



# Knowledge And Attitude Of Nurses In Organ Donation And The Influence Of Interventions- A Systematic Review

1. Siji Joseph, Ph.D Scholar, 2. Dr. Bharati Suresh Batra, Ph.D supervisor 3. Dr. Archana Selvan, HOD, RKDF CON, SRKU, Bhopal.

## ABSTRACT

Organ Donation is the process of giving an organ or part of an organ to someone else who needs it to survive. Nurses have proved to be the health fighters who have taken the responsibility very voluntarily with their heart and soul. Nurses are a critical part of health care system and contribute the largest section of the health profession. Increased knowledge and attitude of nurses towards organ donation will influence the people in donating their organs to save patient's life. In this systematic review, an effort was made to find the present situation of knowledge and attitude of nurses and the effectiveness of the program conducted to encourage them. From the literature it was obvious that in most of the situations the knowledge and attitude regarding organ donation among nurses are not good enough. However, few studies state that nurses have adequate knowledge regarding organ donation and are influenced by many factors like age, experience and the unit in which they work. The studies concluded that the knowledge of nurses has improved after the intervention programs. From this systematic review it was found that the knowledge and attitude of nurses towards organ donation is not up to the expected level.

Keywords: Knowledge, Attitude, Organ Donation, Intervention, Nurses

## Introduction

Organ transplantation is replacing a damaged organ with a well functioning organ which is taken from a live or brain dead person. Organ donation is a donation of biological tissue or an organ of the human body from a living or dead person to a living recipient in need of transplantation. Organ donations provides life enhancing and life giving opportunities people who have no other options. The need or organ donations is getting larger. There is a way to extend the number of organs that are available, that is to make the number of donors larger. According to a report of National Foundation for transplants (2016), one organ donor can save eight lives. Nurses are a critical part of health care system and contribute the largest section of the health profession. Increased knowledge and attitude of nurses towards organ donation will influence the people in donating their organs to save patient's life.

## Material and Methods

Nurses have proved to be the health fighters who have taken the responsibility very voluntarily with their heart and soul. Nurses are a critical part of health care system and contribute the largest section of the health profession. They play a vital role in identifying the potential organ donors . Further they communicate with the families of such potential organ donors and make arrangements of getting consents for the same . Such nurses should have a positive attitude and high level of knowledge towards organ donation.The study was conducted on the basis of Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines for systematic reviews.

### Inclusion criteria:

The studies based on nursing staff.

Study conducted between 2009 - 2023.

Study conducted to assess knowledge and attitude of nurses towards organ donation..

All cross-sectional and qualitative studies.

Study includes nurses working in all the departments of the hospital.

The articles published in full length in English.

### Exclusion criteria:

Those articles not fulfilling the inclusion criteria .

## Search Methods

The MEDLINE database was used to recover the articles. The PubMed advanced search was used.

### Selection of Articles

The Author analysed and selected only those articles that fulfill the inclusion and exclusion criteria. Those articles excluded which doesn't provide sufficient data .

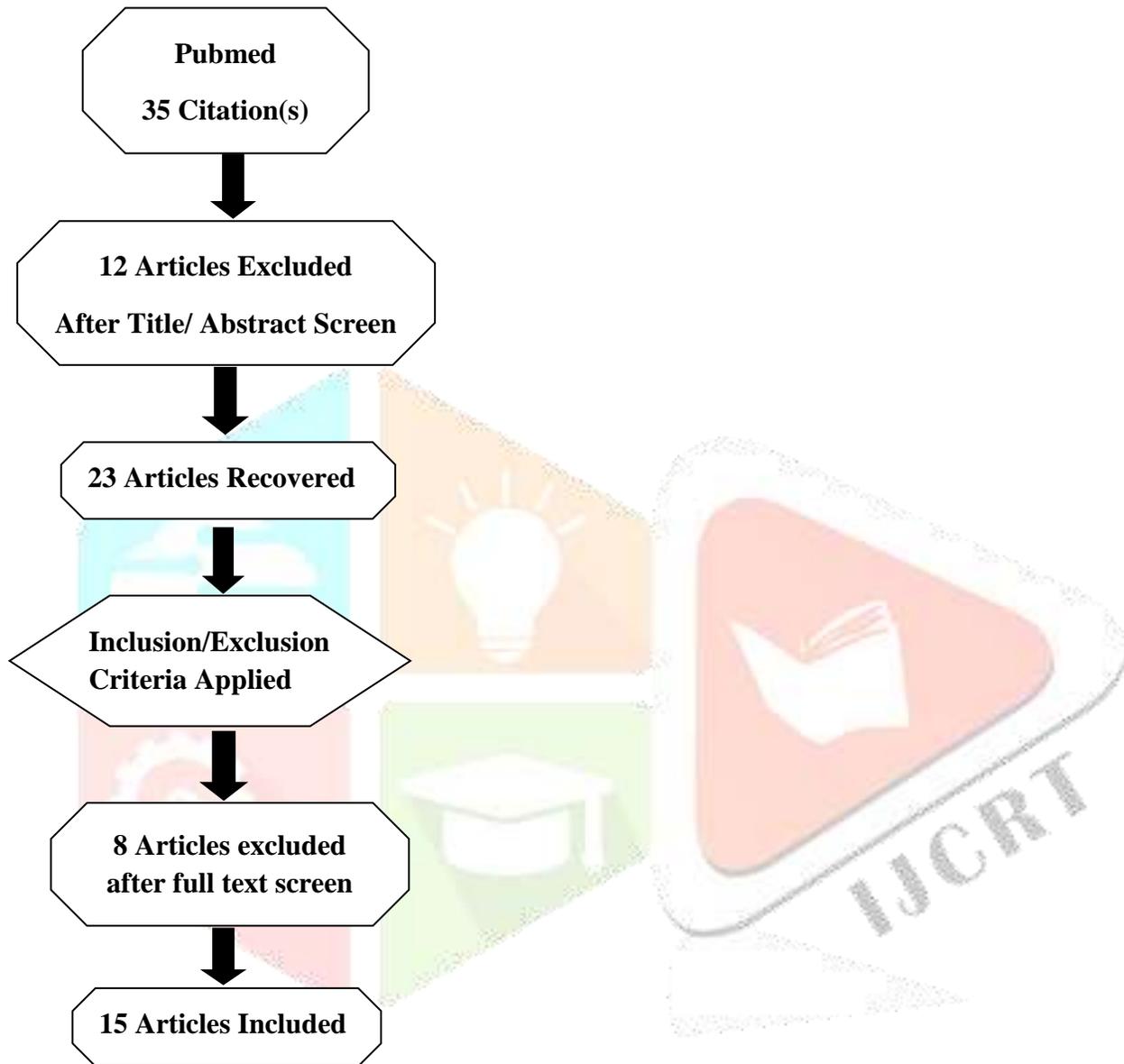


Figure 1. PRISMA chart shows the selection process of article

Author(s)	Year	Country	Study Tool	Sample Size	Results
<u>Zambudio et al. (1)</u>	2009	Iran	Questionnaire based study	150 nurses	The attitude average score between males and females was $85.25 \pm 35.61$ and $70.37 \pm 46.53$ , respectively. The practice average score in females was $34.43 \pm 47.71$ and between males was $29.63 \pm 46.53$ . The knowledge average scores were $50.60 \pm 16.19$ and $56.54 \pm 17.48$ for two groups ( $p > 0.05$ ). The knowledge average scores between different age groups was significant ( $p < 0.05$ ).
<u>L.Martínez-Alarcón et al.(2)</u>	2009	Spain	Questionnaire based study	305 nurses	Most respondents (63%) favored organ donation. The following variables affected attitude: (1) having a favorable attitude toward donation of a family member's organs ( $P < .001$ ), (2) knowing the concept of brain death ( $P < .001$ ), (3) having discussed organ donation and transplantation within the family ( $P = .001$ ), (4) having a favorable attitude toward autopsy ( $P = .006$ ), (5) fearing mutilation of the body ( $P < .001$ ), (6) a partner's attitude toward organ donation and transplantation ( $P < .001$ ), and (7) the respondent's religion ( $P = .009$ ).
<u>Bukelwa Green et al(3)</u>	2017	South Africa	Questionnaire based study	108 nurses	About 67% of the respondents had good knowledge, 53% had a positive attitude, and 50.4% had poor practice readiness toward organ donation.
<u>K Crymble et al(4)</u>	2017	South	Questionnaire based study	273 nurses	Most nurses (64.2%) were willing to donate their own organs after death. In addition, most nurses (63.2%) felt that their personal beliefs did not

		Africa			influence advice given to patients and families regarding organ donation. The majority (85.9%) felt that end-of-life care should be offered to all terminally ill patients and their families, and (79.9%) that identifying these families was the role of the attending doctor.
Safiye Yanmis(5)	2018	Turkey	Questionnaire based study	120 nurses	86.7% of the nurses stated that they wanted to donate their own organs, 94.7% said they wanted their relatives to donate their organs. The mean value of the nurses' professional values has been determined to be $95.10 \pm 25.41$ .
RP Tamuli et al(6)	2019	India	Questionnaire based study	360nurses	79.17% (285) of participants were aware about organ donation, and out of all participants, families of only three have donated organ in the past 5 years. A total number of 12 (3.33%) participants have signed up for organ donation. More than half (186) (51.67%) of the study group opined that there is lack of awareness among people which may be one of the reasons for low rates of organ donation.
Maryam Janatolmakane t al (7)	2019	Iran	Questionnaire based study	185nurses	27.6% ( $n = 51$ ) of the nurses and 21.6% ( $n = 40$ ) of their families had organ donation cards. A history of caring for brain-dead patients was reported by 143 subjects (77.3%)
Sami Akbulu et.al(8)	2020	Turkiye	Questionnaire based study	560nurses	Only 6.5% of the nurses donated their organs. While 31.9% stated that they are willing to consider organ donation in the future, 41.3% were not decided about organ donation yet, and 27% rejected organ donation in any condition.

Zeljko Vlasic (9)	2020	Serbia	Questionnaire based study	264 nurses	The average knowledge score concerning organ donation was 29.03 (SD, 2.33; range, 23-34). There was a statistically significant difference in the scores between 2 groups formed according to the length of service ( $P < .001$ ) and the level of education ( $P = .019$ ), which showed the strongest influence on nurses' attitudes toward donation.
Janatolmakan M et al.(10)	2020	Iran	Questionnaire based study	185 nurses	The mean knowledge of nurses was $8.9 \pm 4$ out of 10. There was a significant relationship between knowledge of nurses regarding donation and religion and having organ donation card ( $p < 0.001$ ). The mean attitude of nurses was $7.8 \pm 2.2$ out of 8. Knowledge was the strongest predictor of nurses' performance ( $p < 0.01$ ).
Bożena Majchrowicz et al (11)	2022	Poland	Questionnaire based study	793 nurses	According to 90.3% of respondents, having knowledge about transplantation can make a big difference in an individual's decision to donate organs.
Bukelwa Green et al(12)	2023	South Africa	Questionnaire based study	108 nurses	The study observed that only 62.7%, 53%, and 49.7% of professional nurses had good knowledge, positive attitude and good practices toward organ donation, respectively.
Ahmet Karaman et al.	2015	Turkey	Questionnaire based study	353 nurses	It was determined that 74.5% of the intensive care nurses carefully listened to the family/relatives of the patient with possible brain death or suffering from brain death and supported them to express their emotion and thoughts clearly; when

					<p>the family/relatives of the patients hospitalised in the intensive care</p> <p>unit wanted to get information about organ donation, 20.7% of the nurses made the preliminary explanation</p> <p>themselves and then guided the patient to an organ transplant coordinator for detailed information and 3.1% of the nurses generally gave this information themselves.</p>
--	--	--	--	--	--

**Studies based on interventions used to improve the knowledge and attitude (14-15).**

Jalal Azmandian et al (14)	2012	Iran	Questionnaire based study	120 nurses	<p>Results showed that before education the least knowledge was about three organs of lung, pancreas and marrow that it was 73.3%, 57.5%, and 54.2% respectively, while after education it had been increased 95%, 91.7% and 80% , respectively (p&lt;0.001). The average of nurses' knowledge about process of brain death and donation after education was 9.4 (±0.78) that in compare with before education had 7.5 (±2.6) significant increase (p&lt;0.001). Total average of nurses' attitude towards process of brain death and organ donation before training course was 65.7 (±13.7) which had been significantly increased to 76.9 (±8.7) two weeks after education (p&lt;0.001).</p>
----------------------------	------	------	---------------------------	------------	--

Reena M(15)	2021	Tamil Nadu	Questionnaire based study	286 nurses	The results reported that after administration of education module, the overall percentage of mean improvement score in the level of knowledge was 78.76%, 84.34% in the level of attitude and 85.73% in the level of practice. The study result proposes and research investigator recommends that the utilization of education module among nurses will help to promote the successful organ donation process.
-------------	------	------------	---------------------------	------------	--

## Results

A total of 35 articles were recovered from the database out of which 15 articles chosen based on the inclusion and exclusion criteria. Out of 15 articles, only two articles were related to the influence of intervention in knowledge and attitude of nurses toward organ donation and transplantation.

From the literature it was noticeable that in most of the circumstances the knowledge and attitude regarding organ donation among nurses is not satisfactory. However, few studies state that nurses do possess adequate knowledge regarding organ donation and are influenced by many factors like age, experience and the unit in which they work.

## Discussion

In the present study, an attempt has been done to perform a systematic review of literature regarding the knowledge and attitude of organ donation and transplantation among nurses and the impact of interventions in that. Further, this systematic review has brought out lack of educational programs on organ donation and transplantation among nurses and contributes to the poor knowledge and attitude on the same. It has been proved in many studies that the knowledge and awareness of the organ donation and transplantation has been improved considerably various educational programmes. Thus, imparting the information on organ donation and transplantation through media and workshops will definitely have an influence on knowledge and attitude of nurses towards organ donation among nurses. However, many such studies should be conducted for nurses to prove this statement.

## Conclusions

From this systematic review it is found that the knowledge and attitude of nurses towards organ donation is not to the expected level. However, it has been identified that certain factors like experience, media and organ donation card have an influence in their knowledge and attitude. Further, it has been identified that the interventions like workshop and peer education do improve their knowledge to considerable level.

## References

1. Ballala K, Shetty A, Malpe S. Knowledge, attitude, and practices regarding whole body donation among medical professionals in a hospital in India. *Anat Sci Ed.* 2011;4(3):142-150.
2. Chernenko S, Jensen L, Newburn-Cook C, Bigam D. Organ donation and transplantation: a survey of critical care health professionals in nontransplant hospitals. *Progress in Transplantation.* 2005; 15(1):69-77.
3. Chhabra P, Sharma G, Kannan A. Prevalence of respiratory disease and associated factors in an urban area of Delhi. *Indian Journal of Community Medicine.* 2008; 33(4):229.
4. Edwin AR, Raja D. Attitude of health care professionals towards organ donation. *The Journal of Urol.* 2000; 16:98-105.
5. Ghorbani F, *et al.* Organ donation and Transplant. *Transplant Proc.* 2011; 43(2):405-6
6. Go2, Fugen Go2, Mustafa, Erkan, Medine. Knowledge and attitudes of medical nursing, dentistry and health technician students towards organ donation. *The Journal of Clinical Nursing,* 2006, 15(11).
7. Guleria K, Singh A, Kumar B, Agrawal P, Agrawal S. Trends of organ donation and awareness in Ernakulam, Kerala. *BMC Proceedings.* 2012; 6 (Suppl 4):P48.
8. Milaniak I, Przybylowski P, Wierzbicki K, Sadowski J. Organ Transplant Education: The Way to Form Altruistic Behaviors Among Secondary School Students Toward Organ Donation. *Transplantation Proceedings.* 2010; 42(1): 130-133.
9. Pierini L, Valdez P, Pennone P, Verges J, Melano R, Cabezas V *et al.* Teenager Donation: Investigation of 848 High School Students. *Transplantation Proceedings.* 2009;41(8):3457-3459.
10. Ríos A, Febrero B, López-Navas A, Martínez-Alarcón L, Sánchez J, Guzmán D *et al.* From Where Do Our Children Receive Information About Organ Donation and Transplantation?. *Transplantation Proceedings.* 2010; 42(8): 3113-3115.

11. Rykhoff M, Coupland C, Dionne J, Fudge B, Gayle C, Ortner T et al. A clinical group's attempt to raise awareness of organ and tissue donation. *Progress in Transplantation*. 2010;20(1):33-39.611.

12. Seth A, Nambiar P, Joshi A, Ramprasad R, Choubey R, Puri P et al. First prospective study on brain stem death and attitudes toward organ donation in India. *Liver Transpl*. 2009; 15(11):1443-1447.

