

The correlation between knowledge and attitude among medical students of Yarsi University class of 2015 towards corneal transplantation

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<p>Article history</p> <p>Received: Dec 13, 2018 Received in revised form: May 11, 2018 Accepted: May 18, 2019 Available online: May 25, 2019</p>	<p>Abstract</p> <p>Background: The dissent of corneal transplantation is influenced by several factors, including how individuals understand knowledge about corneal transplantation in general as well as knowledge in Islam.</p> <p>Objective: This study aims to determine whether there is a correlation between the level of knowledge and attitudes amongst Medical students of YARSI University class of 2015 against corneal transplantation reviewed from medicine and Islam.</p> <p>Research Methods: This study used analytical methods. The survey technique used was a questionnaire and cross-sectional, by collecting data without any follow up. The population and sample of this study were medical students of YARSI University class of 2015 with inclusion criteria, the sample determined randomly, the formula from Slovin is used with a critical value of 5% and give the results of 150 samples. Data analysis used Chi-Square test.</p> <p>Results: From the results of the study, there were 36.7% students who had good knowledge, 38% with sufficient knowledge, and 25.3% with less knowledge about corneal transplants. From the results of the statistical test using the Chi-Square test, the value of p value is 0.615.</p> <p>Conclusion: There is no significant correlation between the level of knowledge and attitudes towards corneal transplantation amongst medical students of YARSI University class of 2015. There is dissent about the allowance towards corneal transplantation.</p> <p>Suggestion: In the future studies, it is expected to have more understanding about corneal transplantation and addressing the practice of corneal transplantation so the coverage can be broader and reconsider the place of research carefully.</p>
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Introduction

Transplantation is an act of removing organs, tissues or cells from donors to recipient. Organ transplantation is broadly classified according to the similarity between the location of the transplant and also between donors and recipients. Allotransplant involves transplanting from one individual to another which from the same species. Xenotransplant is a transplant carried out from donors and recipients from different species. Because of the large amount of transplant requests and often far exceeding the availability of donor organs, transplant programs are often burdened with complex legal and ethical issues (1).

Corneal transplant or commonly known as keratoplasty is a surgical procedure used to remove the recipient's cornea and replace it with a donated cornea, usually the corneal donation comes from a deceased person (dead donor). Keratoplasty is one of the most widely performed transplants in humans. The success of the first keratoplasty occurred in 1905 by Edward Zirm, who succeeded in transplanting cornea into a patient who suffered blindness due to burns. Since then keratoplasty is the treatment of choice for corneal blindness and can successfully treat 80-90% of corneal disease in developing countries (2).

Based on the research among 500 young Singaporeans aged between 18-25 years, around 73.2% answered less or equal to 3 questions from the 7 questions raised related to corneal transplantation correctly. 31% were willing to donate their corneas, 22.2% were unwilling and 46.8% were hesitant. In particular, students with good basic knowledge of corneal transplantation were 1.71% more likely to be willing to donate their corneas. Then based on research conducted on 107 medical students and 75 environmental science students from developing countries in Africa, showed a lack of knowledge and awareness on corneal transplants. And also based on studies conducted on medical students and young doctors in Tabuk, Saudi Arabia shows that most of them have low levels of awareness, knowledge, and attitude regarding eye donations and corneal transplants. Therefore, most of them need to know more about eye donations and corneal transplants (3).

Research conducted on Nigerian University faculty of medicine, with a questionnaire method. Give results, from 131 students from 183 students who qualified to participate in this study. 104 students were aware of a corneal transplant. But 95 students were not aware that the eyes could only be removed from deceased donors, 84 students were not aware that cataract eyes could be donated, 87 students were not willing to provide assistance for their donations. It can be concluded that medical students lack knowledge about some aspects of corneal transplantation. This may be a predictor of the level of awareness of the general public. The development of innovative education and extension education strategies is needed at this stage of national development to overcome misunderstandings surrounding corneal transplantation. There is a need to target medical students as motivators, counselors and future eye donors. This will help advance the level of currency donations in Nigeria whenever the eye bank's establishment plan is finalized (4).

Based on several studies mentioned above, it can be concluded that there is very little knowledge about corneal transplantation among medical students in various countries. This is also one of the reasons for the lack of availability of someone to donate their corneas

Basically as in the word of Allah SWT (QS: Al Israa [17]: 70) (5).
﴿ وَلَقَدْ كَرَّمْنَا بَنِي آدَمَ وَحَمَلْنَاهُمْ فِي الْبَرِّ وَالْبَحْرِ وَرَزَقْنَاهُمْ مِنَ الظَّالِمَاتِ وَقَضَّيْنَاهُمْ عَلَىٰ كَثِيرٍ مِّمَّنْ خَلَقْنَا تَفْضِيلًا

Meaning: And verily we have glorified the sons of Adam, we have carried them on the land and in the sea, we have given them sustenance from the good and we have exalted them with perfect advantages over the many creatures that we have created.

The verse above explains that humanity's caution towards corpses, because it is stated that humans are the most noble beings.

Muslim scholars and researchers conduct research on the issue of transplantation in Islam, to reach a legitimate position according to sharia. This is done through the application of good Islamic goals that guarantee and safeguard the interests of individuals, as well as society. In fact, organ transplants are ijihad, no existent on clear hadith about transplants makes an issue of dissent among Muslim scientists and researchers. Which is classified into two opinions, opinions that accept and reject transplants.

Based on this, the researchers were interested in conducting research on the correlation between the level of knowledge and attitudes towards corneal transplantation amongst medical students of YARSI University class of 2015.

Material and Methods

The type of this research is an analytical research with a cross sectional study design. The population of this study was the students from the Faculty of Medicine, YARSI University class of 2015 with a population of active students are 239 people. The samples taken were 150 class A and class B students from the Faculty of Medicine, YARSI University who has the inclusion criteria (class of 2015 class who were active in the Faculty of Medicine, YARSI University, were willing to be respondents, who were/had followed the sixth semester) and exclusion criteria (students in the class of 2015 who are not active, who are not willing to be respondents, have not followed the sixth semester). The technique used for sampling is purposive sampling. Data collection is done using a questionnaire. Univariate and bivariate data analysis using the SPSS 21.0 version.

Results

In this study, there were 150 medical students class of 2015 who have the inclusion criteria. Based on table 1. shows that between 150 students who were sampled and fulfilled the inclusion criteria mostly were female with percentage 71.3%, and aged between 18-23 years

Table 1. Characteristic Distribution of Respondents

No.	Category	Frequency	Percentage
1	Gender	Male = 43 Female = 107	Male = 28,7% Female = 71,3%
2	Age	18 yo = 2 19 yo = 6 20 yo = 57 21 yo = 69 22 yo = 14 23 yo = 2	18 yo = 1,3% 19 yo = 4% 20 yo = 38% 21 yo = 46% 22 yo = 9,3% 23 yo = 1,3%

Table 2. Categories of Knowledge Distribution of Respondents

No.	Knowledge	Frequency	Percentage
1	Good	55	33.6
2	Sufficient	57	38.0
3	Bad	38	25.3
Total		150	100

Table 2. showed that the knowledge amongst medical students of YARSI University class of 2015 towards corneal transplantation have the highest frequency at the category of sufficient which about 57 (38.0%) people.

Table 3: Attitude Categories Frequency Distribution of Respondents

No	Attitude	Frequency	Percentage
1	Agree	75	50,0
2	Neutral	72	48,0
3	Disagree	3	2,0
Total		150	100

In Table 3: showed that respondents attitudes towards corneal transplantation were between agreement, neutral, and disagreement, where the attitude of agreeing had the highest frequency and percentage compared to the other two categories of attitudes with frequency of 75 people followed by a neutral attitude with frequency of 72 people and a frequency of at least 3 people owned by an attitude of disagree.

In Table 4. showed that knowledge of corneal transplants did not have a significant correlation with attitudes toward corneal transplantation. The Chi-square test showed the result did not suitable to chi square criteria where the value of $P > 0.05$, so there was no statistically correlation between the level of knowledge and attitudes towards

Table 4. Distribution of Bivariate Analysis with Chi-Square Method Correlation between Knowledge Level and Attitude

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4,458 ^a	6	,615
Likelihood Ratio	4,228	6	,646
N of Valid Cases	150		

corneal transplantation. Even though, in percentage, there is a relation between the level of knowledge and attitudes amongst medical students of YARSI University class of 2015 towards corneal transplants wherein most students who agree are from students who have a good level of knowledge.

Discussion

From the collected data and processing data that can answer the question of the researcher to find out whether there is a correlation between the level of knowledge and attitudes amongst medical students of YARSI University class of 2015 towards corneal transplants. This study uses a cross-sectional method, done once, without follow-up so there is no causal correlation. The studied factors are including the level of knowledge and attitudes towards corneal transplants. The study was conducted with data collection techniques using Questionnaire. The statistical result showed, there is no significant correlation between the level of knowledge and attitudes towards corneal transplantation, the results were p value = 0.615. Based on 3 (three) categories of attitudes, there are agree, neutral, and disagree give results attitude of agreeing has the highest percentage which meets the three categories of knowledge levels, which are good, sufficient, and bad. Where the agreeing category most came from students with a good level of knowledge.

However this is not in accordance with several studies about the correlation between the level of knowledge and attitudes towards corneal transplants that have been carried out, where most of the studies found a significant relation between the level of knowledge and attitudes towards corneal transplantation, one example the research conducted by Bi Eze and friends, conducted by a comparative cross-sectional survey method, based on questionnaires on fourth-year environmental science students at the University of Nigeria done in October 2012. Demographics,

knowledge, and attitudes of participants towards eye donations and corneal transplants analyzed using descriptive and comparative statistics.

Between participants (107 medical students, 75 environmental science students) totaling 117 men and 65 women aged 22.3 ± 2.2 years (range 18-32 years). There were no significant differences between groups regarding the awareness of corneal donations and the willingness to donate their own corneas or the corneas of their relatives. Significantly more medical students than environmental science students have good knowledge of corneal transplants. With conclusions, among medical and non-medical undergraduate students, there are important shortcomings in knowledge and attitudes towards eye donations and corneal transplants. An awareness campaign for enhanced donations and the introduction of undergraduate programs on eye donations can reverse the trend (4) . (Eze, 2014).

Various factors can influence the results of this study. Knowledge about transplants that are still lacking among students can influence the results where there is no meaningful correlation between knowledge and attitudes towards corneal transplants, as well as a lack of knowledge from Islam's view of the transplant itself. In addition, the number of respondents who only 150 people can also be a factor, there is a possibility that if the more respondents will give results that accordance to the hypothesis I, besides respondents who are still in the 6th semester when doing this research can also be a factor, where there is still a lack of knowledge due to the absence of information about corneal transplants included in the curriculum or competency standards of Indonesian medical students. Differences in opinion about the permissibility and non-permissibility of corneal transplants in Islamic teachings can also influence the attitude of students who choose to be neutral.

Conclusion

Based on the results of this study, correlation between the level of knowledge and attitudes towards corneal transplantation amongst medical students of YARSI University class of 2015, viewed from medicine and Islam, conclusions can be drawn as follows:

1. Chi-Square statistical test shows there is no significant correlation between the level of knowledge and attitudes toward corneal transplantation amongst medical students of YARSI University class of 2015.

2. Medical students of YARSI University class of 2015, the sufficient category of knowledge has the highest percentage (38%) and the highest attitude was in the 58% which is agreement.
3. In this study shows students who have good knowledge do not necessarily have a good attitude towards corneal transplants.
4. Based on the results of the research that the authors did, shows that there is dissent in Islam regarding corneal transplants such as opinions that allow or prohibit, this is what can cause differences of opinion regarding corneal transplantation.

Suggestion

1. For medical students in general to further enhance general knowledge and knowledge of Islam about transplantation in general and corneal transplantation specifically.
2. For researcher to be able to conduct research with the same problems but with broader respondents and different variables.

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