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University Students Awareness and Attitude towards Blood Donation in Kerman City

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Abstract

Background: Blood transfusion is one of the most crucial needs of the society in multiple diseases and injuries. The only source of blood is donation. Students consist a large and healthy group who are able of providing a large number of blood donation, however, blood donation is rare amongst them. This study was conducted to evaluate students awareness and attitude towards blood donation in Kerman city.

Materials and Methods: In this cross sectional study, 500 students in Kerman city were evaluated using a questionnaire. T-test, Chi-square and Pearson tests were used for data analysis.

Results: The mean (±SD) score of the students awareness and attitude towards blood donation were 1.96 ±3.4 out of 9 and 5.32±45.42 out of 60, respectively. Data analysis revealed that there was no significant difference in students attitude between males and females, while males were more aware than females (P<0.001). There was a positive and significant relationship between the students attitude and awareness (P<0.001 and r=0.22). With an increase in students awareness about blood donation, their attitude would improve as well. Only 24.6% of all students reported a history of blood donation whose awareness and attitude were better than other students (P<0.001).

Conclusion: Generally, evaluated students were not aware enough about blood donation. It is necessary to find obstacles and eliminate them to improve the situation.

Keywords: Blood donors, Students, Awareness, Attitude.

Introduction

Nowadays, blood transfusion is still one of the main components of care and treatment to patients with serious conditions such as trauma, major surgeries, chemotherapy, and patients in need of long term therapies.[1] However, problems regarding a permanent shortage of blood is observed in blood services all over the world.[2] The only source of blood is blood donation,[3] however, recruitment of voluntary, non-remunerated blood donors poses major challenges to transfusion services throughout the world.[4]

As non-remunerated donated blood is the only blood source in Iran, people motivation should be improved to keep blood source sufficient. Hence, more attempts should be made to attract society members for blood donation.[2] Recruitment of low risk potential blood donors is one of the most important duties of the blood transfusion organizations all around the world.[5] According to the present studies, the transmission risk of blood transmitting pathogens in blood donated by students is less than other groups.6 There are a few studies about blood donation in special groups conducted in Iran. The rate of blood donation varies from 10% in students to 26% in women.[6,7] There is no study conducted on the students of universities. As the students of universities could be an important group of blood donors, we conducted a study to evaluate their awareness and attitude towards blood donation to define factors which may block students from blood donation and to improve donation strategies in the students of Kerman, Iran.

Materials and Methods

This cross-sectional study was conducted in university students studying in 3 universities of Kerman city including Shahid Bahonar University of Kerman, Kerman University of Medical Sciences, and Islamic Azad University of Kerman. Five hundred students were selected by convenience sampling method. Data was collected via a questionnaire consisting of two sections. In the first section, demographic factors and in the second part awareness, attitude and the history of blood donation were asked. Questions on awareness included nine multiple-choice items. Each correct answer was given one score and the range of the score varied between 0 (with no correct answer) to 9 (for all correct answers). Questions which were assessing attitude included 12 questions with Likert 5-degree scale (ranging from totally agree to totally disagree), which were given the score ranging from 1 to 5 according to the auspicious side of the answer. The total score of attitude ranged from 12 to 60. Eventually, the history of blood donation was inquired. Content and face validity of the questionnaire were assessed using valid texts and experts opinion. Internal consistency was calculated by calculating cronbach's α (α =0.84%). T-test, Chi-square, and Pearson test were used as well.

Results

Twelve out of 500 questionnaires were excluded due to incomplete answers. Finally 488 questionnaires were analyzed. The mean (±SD) age of participants was 22.03±3.14 (range 18 to 40). Of the participants, 41.2 percent were male. Most of the participants were studying in bachelor's degree (63.7%) and the least frequency belonged to master's degree(7%). Most of them were studying in fields of natural sciences (55.3%) (table 1).

Table 1*. Educational fields and levels of students.*

Education	Frequency (%)
Educational fields	
Mathematics	130 (26.6)
Natural Sciences	270(55.3)
Human Sciences	71(14.5)
Art	17(3.5)
Educational levels	
Technician	67 (13.7)
Bachelor	311 (63.7)
Master	34 (7)
Doctor	76 (15.6)

The mean score (±SD) of the students awareness was 3.44 ±1.97 (range 0 to 9). About half of the participants answered 3 or less questions. Assessing the questions related to knowledge revealed that the question concerning the relationship of the blood donation with diseases of nervous system were answered correctly more often than other questions (60.5%). 88.3% were not aware of the suitable age for blood donation (table 2). There was a significant difference in scores of females and males; males' scores were significantly higher than females' ($p<0.001$).

The mean (±SD) score of the students attitude was 45.42±3.53 (range 24 to 60). Half of the students got the score of 46. In the statements related to attitude, most participants agreed on the sentence “blood donation to people in need is an ethical act" and the most disagreed with the statement "I donate blood only in the case that a relative of mine is in need" (table3). There was no significant difference in attitude between males and females. There was a weak positive correlation between the students awareness and attitude,

***Table** 2. Knowledge about blood donation in the students under study*

Item	Correct Answer (%)
Suitable age for blood donation	57 (11.7)
Minimum weight for blood donation	250 (51.2)
Maximum number for blood donation in every year	120 (24.6)
Blood volume that donated in every blood donation	189 (38.7)
Blood group with maximum request	285 (58.4)
Infectious diseases transferred due to blood donation	145 (29.7)
Hematologic diseases induced with blood donation	237 (48.5)
Tired and fatigue due to blood donation	100 (20.5)
Neurologic diseases induced with blood donation	295 (60.4)

which implied that with an increase in awareness about blood donation, the attitude would be better (r=0.22 and P<0.001).

Among all participants, only 120 of them (24.6%) reported the history of blood donation whose awareness (p<0.001) and attitude towards blood donation (p<0.001) were higher than those with no prior history of donation. Positive history of blood donation was more frequent in males than females; 33.3% of males vs. 18.7% of females, which is a significant difference between two genders (P<0.01).

Discussion

According to the results of the present study, the students awareness was not satisfactory and only half of the students answered 3 questions. In another study, women awareness in Yazd city was approximately good (5.35 out of 8).[5] In another study in Thailand, 80% of the students were at an acceptable level of awareness.[7]

Assessing questions related to awareness revealed that although there is an acceptable level of awareness about absence of nervous system diseases, the awareness about blood diseases is low. As for infectious diseases, not only the level of awareness was not acceptable but most of the population in the study (66.6%) believed that blood donation is a way for transmitting infections. A study on 542 blood donors from Lagos State University Teaching Hospital in Nigeria revealed that 52.4% of the population in their study believed that blood donation is a way for transmitting AIDS and/or hepatitis.[3] It is absolutely clear that lack of knowledge about blood donation or having false ones will lead to decrease in eagerness to participate in blood donation. In a recent study, 40.4 percent of women declared that their unwillingness for blood donation is due to the risk of transmission of infectious and blood diseases.[6]

In the present study, only 11.7% of the students were aware of the appropriate age for blood donation. They had higher knowledge about the lowest necessary body weight for blood donation (51.2%). Another study in Zanjan, conducted on 600 students, revealed a higher awareness about the suitable age and a lower awareness about the minimum weight.[9] In a study conducted in Saudi Arabia on 500 adult males, 0.06% of men were aware of suitable age for blood donation while 28% knew about the minimum necessary weight.[10] The students' response to the question about the number of blood donation times in a year (24.6% correct answer) was similar to the level of knowledge among Iranian women (25.9%),[6] whereas 54.6% of the Saudi population knew the correct answer.[10]

The results about students' attitude showed favorable results and it seems that in comparison to the study which was conducted in Yazd, these students had better attitude.[1] It is while, 80% of Thai students had positive attitude towards blood donation.[7] The positive and direct relationship between attitude and awareness in this present study are similar to those two studies conducted in Yazd.[1,5] In our study, only 24.6% of all students reported the history of at least one donation prior to the study (18.7% of females and 33.3 % of males).

Conclusion

It seems that although students believe in cooperative acts in the society, but due to insufficient information, they are less willing to take part in blood donation. There are some other studies related to this topic which confirm the same idea and state that a good knowledge level and positive attitude may lead to higher eagerness for blood donation.

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