12	27				
		Graduate & PG	33	14	47				
2.	Previous information on Regarding Organ Donation	Yes	56	39	95	6.0144	01	(3.84)	significant*
		No	21	34	55				

\*significant at 0.05 level of significance.

The attitude of participants related to organ donation was significantly associated with demographic variable level of education, and previous information regarding organ donation, statistically these were significant at 0.05 level.

**Table 6. Coefficient of correlation between knowledge score and attitude towards organ donation among participants.**

Variable	r value
Knowledge regarding organ donation	+0.3426
Attitude towards organ donation	

Significance at 0.05 level of significance.

The knowledge and attitude was significantly correlated.

## Discussion

Assessment of knowledge regarding human organ donation among people of selected rural community of Bikaner

In the present study, it was found that 34% of rural population had possessed good knowledge while 34% of them had average knowledge, and 32% of them had poor knowledge. Mean score was 21.54 with SD 6.01.

**Mymen Singh (2011)** conducted a study in Bangladesh among school girls about awareness of organ donation and attitudes towards organ donation and determine the negative factors of organ donation prevailing among 168 school girls, 64% girls has no idea about ongoing organ donation and transplantation. The positive attitude towards organ donation was only 16% when they are alive and 14% of their attitudes also kept low even after death. The results of this study suggest that among girls awareness and attitudes of about organ donation is poor.<sup>(6)</sup>

### **Assess the attitude regarding organ donation among people of selected rural community of Bikaner**

The study find that 11% of rural population had possessed positive attitude while 77% of them had undecided attitude, and 12% of them had negative attitude. Mean score was 43.3 with SD 7.0566. **P. Burra et al (2005)** find the attitude regarding organ donation among medical students, 56.8% were men, 91.4% were 18-24-year old and 89.4% from east region of Turkey. Of students, 65.5% were willing, 9% were not willing, 25.5% were hesitant about organ donation and 6% of willing students reported carrying a signed card. The most common reason for unwillingness to organ donation was worries about illegal behaviors (2.4%). There was a statistical relationship between willingness of students for organ donation. Majority of the students listed transplantable organs truly but 63.1% were had no idea about organ donation process.<sup>(7)</sup>

### **Association between demographic Variables and knowledge and attitude regarding organ donation among people of selected rural community of Bikaner**

Study results finds the knowledge of participants related to organ donation was significantly associated with demographic variable age, level of education, monthly income and previous information regarding organ donation, statistically these were significant at 0.05 level.

The attitude of participants related to organ donation was also significantly associated with demographic variable level of education, and previous information regarding organ donation, statistically these were significant at 0.05 level. **Khan Nahida et al (2011)** find knowledge and attitude of people towards organ donation by a cross sectional study conducted in the Madina teaching hospital Faisalabad with 200 sample. Statistically significant association of knowledge about organ donation with education and socioeconomic status was observed. Attitude towards organ donation was significantly associated with age, education and socioeconomic status. Majority (67.4 %) of respondent thoughts that their religion allows organ donation and it should be promoted.

### **The relationship between the knowledge and attitude regarding organ donation among people of selected rural community of Bikaner**

The present study revealed that there was a weak positive relationship between knowledge and the attitude. Correlation Coefficient found was + 0.3426. **ES Schaeffner et al (2004)** conducted a cross sectional survey in 2004 with a 28 item questionnaire among 1136 medical students and physicians and evaluated knowledge and attitudes towards organ donation and transplantation. The results showed that only 8% of the healthcare professionals actually felt sufficiently prepared for approaching relatives of organ donors. Knowledge and attitude towards organ donation seems to be directly

related to levels of medical education. The study indicate that attitudes and levels of education reflected on actually supporting organ donation yet age and gender or personal experience were not factors determining the donation process.<sup>(8)</sup>

### **Conclusion**

The present study has signifies that participants those have higher source of information and educated have good knowledge and positive attitude towards organ donation. There is a need of awareness regarding knowledge and development of positive attitude among rural community. This can be improved by organizing different program for community.

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