

Assessment of Knowledge, Attitude and Practice (KAP) of Saudi Adult toward Blood Donation in Riyadh City, 2017

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ABSTRACT

Background: Blood donation can save the lives of people who are in serious conditions thus it is a global concern of all societies.

Objectives: Evaluating the knowledge, attitude and practice (KAP) of Saudi adult subjects toward blood donation in Riyadh City.

Methods: A cross sectional community survey design was conducted among 500 adult Saudi subjects who were interviewed in shopping malls of Riyadh City during the period from May to July 2017. The questionnaire included interview regarding the demographics of respondents, knowledge, attitude and practice regarding blood donation.

Results: All the participants had significant knowledge about their blood group and the importance of blood donation. Also, the majority of respondents had adequate knowledge about the most common site of blood donation, the specificity of blood groups and the dangerous of donation of subjects with infection. Also, a good knowledge was found among most of respondents regarding the time, the complications and the precautions of blood donation. The attitude and practice pattern of participants were good among most of the participants. The KAP was adequate among 71% of respondents regarding blood donation and there was a significant association between the respondents good KAP with young age, male gender and higher educational degree.

Conclusion: The KAP of most of Saudi subjects was good and showed a high prevalence of blood donation among them with a favorable attitude to donate blood.

Keywords: Knowledge, Attitude, Practice, Blood Donation, Riyadh City, 2017.

INTRODUCTION

The blood is the body fluid which carries oxygen and essential substances to the cells as well as getting rid of the metabolic waste products from cells. The blood transfusion process begins with obtaining a volume of blood from a healthy person to a patient's circulation whose blood is deficient through injection. The need for blood transfusion may be due to sudden loss of blood in an accident or due to diseases and surgery^(1,2).

More blood means more life as supposed by the world blood donor day. And the WHO stated that about 93 million subjects from 173 countries are donating annually⁽³⁾. Blood donation can save the lives of people who are in serious conditions thus it is a global concern of all societies⁽⁴⁾.

During the last few decades, the number of active blood donors was decreased and couldn't meet the increased demands for blood transfusion. Also, most of donors are involuntary who came only for their relatives or friends and paid donors while those who usually donate are few⁽⁵⁾.

Also, the issue of safety of blood transfusion and avoiding transmissible infections is a concern especially in developing countries

thus the transfusion is limited to relatives with special precautions⁽⁶⁾.

In developing countries, there was an adequate knowledge among 60% of population about blood donation but the rate of blood donation was still low than middle and high income countries^(7, 8). The blood donation prevalence in Kingdom of Saudi Arabia (KSA) ranged from 45-53.3%⁽⁹⁾.

AIM OF THE STUDY

The study aimed at evaluating the knowledge, attitude and practice (KAP) of Saudi adult subjects toward blood donation in Riyadh City.

METHODS

Study design

A cross sectional community survey design was used.

Study subjects

Saudi adults aged between 20-45 years old from both genders who were interviewed in shopping malls of Riyadh City.

Study population and sample size

The sample size was calculated according to a previous study⁽¹⁰⁾ with a 95% confidence interval and a margin of error of 5% and the

required sample size was 500 Saudi adults. Random samples of malls from different directions of Riyadh City were included in the study. The study was carried out during the period from May to July 2017 and the participants were interviewed in each malls (3 hours / day).

Study tools

The questionnaire was collected after reviewing different studies then was validated by 3 supervisors. The questionnaire was then validated and translated into Simple Arabic language and distributed among the respondents. The questionnaire included interview regarding the demographics of respondents. The other parts of the questionnaire included questions about the knowledge, attitude and practice regarding blood donation.

Ethical approval

A verbal consent was provided from the respondents who were eligible to participate in the study. *The study was done after approval of ethical board of King saud bin abdulaziz university.*

Statistical analysis

Data analysis was done through SPSS® version 20.0 (IBM Corporation). The descriptive results for demographics, knowledge and attitude were shown as percentages, frequencies. Statistical difference was significant at $P < 0.05$.

RESULTS

Characteristics of the studied subjects:

Table. 1 shows the demographics of included subjects. The age of included subjects was 20-31 years in 46.2% of them and 32-45 years old among 53.8%. Most of the respondents (76.2%) were males and 23.8% were females. About 77.8% of subjects are university graduated, 14% received secondary school degree, while 8.2% were at primary school stage.

Table (1): Characteristics of included respondents (500)

Age	No.	Percentage (%)
20-31	231	46.2
32- 45	269	53.8
Gender		
Female	119	23.8
Male	381	76.2
Educational Level		
College	389	77.8
Secondary School	70	14
Primary School	41	8.2

Assessment of knowledge of the included subjects

As for the knowledge of the participants, all the participants had significant knowledge about their blood group and the importance of blood donation. Also, the majority of respondents (80%) had adequate knowledge about the most common site of blood donation. About 61.6% and 83.8% had significant knowledge about the specificity of blood groups and the dangerous of receiving blood from diseased individuals. Most of the subjects (74.8%) knew that patients with anemia cannot donate blood and 58% understand that the laboratory investigations are essential to be done before donation of the blood. In addition, 61.2% knew that blood donation can cause anemia, 92.2% had good knowledge about the importance of blood donation every 3 months. The level of knowledge was adequate among 78% of subjects (Table 2).

Table (2): Knowledge of the included subjects regarding blood donation (500)

	Correct	Incorrect
1. Do you know what your blood group is?	500 (100%)	0 (0%)
2. Blood donation is important	500 (100%)	0 (0%)
3. The most common site for blood donation is from arm	400 (80%)	100 (20%)
4. Blood groups could be given only for the subjects with the same blood group	308 (61.6%)	192 (38.4%)
5. Someone with an infection can donate blood	419 (83.8%)	81 (16.2%)
6. Someone with anemia can donate blood	374 (74.8%)	126 (25.2%)
7. Laboratory investigations of the blood donors is essential	290 (58%)	210 (42%)
8. Blood donation can cause anemia	306 (61.2%)	194 (33.8%)
9. Subject can donate every 3 months	461 (92.2%)	39 (7.8%)
Level of knowledge about blood donation	Good knowledge	390 (78%)
	Poor knowledge	110 (22%)

- **Evaluating the subject’s attitude**

The attitude of participants is presented in table. 3. Most of the participants (72.6%) enjoy

positive attitude toward blood donation which could encourage others to participate in blood donation. Also, 62.6% of subjects has good attitude toward free donation of blood for everyone not only for relatives. All the participants possessed good attitude toward blood donation as a duty for saving lives. Only, 14.4% of subjects donate blood against receiving money and the others could not donate blood for earning money.

Table (3): Attitude of subjects toward blood donation (n=500)

Your donation will encourage others to donate blood	No	Percentage (%)
Agree	363	72.6
Disagree	137	27.4
People should donate for their relatives and family members only		
Yes	187	37.4
No	313	62.6
Blood donation is a duty for saving lives		
Yes	500	100
No	0	0
Will you donate for money		
Yes	72	14.4
No	428	85.6

Practice pattern of included subjects:

The level of practice was good among most of the participants as 61.2% of them donated before, 43.6% regularly donate blood and 58% of them have previously donated blood for unknown persons in serious cases (Table 4).

Table (4): Practice pattern regarding blood donation (n=500)

	No.	Percentage (%)
Have you ever donated your blood before?		
Yes	306	61.2
No	194	38.8
Do you donate regularly?		
Yes	218	43.6
No	282	56.4
Have you donated for strangers in serious cases?		
Yes	290	58
No	210	42

Level of KAP among respondents:

The KAP was adequate among 71% of respondents regarding blood donation while 29% had poor KAP level (Table 5).

Table (5): Respondents' KAP toward blood donation:

Knowledge level	Frequency	Percent (%)
Good	355	71
Poor	145	29
Total	500	100

Association between subjects' KAP and demographics

There was a significant association between the respondents good KAP with young age, male gender and higher educational degree (Table 6).

Table. 6: Association between KAP of respondents and demographic variables:

	Good (n=355)		Poor (n=145)		P-value
	No.	%	No.	%	
Age					
20-31	200	56.3%	31	21.4%	0.001*
32- 45	155	43.7%	114	78.6%	
Gender					
Female	40	11.3%	79	54.5%	0.031*
Male	315	88.7%	66	45.5%	
Educational Level					
College	314	88.5%	75	51.7%	0.017*
Secondary School	28	7.9%	42	29%	
Primary School	13	3.6%	28	19.3%	

DISCUSSION

As for blood donation among Saudi participants, most of the respondents acquired good knowledge about blood donation importance, precautions and complications. These findings were similar to other studies conducted in different parts of the world (1,11). However, a Saudi study conducted in King Abdulaziz Medical City showed a lower levels of KAP(12). Also, In Saudi Arabia, many participants though that blood donation can cause diseases to the donor(4) and others suffer poor knowledge and misconceptions thus showed low practice levels (9). In addition, some researchers in France believed that blood donation could cause AIDS and hepatitis C infection (13). The attitude and practice pattern of blood donation were good among the majority of respondents.

This could be attributed to higher level of knowledge, as most of them were males and hold a bachelor degree. The present results agree with those carried out in Ethiopia ⁽¹⁾.

Other studies showed contrast results as many subjects around the world exhibit great misconceptions, negative attitudes and low practice pattern of donation specially among females ^(2, 9, 12).

There was a significant association between the respondents good KAP with young age, male gender and higher educational degree.

Accordingly, the good KAP was associated with a male predominance in various studies including Kuwait, central of Saudi Arabia ^(9, 14), Pakistan ⁽¹⁵⁾ and Greek ⁽¹⁶⁾.

However, the rate of donation is higher among subjects between 30-45 years old which was contrast to our results collected through studies on Saudi population ⁽⁴⁾.

The university education was associated with higher levels of knowledge thus, resulting in higher attitude and practice pattern ⁽⁹⁾. Another study in Iran indicated that the more educated subjects usually associated with good KAP toward blood donation ⁽¹⁷⁾.

CONCLUSION

The KAP of most of Saudi subjects was good and showed a high prevalence of blood donation among them with a favorable attitude to donate blood.

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