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**PUBLIC AWARENESS OF KNOWLEDGE AND ATTITUDE  
REGARDING ORGAN DONATION AND ORGAN  
TRANSPLANTATION: A SURVEY FROM WAGHODIYA, VADODARA**

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**ABSTRACT**

**BACKGROUND OF THE STUDY:**

Organ donation is defined as giving an organ or part of an organ to be transplanted into another person. Organ transplantation is the only option to save lives in patients affected by terminal organ failures and improve their quality of life .there is a lack of awareness among people with regard to decreased organ donation, and process of organ transplantation. India is currently having a decreased donation rate of just 0.26 per million population compared to 26 in US,35 in Spain and 36.5 in Croatia. From 2007 to 2012 ,the state could manage only 58 organ donation .In 2017 ,69 organ donation were achieved ,with 78 in 2018- numbers that are shockingly low for state where the death rate is 6.6 per 1,000 people.

**Aim:** the main aim of this study is to create awareness regarding the organ donation & organ transplantation.

**Materials And Methods:** quantitative approach is used to assess the knowledge and attitude regarding organ donation and organ transplantation. Quantitative- descriptive research design was adopted. A total 150 sample were selected in this study by non-probability convenient

sampling technique. the semi-structured questionnaire was used to asses knowledge & attitude regarding organ donation and organ transplantation.

**Result:** the result showed that 52% of the Respondents had mildly inadequate knowledge & 44% had moderately inadequate knowledge & 4% had adequate knowledge regarding organ donation and organ transplantation. The result depicts that there is no significant association seen between attitude and Demographic variables of age, religion, types of family, monthly income, residential, education, and occupation.

**Conclusion:** From the result of the study it is concluded that there is a 52% of the Respondents had mildly inadequate knowledge , 44% had moderately inadequate knowledge & 4% had adequate knowledge regarding organ donation and organ transplantation. And there is majority of non significant association between attitude and selected socio-demographic variables.

**Keywords:** Organ donation, Organ transplantation, Waghodiya, Vadodara

## INTRODUCTION

“ If you save one life, it is as thought you save the world .” ----The Talmud

Organ donation is when a person allows an organ of their to be removed, legally, either by consent while the donor is alive or after death with the assent of the next of kin<sup>1</sup>

Organ donation is the process of retrieving or procuring an organ from a live or deceased person .the process of recovering organ is called harvesting. the organ is transplanted into the recipient who is in need of that organ<sup>2</sup>

Common transplantation include kidneys, heart, bone marrow ,skin, corneas, and Lungs<sup>1</sup> now a day lung transplantation is also possible. Lung transplantation can improve quality of life and prolonged survival for individuals with end stage lung disease. In 2012, a 41 year old women from

Mumbai became the first Indian who had lung transplant <sup>3</sup>

Organ donation in India is slowly rising to take off. the main reason behind this slow take off is lack of awareness<sup>1</sup> .Awareness should increase in all levels ,namely,

1. Community -based awareness
2. Public in rural area-based awareness

There is a lake of awareness among people with regard to decreased organ donation, and the process of organ transplantation.<sup>(2)</sup>Organ transplantation is the most preferred treatment for many of the end stage organ disease as it offer a better quality of life and has a better long term survival benefits<sup>(4)</sup>The main aim of this study is to create awareness regarding the organ donation and organ transplantation so that it will motive as well as inspire the

people to donate his or her organ .India's first organ transplants was conduct in the 1970s that was kidney transplant<sup>5</sup>

India is currently having a decreased donation rate of just 0.26 per million population compared to 26 in US,<sup>35</sup> in Spain and 36.5 in Croatia<sup>6</sup> The number of organ donation has increased steadily in the state over the past three years ,ratio of donation to the demands is still low, said a state organization that coordinates transplants .From 2007 to 2012 ,the state could manage only 58 organ donation .In 2017 ,69 organ donation were achieved ,with 78 in 2018- numbers that are shockingly low for state where the death rate is 6.6 per 1,000 people. <sup>7</sup> The worldwide incidence of knowledge for organ donation varies between 60 and 85%.this change differs from culture and religious beliefs.<sup>8</sup>

An assessment of awareness and attitude towards Organ donation would help to plan sensitization programs and the propagate knowledge at the community level. A study in Andhra Pradesh reported that only 30% were aware of organ donation.<sup>(9)</sup> However, in India there is a lack of studies on awareness and attitude of the people about solid organ donation , especially in the rural areas. The aim is this study is to assess the knowledge, belief and attitude regarding organ donation among the rural population

and to assess their attitudes towards organ donation.<sup>(10)</sup>

The organ donation and transplantation system strives to honor the gift of donated organs by fully using those organs to save or improve the quality of the lives of transplant recipients. As a result of advances achieved through basic and clinical research over the past several decades, organ transplantation has become the optimal treatment for many end-stage organ-specific diseases. However, there are not enough donated organs to meet the demand. Furthermore, some organs may not be recovered, some recovered organs may not be transplanted, and some transplanted organs may not function adequately, all of which exacerbates the imbalance between the supply and the demand of organs. A determination that an organ is not suitable for transplantation is based on a variety of factors, such as the health of the deceased donor, the cause of death, or functional or anatomic abnormalities found in a potential donor or donor organ. To date, organ transplantation research has focused almost exclusively on transplant recipients and on finding ways to improve transplantation processes and post-transplant health outcomes. Improvements that increase the number and improve the quality of organs that are available for transplantation have been slow to come,

with most of them having been developed through innovations in local practice standards. Conducting research in deceased organ donors and on organs that have been recovered from deceased donors has emerged as one means to identify new methods to improve the quality and increase the quantity of organs that can be successfully transplanted and thus, hopefully, expand the number of people receiving an adequately functioning organ. Achieving advances in the quality and quantity of organs that can be recovered from deceased donors and successfully transplanted will require organ donor intervention research that tests and assesses clinical interventions (e.g., medications, devices, donor management protocols) that are aimed at maintaining or improving organ quality prior to, during, and following transplantation. In this type of research, the intervention is administered either while the organ is still in the deceased donor or after it is recovered from the donor but before it is transplanted into a recipient. Organ donor intervention research protocols often assess the outcomes of the intervention through follow-up of the transplant recipient. As discussed throughout this report, organ donor intervention research requires extensive oversight and careful planning to ensure that the integrity of the donation and

transplantation process is maintained and that fully using the gift of the donated organ has the highest priority in all phases of this research. Deceased organ donor intervention research has the potential to help address the growing need for organs and increase the likelihood of positive health outcomes following transplantation by identifying interventions to maintain or improve organ quality prior to, during, and following transplantation. Conducting organ donor intervention research presents new challenges to the organ donation and transplantation community by raising ethical questions about who should be considered a human subject in a research study, whose permission and oversight are needed, and how to ensure that the research does not threaten the equitable distribution of a scarce and valuable resource. Furthermore, when a research intervention is administered to a deceased donor prior to organ recovery and the intent is to have an effect on a specific organ such as a kidney (i.e., the target organ), the intervention could affect other organs that will also be transplanted afterward (i.e., non-target organs). This report provides recommendations for how to conduct this research in a manner that maintains high ethical standards, ensures dignity and respect for deceased organ donors and their families, provides transparency and

information for transplant candidates who might receive an organ that has been involved in donor intervention research, and supports and sustains the public's trust in organ donation and transplantation.

#### **MATERIALS AND METHODS:**

Quantitative approach is used to assess the knowledge and attitude regarding organ donation and organ transplantation. Quantitative- descriptive research design was adopted. A total 150 sample were selected in this study by non-probability convenient sampling technique. the semi-structured questionnaire was used to assess knowledge & attitude regarding organ donation and organ transplantation.

#### **Selected criteria**

##### **1. Inclusion criteria:-**

- People who are living in a rural area Waghodiya, Vvadodara
- People who can understand Gujrati and Hindi.

##### **2. Exclusion criteria:-**

- People who are not willing to interested
- People who are not available during study

#### **RESULT:**

##### **SECTION – I**

This section deal with description of the demographic characteristics of people (Table 1).

##### **SECTION – II**

##### **FINDINGS OF KNOWLEDGE OF PEOPLE (Table 2)**

##### **SECTION-III**

##### **Data on association between the demographic variable and Attitude scale.**

Table 3 depicts that there is no significant association seen between attitude scale and Demographic variables age, religion, types of family, monthly income, residential, education, and occupation.

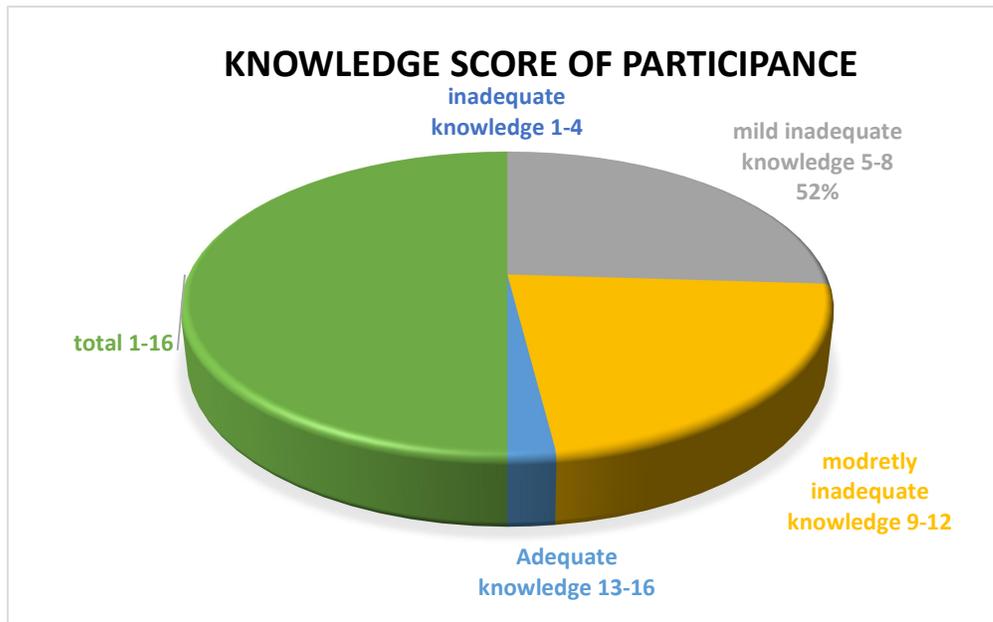
**Table 1: Description of the Demographic Variables**

Demographic Variable	Frequency	Percentage	
Age	20 – 29 Year	47	31.33
	30 – 39 Year	68	45.33
	40 – 49 Year	22	14.66
	50 – 58 Year	13	8.66
Religion	Hindu	119	79.33
	Muslim	26	17.33
	Christian	4	2.66
	Others	1	0.66
Type of family	Joint Family	110	73.33
	Nuclear Family	40	26.66
Monthly Family income	< 10,000	20	13.33
	10,000 – 20,000	30	20
	20,000 – 30,000	80	53.33
	Above 30,000	20	13.33
Residential	Rural	145	96.66
	Urban	5	3.33
Education	Illiterate	20	13.33
	Primary	40	26.66
	Secondary	20	13.33

Occupation	Higher Secondary	30	20
	Graduation & above	40	26.66
	Unemployed	20	13.33
	Agriculture	70	46.66
	Business	50	33.33
	Labourer	10	6.66

Table 2: Knowledge score in percentage

Knowledge score	Score	N	Percentage
Inadequate knowledge	1-4	0	0%
Mildly inadequate	5-8	78	52%
Moderately inadequate knowledge	9-12	66	44%
Adequate knowledge	13-16	6	4%
TOTAL	1-16	150	100%



Data represents that 52% of the Respondents had mildly inadequate knowledge & 44% had moderately inadequate knowledge & 4% had adequate Knowledge.

TABLE 3: Data on association between the demographic variable and Attitude scale.

Sr.no	characteristics	Frequency	Level of knowledge			Degree of freedom	Square X <sup>2</sup>	Sg(0.005)
			poor	average	good			
1	AGE							
A	20-29 years	47	4	35	8	6	8.733	14.07
B	30-39 years	68	8	45	15			
C	40-49 years	22	0	21	1			
D	50-58 years	13	2	10	1			
	Total	150						
2	RELIGION							
A	Hindu	119	12	87	20	6	2.023	12.59
B	Muslim	26	2	19	5			
C	Christian	4	0	4	0			
D	Others	1	0	1	0			

TYPE OF FAMILY								
3								
A	Joint family	110	10	79	21	2	1.746	5.99
B	Nuclear family	40	4	32	4			NS
4	Monthly family income							
A	<10000	20	1	15	4	6	2.534	12.59
B	10-20k	30	4	22	4			NS
C	20-30k	80	7	61	12			
D	>30000	20	2	13	5			
5	Residential area							
A	Rural	145	13	108	24	2	.80	5.99
B	Urban	5	1	3	1			NS
6	Education							
A	Literate	20	2	12	6	8	10.99	15.51
B	Primary	40	2	33	5			NS
C	Secondary	20	1	14	5			
D	HSC	30	2	25	3			
E	Graduation	40	7	27	6			
7	Occupation							
A	Unemployed	20	1	15	4	6	3.946	12.59
B	Agriculture	70	5	51	14			NS
C	Business	501	6	38	6			
D	Labourer	10	2	7	1			

\*X<sup>2</sup> = chi Square; \* NS = Non significant

## SUMMARY:

In this study quantitative research approach with descriptive research design was used. Data was collected from 150 willing participants of waghodiya, Vadodara. The investigator obtains written consent from the concerned authority before the study.

## DISCUSSION:

### FINDINGS OF THE STUDY AND DISCUSSION

Section: I - Analysis of socio demographic characteristic of response.

Section – II Findings Of Knowledge Of People.

Section-III Data On Association Between The Demographic Variable And Attitude Scale.

**Section: I - Analysis of socio demographic characteristic of response.**

**Age in year:** The results revealed that majority of sample subjects 150. It observed that among 150 people, the 47(45.33%) were aged between 30-39 years, 68 (31.33%) of sample belongs to the age group of 20-29 years, 22(14.66%) of sample aged between 40-49 years, 13(8.66%) of sample aged between 50-58 years.

**Religion:** The 119 responds (79.33%) were Hindu, 26(17.33%) were Muslim, 4(2.66%) were Christian, 1(0.66%) were others religion.

**Family types:** The 110 responds (73.33%) of them were living in joint family, 40(26.66%) were living in nuclear family.

**Income:** The 80 responds (53.33%) were 20,000-30,000 Rs; 20(13.33%) were above 30,000 Rs; 30 (20%) were 10,000-20,000

Rs; and 20(13.33%) were below 10,000 Rs. In their monthly income.

**Education:** The 40 responds (26.66%) were graduate and primary level education; 20(13.33%) were secondary level education; 30(20%) were Higher secondary level education; and 20(13.33%) were illiterate.

**Occupation:** The 70 responds (46.66%) were Agriculture; 50(33.33%) were have business; 10(6.66%) were labour and 20(13.33%) were unemployed.

**SECTION II – FINDINGS OF KNOWLEDGE OF PEOPLE.** The Data represents that 52% of the Respondents had mildly inadequate knowledge & 44% had moderately inadequate knowledge & 4% had adequate knowledge.

**SECTION-III TABLE 3: Data on association between the demographic variable and Attitude scale.**

- There is a demographic variable such as age, gender, religion, type of family monthly income, and occupation the study relived that not significant association is found between knowledge regarding organ donation and transplantation with age, gender, religion, type of family, monthly income, and occupation.

## CONCLUSION

This study presents the conclusion drawn, implication, limitation and recommendation

of the present study. The focus of this study was to evaluate “Public awareness of knowledge and attitude regarding organ donation and organ transplantation a survey from Waghodiya, Vadodara” .The size of sample 150 and selection of the sample was done according to inclusion criteria. The results were analyzed by using both descriptive and inferential statistics method. The data was interpreted by suitable and appropriate statistical method.

**Conflicts of interest:** The author declared that there are no any conflicts of interest.

**Ethical clearance:** As the study conducted on humans, approval from institutional ethical committee was obtained before commencement of the study.

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