

Statistical relationship between knowledge levels and attitude toward liver transplantation from medical and Islamic perspective among faculty of medicine students: case Yarsi University

Rangga I. Hilmi, YARSI Faculty of Medicine, Jl Letjen Soeprapto Jakarta Pusat 10510, Indonesia.
Ferryal Basbeth, YARSI Faculty of Medicine, Jl Letjen Soeprapto Jakarta Pusat 10510, Indonesia.

Citation: Hilmi RI, Basbeth F. Statistical relationship between knowledge levels and attitude toward liver transplantation from medical and Islamic perspective among faculty of medicine students: case Yarsi University. *Int J Eth Trauma Victimology* 2019; 5(1):23-25. doi.org/10.18099/ijetv.v5i1.3.

<p>Article history</p> <p>Received: Dec 13, 2018 Received in revised form: August 21, 2019 Accepted: August 30, 2019 Available online: Nov 10, 2019</p>	<p>Abstract</p> <p>Organ transplantation is considered as an alternative therapy as the best effort to help patients with organ failure. Many evidences showed that organ transplantation gives more satisfying results than most of conservative therapies. However, the organ transplant need some considerations from several non-medical aspects namely: religion, law, culture, ethics and morals. Islam religion perspective, in particular, requires people to make themselves knowledgeable before making any decision. At the same time, Islam religion teaching requires any decision should be guided and lead by sound knowledge. Although transplantation is considered <i>haram</i> from the Islamic, it is permissible in an emergency situation. This paper presents the study results on the relationship between two latent variables as construct: (1) the level of knowledge and (2) attitudes about liver transplantation from medical and Islamic perspective. The data for this study were collected from Faculty of Medicine students batch 2016 as respondents. This study used a quantitative non-experimental or analytical research method. The sample size was 70 which were selected using purposive sampling technique. That is, a sample was selected based on a particular assessment. Each observed variables were measured using Likert scale. The value of each latent variables was measured as an accumulated value of its observed variables. The study found the respondents' knowledge score ranged from 2 to 9 out of 0-10 score scale and attitude scores ranged from 17 to 26 out of 0-30 score range. The results of Chi-square statistical analysis between the two latent variables showed that there is no significant relationship between the two latent variables of interest. This results can be concluded that there is no significant relationship between knowledge and attitudes towards liver transplantation. In addition, the results of this study suggests that for further research to add more variables that influence attitude change.</p>
<p>Corresponding author</p> <p>Rangga I. Hilmi, YARSI Faculty of Medicine, Jl Letjen Soeprapto Jakarta Pusat 10510 Indonesia.</p> <p>Phone: + 6287874543093 Email: ranggaih97@gmail.com</p>	

Keywords: Knowledge; attitude; liver transplant. © IJETV. All rights reserved

Introduction

The advent of medical science and technology in the past decade, such as various method to cure human diseases, has increased human life expectancy. In general, a disease can be broadly categorized into those that can be cured by only giving medicine and those that require special and complicated treatment. an advancement of the later medical treatment is transplanting organ from donors to recipients (1). According to the World Health Organization (WHO)

report in 2017, transplantation is a term refers to the engraftment of human cells, tissues or organs of the donor's body to the recipient with the aim of returning lost body functions. Organ transplantation in particular is one of the growing medical treatments in various countries including Indonesia. The statistics showed the increasing number of patient who need it and increasing variety of transplation techniques (1).

Currently the number of patients who need a liver transplant tends to exceed the supply of existing donor organs. As the result, many patients die due to waiting for a liver transplant (2).

Based on a study reported by Dutra in 2004 involving medical students of the Federal University of Bahia, Brazil, as respondents can be concluded as follows. Majority of medical school students had a positive attitude towards organ donation and transplantation but still need a lot of information and education about the problem. This fact was due to level of knowledge about organ transplants, death definitions, and legislation the laws governing transplants in Brazil are still low (3).

Islamic religion teaching requires its followers to be a knowledgeable individual and use the knowledge as guideline in any decision making (4).

In the Islamic religion perspectives organ transplantation is considered as an ijihad or a term refers to situation where there is no explicit Hadist (the record of the words, actions, and the silent approval, supposedly of the Islamic prophet Muhammad pbuh) about organ transplation. Such condition caused many pros and cons opinions about organ transplantation among Islamic scholars especially related to hearth, liver and pancreas transplation which can only possible after the organ donor died (5).

Therefore, this research aims to study the relationship between knowledge level about liver transplantation and attitude toward hearth transplantation among college students of batch 2016 Faculty of Medicine, YARSI Universities. In this study, the research method used medical and Islamic religion perspectives.

Material & Methods

This research is non-experimentation quantitative or analytic research using cross-sectional data analysis method. Respondent population of this research is students of batch 2016 Medicine Faculty comprises of A and B classes in YARSI University. The size of the student population us 230.

The sample criteria for this research were as follows:

- (i) compliance with inclusion criteria: agree to volunteer as a respondent of this research
- (ii) agree to fill out a form informed consent
- (iii) enrolled/registered as an active student of the 4th semester student in year 2018. The samples were selected using purposive sampling technique.

In this research, data collecting technique used survey technique with self-administered questionnaires.

Having been quality checked, the fill out questionnaires were entered into computer readable form. The analysis data used univariate and bivariate statistical methods to assess relationship among dependent and independent variables.

Results

Data distribution of the independent variables is summarized in Table 4.1. As can be seen from the Table 1, the number of respondents for this research is 70 comprises of 18 (25.7 %) males and 52 (74.3 %) females. The age ranges from 17 to 22. The age modes are 19 and 20. Most of respondents have received information about transplantation (97.1 %), organ transplantation (98.6 %) and liver transplantation (85.7 %).

Table 2: showed that knowledge score ranges [0, 9] from the range [0, 10]. Whilst, attitude ranges [15, 26] from the range [0, 30].

Table 1: Data Distribution of the Independent Variables

Variable	Frequency (Percent)
Gender	Male = 18 (25.7 %)
	Female = 52 (74.3 %)
Age	17 year = 1 (1.4 %)
	18 year = 8 (11.4 %)
	19 year = 29 (41.4 %)
	20 year = 21 (30 %)
	21 year = 10 (14.3 %)
	22 year = 1 (1.4 %)
Have received information about transplantation	Yes = 68 (97.1 %)
	No = 2 (2.9 %)
Have received information about organ transplantation	Yes = 69 (98.6 %)
	No = 1 (1.4 %)
Have received information about liver transplantation	Yes = 60 (85.7 %)
	No = 10 (14.3 %)

Table 2: Descriptive Statistics of the Dependent Variables

Statistics	Knowledge	Attitude
N-samples	70	70
Min	2	15
Max	9	26
Mean	6.6	21.9
Standard Deviation	1.5	2.4

Mean score of knowledge and attitude is 6.6 and 21.9 respectively. Standard deviation of knowledge and attitude is 1.5 and 2.4 respectively.

Bivariate relationship analysis using Chi-square method was used to test the relationship between knowledge and attitude variables (see Table 4.3).

Table 3: Chi-square Test Result between Total Score of Knowledge and Total Score of Attitude Toward Liver Transplantation

Statistics	Value	df	P-value
Pearson Chi-square	2.336	4	0.674
Likelihood ratio	2.336	4	0.676
Fisher Exact Test	0.864	1	0.353
N valid cases	70		

Note df: degree of freedom

Consider the research Null Hypothesis (H_0): "There is no relationship between knowledge and attitude toward liver transplantation" and Alternative Hypothesis (H_1): "There is a relationship between knowledge and attitude toward liver transplantation." The results of Chi-square method showed that the data is unable to reject H_0 (P value = 0.674 > 0.05). It can be interpreted that there is no significant relationship found from the samples about knowledge and attitude about organ transplantation.

Discussion

Statistical tests showed that, based on input dataset obtained from samples of student of batch 2016 Faculty of Medicine, YARSI University, there is no significant relationship between knowledge and attitude about liver transplantation. However, this results did not imply a causative relationship between the two variable of interest.

The insignificant relationship between level of knowledge and attitude about liver transplantation can be affected by one (some) mediating variable(s) which are beyond the scope of this research. It is suspected that the mediating variable connects two variable of interest in this research so that the level of knowledge about liver transplantation did not affect the attitude about liver transplantation. For that reason, it is proposed for the future research, the mediating variables should be included into the research scope.

Conclusion

Based on the research finding measured by Chi-square testing method, it can be concluded that there is no significant relationship between the level of knowledge and attitude toward level transplantation among student of batch 2016 Faculty of Medicine of YARSI

University. Liver transplantation can only be implemented if the donor has died. However, the existence of pro-cons opinions among Islamic scholars about liver transplantation has brought about this issue into one of ijtihad area.

Recommendations

In the past several years, the liver transplantation has gained an increasing interest among worldwide medical profession from both research and practitioner domains.

It is imperative for any medical workers to keep updating knowledge on liver transplantation through various information sources including reading books, academic papers and seminars. The updated knowledge is imperatively linked to good attitude toward liver transplantation.

The future researcher in this topic is suggested to explore more variables particularly those variables that serve as mediating variables between knowledge and attitude.

Acknowledgement

We convey great appreciation and gratitude to all faculty members of Faculty of Medicine, YARSI University for their supports in this research.

Conflict of Interest

None declared

References

1. Cecep T. Etika dan Hukum Kesehatan. 1st ed. Yogyakarta: Nuha Medika; 2014.
2. Roach J. Split Liver Transplantation. 2017.
3. Dutra MMD, Bonfim TAS, Pereira IS, Figueiredo IC, Dutra AMD, Lopes AA. Knowledge about transplantation and attitudes toward organ donation: a survey among medical students in northeast Brazil. In: Transplantation proceedings. Elsevier; 2004. p. 818–820.
4. Ranuwijaya U. Pustaka Pengetahuan Al-Quran. Jakarta: PT Rehal Publika; 2007.
5. Atighetchi D. Islamic Bioethics: Problems and Perspectives | SpringerLink [Internet]. 2007 [cited 2019 May 29]. Available from: <https://link.springer.com/book/10.1007%2F978-1-4020-4962-0>