

## Organ Donation among Community in Shah Alam Selangor, Malaysia

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### Abstract

*The aim of this study is to explore the perception of community on organ donation. The main objectives are to explore the relationship between the variables namely attitude, family influence, religious belief and mass media also derive the main antecedent that may shape the community perception on organ donation. This study also generated the difference of the view on organ donation between genders. 384 respondents of this study are community lived in Shah Alam, Selangor, Malaysia. Purposive sampling technique was used with questionnaire as the instrument. Correlation and Independent Sample T-Test analysis were conducted, and the findings show that there is a significant relationship between the variables and perception on organ donation with religion belief as the main factor. T-Test shows that there is no significant difference between male and female for their insights belief on organ donation. Hence, various parties such as authority, non-governmental bodies and community has benefited from the study.*

*Keywords: organ donation, community, attitude, family influence, religion belief, mass media*

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### INTRODUCTION

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According to World Health Organization (WHO) (2019) the term of organ transplantation is the treatment used for the last stage of organ failure. It is generally accepted as the best treatment to save the life of people with organ failure. The shortage number of organ donor has reacted at the critical stage especially to the patients that have chronic diseases and to the people who need immediate organ transplantation (Zanuddin et al., 2017). Malaysia can be classified as a lowest organ donor because the percentage of organ donor is 0.68 for million citizen compare to Thailand 1.28, Singapore 5, Arab Saudi 2.7 and the highest organ donor is Spain which is 34.4 percent (Subramaniam, 2015).

In United Kingdom for a year 2012, 62% of patients need to be in the waiting list due to the shortage of organ donor and 12% will die because they did not get organ to replace the damaged organ (Watson & Dark, 2012). This due to the perceptions of people to donate the organ are due to the influence by the family and friends as well as the family's history especially for the young people (Zanuddin et al., 2017). Some people also have perception that the doctor will prematurely remove their organs along with the

impression that to be a donor is not given any direct benefits to them which make them feel fear to be organ donor (Sanavi et al., 2011). Malay community itself is interrelated with their traditional and dilemma which is the words itself constitutes traditional practice or story that can consequence the trigger to a natural phenomenon and trust that reflect to the perception and opinion of the Malays (Noordin et al., 2012).

This claim supported by the statistic for “Pengikrar Penderma” that divided into race stated that Malay donors are still at low as compare to Chinese community at are highest donors which is 137 622 (47.57%) followed by Malays people is 71 089 (24.57%), Indian people 69 107 (23.89%) and others are 11 485 (3.97%) (National Transplant Resources Centre, 2016).

Other than that, the issue of perception is they think that the organ donation process will prolong the death or will give more pain to the donor and the family might feel sense of fear that due to the donation the donor will effect with disfigurement or any complication in their medical care (Huynh, 2017). These claim are parallel to the perception that the religion forbidden, their body will be defective and did not know the wishes of the family member that passed away is the major obstacles to organ donation in Malaysia (Harian Metro, 8 October 2017). The major factor to the shortage of organ donation is restriction of the family member who did not give permission to the hospital to take the organ after the donor dies and this is due to the perception that they have towards organ donation which occur because they misunderstanding the issue of organ donation (Berita Harian, 4 October 2017). The request for organ transplantation are huge therefore the number of waiting list to get organ are increasing year by year (Utusan Online, 6 March 2017). Until September 2017 the waiting list for the organ transplantation patients are 21,973 individual and the highest organ required is kidney (Harian Metro, 8 October 2017).

## **A REVIEW ON PERCEPTION ON ORGAN DONATION**

Perception is the process that involve the complexity cognitive process which created a unique image of the world, the image that had been describe might be different from the reality purpose of it existent (Dhirang & Dhirang, 2011). Human behaviors are control by their perception that they get of what are reality and not the reality itself (Dhirang & Dhirang, 2011). Perception is individual capability to adapt with the difference and it is include the idea, feeling, knowledge, sense and theories which at the

end stage allow the individual to see the differences because the perception are limitless due to it can be develop and can be change according to few factor (Romanov, 2011). Michael et al. (2000) claims that perception is, to create the action towards something ecological senses of the detection of information are needed. Perception also can be defined as the term of explicit awareness of natural environment, knowledge and including the animal's referential (Michael et al., 2000). The perception of the person can be influence by the person's goal and physiological situation which can involve in process of creating the picture and distance of perception they have. Besides, when people create their perception based on their natural environment therefore the distance between the real and not real image are huge and information bases for the perception are abundant (Proffitt, 2006). Perception is something that effect of certain material things what create to sense, it also in psychologists' term as sensation and something of an abstraction (Aton Center, 2017).

Since there has been a decreases in the number of organ available thus the number of patient in the waiting are also progressively increasing (Watson & Dark, 2012). The current trends that also can be found in other studies that the knowledge of medical students have significant gap in the organ donation and transplantation system (Huern et al., 2016). Currently, transplant performed this years from January until November 2017 are 31,837 and the numbers candidate that waiting based on the organ requested are 96,037 for kidneys, 14,057 for liver, 908 for pancreas, 1682 for pancreas or kidney, 3929 for heart, 1368 for lung, 42 for lung or heart and 251 for intestine which as total are 115,661 of organ are needed all around the Europe state (United Network for Organ Sharing, 2017).

World Health Organization (WHO)'s Global Observatory on Donation and Transplantation (GODT) (2012) point out that Malaysia has one of the lowest deceased organ donation rates in the world at 1.3 organ donors per million populations. According to Balajee et al. (2016), this is due to lack of knowledge about the legal and procedural details of organ donation also organs are sold in the black market. The issue of corrupted health system and health personal are tend to be the factor that people are having low level of trust towards organ donation process and make them decide not to be an organ donor (Sangrigoli et al., 2016). This argument strengthen with empirical evidence by Makmor et al., (2015) which they claim that most of Malaysia's citizen did not register as an organ donor because they are clueless about the registration procedure. He also stated that lack of effective public education on organ donation make the number of organ

donor are insufficient and small investment in public education on organ donation also can be one of the issue.

The shortage of organ donor occurred due to increase in Donation after Circulatory Death (DCD) which is have raise about tenfold since the last decade and can be conclude as one-third of all the decrease organ donor due to black market issue (Watson & Dark, 2012). According to Shroff (2017) most of the develop country are dealing with the waiting list to get the treatment therefore they decide to get the organ through black market which is make the people prioritize the money rather than charity. According to Ministry of Health Malaysia, the number of patients that are waiting for organ transplantation in Malaysia are 21,985 and 15,000 of them are children (Berita Harian Online, 4 October 2017). From 2015 until 2017 it can be seen that the average trend of organ donor are decreasing drastically from 71 to 38 person and from January until September 2017 there is only 18 people which a very worrying number (Berita Harian Online, 4 October 2017). In Malaysia, day by day the actual number of organ donors after death was much smaller, with only 620 since the Organ Donation was launched in 1975 (The Star Online, 4 October 2016) thus strong moves had been initiated to combat selling of human parts, transplant tourism and organ trafficking by the authorities and related parties (Ting, 2017).

However, some of the people's perception is influence by the knowledge of organ donation concept which many people discourage from donating their organ because they think that when they are donating the organ, the organ will completely take out from their body (Kaur & Ajinkya, 2017). The shortage number of organ donor registration in this country can be cause by the lack of exposure and knowledge to organ donation and transplantation (Zanuddin et al., 2017). Hasfazila et al., (2015) proposed that there are strong relation between the knowledge and the positive perception or attitude with the willingness of the personal to become an organ donor therefore the more knowledge need to be exposed to public so that their positive perception can be generate. Desire and knowledge of individual affect the perception of individual and at the same time will correspond to the mental states (Laurent & Schweitzer, 2015).

The numbers of people that agree that Islam allow them to be an organ donor however the knowledge are still at the low level and some of them are still confused either with the fatwa or their own level of understand about organ donation. People who live at the rural area and metropolitan are more exposed to the program awareness that

government do which provide information and knowledge hence of that they perception towards organ donation are more acceptable rather than (Hasfazila et al., 2005). Lack of knowledge can be the factor that individual does not agree with organ donation but some people are still choose not to be organ donor even they had more information about the process as their perception did not support the organ donation (Irving et al, 2012). High number of people did not have positive attitude about organ donation or receiving the organ because of their perception about the risk (Mithra et al., 2013).

## METHODOLOGY

The type of investigation used for this study is correlation study in which we are interested in highlighting the important variables. According to Bethlehem (1999) as cited in Zheng (2015) said this is a method that the researchers identify the condition of population in a certain time of period (Zheng, 2015). The unit of this study will be the public in the Shah Alam, Selangor. Thus, the data that will be collected at Shah Alam, Selangor. By referring to Krecjie and Morgan table, 384 people out of 650 000 people at the Shah Alam, Selangor will be selected to become our respondents in this study to identify their perception towards organ donations. Purposive sampling technique was used as this research operate based on the judgements that either the respondents have donating organ or never experience it. As this research is quantitative based, the measurements used are from the literature that was found reliable and valid in measuring the variables in this research. Scholars such as Dudley et al. (2009), Parker (2011), Potter and James (2013), Kaur & Ajinkya (2017), Huyn (2017) and Zanuddin et al. (2017) have developed the measurements for studying organ donation, thus adapted and adopted for this study. Self-administered questionnaire was used as instrument in collecting data.

## FINDINGS

### Measure of Goodness

*Table 1*  
*Normality Test (n;384)*

<i>No.</i>	<i>Variables</i>	<i>Skewness</i>	<i>Kurtosis</i>	<i>Remarks</i>
1.	Attitude	-0.718	0.749	NORMAL
2.	Family Influence	-1.321	3.123	NORMAL

3.	Religion Belief	-0.582	1.541	NORMAL
4.	Mass Media	-0.771	2.604	NORMAL
5.	Perceptions towards Organ Donations	-0.422	1.527	NORMAL

Table 1 above illustrates the result of the test of normality based on the data that had been collected which consist of both dependent variable and independent variable that had been chosen under this research topic. The result that had been generated shows that the entire variable tested is normally distributed because the skewness and kurtosis values are between +3-3. According to Bai and Ng (2005), the value of skewness and kurtosis between +3-3 means fulfilling the assumption for measuring normality.

### Hypotheses Testing

*Table 2*  
*Levene Test*

<i>Items</i>	<i>Levene's Test for Equality of Variance</i>	
	<b>F</b>	<b>Sig.</b>
Perception on Organ Donation	5.370	0.21

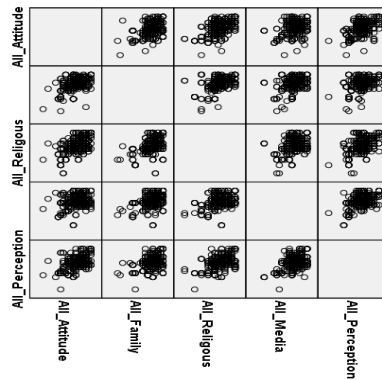
Table 2 explain Levene Test, the result shows that there sig value is greater than .05, thus according to Coakes (2013) the assumptions of equal variances is considered. Therefore, Equal Variances Assumed statistic produced by using Independent Sample T-Test was used in order to generate the difference between genders on their perception on organ donation.

*Table 3*  
*Independent Sample T-Test (Independent Variable: Gender, n:384)*

<i>Items</i>	<i>T</i>	<i>df</i>	<i>sig.</i>
Perception on Organ Donation	-1.781	382	.076

Table 3 provide the statistical analysis for Equal Variance Assumed for Independent Sample T-Test of perceptions on organ donation for 384 respondents based on their gender. The results shows that there is no significant difference between male and female in term of perception on organ donation,  $t(382) = -1.781, p > .05$ .

Next hypothesis for this study is to examine the association between attitude, family influence, religion belief, mass media and perceptions toward organ donation. In order to ensure the validity of the statistical result, assumptions for correlation had been tested and fulfil the assumptions for testing the linear correlation. Linearity and homoscedasticity assumptions are fulfilled as the scatter diagram shows the dots are in linear line. Graph 1 below illustrate the justification for linearity and homoscedasticity.



Graph 1: Matrix Scatter

Graph 1 shows there is positive linear association between the variables and scatter dots shows no issue for variances thus the assumption for linearity and homoscedasticity are fulfilled. The correlational analysis conducted to answer the hypothesis of there is association between the independent variables which are Attitude, Family Influence, Religious Belief and Mass Media toward the dependent variable which is Perception on Organ Donation. The result stipulated in Table 4 below.

*Table 4*  
*Correlational Analysis (n;384)*

<i>VARIABLES</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Perceptions towards Organ Donations	-				
Attitude	.452**	-			
Family Influence	.362**	.491**	-		
Religion Belief	.468**	.556**	.460**	-	
Mass Media	.416**	.246**	.343**	.309**	-

\*\*p<.01

Table 4 shows correlational analysis using Parametric Test which support the hypothesis which is there is association between the IVs and DV. The result shows there is significant positive moderate association for Attitude,  $r=.452$ ,  $p<.01$ , Religion Belief,  $r=.468$ ,  $p<.01$  and Mass Media,  $r=.416$ ,  $p<.01$  while Family Influence has significant low positive relationship  $r=.362$ ,  $p<.01$  toward Perception on Organ Donation.

## DISCUSSION

Willingness is the procedure that control by prefrontal cortex which is it make the individual decide either they want or not thus individual also can determine how willing themselves. Therefore, willingness can be explore through the individual desire even though it will affect the individual's in bad way (Langsford, 2015). Parker (2011) stated that willingness is a part of mind which it is exposed to possibilities to either good or bad depends on the condition and situation in the individual's life. According to Moran (2012), willingness is the principle that individual choose in their life when they faced with option situation or difficult emotion and it is including accepting and embrace any possibility of challenges or critical to a life well. Therefore, willingness can be explained as a perception, preparedness, inclined, and desire of the individual (Addiction Treatment Center, 1975). In organ donation issue, donor perceptions is a part of recovery procedure that means the individual agreement to do something is the situation that they need to trust people perception around them (Aton Center, 2017).



However, in accepting the organ donations behaviour, male are less exposed rather than female % in organ donation (Francesca et al., 2016). Based on the study done by Poreddi et al., (2017), the percentage of women that are have positive perception in order to be an organ donor is 70.9% and 54.3% for men, thus it shows that female donor are slightly higher in India. This parallel with studies by majority of scholar which found either the gap are huge or small there still have differences in perception between the genders on organ donation. Kaur & Ajinkya (2012) studies found that females, younger students, and people with higher knowledge levels and good perception were the groups that contribute more in organ donation. Most of the women are willing to registered as an organ donor rather than male as proven by Tanriverdi et al. (2007), Decker et al., (2008), Gungormus & Dayapoglu (2014) and Poreddi et al., (2017). In South India, 59.6% of 863 people respond their willingness to be organ donor and 64.1% of them are female and the rest are male which is shows that female are like more positive perception than male (Mithra et al., 2013). Based on the statistic, 1,378,096 of women are registered as organ donor meanwhile male have 819,412 which is clarify that women seems have more positive perception by registering as donor (Department of Human Services, 2004). The evidence from studies that conducted by Ge et al., (2013) has demonstrated that women are more favour to have positive view by donate their organs however they are less willing than men to accept organ transplant. According to the study that done by Inthron et al. (2014), over 775 respondent only 24.1% of them are active willingness which is the actual organ pledge and the percentage of women are 28.6% which is higher than men that have 19.4%. Either male or female, there is basis to shape their positive perception on organ donation such as family due to the virtue that being developed within themselves.

This is due to each of the family members has their own judgments about something that will eventually share with other family members (Ahmad & Sekhar, 2014). Family is an important factor that can influence people in making decision towards organ donation (Makmor et al., 2015). According to Huynh (2017) this is due to the main barriers to organ donation do not come from people's unwillingness, but rather from misconceptions. Family members might afraid of high risk of facing death or the donor faced side effect after the surgery and also an attachment feeling towards the donor. Family members' decision also can be factors toward organ donation whether it's living or deceased organ donor and there is tendency the family member will prevent their relative and also themselves toward the organ donation as they have lack of information on organ donation. This is because family is a person who closely has emotion and blood connection with the donor. The family members are considered as final decision makes

and they have a legal right to change the consent of the deceased donor have been made while they were alive (Makmor et al., 2015; Harbour, 2015). It is because in Malaysia there is Human Tissue Act 1974 that stated the family's consent has to be taken before harvesting organ(s) from the body of their donor, even when the deceased had registered to donate his organs before his death (Law of Act, 2006). Thus the family member has a big role in order to determine the rate of true organ donor in Malaysia. It also shows that their main priority was not within what they desired but it depends on what the family wants.

Therefore, lot of efforts in mass media to change the perception of organ donation in Malaysia initiated for example "Organ Donation for Islam Perspective" to give information, and encourage the people to become organ donor. Mass media is directly or indirectly influenced organ donation programme through the communication campaign as a medium to spread or give information and assists people to make choices (Zanuddin et al., 2017; Sangrigoli et al., 2016). In 1997 the formation of National Transplant Resources Centre (NTRC) under the Ministry of Health and the Transplantation Service Unit has collaborate with the media to promote and educate the people about the organ donation. Various action in term of using media as a tool in helping to spread the information about organ donations such as mass media campaigns, news blogs, social media promos and also collaboration with non-governmental organizations, public groups, universities, schools, teachers, students and many in order to be closed to the people. This strategy is to help increasing the registration rates and change the public perception towards organ donation seems to be effective due to the decreasing the gap between need for organ donations and supply also increase the understanding about the organ donation. However, much efforts must be put in place to improve organ donation understanding among the youngsters. This synchronize with several scholars whom found that the help of mass media in implementing campaigns that provide information to the public about organ donation can also increase organ donation rates (Freeley et al, 2016; Terbonssen, 2015; Heuer et al., 2013; Cameron, 2013).

From religion perspective, National Transplant Resources Center (NTRC) and the Institute of Islamic Understanding of Malaysia (IKIM) have made an open discussion to make clarifications about dos and don'ts about the Islam perspective towards organ donation. According to the well-known scholar, Sheikh Yusof al-Qaradhawi, the organ donation is summarized under one of the three practices that will give continuous rewards after one died and he said that the act of donating organs as a charity (Zanuddin et al.,

2017; Jabatan Penerangan Malaysia, 2017). Besides that, all religion in the world assume organ donation as charity and said that the right to become organ donor is up to the people itself or their family (A Donate Life Organization, 2017). There is a fact where all the religion allowed their follower participates in organ donation as long as it's not giving risk the life and quicken the death of the donor (Donate Life California, 2017). Most of the religious group belief and allow organ donation as long as it is being done in respectful way to respect the deceased, then the organ donation can be accepted (The Canadian Council for Donation and Transplantation, 2017). In Malaysia, there are several religions thus there are many belief from religious view but most the religion allow their follower to donate organ. According to Ismail et al., (2012), there are some disagreement in organ donation that related to the effect of holiness of the body which violate the donor body after death, believe the body came from God, organ act as witness during the Judgment day and other believes that prevent their follower being and organ donor. There are some of religious believed that donation was not encouraged within their religion with the most common religious objection regarding organ donation was the needed to maintain their body to enter the next life (Irving et al., 2012). However, the religion followers are encourage to involve in organ donation to help other people who are need because it will give continuous reward even after they died (Jabatan Penerangan Malaysia, 2017). There are also action that had been taken to clarify about the status of organ donation in Islam to make Muslim people more clear about organ donation (Zanudin et al., 2017). At the end, it depends on individual belief whether to donate organ or not even though their religion has no objection about it.

## CONCLUSION

This article aims to explore the antecedents that can shape public perceptions on the emerging vital issue in health sector which is organ donation. This study have drawn several factors that may shape the public perception on organ donation as statistical analysis output shows that there are significant association between Attitude, Family Influence, Religious Belief and Mass Media toward Perception on Organ Donation with the highest association contributed by religion belief in shaping an individual view on donating their organ. This paper also have justified that the demographic factor that tested which is gender does not have any significant difference on public perception toward organ donation, thus the community's view on this issue relatively are the same.

On the other hand, this study is believed to provide an insight into why some organ donation persuasive campaign does not have significant impact toward the level of donating organ among community. This is because, through this study, we can know what the most important element in donating organ is. Hence, it can help those who are involved in promoting organ donation to be more aware and concern about the importance of certain elements to secure a number of organ donor. Additionally, those who are planning to be part of organ donation campaign can be more prepared and benefited through the findings of this research analysis. In conclusion, the functions of the important elements in shaping perception on organ donation could not be denied as the number of organ donor is depending on these variables especially for the nation requirement on organ transplant programme. With that, this study benefited several parties such as the Prime Minister Department for Religious Affair, the Jabatan Kemajuan Islam Malaysia, Kementerian Kesihatan, the NGOs, and individual residents in Malaysia.

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