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**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.2562616>Available online at: <http://www.iajps.com>**Research Article****KNOWLEDGE, ATTITUDE AND PRACTICE OF MILITARY
EMPLOYEES OF THE NATIONAL GUARD TOWARD BLOOD
DONATION IN RIYADH.**¹Abdullah Essam Almanea, ²Abdullah Saleh A. alamor, ³ Abdulrahman Abdulaziz Alsaigh,
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Phone: 966533911133+, Other Email: D7man.a.s@gmail.com, ⁴health education lecturer in
kind Saud university.**Abstract:****Introduction and Background:**

Blood donation is vital supportive therapy for patients who are in need of blood transfusion and a beneficial procedure that saves patient's life. The study aims to access the knowledge attitude and practice among the military employees working in National Guard Riyadh Saudi Arabia about blood donation in order to motivate military employees to donate blood.

Methods:

A cross-sectional study was conducted with military employees working in Ministry of National Guard, Riyadh. A self-administered structured questionnaire was used to collect the information about knowledge, attitude and practice of the participants about blood donation. Convenience sampling technique was used to identify 264 officers and soldiers. Informed consent was taken from all who agree to be part of the study. Data was entered in excel first and later transferred to SPSS for analysis.

Results:

Response rate was 272(84.3 %). Regarding the knowledge about blood donation 220(82%) knew the location of nearest blood bank, and 69(26%) knew the minimum interval between two times blood donations. Almost two third participants agreed that blood donation is a healthy practice. Most of them 205(77%) had donated blood sometime in their life. A day off from work was considered as good motivation factor by 229(86%).

Conclusion: In conclusion the overall attitude and practices about blood donation of soldiers and officers was good. The knowledge about blood donation was relatively low.

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INTRODUCTION:

Blood donation is vital supportive therapy for patients who are in need of blood transfusion and a beneficial procedure that saves patient's life (1). Blood transfusion is crucial for patients who have lost large volumes of blood secondary to serious motor vehicle accidents, obstetric and gynecological hemorrhages, or surgical operations and stem cell transplant patients as well as those patients who have symptomatic anemia resulting from medical or hematologic conditions like cancers on chemotherapy (2).

The blood transfusion service in the Kingdom of Saudi Arabia is a hospital blood bank-based system where the hospital blood bank is responsible for recruiting donors, testing blood, preparing blood components, storing them and issuing them to patients on the request of the treating physician. The only source of blood is human donors. However, the need for blood products is increasing and a gap is already building between blood supply and demand in United States and worldwide (3).

Over the last 30 years blood donation in Saudi Arabia has changed dramatically from importing blood from abroad, mainly Western countries, USA and Switzerland, to locally recruited blood donors. Nowadays, the source of blood in Saudi blood banks is a combination of non-voluntary circumstantial donors (relative, friends and workmate of patients) and voluntary unpaid donors (4). The WHO (world health organization) has always encouraged members states to develop and subsequently establish their blood services on voluntary donation; similar trend is also supported by all organizations are involved in health care particularly the Saudi Ministry of Health. Motivation is one of the most important aspects in the blood donation process because only if a healthy individual is motivated, he will develop a positive attitude to blood donation and will move forward to give his blood.

In 2014 a survey was performed among 350 individuals at King Abdulaziz Medical City, National Guard Health Affairs, Riyadh, Saudi Arabia. Those individuals were aged above 16 years and have active files. Most of them (81.4%) agreed that one day off is a motivational factor for donation and 79.1% agreed that mobile blood donation units in public areas (malls, plazas, and streets) are a good motivational factor for donating blood. Only 39.3% reported that media encourages people to donate blood. As to rewards for donation, 31.5% agreed than token gifts are acceptable but 18.9% thought paying money as a strong motivating factor for blood donation (5). The previous study, which was done in National Guard hospital was directed towards all employees, but our study focuses only on National Guard's military

employees (soldiers and officers). Bearing in mind soldiers, officers and their relatives form the majority of the patients in our hospital (The National Guard hospital in Riyadh).

Knowing the level of knowledge and attitude of the military personnel towards blood donation will help planners to find ways to enhance blood donation so that the blood bank can become self-sufficient which at the moment depends on blood being imported from abroad. The aim of the study is to access the knowledge attitude and practice of blood donation among the Ministry of National Guard's military employees in Riyadh Saudi Arabia about blood donation in order to motivate military employees to donate blood. Also, the study will help in highlighting some of the factors that motivates people to donate blood. The Terms that we are focusing on are accessing the knowledge, attitude and practice among Military employees of the National Guard in Riyadh about blood donation and identifying the motivation factor for blood donation among military employees of the National Guard in Riyadh.

METHODOLOGY:

This is a cross-sectional study in which a questionnaire was conducted to military employees working in Ministry of National Guard, Riyadh, Saudi Arabia. A self-administered structured questionnaire was used to collect the information about knowledge, attitude and practice of the participants about blood donation. The technique used was convenience sampling technique and informed consent was taken from all whom agree to be part of the study. A cross-sectional study design was used through the questionnaire to assess the knowledge and attitude of male military employees about blood donation. This study design was chosen because it best suits our research objectives as we are interested in assessment over one point in time.

The sample size was 264 officers and soldiers which was needed to estimate the proportion of the participants who are aware of blood donation. Assuming that the blood donation knowledge, attitude and practice is 50% with a 90% confidence level and a margin of error of 5%. Sampling non-probability convenience sampling technique is technique was used to identify the study participants. As we do not have access to the list of the military employees who are currently working; in order to do a random sampling. The data was collected by a self-administered structured questionnaire which is obtained from published research. The questionnaire is divided into five parts. The first part includes demographic data. The second part is for assessing the knowledge about blood donation. Followed by section for assessing the attitude, practices and

motivation factors for blood donation (4). The questionnaire has been designed in English afterwards forward translation has been done to Arabic. As the third step backward translation has been done to check for the validity of the content of the translated questionnaire (6). The data was collected by the co-investigators in the research team. of interest are knowledge, attitude, Main variables practices and motivation factors for blood donation. Data was entered first on Microsoft excel sheet. Data statistical software version 20 handled by a was & for analysis. Frequencies (20 (SPSS version percentages were used to calculate categorical data (e.g. rank and level of education). Mean and slandered deviation were used for numerical data (e.g. age and years of experience). Chi- square test was used for measuring any association between knowledge, attitude and practices with the participant educational level or designation. All statistical tests were considered significant with p-value less than .0.05

RESULTS :

Total number of responses was 267 and the response rate was 76.2%. The response rate was high. Table 1 shows the mean age of the military employees which is 31 ± 8 with a mean of 8 years working in the military. Most of the military employees are married (59%) and 63% of them are high school graduates. The number of soldiers is higher than officers with a percentage of 87% in the study (table 2). the knowledge of military employees Figure 1 shows Most of them (82%) knew the .for blood donation location of the nearest blood bank and 77% knew if blood bank screens blood before transfusion to another person. Moreover, only 13% of the participants knew the minimum weight for blood donation and 11% knew the minimum age of blood .donation the ,donation Regarding the attitude of blood majority of the employees believe that blood and most of them (%64) donation is a religious duty the ,Also .agree that it's a national duty (%73) majority agree that blood donation is a healthy .(table 3) (%77) practice

Majority of the military employees have donated blood in their life, 77 % of the participants have donated blood and only 21% of them donated blood but the majority (32%) donated in the last 6 weeks blood 2-4 month ago (table 4). Most of the participants donated blood voluntarily (41 %) (Table 4). Most of the participant had a good experience regarding blood donation (91%) and most of them are .(willing to donate blood in the future (84%) (Table 4 of the military employees donated blood one %35

blood 2-4 time in their life and 35% of them donated times (Figure2). The reason for not donating blood for most of the participants is having a health problem (39%). And 30% stated that they didn't .(donate blood because the lack of time (Figure3 Regarding the motivation factor 74% agree that mass media like TV and radio is a motivation factor for them to donate blood. In the same table we can see that 79% agree that blood donation caravan in public area is a motivation factor. Most of the military employees (86%) agree that a day off from work as a Table)factor reward of blood donation is a motivation .(4

In comparison to the level of education and attitude of the participants, with high education level the military employees have positive attitude %61 ,of participants with degree less than high school agree that blood donation is a healthy practice on the same side 91 %of participants with bachelor agree that blood donation is a healthy practice (FIG9 .(With lower level education participants with less than high school (32% (agree that blood donation is part of altruism but in higher level of education bachelor degree (%66) agree that blood donation is part of altruism (FIG10).

DISCUSSION:

This study investigated the knowledge, attitude and practice toward blood donation in military employees in National Guard hospital. Our results helped us to find the weak points that need improvement to increase voluntary donors and answer our research questions. The knowledge of the participants regarding the facts of blood donation was low, only 26% know the minimum interval between two times of blood donation also 12% know the blood type that can be donate to any individual. In comparison between our study and a study conducted in Saudi Arabia on 500 adult males. The knowledge of military employees was lower, only 13% of the participants know the minimum weight. On the other hand, the public male study (28%) knows the minimum weight of blood donation (7).

The soldiers and officers have a good attitude regarding blood donation, 64% of them agree that it's a religious duty and 73% agree that blood donation is a national duty. When we compare our research with a research done on the public in the central of Saudi Arabia, both of them have a good attitude (8).

77% of the participants have donated blood in their life. Therefore, a good attitude leads to a good practice. In other point of view, it's mandatory to donate blood in some cases (example order from higher ranked officer). Most of the Military employees agreed that a day off from work is a good motivation factors. The methods used are appropriate

for our research question and answer it. The answer we got open doors for other research and question. The limitation in our research that we didn't include females. Also it's specific for soldiers and officers so we didn't include civilians. The time limits us from expanding the research in all the patient in our hospital. The strength point in our research that it focus on military employees whom and there relative are most of the patients in our hospital.

CONCLUSION / RECOMMENDATION:

In conclusion, from our study we realize that the soldiers and officers of Ministry of National Guard have positive attitude and good practice toward blood donation, but they have low knowledge about blood donation. Most of the participants agree that a reward is a motivation factor that will improve the practice toward blood donation from their side. To manage the weak point, we recommend to increasing the knowledge of the soldiers and officers by putting campaign about awareness of blood donation. After doing the campaign we recommend, to distribute a questionnaire to check if the action lead to practice change. Also, we recommend, to document different reward after blood donation to see which reward lead to the increase of number of blood donation with comparison of different motivation factors like money and day off from work. The question that we need to answer by a complementary research is , why National Guard military employees who donated blood didn't donate blood again or they become voluntary donors.

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APPENDIX for Research Tables and figures:

The Numerical demographic sample(Table 1)

	N	Minimum	Maximum	Mean
Age	267	19	60	31
Years working in Military	267	1	32	7

Demographic Sample (Categorical) (Table 2)

		count N	column N%
Marital Status	Single	102	38%
	Married	158	59%
	Divorced / Separated	8	3%
Level of Education	No education	5	2%
	Less than High School	26	10%
	High School	168	63%
	Bachelors	66	25%
	Postgraduate	2	1%
Designation	Private	19	7%
	Private First Class	77	29%
	Corporal	52	19%
	Vice Sergeant	61	23%
	Sergeant	11	4%
	Master Sergeant	7	3%
	Chief of Sergeants	5	2%
	Lieutenant	9	3%
	First Lieutenant	3	1%
	Captain	8	3%
	Major	10	4%
	Lieutenant	3	1%
	Colonel		
	Colonel	3	1%

The knowledge of the participant regarding blood donation (Figure 1)**(FIG1)****The attitude participant regarding blood donation (Table 3)**

questions:	Agree	Don't know	Disagree
Do you think blood donation is part of altruism?	114	132	18
	43%	50%	7%
Do you think blood donation is a religious duty?	169	67	28
	64%	25%	11%
Do you think blood donation is a national duty?	194	47	23
	73%	18%	9%
Do you think that blood donation is a healthy practice	202	49	13
	77%	19%	5%

(The practice of participant regarding the blood donation (Table 4

	N	%
?Have You Ever Donated Blood		
Yes	205	%77
No	62	%23
?When Was the Last Time You Donated Blood		
< 6 Weeks Ago	45	%21
2 - 4 Months Ago	69	%32
> 4 Months Ago	49	%23
Don't Remember	53	%25
?What Were the Reasons For Previous Blood Donation		
Relatives	65	%32
Friends	56	%27
Voluntary	84	%41
?How Was Your Experience of Blood Donation		
Good	187	%91
Bad	8	%4
Not Sure	11	%5
?Will You Donate Blood in Future as Well		
Yes	173	%84
No	14	%7
Not Sure	19	%9
?Do You Encourage Your Relatives and Friends to Donate Blood		
Yes	190	%92.2
No	6	%2.9
Not Sure	10	%4.9

(Figure 2)

(Figure 3)

The motivation factor for blood donation (Table 4)			
	Agree	Don't know	Disagree
Mass Media (TV, radio, newspapers) encourage people to donate blood very well?	198	28	42
	74%	10%	16%
Mobile blood donation caravans in public areas (malls, plazas and streets) are a helpful in increasing motivation for blood donation?	211	35	21
	79%	13%	8%
A day off from work is motivational factor for blood donation?	299	21	17
	86%	8%	6%
After blood donation reward should be given	198	4	66
	74%	2%	25%

?Do You Think that Blood Donation is a Healthy Practice				
	Disagree / Don't Know	Agree	Total	P-Value
	N=62	N=202	264	
Less Than High School	(%38.7) 12	(%61.3) 19	31	0.004
High School	(%26.1) 43	(%73.9) 122	165	
Bachelors	(%10.3) 7	(%89.7) 61	264	

(Table 5)

Do You Think Blood Donation is Part of Altruism?				
	Disagree / Don't Know	Agree	Total	P-Value
	N = 150	N = 114	264	
Less Than High School	21 (67.7%)	10 (32.3%)	31	< 0.001
High School	106 (64.2%)	59 (35.8%)	165	
Bachelors	23 (33.8%)	45 (66.2%)	68	

)Table 6