Blood Donation; Motivators and Barriers among the Attendees of the National Centre for Blood Transfusion/ Baghdad 2019

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ABSTRACT:

BACKGROUND:
Willingness to donate blood is affected by many factors such as availability of blood banks and their accessibility to the public, awareness regarding blood donation and knowledge about blood donation.

AIMS:
To evaluate the (Knowledge, attitude and practice) in a sample of subjects toward blood donation. To determine motivators and barriers that influence blood donation and to study the influence of some demographic character with the means of the KAP scores.

METHODS:
A descriptive cross sectional study was conducted in the National Centre for Blood Donation in Baghdad, data collection was carried out from 1st of March to 31st of May 2019, on a sample of four hundred participants.

RESULTS:
This study results demonstrated higher rate of male participants by 87%, , better knowledge among females (p= 0.001), females also got better attitude than males (p= 0.001).

CONCLUSION:
The most reported motives for blood donation was that they knew it's good for their health and because they liked to help others. The most reported barriers were that they weren't approached to donate and fear of the medical errors.

KEYWORDS: Blood donation, motivators and barriers.

INTRODUCTION:

A blood service that gives patients access to safe blood and blood products in sufficient quantity is a key component of an effective health system. Ensuring safe and sufficient blood supplies requires the development of a nationally coordinated blood transfusion service based on voluntary non remunerated blood donations. However, in many countries, blood services face the challenge of making sufficient blood available, while also ensuring its quality and safety. [1] Although the sufficient knowledge about blood donation is estimated to be 60% in developing countries; blood donation rate in low-income countries is far less than that in middle- and high-income countries. [2, 3] Blood donation rate was less than satisfactory due to misconceptions, poor

knowledge and unfavorable attitude toward donation. [4] In addition, sex, age and educational status were found as predictors of voluntary blood donation. [5, 4, 6, 7] There is a considerable gap in public awareness and knowledge about the essentials of blood donation. In order to increase blood donation within the country, motivators and barriers to blood donation for donors should be understood. In order to ensure adequate supply of blood at all times, regular voluntary blood donors need to be recruited and retained as the safest donors because they have been educated about how to stay healthy and lead lifestyles that are free from the risk of acquiring serious infections. [8] Equally important to the goal of recruiting adequate voluntary donors is the knowledge of blood donors. Information about blood donation process demystifies myths and fears related to blood donation. People are motivated to donate when they are well informed about the process and the life-saving benefits of given blood. [9]

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The first step to meet this goal should be performing an objective, thorough and comprehensive assessment of knowledge and attitude towards blood donation in the society. A study conducted in the city of Mekelle showed that half of the respondents have a low knowledge about blood donation. A small proportion had highly supportive attitude and the majority did not have a history of blood donation.[10]

SUBJECTS AND METHODS:

Study Setting: The study was conducted in the National Centre for Blood Donation in Baghdad. This center offer diagnostic services to people intending to donate by checking weight, blood pressure, viral screen and Hb level for each attendant and also offering blood for those in need.

Study population and sampling procedure: The study was conducted using a convenient method of sampling of four hundred persons attending the mentioned Centre; the attendees included regular donors, non-regular donors, and non-donors. The persons attending this institution were interviewed, after clarification of the meaning of the items, and the questionnaires were distributed to those who agreed to be recruited in the study and met the inclusion criteria, then were recollected from them. For enhanced accuracy; all participants were informed that their responses would remain confidential.

Inclusion criteria: Male and female adult subjects attending the National Centre for Blood Transfusion, including: 1. Age between (18- 65) years old. 2. Blood donors (regular and non-regular). 3. Non-donors.

Exclusion criteria: Attendees with an obvious excuse for refusal of blood donation such as chronic diseases were excluded from the study.

Tools of data collection: The used questionnaire was adopted from five previous studies measuring the same studied variables[11,12,13,14,15] and translated into local Arabic language, the questionnaire was revised by supervisor and panel of experts in Family and Community Me dicine department in Al- Kindy College of Medicine. (Two Community Medicine, two Family Medicine) and one Blood Diseases Specialist, and their modification and advice regarding the proposed questionnaire was taken in consideration.

Ethical Consideration: The research proposal was fully discussed and approved by the Ethical and Scientific Committee in Iraqi Board for Family Medicine. The agreement of health authority in the National Centre for Blood Donation in Baghdad was taken before starting the study. Verbal consent of each interviewed person was approved after full explanation of the aim of the study and ensuring the confidentiality of the collected data which was not used but for the research purposes.

Statistical Analysis: Collected data were reviewed and entered into Microsoft Excel Sheet 2016 and loaded into SPSS U24 for statistical analysis. Descriptive statistics were presented as frequencies and percentages. Continuous variables were presented as (Means $\pm$ SD). Chi – square test was used in inferential statistics to find out significancey of related variables. P – value < 0.05 was considered as the discrimination point of significancey.

Scoring

The Knowledge, Attitude and Practice scores were calculated by dividing the total number of correct answers in each KAP items by the total number of questions in that item and multiply the results by 100. A score of < 50 was considered 'poor', and a score of 50-75 was considered fair, while score of >75 was considered good. [16]

RESULTS:

Table 1:Demographic characteristics of the participants.

		N	%
Age		Mean±SD = 37±11 yr	
Age group (year)	< 30	118	29.5%
	30-39	134	33.5%
	40-49	86	21.5%
	> 50	62	15.5%
Gender	Male	348	87.0%
	Female	52	13.0%
Education	≤ Primary	114	28.5%
	Secondary	160	40.0%
	≥University	126	31.5%

Table 2: Distribution of participants according to their correct answers on Knowledge questions.

	N	%
Can anyone donate blood ?	232	58.0%
Is donation possible in the following conditions ?		
Age between 18 and 60 years	336	84.0%
Body weight < 45kg	280	70.0%
A pregnant or lactating woman	376	94.0%
A woman during her monthly period	398	99.5%
Someone with an infection such as HIV, Hepatitis B or C	400	100.0%
Someone with diabetes or heart disease	68	17.0%
Someone with anemia	398	99.5%

Table 3 : Distribution of studied samples regarding means of Knowledge score.

		N	Mean	Std. Deviation	Test	P value
Gender	Male	348	76.9397	11.34071	t test	0.001
	Female	52	83.1731	7.78251		
Age group (year)	<30	118	76.9068	10.28794	ANOVA	0.551
	30-39	134	77.4254	11.31379		
	40-49	86	79.0698	12.92539		
	>50	62	78.2258	9.58554		
Education	≤ Primary	114	76.5351	11.04851	ANOVA	0.350
	Secondary	160	77.9688	12.88614		
	≥University	126	78.5714	8.49370		

Table 4: Distribution of participants according to the correct answer regarding Attitude.

	N	%
It's necessary to donate	266	66.5%
Are you ready to donate in the future?	364	91.0%
Do you think that blood donation can cause an infection to the donor?	202	50.5%
Are you ready to donate for a relative or a friend?	396	99.0%
Are you ready to donate for a stranger in need for blood?	344	86.0%
Will you donate for money?	396	99.0%

Table 5: Distribution of studied samples regarding means of Attitude score.

		N	Mean	Std. Deviation	Test	P value
Gender	Male	348	84.0	17.8	t test	0.001
	Female	52	68.5	21.0		
Age group (year)	<30	118	80.2	19.3	ANOVA	0.478
	30-39	134	83.1	18.6		
	40-49	86	83.7	18.9		
	>50	62	80.6	19.1		
Education	≤ Primary	114	81.2	20.3	ANOVA	0.022
	Secondary	160	79.5	20.1		
	≥University	126	85.7	15.4		

Table 6: Distribution of participants according to the correct answer regarding Practice.

	N	%
Have you ever donated blood before ?	308	77.0%
Do you donate regularly ?	142	35.5%
Have you ever donated for a relative or a friend before ?	144	36.0%
Have you ever donated for strangers in serious cases ?	188	47.0%
Do you donate for health-related issues ?	152	38.0%

Table 7: Distribution of the studied samples regarding means of Practice score.

		N	Mean	Std. Deviation	Test	P value
Gender	Male	348	50.6	28.7	T test	0.001
	Female	52	20.0	30.6		
Age group (years)	<30	118	40.3	31.1	ANOVA	0.011
	30-39	134	45.6	30.2		
	40-49	86	53.4	29.3		
	>50	62	51.6	31.1		
Education	≤ Primary	114	53.3	29.7	ANOVA	0.001
	Secondary	160	38.5	29.7		
	≥University	126	51.1	30.7		

Table 8: Distribution of studied cases according to Motivating factors.

	N	%
Good for health	276	69.0%
Like to help others	248	62.0%
Family members or friends was in need	142	35.5%
Permanent donor	132	33.0%
National duty	118	29.5%
Doctor advice	102	25.5%
Have free blood tests	20	5.0%

Table 9: Distribution of studied cases according to Barriers.

	N	%
I was not approached to donate	166	41.5%
Fear of Medical errors	164	41.0%
May need to donate for a relative or a friend in the future	130	32.5%
Unfit to donate	52	13.0%
Fear of needles	52	13.0%
Fear from seeing blood	44	11.0%
Fear of anemia	36	9.0%
Did not receive blood when needed it	12	3.0%
Don't like to help others	2	0.5%

DISCUSSION:

This study showed higher percentage of male participants than females at that time, whereas in another study done by Almutairi SH it showed that Most of the respondents (76.2%) were males. [14] The current study demonstrated that about one third of the participants were in the third decade of life (30-39) year, which was similar to Omar's study where 36% of the attendees of the National Iraqi Bank were between the age of (31-40) year. [17] All the participants answered correctly that a person with an infection such as, HIV, HBV or HCV cannot donate blood, and more than three quarters of the participants did not answer correctly regarding blood donation in a person with diabetes or a heart disease. While in the study of Yangon, 98.7 % of the participants knew the correct answer regarding infection with HIV or Hepatitis, and 96.9% answered correctly to the other question. [18] When compared with the demographic variables, knowledge scores were significantly higher among female participants (p = 0.035) in the study of Kuwait which was similar to the current study. [12] The scores also increased with increasing age of the people, and with higher educational level in the study that was done by Abolfotouh which showed similar results to the current study. [4] In the current study about two thirds of the participants thought that it's necessary to donate, while in the Jordanian study,

only 47.4% of the studied group thought that it's necessary to donate. [11] In the current study regarding whether the participants were ready to donate if they were given money, an excellent proportion of the participants refused the idea, while in the Saudi study of Riyadh city, only 85.6% of the participants refused the idea. [14] The study showed that male participants got better attitude toward donation than females with (P= 0.001), which was similar to Abolfotouh's study as participants with a positive attitude constituted 36.2% of all males compared to only 16.8% of all females. [4] In this studied group, the previous donors showed that more than one third had a history of donation for a relative or a friend in need, two fifths with a history of donation for health related issues and nearly half of previous donation for strangers in serious cases. While the Saudi study of Riyadh city, showed 58% history of previous donation for strangers in serious cases among the respondents, which was better than the current study results. [14] The current study showed a higher tendency of practicing blood donation among male participants probably due to the dominance of males among the attendees of the National Centre for blood donation, these results were similar to the Kuwaiti study that also showed a better practice regarding blood donation in male respondents.[12]

The study showed that more than two thirds of the answers were that blood donation is good for health, about two thirds of the answers considered helping others an important motive. In another study, that was done in India, it showed that (121) persons out of (1520) participants stated that they would donate just out of their sense of social responsibility. [13]The most reported barriers were that the respondents were not approached to donate and fear of medical errors, respectively. The least barrier was that the participants didn't like to help others. In the Agrawal's study lack of awareness was the highest barrier among others 45%, which was nearly similar to this study. [19]

CONCLUSION:

1. Knowledge score was good, females had a better score than males, and the most reported source of knowledge was friends.
2. Attitude of the participants toward the process of blood donation was fair.
3. The practice score was fair.
4. The most reported motives for blood donation was that they knew it's good for their health and because they liked to help others.
5. The most reported barriers were that the respondents weren't approached to donate and fear of the medical errors because of some misleading thoughts about infection transmission through the donation process among other reasons.

Recommendations

1. Implementing educational programs in terms of educational sessions, media presentation and others, in order to correct the false believes of infection transmission through blood donation and also to gain people's trust and undress their fears of medical errors.
2. There should be a regularly organized voluntary blood donation campaigns in the blood banks, because the most reported barrier was lack of awareness and orientation toward donation.
3. Doctors should have a more active role in orienting the people toward blood donation, as the doctor's advice was not one of the top motives toward the process of donation.
4. For recruiting more and more donors, we should take blood collection procedures, close to the blood donors at their workplaces, on their convenient date and time by conducting outdoor blood donation camps.

5. Further studies should include a larger sample on this topic in other governorates in Iraq are necessary.

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