



Faculty of Medicine and Health Sciences

**KNOWLEDGE, ATTITUDE AND PRACTICE  
TOWARDS ORGAN DONATION AMONG  
NURSING UNDERGRADUATE STUDENTS FMHS UNIMAS**

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**70108**

**Bachelor of Nursing with Honours**

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**KNOWLEDGE, ATTITUDE AND PRACTICE  
TOWARDS ORGAN DONATION AMONG  
NURSING UNDERGRADUATE STUDENTS FMHS UNIMAS**

This graduation exercise is submitted in partial fulfilment of requirement  
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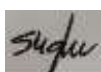
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## Abstract

**Background:** The majority of patients on the organ transplant list died while waiting and hoping to get a new organ. Thus, organ donation was necessary to reduce the gap between the patients who need transplantation and the availability of eligible donors.

**Aim:** To assess the level of knowledge, attitude and practice towards organ donation among nursing undergraduate students from FMHS UNIMAS.

**Methodology:** Descriptive cross-sectional quantitative study was conducted among 132 randomly selected nursing undergraduate students from FMHS UNIMAS. A semi-structured questionnaire comprised of four sections (socio-demographics data, knowledge, attitude and practice) was used to collect data. The data was entered and analysed using IBM SPSS Statistic 26.0 version.

**Results:** 18.9% of nursing students had good knowledge, 29.5% of nursing students had fair knowledge, and 51.5% of nursing students had poor knowledge towards organ donation. The nursing students had equal distribution level of attitude as 50% of them had either negative or positive attitude towards organ donation. 68.9% of nursing students had bad practice, while 31.1% of nursing students had good practice towards organ donation. There was no statistically significant relationship between knowledge and attitude ( $r=.037$ ,  $p=.672$ ) or knowledge and practice ( $r=-.013$ ,  $p=.735$ ), but there was a statistically significant relationship between attitude and practice towards organ donation ( $r=.396$ ,  $p=.000$ ).

**Conclusion:** Overall, the nursing undergraduate students from FMHS UNIMAS were found to have poor knowledge, equal distribution level of attitude either negative or positive and bad practice habits towards organ donation. Therefore, necessary

educational interventions were needed to consolidate their knowledge, attitude and practice towards organ donation.

**Keywords:** Knowledge, Attitude, Practice, Organ donation, Nursing undergraduate students

## **Abstrak**

**Latar belakang:** Majoriti pesakit dalam senarai pemindahan organ mati ketika menunggu dan berharap dapat mendapatkan organ baru. Oleh itu, pendermaan organ diperlukan untuk mengurangkan jurang antara pesakit yang memerlukan pemindahan dan ketersediaan penderma yang layak.

**Matlamat:** Untuk menilai tahap pengetahuan, sikap dan amalan terhadap pendermaan organ di kalangan pelajar sarjana kejururawatan dari FMHS UNIMAS.

**Metodologi:** Kajian kuantitatif keratan rentas deskriptif dilakukan di antara 132 pelajar sarjana kejururawatan terpilih secara rawak dari FMHS UNIMAS. Soal selidik separa berstruktur yang terdiri daripada empat bahagian (data sosio-demografi, pengetahuan, sikap dan amalan) digunakan untuk mengumpulkan data. Data dimasukkan dan dianalisis menggunakan versi IBM SPSS Statistic 26.0.

**Hasil:** 18.9% pelajar kejururawatan mempunyai pengetahuan yang baik, 29.5% pelajar kejururawatan mempunyai pengetahuan yang adil, dan 51.5% pelajar kejururawatan mempunyai pengetahuan yang lemah mengenai pendermaan organ. Pelajar kejururawatan mempunyai tahap pengagihan yang sama kerana 50% daripadanya mempunyai sikap negatif atau positif terhadap pendermaan organ. 68.9% pelajar kejururawatan mempunyai amalan buruk, sementara 31.1% pelajar kejururawatan mempunyai amalan yang baik terhadap pendermaan organ. Tidak ada hubungan yang signifikan secara statistik antara pengetahuan dan sikap ( $r=.037$ ,  $p=.672$ ) atau pengetahuan dan praktik ( $r=-.013$ ,  $p=.735$ ), tetapi terdapat hubungan yang signifikan secara statistik antara sikap dan amalan terhadap pendermaan organ ( $r=.396$ ,  $p=.000$ ).



**Kesimpulan:** Secara keseluruhan, pelajar sarjana kejururawatan dari FMHS UNIMAS didapati mempunyai pengetahuan yang lemah, tahap sikap yang sama baik negatif atau positif dan amalan buruk terhadap pendermaan organ. Oleh itu, campur tangan pendidikan yang diperlukan diperlukan untuk menggabungkan pengetahuan, sikap dan amalan mereka terhadap pendermaan organ.

**Kata kunci:** Pengetahuan, Sikap, Amalan, Derma organ, Pelajar sarjana kejururawatan

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# **CHAPTER 1**

## **Introduction**

### **1.0 Introduction**

This research study is about “Knowledge, Attitude and Practice Towards Organ Donation Among Nursing Undergraduate Students FMHS UNIMAS”. For chapter 1, it includes background of the study, problem statement, research questions, research aims and objectives, conceptual framework, significance of the study, definition of terms and summary.

### **1.1 Background of the study**

The high demand and limited organ supply seemed to be the major hurdle in organ transplantation. This could lead to thousands of deaths worldwide as the statistics from Our World in Data displayed that a large proportion of people died from chronic diseases such as heart diseases, cancer, diabetes, respiratory diseases and so forth (Ritchie et al., 2019). It could be found to be associated with multiple organ failure. People did not know that organ transplantation was the only treatment for patients suffering from end stage organ failure. According to Haron (2022), there were still over 10455 patients on the organ transplant waiting list. However, the sad truth was, the majority of patients on the organ transplant list died while waiting and hoping to get a new organ. This might be due to the insufficient number of donors who pledged their organs and it represented a great need for more organ donors to step forward to pledge their organs.

According to Haron (2022), there had been a total of 2641 solid organ transplants performed in Malaysia since 1997 to April 2022 with 2403 kidney

transplants, 198 liver transplants and 40 cardiothoracic transplants during the past 25 years. This statistic had shown that most patients were being diagnosed with chronic kidney disease requiring dialysis in Malaysia. This kidney disease was a global health crisis which was caused by among others diabetes and hypertension. According to Daim (2022), the Health Minister Khairy Jamaluddin claimed that 16% of the world population or 2.6 million patients needed dialysis in order to sustain their life. Thus, kidney transplantation was the best option for them to avoid the frequent duration of 3 days in a week to have haemodialysis in the dialysis centre. However, there was a steeply increasing gap between the patients who need transplantation and the availability of eligible donors.

According to Haron (2022), most of the organs were donated by living donors with 1752 for kidneys and 92 for liver, while the remaining 767 organs were donated by deceased donors. This statistic displayed that the living donation rate was higher than the after-death donation rate. It was good for the recipients of living-donor kidneys to have better health outcomes and less risk of kidney transplant failure compared to deceased-donor transplants as the surgeons transplanted the kidney promptly after removing it from the donor. The living transplanted organ would function straightaway when compared to a deceased-donor organ, which might take a few days to function properly (UPMC, 2023).

In conclusion, organ donation and transplantation were necessary to lengthen the life of patients as it could improve the general health status and reduce the socio-economic burden of organ failure. According to Doaa et al. (2022), thousands of children and adults would get a renewed chance at living full and active lives each year via organ transplantation. However, the low organ donation rates due to religious beliefs, misconceptions, lack of knowledge and awareness had generated fear and



mistrust about organ donation, which made the organ transplantation program impracticable (Mane et al., 2016).

## **1.2 Problem statement**

The International Registry on Organ Donation and Transplantation (IRODaT) had ranked Malaysia among the lowest for its deceased organ donation rate. Malaysia had a mere 0.2 donors per one million population in 2021. This was an alarming statistic considering the numbers of donors in other countries were much higher with Australia, United States of America and Spain at 16.3, 41.6 and 40.8 people per million population respectively (IRODaT, 2022). This might be due to different views and acceptance, which led to different organ donation rates in every country. Thus, this problem engaged the researcher's interest to assess the attitude towards organ donation among nursing undergraduate students from Faculty of Medicine and Health Science (FMHS), Universiti Malaysia Sarawak (UNIMAS).

According to Palansamy (2022), the National Transplant Resource Centre (NTRC) stated that almost all who pledged to donate their organ after their deaths did not honor their commitment, and also, Utusan Malaysia reported that the statistics from NTRC showed that only 2641 of the 510186 (about 1%) who pledged to become organ donors kept their promise between 1997 until April 2022. This showed that they had low practice habits towards organ donation. Thus, this problem engaged the researcher's interest to assess the practice towards organ donation among nursing undergraduate students from Faculty of Medicine and Health Science (FMHS), Universiti Malaysia Sarawak (UNIMAS).

According to Palansamy (2022), despite the number of organ pledgers was high, but the lack of organ supply especially kidney was due to some pledgers died in conditions that were not suitable for their organs to be donated such as dying at home. For instance, when the organ donors died at home and no one knew, the hospital would miss the opportunity to take their kidneys and they could only take the cornea and bones as they could be taken after a few hours. This demonstrated that they had a low knowledge level towards organ donation, especially about the time duration for which an organ remained viable for transplant. Thus, this problem engaged the researcher's interest to determine the level of knowledge towards organ donation among nursing undergraduate students from Faculty of Medicine and Health Science (FMHS), Universiti Malaysia Sarawak (UNIMAS).

According to Kaur (2022), in the research published by Dr Farida and her colleagues in 2020 that studied the willingness of Malaysians to donate their kidneys, the number of kidney donors varied across ethnic groups with 72.7% Indians, 61.8% Chinese and 33.3% other ethnic groups outweighing 10.6% Malays. This statistic had shown that ethnicity appeared to be a vital factor in influencing the organ donation rates in Malaysia. Thus, this problem engaged the researcher's interest to determine whether the socio-demographic data of nursing undergraduate students from Faculty of Medicine and Health Science (FMHS), Universiti Malaysia Sarawak (UNIMAS) could be the confounding factors in affecting their knowledge, attitude and practice towards organ donation.

### **1.3 Research questions**

The research questions for this study are:

1. What is the level of knowledge towards organ donation among nursing undergraduate students from Faculty of Medicine and Health Science (FMHS), Universiti Malaysia Sarawak (UNIMAS)?
2. What is the attitude towards organ donation among nursing undergraduate students from Faculty of Medicine and Health Science (FMHS), Universiti Malaysia Sarawak (UNIMAS)?
3. What is the practice towards organ donation among nursing undergraduate students from Faculty of Medicine and Health Science (FMHS), Universiti Malaysia Sarawak (UNIMAS)?
4. What is the relationship between knowledge, attitude and practice towards organ donation among nursing undergraduate students from Faculty of Medicine and Health Science (FMHS), Universiti Malaysia Sarawak (UNIMAS)?

#### **1.4 Research aim and objectives**

The research aim for this study is to assess the level of knowledge, attitude and practice towards organ donation among nursing undergraduate students from Faculty of Medicine and Health Science (FMHS), Universiti Malaysia Sarawak (UNIMAS).

The research objectives for this study are:

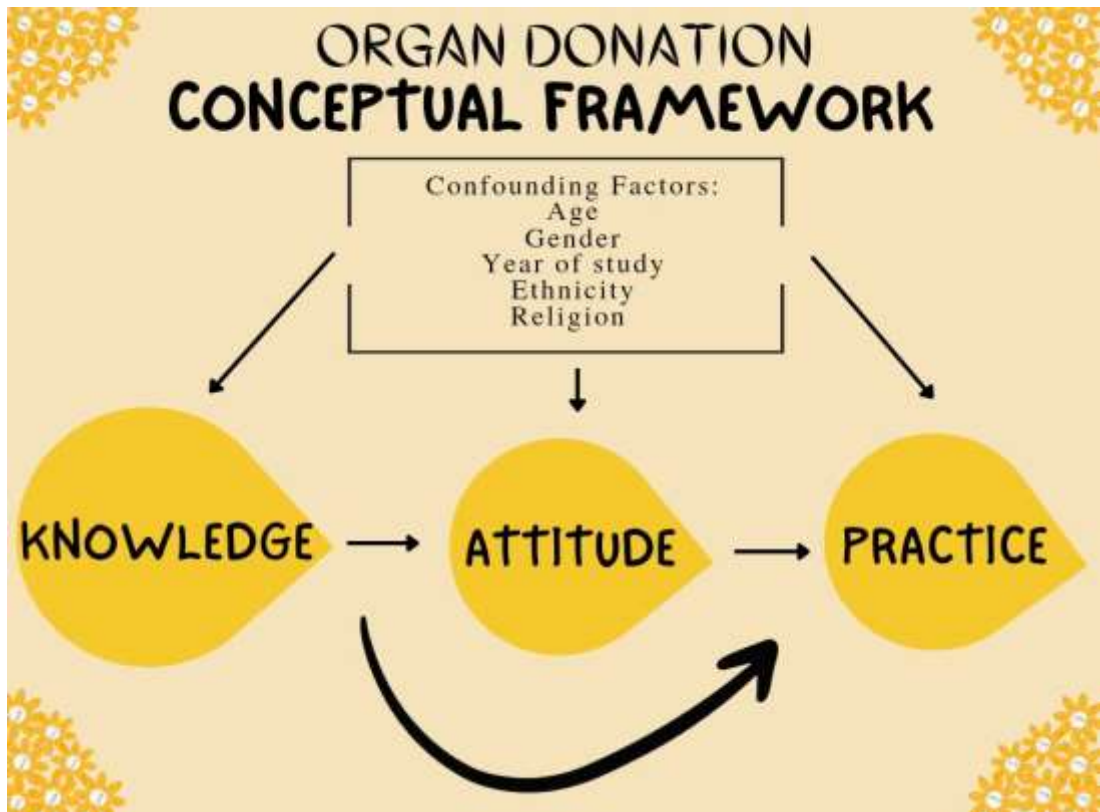
1. To determine the level of knowledge towards organ donation among nursing undergraduate students from Faculty of Medicine and Health Science (FMHS), Universiti Malaysia Sarawak (UNIMAS).
2. To assess the attitude towards organ donation among nursing undergraduate students from Faculty of Medicine and Health Science (FMHS), Universiti Malaysia Sarawak (UNIMAS).
3. To assess the practice towards organ donation among nursing undergraduate students from Faculty of Medicine and Health Science (FMHS), Universiti Malaysia Sarawak (UNIMAS).
4. To examine the relationship between knowledge, attitude and practice towards organ donation among nursing undergraduate students from Faculty of Medicine and Health Science (FMHS), Universiti Malaysia Sarawak (UNIMAS).

## **1.5 Conceptual framework**

The researcher planned to examine the relationship between knowledge, attitude and practice among nursing undergraduate students from Faculty of Medicine and Health Science (FMHS), Universiti Malaysia Sarawak (UNIMAS). Thus, the following hypothesis was generated:

1. Null hypothesis (H<sub>0</sub>): There is no relationship between knowledge and attitude or knowledge and practice or attitude and practice towards organ donation among nursing undergraduate students from FMHS UNIMAS.
2. Alternative hypothesis (H<sub>A</sub>): There is a relationship between knowledge and attitude or knowledge and practice or attitude and practice or towards organ donation among nursing undergraduate students from FMHS UNIMAS.

The socio-demographic data of nursing undergraduate students such as age, gender, year of study, ethnicity and religion could be the confounding factors in affecting their knowledge, attitude and practice towards organ donation. Then their knowledge level might affect their attitude to donate organs and might further affect their practice to donate organs. Thus, this conceptual framework was developed to guide the researcher throughout the study in the way of testing the hypothesis and predicting the phenomenon of organ donation among nursing undergraduate students from FMHS UNIMAS.



**Figure 1.5:** Organ donation conceptual framework

### 1.6 Significance of the study

According to Kasim and Shohor (2021), a successful organ donation promotion was due to knowledge of organ donation and transplantation. Thus, related health care organizations should organize an organ donation education campaign among various health care professionals to ensure they had sufficient knowledge about organ donation as they were the key elements in facilitating the organ donation process. This approach could effectively improve their knowledge and positively affect their ability to identify the potential organ donors, which could contribute to growing numbers of potential organ donors.

From the nursing perspective, this study was significant to raise the awareness regarding organ donation among nursing students via various methods such as education campaigns and social media, besides incorporating it into the curriculum.

According to Dibaba et al. (2020), the awareness about organ donation should be made as a part of school education. This was because the nursing students who would be the future nurses were an important medium to impart the importance of organ donation messages to the public. Therefore, their high level of knowledge and positive attitude can create a positive environment in promoting organ donation for the public.

Undoubtedly, the organ transplant waiting list was always long and a lot of people died while waiting for an organ. Thus, this study was significant to encourage the public to donate their organs while living or even after death so that the life of patients could be prolonged, especially for those who were in the end stage of organ failure. According to PennMedicine (2022), eight lives could be saved through one deceased organ donation. By sensitizing people, especially the younger generation, their knowledge, attitude and perception regarding organ donation could be improved as according to Saini et al. (2019) claimed that in a report done by the National Transplant Resource Centre (2016), youth from the age of 21 and 30 years were easily approachable and had become the highest number of pledgers so far.

## 1.7 Definition of terms

According to the Cambridge Dictionary (2022), knowledge is described as the awareness, understanding, or information that has been gained through experience. In this study, knowledge is the understanding of organ donation. Different individuals may have different levels of knowledge towards organ donation. The knowledge level was measured using Organ Tissue Donation and Transplantation Knowledge Scale (ODTKS) which the researcher adapted it from Emiral et al. (2017). The total knowledge scores were interpreted using SPSS's visual binning of equal percentiles based on scanned cases with  $\leq 7$  scores as poor knowledge, 8 scores as fair knowledge and  $\geq 9$  scores as good knowledge.

According to the Cambridge Dictionary (2022), attitude is defined as a feeling or opinion about something or someone. In the context of this study, attitude is the opinion towards organ donation. Different individuals may have either positive or negative attitudes towards organ donation. The attitude was measured using Organ Donation Attitude Scale (ODAS) which the researcher adapted it from Sayin (2015). The total attitude scores were interpreted using SPSS's visual binning of equal percentiles based on scanned cases with  $< 70.5$  scores as negative attitude and  $\geq 70.5$  scores as positive attitude.

According to the Cambridge Dictionary (2022), practice is defined as action rather than thought or ideas. In this research, practice is the action of donating organs. Different individuals may have different practice habits regardless of their higher knowledge or positive attitude towards organ donation. The practice was measured using a dichotomous scale with the options "no=0" and "yes=1" which the researcher adapted it from Darlington et al. (2019). The total practice scores were interpreted using