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## Attitude Towards Blood Donation Among University Students

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### Abstract

This is a community based cross-sectional study conducted at Majmaah University (KSA), in the year 2013. The study aimed to determine the psychological, social factors and other reasons that prevent or limit the willingness of students to participate actively in blood donation in routine and emergency situations. The study was done among Majmaah University, using systematic sampling methods. Faculties included in this study were: Applied Medical Sciences (16 students), Community (38 students), Faculty of Engineering (25 students), Faculty of Administration (77 students) and Faculty of Education (170 students). The sampling varies in each faculty according to the total number of students statements by the names of Deanship of Registration and Students Affairs. The study showed that only 46 students (14.1%) have a history of blood donation, 33 students (10.1%) donated voluntary and 13 students (4.0) % donated for emergency cases.

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The study revealed that the factors which hinder the student from blood donation include avoid blood donation for health reasons were 162 (57.9%), for social factors 34 (12.1%) and for religious reasons 2 (0.7%). While 82 (29.3%) had no reasons. Student's concept regarding the importance of blood donation was predominant among 96.3% of the students, while only 3.7% said it is not important. The study highlighted the need for appropriate motivational campaigns to exploit the "favorable attitude" of non-donors toward blood donation that most of the non-donors can be converted into regular/repeat donors.

**Keywords:** Attitude; Majmaah university; non-donors ; blood transfusion; blood supply ;blood product ;blood banks

## **1. Introduction**

Donating blood saves lives in many parts of the world and it is the main source to meet patients' needs for blood. The demand for blood donation is increasing. According to WHO, there are an estimated (100) million blood donations each year [1]. According to the Ministry of Health report in Saudi Arabia in 2008, the number of blood transfusion requests is nearly double the number of blood donations [2]. As mentioned, blood can save millions of life, where young people are the hope and future of a safe blood supply in the world [3] .Young students are healthy, active, dynamic and receptive and constitute a greater proportion of population. They have to be encouraged, inspired and motivated to donate blood voluntarily. Therefore, many factors affecting people attitude towards blood donation demographic profile, previous blood donation behavior and experience, knowledge and perception and social norms. These factors can direct the attitude either towards or against blood donation. For example, studies have shown that having knowledge about blood transfusion leads to more frequent donate while another study shows that Greater knowledge about blood donation does not lead to donation [4].

There are many factors currently straining the nation's blood collection agencies in their mission to provide the United States with a safe and adequate blood supply. Medical advances, a rapidly increasing older population, a shrinking pool of eligible blood donors due to high risk behaviors, and more stringent donor restrictions are just a few of the issues impacting their success [5]. In addition, the American Red Cross, which supplies approximately one-half of all the blood products in the United States, reports that only five percent of the eligible population gives blood, though it is estimated that nearly 95 percent of Americans will need blood or a blood product in their lifetime [6]. So where will blood banks find voluntary donors to meet the ever increasing need for blood? However, detailed information on the attitude of blood donors is lacking in Middle Eastern countries, and particularly the Gulf States, where the health service has undergone extensive and very rapid modernization with the inflow of the wealth. The medical services are now provided free and by state-of-the art hospitals which deliver highly specialized services, especially in areas, such as open heart surgery, hematology/oncology, transplant surgery, A and E as well as acute care medicine that require liberal quantities of blood components [7].

The individuals now coming of age to donate blood are the "millennial" of Generation Y. It's the largest birth cohort in American history, consisting of more than 78 million people born between 1977 and 1994 [8]. If blood

collection agencies can establish these millennial as regular blood donors early on, it is hopeful that they will form a lifelong commitment to giving blood and will help stabilize the supply needs for years to come [9].

To illustrate how beneficial establishing donors from this generation could be, one should consider that if a person turning 17 this year begins giving blood every 56 days until the age of 76, he will donate nearly 48 gallons. Since each unit of blood can help save up to three different individuals, the donations from this one routine, lifelong donor would potentially save 1,152 lives [6].

An attitude may be defined as a relatively enduring organization of emotionally-linked, learnt beliefs around an object or a situation predisposing one to respond in some preferential manner [9]. Attitudes towards blood donation have evoked been interest in the last decade, therefor; aimed to determine the psychological, social factors and other predisposing factors that prevent or limit the willingness of students to participate actively in blood donation in routine and emergency situations therefore, it is important to determine predictive factors associated with the decision to donate blood among university students [10]. If we know these factors, they can be used by the national blood policy makers to design donor recruitment programs [11]. With this important fact in mind, questions emerge such as;

1. How will blood banks harness this potential market and bring young people through the doors?
2. What makes a person become a blood donor in the first place?
3. What prompts a person to give blood again and again?
4. What types of message appeals will be most successful in prompting blood donations both for the first time and habitually for years to come? [12].

These are the main questions that have precipitated this study.

## **2. Research Methodology**

### ***2.1- Study design***

This was a community based cross-sectional study conducted at the Majmaah University (MU), (KSA).

The study based on the information that shows decreases the number of blood donors in hospitals and the lack or weakness of the response of students in the university appeals to donate blood.

The study excluded female students to avoid bias depending on the pre- survey in hospital records during the last three years, showed that there was no any female donated blood in that period. The survey questionnaire was prepared and validated.

The study questionnaire was distributed among faculties in Majmaah University using a systematic sampling methods. The participation to survey was on voluntary basis. All participants were given a briefing about objective of the study and assured confidentiality in collection of personal data.

**2.2- Study area**

Majmaah University (MU), which situated in Majmaah town, 185 km to the north of Riyadh city the capital of Saudia Arabia. MU was established in 2010.

**2.3- Study population**

All the participants were males, in view of the fact at the present moment, more than 95% of the blood donors giving blood to King Khalid University Hospital Blood Bank are males (Abdel Galil M et al, 2011). The study excluded female faculties to avoid error depending on the pre- survey in hospital records during the last three years, showed that there was no any female donated blood in that period.

**2.4-Sample size**

The target population was divided into five strata by Faculties: Applied Medical Sciences 16 students (4.9%), Community 38 students (11.6%), Engineering 25 students (7.7%), Administration 77 students (23.6%) and Education 170 students (52.2%).

**2.5-Data collection**

The questionnaire was developed to assess the constructs of attitude, subjective norm, and self efficacy as the predictive factors with intention as outcome variables in the model. Questionnaire probes various aspects of the attitudes, beliefs and motivations toward blood donation. Respondents were requested to give an answer to most question mainly by a 'Yes' or 'NO'.

**2.6- Data analysis**

Data collected by questionnaire analyzed by special computer program (SPSS program –v .17.)

**3. Results**

**Table 1.** Shows the correlations between respondents (history of blood transmission, frequency,) and the donor.

Who Was The Donor?	Question		How Many Times?		Total	%
			1	2		
Relative	Did You Ever Needed Blood Transmission	Yes	7	2	9	45%
	Did You Ever Needed Blood Transmission	Yes	1		1	5%

Blood Bank	Did You Ever			
	Needed Blood Transmission	Yes	1 6	4 20

**Table 2.** Did you thank the donor?

		Frequency	Percent
Valid	Yes	4	20
	No	16	80
	Total	20	100

**Table 3.** Shows students answers regarding the importance of blood transmission.

		Frequency	Percent
	No	12	3.7
	Total	326	100.0
Chi-Square(A)		189.2	
df		1	
Asymp. Sig.		0.001	

**Table 4.** Shows the frequency and the type (emergency, voluntary) for blood donation in the past.

How Many Times You Donated For Any Reasons?			If Yes Why?		Total
			Voluntary	Emergency	
One Time	Never	Yes			
	Donated Blood To Some One		29	12	41
Two Times	Never	Yes			
	Donated Blood To Some One		4	1	5
Total			33=10.1%	13=4%	46= 14.1%

**Table 5.** Shows Factors that hinder the student from donating blood.

		Frequency	Valid Percent	Cumulative Percent
Valid	Religious	2	0.7	.7
	Social	34	12.1	2.9
	Health	162	57.9	8.6
	I Don't Know	82	29.3	100.0
	Total	280	100.0	
System		46		
Total		326		

\* Religious factors: licit, illicit or suspicion.

\*Social factors: Ethnicity, Economic Status, Physical attributes, Family.

**Table 6.** Shows students' knowledge regarding the site of blood bank in their area in correlation with actually donors.

		Frequency	Percent	Donation	Cumulative Percent
Valid	Yes	157	48.2	21	48.2
	No	169	51.8	25	100.0
	Total	326	100.0	100.0	
Chi-Square(A)	173.6				
Df	3				
Asymp. Sig.	0.081				

**Table 7.** Shows the students behavior when they see campaign for blood donation?

Do You Stop When You See Campaign For Blood Donation?		Frequency	Percent	Cumulative Percent
Valid	Yes	39	12.0	12.0
	No	287	88.0	100.0
	Total	326	100.0	

**Table 8.** Shows parents reaction when they know that their son had donated blood for some one

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Happy	2	.6	18.2	18.2
	Sad	5	1.5	45.5	63.6
	Not Care	4	1.2	36.4	100.0
	Total				
		11	3.4	100.0	

#### 4. Discussion

The study revealed that only 20 students had history of blood transmission, nine of them had donated by relative, representing (45%).ten from other donors (50%), while only one (5.0%) from blood bank, this can be seen in Table (1).

Only 20% of them gave thanks to their donors. There is no studies matched these results, this can be seen in Table (2).

Student's concept regarding the importance of blood transmission was predominant among 96.3% of the students, while only 3.7% said it is not important. This result was significant in confidence level .05 with P value <0 .001, this can be seen in Table (3).

Only 46 students representing (14.1%) of the total number of our sample size have a history of blood donation 33 students (10.1%) donated voluntary and 13 students (4.0) % donated for emergency cases,(results from the total sample size) table (4-1) .this results were comparable to results reveled from study conducted among the students of the University of Dhaka, Bangladesh in 2001 where 82% of the participants showed a positive attitude towards blood donation, however, only 16 % of the respondents in this study had actually ever donated blood voluntarily, this can be seen in Table (4).

Regarding factors that hinder the student from blood donation only 2 (0.7%) for religious reasons, Religion is deeply rooted in the Saudi society and there is little doubt that it is a major motivating factor for the local population to donate blood, although there is believe that blood donation is a religious duty [6]. In contrast, a Nigerian study found that 20.3% of their study population would not donate blood, mainly to religious beliefs [2].While a new analysis of data from the US National Survey of Family Growth, says there is no relationship between giving blood any facet of religiosity. Neither the religion in which the person was raised (versus none), nor religious service attendance, nor the importance of religion in daily life, were related to whether the person had given blood in the past [15].

Other factors hinder blood donation showed 34 (12.1%) for social factors, 162 (57.9%) avoid blood donation for health reasons, and the rest of the participants 82 (29.3%) said they don't know why they did not donate blood, this can be seen in Table (5).

The Increase in the number of the students who have no clear justification (82 students ) may be 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.

The study also showed that there was no significant effect for the knowledge regarding the site of blood bank in their area and blood donation (P value <0.081), this can be seen in table (6). There was no studies matched this result.

Other factors may have direct effects in students motivation towards blood donation such as friends attitude and behavior towards blood donation although in this study has no significant values, blood donation campaigns, parents reaction (appreciation or blaming) when they know that their son had donated blood for someone , all these factors may need further studies to be assessed .

## **5. Study Limitations**

This study was conducted in a single university on a cross section of only under graduate students in 2011\2013 academic year. The results of this study cannot be an indication on attitude and practice on voluntary blood donation of entire university students in the country, despite the presence of great similarities between the students in terms of age and other social factors.

## **6. Conclusion and recommendation**

In conclusion, the information accumulated from the current study highlighted the need for appropriate motivational campaigns to exploit the "favorable attitude" of non-donors toward blood donation. It is also a source of optimism that most of the donors could readily be converted into regular/repeat donors, as most agree that donation can be given more than once every year.

There is also need for building the loyalty of voluntary blood donors, through well-planned donor education programs aimed at dispelling any myths, fears and wrong concepts about dangers of donating blood. This should be coupled with special personal care directed toward blood donors, by listening to their complaints, worries and suggestions and attending to them. Special attention should also be directed to reducing any inconvenience posed by the donation process, its location or timing.



The educational programs should take into account social and other variables (including donor educational level) that determine donor attitude and behavior and directed to motivate non-donors to come forward and undertake the first and usually most stressful donation and to continue donating regularly thereafter.

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