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Nurses knowledge, attitude and practice regarding organ & tissue donation: A Narrative Review

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Abstract

Giving to someone life is a blissful act, which assumed that except God no one can else do but little process of medical science has made a small step in this by transplanting the donor's organ or tissue to recipient person. This transplantation gives new life to needy person. But the most common challenge faced in this process is identifying and getting consent from donors. I thought to take it up as a new investigated area to identify the nurse's attitude, their understanding and what are they practicing in this area. This was a narrative review, here I have gathered information in a very systematic way. The electronic data base such as ProQuest, Embase, PubMed, PsycARTICLES, EBSCO, Research Gate, EORTC, Scopus, Educational Resources Information Centre (ERIC), and Allied Health Literature (CINHAL) were searched and article published in between from 2012 to 2022 were identified. A total 878 articles were received from these search engines and based on systematic scrutinizing process a total of 10 articles were included in the review. Reviewed study's findings suggested that nurses are carrying limited knowledge with some constrained attitude and with poorly practicing it in their professional life, therefore researcher recommends to take up such problem and introduce intervention to enhance the overall understanding, attitude and practice of staff nurses who are working in real clinical set-up.

Keywords: Organ and tissue donation, knowledge, attitude, practice & staff nurses

Introduction

Living is an active process. Birth is the beginning, and death is the finish. There are a variety of life periods in between, each with their own ailments and issues. Organ transplantation, which has the capacity to save the client's life, is the most remarkable feat of contemporary medicine. Medical innovation and technology have started to save lives (G Gowri G Geetha). Patients with advanced organ failure may improve their quality of life via organ transplantation. All patients with end-stage organ failure did not have an equitable chance for organ transplantation due to a scarcity of donor organs. (Vincent *et al.* 2019) ^[18]. The choice to agree is greatly influenced by the views of medical professionals on organ donation and their readiness to speak with the family members of a brain-dead patient. In clinical practise, nurses are the first health care providers to recognise a possible donor and alert the team or coordinator in charge of organ transplantation. (Sarveswaran *et al.* 2018) ^[13].

A person may assist someone who is suffering from organ damage and severe organ dysfunction by donating their organs. When we contribute our lives, we give others hope for a brighter future in addition to improved health and welfare. Recipients of donated organs and tissues have the chance to restore their health and live productively (Moloney *et al.* 2022) ^[12]. The gift of donated organs and tissue to the donor's family also provides solace during their very painful time of loss. A full or partial organ is moved from one body to another (or from the donor location on the patient's own body) during an organ transplant in order to replace the recipient's damaged or failing organ with a functioning one from the donor's site. The donor might be alive or dead. (Siraj).

In the previous 10 years, about 49,000 individuals in the UK have waited for an organ transplant, and more than 6,000 of them, particularly 270 children, have passed away before obtaining one. Transplanting has been a popular procedure all across the globe in the last 50 years. In contrast, a recent report from Kidney International shows that India has fallen to 40th place in terms of the number of transplants per million populations, with just 3% of those in need of a kidney transplant due to renal insufficiency receiving one.

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(Molina-Pérez *et al.* 2022; Crymble *et al.* 2017; Tamuli *et al.* 2019) ^[11, 5, 16].

Organ donation and transplantation activities are regulated by public opinion and medical professionals' attitudes, as well as the degree of coordination and organisation within the transplantation unit. As predictors of contribution habits, characteristics including amount of relevant information, education, religion, ethnicity, gender, and traditional values may affect how the general public feels about organisations. (Venkatesan *et al.* 2022) ^[17].

The effectiveness of the organ donation programme depends greatly on the community's attitude toward organ donation and the family's approval of organ donation in the case of brain death. Medical, legal, ethical, institutional, and societal issues are associated with its method (Fan *et al.* 2022) ^[7].

Due to recent technical advancements and feasible and possible organ transplantation, the demand for organs has skyrocketed. As a result, organ scarcity has gained international attention. Since recipients of hearts, lungs, and livers cannot survive for long on mechanical devices, the scarcity of cadaver organs is particularly important (Akbulut *et al.* 2022; Molina-Pérez *et al.* 2022; Fan *et al.* 2022) ^[2, 11, 7].

A favorable environment for organ donation and procurement is greatly influenced by the knowledge, attitude, and behaviors of medical personnel. For the effectiveness of the organ donation programme, it is crucial to learn about and evaluate the nurses' understanding, perspective, and behavior around organ donation. This review scheduled to understand the knowledge, attitude, and practice of nurses regarding organ and tissue donation.

Materials and Methods

The literature review was designed as a narrative study, because a broader perception of knowledge, attitude, and practice of nurses regarding organ and tissue donation is different. The articles were included from various countries. A systematic electronic search was used to identify number of studies carried out on knowledge, attitude, and practice of nurses regarding organ and tissue donation. The original research papers were only included in study. The following electronic databases are searched: ProQuest, Embase, PubMed, PsycARTICLES, EBSCO, ResearchGate, EORTC, Scopus, Educational Resources Information Centre (ERIC), and Allied Health Literature (CINHAL). The existing literatures were very systematically opted to recruit into this narrative review.

Inclusion criteria

1. The research paper only which directly belongs to any variable of knowledge, attitude, and practice of nurses regarding organ and tissue donation.
2. The paper which is easily accessible online and full text available.
3. The studies which are completed in English language.
4. Articles included from the year 2012 to 2022.

Exclusion criteria

1. Poor quality journal publications.
2. The research study which is published in without ISSN number journals.
3. The research studies which are not available on journal database.

4. The research studies in which only abstract is available.
5. The studies which are published in local language.

Search Strategy

MeSH terminology used for PubMed and ERIC ("knowledge, attitude, and practice of nurses regarding organ and tissue donation" {MeSH Terms} OR ("knowledge of organ donation" {All Fields} AND "attitude about organ & tissue donation" {All Fields})) OR "organ donation" {All Fields}) AND ("practice regarding organ donation" {MeSH Terms} OR "tissue donation" {All Fields}) AND ("staff nurses" {MeSH Terms}).

Results and Discussion

A total 878 articles were received from search engines from that 575 articles were excluded bases on exclusion criteria. So total retrieved articles were 303 among all 74 duplicate articles, 69 No full text available, 59 not relevant and 52 abstracts were excluded. Final retrieved articles were 49; among them 39 full articles were excluded based on inclusion criteria. Finally, 10 articles were included in the review.

There were many researches organized in view to organ and tissue donation, where they included many dimensions of it. Based on this narrative review, the researcher opted best suited article.

A team of researchers set out to evaluate the understanding, perspective, and attitude of undergraduate medical and nursing students on organ donation. Researchers used easy sampling to perform this cross-sectional study among medical and nursing students in their first four academic years at a tertiary care teaching hospital. In all, 620 individuals were recruited. Information was gathered using a self-administered, semi-structured questionnaire that had been pretested, and SPSS 19 was used for the analysis. The results showed that among medical students, the median scores on knowledge, attitude, and perception were 16 (14–17), 25 (23–28), and 41 (38–45), respectively, whereas among nurses, the median scores were 14 (12–16), 25 (22–27), and 39 (33–42). Nearly half (46.9%) of the survey subjects were familiar with the term of brain death. Twenty-nine percent of survey participants were aware that there were laws governing organ donation, and more than half (52.7%) of those people cited a few restrictions and guidelines included in those regulations. Based on that, the scientists came to the conclusion that only around half of the research participants knew what brain death was and that there was a legislation requiring organ donation (Vincent *et al.* 2019) ^[18].

The purpose of this descriptive cross-sectional research was to evaluate nursing students' levels of awareness, comfort, and confidence in organ donation. The research was place at the Postgraduate Institute of Medical Education and Research at the National Institute of Nursing Education in Chandigarh. Two hundred nursing students in both undergraduate and graduate programme were recruited using a stratified systematic random selection approach. Self-administered structured questionnaires with three sections (evaluation of knowledge, evaluation of attitude, and evaluation of perception) were used to compile the data. The survey found that 74.5 percent of participants had a moderate degree of understanding about organ donation, 22.2 percent had a low level of knowledge, and 3.5 percent had a high level of knowledge. Ten participants had a mean

knowledge score of 10.56 ± 2.01, with scores ranging from 5 to 17. In a survey of people's thoughts on organ donation, 45.5% responded positively, 55.5% were agnostic, and 1% were very unfavorable. The results showed that most students had a standard level of awareness regarding organ donation and either a neutral or favorable attitude and opinion towards it. In addition to what they learn in class, nursing students require additional organ donation education programme (Krishnan *et al.* 2015) [10].

The effectiveness of intervention on knowledge, attitude, and behaviors around organ donation was not well studied. 112 dental house surgeon students from Hyderabad took part in this questionnaire-based interventional investigation. Students were given a 27-item questionnaire to complete on their own as a pretest, and it was then collected. Following imparting the fundamentals of organ donation at a subsequent session in a lecture hall, posttests were administered two weeks after the intervention. According to its study, there were noticeable changes in a number of important areas from the individuals' baseline knowledge to that at the post-intervention and follow-up points. More than 50% of research participants were in favor of organ donation. The proportion of respondents who made an organ donation commitment or committed to do so increase significantly (before: 14.3%, post-intervention: 50%, and at follow-up: 60.7%; $P < 0.05$). The mean knowledge, attitude, and practice scores significantly increased after the intervention and at the 2-week follow-up in comparison to baseline levels, according to a pairwise comparison. Hindu-religious subjects and female subjects exhibited excellent knowledge, a good attitude, and good behavior. It was shown that dentistry students' attitudes and behaviors about organ donation had been favorably affected by the one short educational intervention, which considerably raised perceived knowledge of organ donation (Srinivasula *et al.* 2018) [15].

A cross-sectional study was conducted with a sample size of 380 randomly chosen residents of Bojnurd to assess their familiarity with and opinions about brain death and organ donation. According to its results, 380 people were analyzed, with a mean age of 29.919.32 (with a somewhat higher proportion of females). The average scores for knowledge and perspective were 11.42 (2.40) and 39.8 (6.01), respectively. The majority of individuals were only somewhat aware of the importance of organ donation (63%), and even fewer had a positive outlook on the topic (74%). Those with negative outlooks also had lower levels of awareness, and this was a statistically significant finding ($p=0.047$). This led them to the conclusion that most people have an unfavorable view of organ donation (Hejazi *et al.* 2017) [9].

This research on organ donation awareness was carried out at one of Guwahati's top educational institutions. 360 people were surveyed using a pre-made questionnaire; 180 of them were undergraduate students, and the other 180 were postgraduate faculty members. The data reveals that 79.1% (285) of participants (791 out of 791) of respondents were 79.1% (285) of the respondents (285) were 79.1% (285) of the contestants (285) were 79.1% (285) 12 individuals, or 3.33%, have opted to donate their organs. 12.5% of those who participated in the research had the opinion that certain religious convictions may restrict some segments of the local community from receiving or donating organs. More over half of the research participants—186—

(51.67%) — believed that one of the factors contributing to the low rates of organ donation is a lack of public awareness. Based on this, it was determined that India's organ donation programmes are at a very early stage and are almost nonexistent in the country's northeast (Tamuli *et al.* 2019) [16].

The donation of organs involves nurses in complex ways. The purpose of this study was to examine nurses' understanding of the organ donation procedure as well as individuals' attitudes and views towards organ donation. In order to collect the data for this quantitative study, a self-administered questionnaire was used. It was discovered that 273 nurses took part in all, the majority of them were female and under 50 years old. Sixty-two percent of participants (64.2%) had a favorable attitude, and 63.2% said their own opinions on organ donation had no impact on the guidance they offered to patients. However, only 35.8% of respondents and 36.8% of respondents felt confidence in suggesting prospective donors, respectively. The majority of participants (84.5%) said that doctors should recommend donors, but 80.3% said that if there was an obligatory referral system, they would suggest donors on their own. Only 61% of nurses knew that their hospitals had a transplant procurement coordinator available to them, and many were unsure of the coordinator's duties. It was determined that there is an urgent need to define nurses' roles in the referral process for organ donors in SA. Despite having a good attitude about organ donation, nurses indicated uncertainty when it came to recommending possible donors (Crymble *et al.* 2017) [5].

One research looked on hospital nurses' attitudes and understanding about the donation of brain-dead organs. 210 hospital nurses' data were gathered using standardized, self-administered questionnaires. First, 12.66 ± 2.01 out of 17 and 3.56 ± 0.44 out of five, respectively, were the means and standard deviations for hospital nurses' knowledge and attitudes concerning brain-dead organ donation. The knowledge and attitudes of hospital nurses on brain-dead organ donation did not significantly vary by working departments (ward) or organ donation education experience. Third, gaining awareness about brain-dead organ donation was crucial in fostering a favorable attitude toward the practice. It was determined that in order to increase awareness and a favorable attitude toward brain-dead organ donation, an assessment system based on academic achievement and hospital nurses' increased interest in the practice are required (Choi *et al.* 2016) [4].

It is very crucial for the success of an organ donation programme in a country that medical students have the appropriate information and mindset when it comes to organ donation. At Government Medical College in Trivandrum, which is located in Kerala, India, the purpose of this research was to evaluate the knowledge and attitude of medical students towards organ donation. It was cross-sectional research, and the data were acquired from 194 MBBS students in their final year via the use of a questionnaire that they self-administered. According to the results, the vast majority of students had enough information about organ donation; nevertheless, this knowledge did not transfer into a desire to donate organs, either live or from a deceased person. The findings of the research emphasize how important it is for medical students to participate in interdisciplinary educational programme that enable them to comprehend the complexities of the problem from a more

comprehensive perspective (Adithyan *et al.* 2017) ^[1]. An investigation was conducted to ascertain the opinions and understanding of critical care nurses towards organ donation. 92 nurses in total participated in the cross-sectional research. Three separate intensive care units employed these responders. According to the findings, the average age of the nurses who took part in it was 28.8 years and 5.93 months. Most respondents said that their religious convictions did not preclude organ donation, and 98.6% acknowledged that the amount of organ donation in Turkey was insufficient. 68.9% of the participants said they would be open to receiving an organ transplant if necessary. People who agreed to receive organs were also prepared to give them away. It was determined that despite the generally good sentiments regarding organ donation, little is being done to get donor cards, indicating the need for more zealous donation campaigns and education (Calikoglu *et al.* 2018) ^[3].

There have been ups and downs for the dead donor renal transplantation (DDRT) programme in India. The DDRT programme in the Indian state of Tamil Nadu is effective. In order to examine medical students' understanding, attitudes, and practises about organ donation, cross-sectional research was conducted. To collect the data, the approved questionnaire forms were handed out during class. The results showed that knowledge scores were consistently poor across all four student batches ($p=0.001$). In the practise and attitude areas, first- and third-year students performed better ($p 0.001$). Males outnumbered females, who performed well across all three areas. The low knowledge score across all batches of medical students was ultimately found to be concerning. This suggests that urgent adjustments to the medical curriculum are required to properly prepare the nation's future medical professionals (Darlington *et al.* 2017) ^[6].

Conclusion

Researcher made all attempts to gather all relevant information in view to assess the existing knowledge, attitude and practice level of health science fraternity regarding organ and tissue donation. Throughout the review process, researcher came in impression that majority of health science professionals either nurses, medicals, dentals or para-medicals are having compromised knowledge, neutral attitude and constrained practice level in regard to organ and tissue donation. It was gathered that majorly all relevant research recommended some educational intervention to enhance the overall understanding of health science professionals. This review made a way for researcher to take up conclusion from this review to develop some intervention which can be helpful to health science professionals with intension to improve knowledge, attitude and practice level regarding organ and tissue donation.

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References

1. Adithyan GS, *et al.* A Study on Knowledge and Attitude about Organ Donation among Medical Students in Kerala. *Indian Journal of Transplantation.* 2017;11(3):133–37, DOI: 10.4103/ijot.ijot_49_17.
2. Akbulut, Sami, *et al.* Knowledge Levels, Attitudes, and Awareness of Nurses toward Organ Donation. *Northern Clinics of Istanbul.* 2022;9(4):367–75. DOI: 10.14744/nci.2022.24478.
3. Calikoglu, Elif Oksan, *et al.* Knowledge and Attitudes of Intensive Care Nurses on Organ Donation. *Eurasian Journal of Medicine and Oncology.* 2018;2(4):238–42. DOI: 10.14744/ejmo.2018.0031.
4. Choi, Ji Yun, *et al.* Hospital Nurses' Knowledge and Attitude toward Brain-Dead Organ Donation. *International Journal of Bio-Science and Bio-Technology.* 2016;8(5):247–58. DOI: 10.14257/ijbsbt.2016.8.5.22.
5. Crymble K, *et al.* Nurses' Knowledge about and Attitudes toward Organ Donation in State and Private Hospitals in Johannesburg, South Africa. *Southern African Journal of Critical Care.* 2017;33(2):52–57. DOI: 10.7196/322.
6. Darlington, Danny, *et al.* Study of Knowledge, Attitude, and Practice of Organ Donation among Medical Students in a Tertiary Care Centre in South India. *Cureus* (2019); c December 2017. p. 11. DOI: 10.7759/cureus.4896.
7. Fan, Xiaojing, *et al.* Knowledge, Attitudes and Willingness to Organ Donation among the General Public: A Cross-Sectional Survey in China. *BMC Public Health.* May 2022;22(1):918. DOI: 10.1186/s12889-022-13173-1.
8. G Gowri, G Geetha, AR Bharathi. A Study to Assess the Effectiveness of Structured Teaching Programme Regarding Organ Donation among Adolescent Boys in Selected School, Chennai. *Journal of Research in Medical and Dental Science.* 2021;9(8):77–81. www.jrmds.in.
9. Hejazi, Sima Sadat, *et al.* Knowledge and Attitudes toward Brain Death and Organ Donation in Bojnurd. *Electronic Physician.* 2017;9(7):4746–52. DOI: <http://dx.doi.org/10.19082/4746>.
10. Krishnan, Nadiya, *et al.* Knowledge, Attitude and Perception Regarding Organ Donation among the Nursing Students. *Journal of Postgraduate Medicine, Education and Research.* 2015;49(3):105–10. DOI: 10.5005/jp-journals-10028-1157.
11. Molina-Pérez, Alberto, *et al.* Differential Impact of Opt-in, Opt-out Policies on Deceased Organ Donation Rates: A Mixed Conceptual and Empirical Study. *BMJ Open.* Sept. 2022;12(9):e057107. DOI: 10.1136/bmjopen-2021-057107.
12. Moloney, Gail, *et al.* Respect, Interaction, Immediacy and the role community plays in registering an organ

- donation decision. *PloS One*. 2022;17(1):e0263096.
DOI: 10.1371/journal.pone.0263096.
13. Sarveswaran, Gokul, *et al.* Knowledge, Attitude, and Practice Regarding Organ Donation among Adult Population of Urban Puducherry, South India. *Journal of Education and Health Promotion*. September, 2018;7:117. DOI: 10.4103/jehp.jehp_44_18.
 14. Siraj, Md Sanwar. How a Compensated Kidney Donation program facilitates the sale of human organs in a regulated Market: The Implications of Islam on Organ Donation and Sale. *Philosophy, Ethics, and Humanities in Medicine: PEHM*. July 2022;17(1):10. DOI: 10.1186/s13010-022-00122-4.
 15. Srinivasula, Samata, *et al.* Influence of Health education on knowledge, attitude and practices toward organ donation among dental Students. *Journal of Education and Health Promotion*. December, 2018;7:1–6. DOI: 10.4103/jehp.jehp_102_18.
 16. Tamuli, Raktim Pratim, *et al.* Organ Donation – “attitude and Awareness among Undergraduates and Postgraduates of North-East India. *Journal of Family Medicine and Primary Care*. 2019;8(1):130–36. DOI: 10.4103/jfmpc.jfmpc_206_18.
 17. Venkatesan, Krishnaraju, *et al.* Strategies to Improve Organ Donor Pool: A study on the knowledge, attitudes and performance of higher secondary School Teachers towards the Organ Donation. *BioMed Research International*; c2022. p. 5438492. DOI: 10.1155/2022/5438492.
 18. Vincent, Britzer Paul, *et al.* Social Support and Self - Care Behavior Study. *Journal of Education and Health Promotion*. August, 2019;8:1–6. DOI: 10.4103/jehp.jehp_439_18.

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