

# A Study to Assess the Knowledge and Attitude Regarding Organ Donation among Adults in Selected Rural Areas of Kamrup District, Assam

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**Abstract:** *Background of the study:* Organ donation is one of the greatest medical marvels of the twentieth century which have saved the lives of several persons with organ failure. But the main issue in this field is the huge gap between huge demands of the organs and their poor supply. *Methodology:* A quantitative approach was adopted and descriptive survey research design was used for the study. A total of 270 adults of 20 to 60 years age group were selected by multistage random sampling technique. Data were analysed in terms of descriptive and inferential statistics. *Results:* The study found that majority, i.e. 66.7% of the participants had moderately adequate knowledge and majority, i.e. 69.7% of the participants had moderately favourable attitude towards organ donation. Significant moderate positive correlation was found between knowledge and attitude ( $r = 0.526$ ). There was a significant association of knowledge and attitude regarding organ donation with religion and sources of information. *Conclusion:* The findings of the present study revealed that majority of the adults had moderately adequate knowledge and moderately favourable attitude towards organ donation. Interventional measures are necessary for improving the level of knowledge and attitude regarding organ donation.

**Keywords:** Knowledge, Attitude, Organ donation, Transplantation

## 1. Introduction

Organ donation is the method when an individual allows an organ of their own to be removed and transplanted to another individual legally, either by permission while the donor is alive or dead with the acceptance of the next of kin.<sup>1</sup>

Organ donation is the process of giving one or more organs, without reimbursement, for replacement into someone else. Organ donation is a very personal yet difficult decision, entwined with medical, legal, religious, cultural, and ethical matters. Donated organs derived either from a deceased donor or from a living donor.<sup>2</sup> Persons of all ages can consider themselves as a potential organ donor. At any age and from any background, person can donate their organs.<sup>3</sup>

Organ donation is one of the most preferred procedures, which can rise the life expectancy of end - stage organ disease and organ failure. Poor knowledge, inappropriate beliefs and attitude of people towards organ donation, and their socio - economic level are one of the most imperative barriers for organ donation.<sup>4</sup>

In India, every single day at least 15 patients die waiting for an organ and every 10 minutes a new name is added to this waiting list. It is estimated that more than a million people suffer from end - stage organ failure, but not more than 3, 500 transplants are performed annually.<sup>5</sup>

Organ donation is one of the greatest medical marvels of the twentieth century which have saved the lives of several persons with organ failure. But the main issue in this field

is the huge gap between huge demands of the organs and their poor supply. Organ donation in India is slowly rising to take off. By increasing awareness in various levels, namely, community - based awareness, public/patient - based awareness, hospital - based awareness, government - initiated awareness, people can take up this noble deed for the benefit of others.<sup>6</sup>

## 2. Review of Literature

Vijayalakshmi P, Sunitha T. S, Gandhi S, Thimmaiah R, Math S (2016) conducted a cross - sectional descriptive study to assess the knowledge, attitude and behaviour of the general population towards organ donation among 193 randomly selected relatives of patients attending the outpatient department at a tertiary care centre in Bengaluru by using a structured questionnaire to collect data through face - to - face interviews. The study revealed that 52.8% of the participants had adequate knowledge and 67% had a positive attitude towards organ donation. While 181 (93.8%) participants were aware of and 147 (76.2%) supported organ donation, only 120 (62.2%) were willing to donate organs after death.<sup>7</sup>

Balajee KL, Rmachandran N, Subitha L et al (2017) conducted a community based cross - sectional study to assess the awareness and attitudes regarding organ donation among people living in 4 villages of Puducherry using systematic random sampling technique. Results of 360 participants, 88% (317/360) were aware of organ donation. The majority of the participants 88% (281/317) felt that the purpose of organ donation was to save life. Most of the participants 70% (223/317) had positive attitude and were willing to donate their organs after death.<sup>8</sup>

**Problem Definition**

A study to assess the knowledge and attitude regarding organ donation among adults in selected rural areas of Kamrup District, Assam.

**Objectives of the study**

- 1) To assess the knowledge regarding organ donation among adults in the selected rural areas of Kamrup District.
- 2) To assess the attitude regarding organ donation among adults in the selected rural areas of Kamrup District.
- 3) To find out the co - relation between knowledge and attitude regarding organ donation.
- 4) To find out the association between knowledge regarding organ donation among the adults with selected demographic variables.
- 5) To find out the association between attitude regarding organ donation among the adults with selected demographic variables.

**3. Methodology**

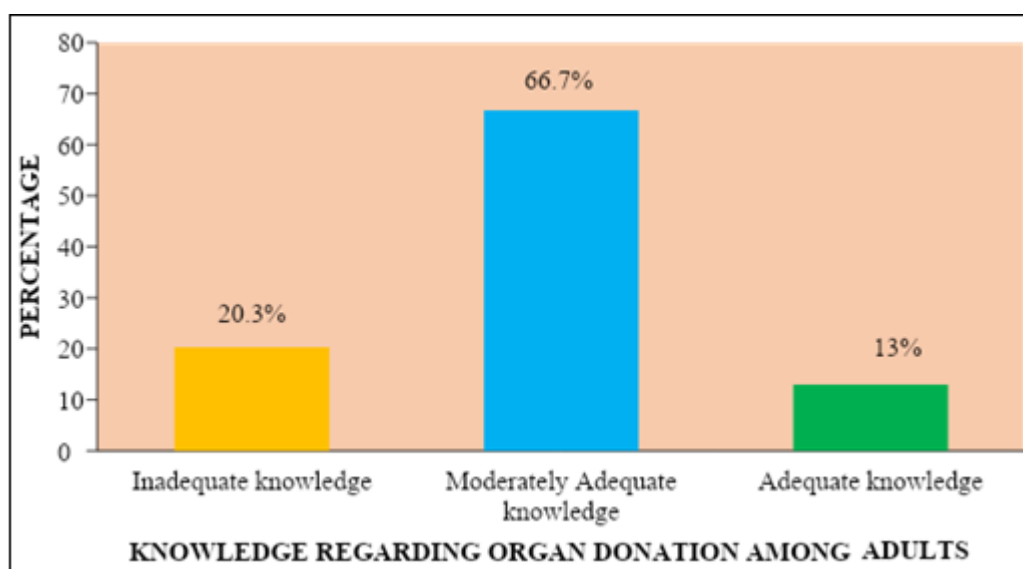
A community based descriptive quantitative research approach and descriptive survey design were adopted for the study. This study was conducted among 270 adults of age group 20 - 60 years residing in Sudrahazara and Saledol villages under Bihdia Block PHC, Kamrup district by using multistage random sampling technique. Data were collected by using structured interview schedule and three -

point Likert scale. Institutional Ethics Committee clearance were obtained before the commencement of the study. Verbal and written consent were obtained from all the participants prior to data collection. To assess the correlation between variables, Spearman Brown's correlation coefficient was used. Pearson's chi - square test was used to test any association between research variables and demographic variables. A p - value less than 0.05 was considered significant.

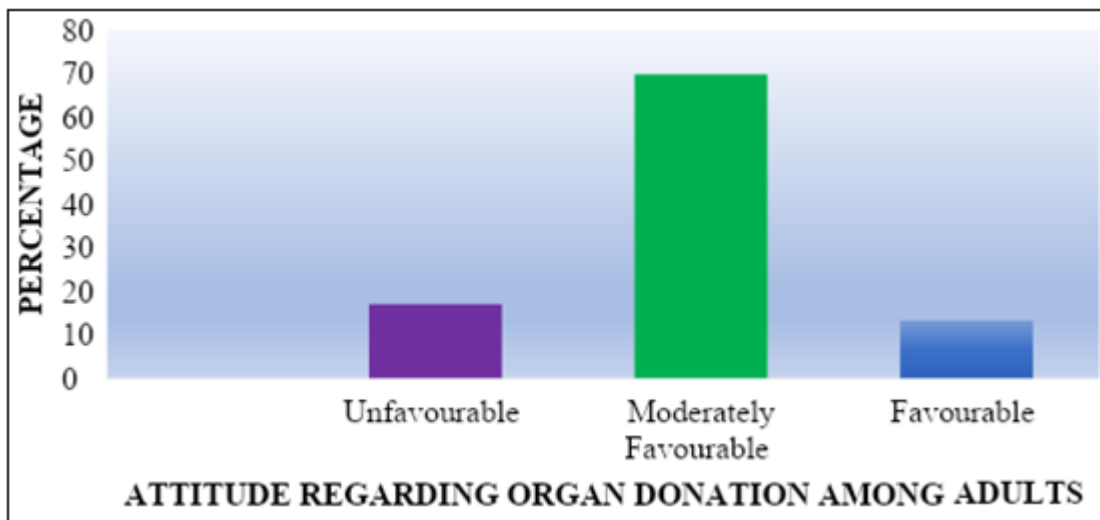
**4. Results**

Majority of the participants i.e., 31.5% were in the age group of 20 - 30 years. Most of the participants, i. e., 50.4% were female. Majority i. e., 4.8% were Hindu and the remaining 25.2% belonged to Islam. The education qualification of Maximum participants, i. e., 31.5% had graduate and above level education. Most of the participants, i. e., 38.1% were in service. Majority i. e., 33.7% were in the income range of Rs < 10, 001. Greater number of the participants obtained organ donation related information from mass media, i. e., 53.7%.

Among 270 adults, majority i. e., 66.7% had moderately adequate knowledge followed by 20.3% had inadequate knowledge and only 13% had adequate knowledge regarding organ donation. Regarding attitude, Majority i. e., 69.7% had moderately favourable attitude, followed by 17% had unfavourable attitude and only 13.3% had favourable attitude regarding organ donation.



**Figure 1:** Cylindrical diagram showing percentage distribution of adults according to their level of knowledge regarding organ donation



**Figure 2:** Cone diagram showing percentage distribution of adults according to their level of attitude regarding organ donation

The study tested the correlation between knowledge and attitude of the adults regarding organ donation using Spearman Brown’s correlation coefficient. Obtained value ( $r=0.526$ ,  $p=0.001$ ) indicates moderately positive correlation between knowledge and attitude regarding organ donation and it was found to be statistically significant at  $p<0.05$  level of significance. The result is depicted in Table 1

**Table 1:** Correlation between knowledge and attitude regarding organ donation among adults,  $n=270$

Variables	Mean	D	Correlation Coefficient (r)	p - value
Knowledge	13.29	4.05	0.526	0.001
Attitude	22.49	3.49		

The study associated the level of knowledge and attitude regarding organ donation with the selected demographic variables such as age, gender, religion, educational status, occupational status, monthly income of the family and sources of information regarding organ donation at the level of  $P < 0.05$ . The findings showed significant association of knowledge of adults regarding organ donation with religion and sources of information. The findings are depicted in Table 2.

**Table 2:** Association between knowledge regarding organ donation with selected demographic variables,  $n=270$

Demographic variables	Level of knowledge			Chi square	Df	P value
	Inadequate	Moderately adequate	adequate			
<b>Religion</b>						
a) Hindu	47	126	29	6.72	2	0.035
b) Islam	8	54	6			
<b>Sources of information</b>						
a) Health personal	18	31	6	13.33	6	0.038
b) Mass media	21	99	25			
c) Friends	10	29	3			
d) Relatives	6	21	1			

Similarly, in case of attitude regarding organ donation among adults, significant association was found with religion and sources of information regarding organ donation as shown in Table3.

**Table 3:** Association between attitude regarding organ donation with selected demographic variables,  $n=270$

Demographic variables	Level of Attitude			Chi square	Df	P value
	Unfavourable	Moderately favourable	Favourable			
<b>Religion</b>						
a) Hindu	40	133	29	6.882	2	0.043
b) Islam	6	55	7			
<b>Sources of information</b>						
a) Health personal	14	35	6	12.99	6	0.043
b) Mass media	16	109	26			
c) Friends	10	29	3			
d) relatives	6	21	1			

## 5. Discussion

In the present study, majority of the adults i.e., 66.7% had moderately adequate knowledge, followed by 20.3% had inadequate knowledge and 13% had adequate knowledge regarding organ donation. The finding is supported by another study conducted by **Limbu B, Basnet S, Silwal S** (2019) which showed that among the studied respondents, majority i. e., 69.9% had average knowledge followed by 23.9% had inadequate knowledge and only 6.2% had adequate knowledge regarding organ donation.<sup>9</sup>

The study findings showed that majority of the adults i. e., 69.7% had moderately favourable attitude, followed by 17% had unfavourable attitude and 13.3% had favourable attitude towards organ donation. **Anderson B** (2018) in his study supports the findings of the present study, where majority i. e., 72.4% of participants had moderately favourable attitude and 10.4% had unfavourable attitude towards organ donation.<sup>10</sup>

The present study finds moderate positive correlation ( $r=0.526$ ,  $p=0.001$ ) between knowledge and attitude regarding organ donation among the adults. **Chakradhar K, et al.** (2016) in their study also found a significant positive correlations between knowledge, attitude and practice scores of organ donation.<sup>11</sup>

In the present study, knowledge regarding organ donation was significantly associated with religion and sources of information regarding organ donation. **Khalid F. et al** (2019) in their study also highlighted significant association between knowledge regarding organ donation and religion ( $p= 0.042$ )<sup>12</sup>. Another study conducted by **Uyar M, et al** (2019) revealed that Mass media was the most important source of information regarding organ donation and Religious belief was one of the most important factors associated with hesitation regarding organ transplantation and donation.<sup>13</sup>

The findings of the present study showed that attitude regarding organ donation was significantly associated with religion and sources of information. **Tagizadieh A, et al** (2018) conducted a study which findings also showed that Religion and source of information regarding organ donation had a significant effect on knowledge and attitude of students. ( $p<0.05$ ).<sup>14</sup>

## 6. Conclusion

The findings of the present study revealed that majority of the adults, i. e.66.7% had moderately adequate knowledge and majority, i. e.69.7% had moderately favourable attitude regarding organ donation. Hence it is essential to take up interventional measures for improving the knowledge among general people and eventually improving their favourable attitude towards organ donation so that people can make informed choices in the future regarding organ donation.

## 7. Future Scope

Similar study may be replicated on a larger sample size of

the same characteristics for better generalization of the findings. There is a scope for conducting a comparative study in rural and urban settings. An experimental study can be carried out to determine the effectiveness of planned teaching program to improve the knowledge of adults regarding organ donation. An exploratory study can be carried out to identify the influencing factors and barriers related to organ donation.

## References

- [1] Organ Donation. Published in May 30, 2021 [cited 2021 April 2]. [Internet] Available from <https://en.wikipedia.org>.
- [2] Gruessner R. Organ donation [internet]. Published in 2013 [cited 2021 Jan 2]. Available from [www.Britannica.com](http://www.Britannica.com)
- [3] Organ Donation. U. S. national library of medicine [Internet].27 august, 2020 [cited 2021 Jan 2]. Available from <https://medlineplus.gov>
- [4] Pouraghaei M, Tagizadieh M, Tagizadieh A, Moharamzadeh P, Esfahanian S, and Nia KS. Knowledge and attitude regarding organ donation among relatives of patients referred to the emergency department. Archives of academic emergency medicine [Internet].2015 [cited 2021 April 4]; 3 (1): 33–39.
- [5] Reddy P. “World Organ Donation Day 2019: does India need an organ donor policy” published in august 2019 in Business today [Internet]. [cited 2021 Mar 3]. Available from [www.businesstoday.in](http://www.businesstoday.in).
- [6] Nallusamy S, et al. Organ donation - current Indian scenario. Journal of the practice of cardiovascular sciences [internet].2018 [cited 2021 Jan 5]; 4 (3): 177 - 179. Available from [www.j-pcs.org](http://www.j-pcs.org)
- [7] Vijayalakshmi P, Sunitha T. S, Gandhi S, Thimmaiah R, Math S. Knowledge, attitude and behaviour of the general population towards organ donation: An Indian perspective. Natl Med J India 2016 [cited 2020 Dec2]; 29 (5): 257–61. Available from <https://www.researchgate.net/publication/312118527>.
- [8] Balajee KL, Rmachandran N, Subitha L. Awareness and attitude toward organ donation in rural Puducherry, India.
- [9] Ann med Health Sci Res.2016 [cited 2021 May 5]; 6 (5): 286 - 290.
- [10] Limbu B, Basnet S, Silwal S. Knowledge and attitude on organ donation among nursing students of a college in Biratnagar. Europasian J. of Med. Sci.2019 [cited 2021 April 3]; 1 (1): 28 - 34. Available from <https://doi.org/10.46405/ejms.v1i1.4>.
- [11] Anderson B. Assessment of knowledge and attitude regarding organ donation. Manipal journal of nursing and health sciences.2018 [cited 2021 July 19]; 4 (2): 6 - 10. Available from <https://ejournal.manipal.edu>.
- [12] Chakradhar K, Doshi D, Reddy BS, Kulkarni S, Reddy MP, Reddy SS. Knowledge, attitude and practice regarding organ donation among Indian dental students. Int J Org Transplant Med 2016 [cited 2021 May 3]; 7 (1): 28 - 35. Available from <https://www.researchgate.net/publication/295077544>.

- [13] Khalid F, Khalid AB, Muneeb D, Shabir A, Fayyaz D, Khan M. Level of knowledge and attitude regarding organ donation: a community-based study from Karachi, Pakistan. *BMC Res Notes*.2019 [cited 2021 Jan 2]; 12: 309. Available from <https://doi.org/10.1186/s13104-019-4345-6>.
- [14] Uyar M, Demir LS, Durduran Y, Evci R, Ardıc ZD, Sahin TK, et al. Patient knowledge, attitudes, and behaviors associated with organ donation. *Ann Transplant*, 2019 [cited 2021 April 3]; 24: 407 - 411. Available from <https://www.annalsoftransplantation.com/abstract/index/idArt/916824>.
- [15] Tagizadieh A, Moharamzadeh P, Pouraghaei M, Ghavidel A, Parsian Z, Mahmoodpoor A, et al. Attitude and Knowledge of Medical Students of Tabriz University of Medical Sciences Regarding Organ Donation.2018 [cited 2021 Jan 3]; 50 (10): 2966 - 2970.