



## Assessment of Knowledge, Attitude and Practice towards Blood Donation and its Associated Factors in a Tertiary Care Hospital

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### ABSTRACT

Blood transfusion is a fundamental and a requisite part of any nation's health care delivery system for a lifesaving intervention. In all parts of the world the need for blood and blood products is rising. According to the World Health Organization (WHO), at least 1% of the nation's population should donate blood voluntarily to meet the basic requirement for blood and blood products. To meet this goal the very first step is performing an objective, thorough and comprehensive assessment of knowledge and attitude towards blood donation among individuals. The aim of this study is to assess the knowledge, attitude, practice towards blood donation and its association with socio-demographic factors, field of study, and blood groups of the clinical and non-clinical professionals in tertiary care hospital. This study was conducted in a tertiary care hospital as an assessment survey project about the knowledge, attitude and practice towards the blood donation among clinical and non-clinical faculties in hospital. In this study 180 individuals were assessed, among them 102 were clinical and other 78 were nonclinical staffs. Among 180 individuals, females were more assessed than males and study was mostly conducted among the age group of 20-40 years. The cent percent study was among educated individuals. This study concluded that overall level of knowledge towards blood donation was found to be higher in clinical faculties than non-clinical faculties in hospital. In this study most of the respondents have positive attitude towards blood donation and practice of individuals towards blood donation were found to be poor in both clinical and non-clinical faculties.

**Keywords:** Blood donation, Knowledge, Attitude, Blood transfusion.

### INTRODUCTION

Human blood is essentially a vital, lifesaving component, capable of saving millions of lives if ready availability can be ensured. According to the World Health Organization (WHO), at least 1% of the nation's population should donate blood voluntarily to meet the basic requirement for blood and blood products. Blood scarcity is frequently encountered in healthcare settings and is attributable to an imbalance between increasing demand for safe blood and blood products on one hand and failure to organize regular blood supply due to misconceptions, perceived harms and risks, and lack of motivation among potential donors.<sup>1</sup>

Blood transfusion is a fundamental and a requisite part of any nation's health care delivery system for a lifesaving intervention. In all parts of the world the need for blood and blood products is rising. Generally, a healthy human body contains an average of 4.7 liters of blood.<sup>2</sup> Though blood transfusion is often delegated to a non-governmental organization, to meet the needs of all patients in a timely, cost effective and efficient manner the government is responsible to ensure adequate, safe supplies of blood, blood products and services. The considered safest source of blood procurement is from voluntary non remunerated donor. The demand for blood and blood products in most countries continues to increase because of the rise in human life expectancy.<sup>3</sup>

During a blood donation process, one pint of blood is being drawn to fill one blood bag. As per recorded data the participation in blood donation is still minimum, even though the blood donation programs are organized everywhere, throughout the country. This has created a need to understand the donors to recruit as well as retain the current donors who are willing to donate. Therefore, an effort to render more volunteer donors to get a large pool of blood donors is critical in maintaining the blood supply over time.<sup>1</sup>

Due to shortage in supply of blood for individual patients, more awareness programmes related to donation of blood were widely undertaken. Therefore, by designing efficient strategy for sustaining a safe and adequate blood provision throughout the year, the level of knowledge and hastening the development of positive attitude towards blood donation among individuals can be improved. To meet this goal the very first step is performing an objective, thorough and comprehensive assessment of knowledge and attitude towards blood donation among individuals.<sup>3</sup>

Therefore, the study aims to assess the knowledge, attitude, practice towards blood donation and its association with socio-demographic factors, field of study, and blood groups of the clinical and non-clinical professionals in tertiary care hospital.<sup>4</sup>



## MATERIALS AND METHODS

### Study Site

The study was conducted among clinical and non-clinical staffs of a tertiary care hospital.

### Study duration

The study was conducted for 3 months from March to May 2019

### Study design

It is a hospital based cross sectional study.

### Inclusion criteria

Both clinical and non-clinical staffs of any age and gender were included in the study.

### Exclusion criteria

Patients and care takers in the hospitals are excluded from the study.

### Data collection and interpretation

Initially at the beginning of the study, a pretested, close-ended, structured questionnaire was prepared and it was distributed among clinical and nonclinical staffs of the hospital. Basic information such as socio-demographic data and information regarding KAPs of blood donation was elicited using the same questionnaire. Answered questionnaires were collected and analysed and later questionnaires were scored and evaluated.

## RESULTS

### Sociodemographic details

In this study, 180 individuals including clinical and nonclinical were assessed. Among 180 individuals, from table no.01 it was assessed that 79(56.11%) were males and 101(43.89%) were females and among age groups, age group of 20-40yrs was found to be 146 (81.11%) and 41-60yrs was 19 (10.56%). The field of study, shows that 30 were physicians, 60 were nurses, 12 were clinical pharmacist (clinical-102) and 78 were non clinical and cent percent was having educational status in the category of certificates and above.

### Knowledge

In the assessment of knowledge variables, following percent are having correct knowledge in blood donation knowledge assessment, from table no.02, among 180 individuals 28.89% know the place of blood donation, 48.89% know the interval of blood donation, 37.22% know the Age to start blood donation, 37.22% know the Volume of blood can be donated 33.33% know the Minimum Hb% for blood donation.

From Table No:02, following percentage of individuals were having correct knowledge about following medical related queries like diabetic /hypertensive patient can donate blood (34.44%), task performed on your blood

sample given for blood donation (50%), the period of deferral in case of specific diseases (23.33%).

From Fig.No.1, it was assessed that following are having correct knowledge about infectious diseases like HIV/AIDS (153) Hepatitis B/C (137) Syphilis (22) Malaria (26) will get transmitted through blood donation.

**Table: 1**

Knowledge Variables		Frequency	Percent (%)	
GENDER	Males	101	56.11	
	Females	79	43.89	
AGE (YEARS)	20-40	146	81.11	
	41-60	19	10.56	
	61-80	0	0	
	>80	0	0	
FIELD OF STUDY	Clinical	Physician	30	16.67
		Nurse	60	33.33
		Pharmacist	12	6.67
	Non clinical	78	48.33	
EDUCATIONAL STATUS	No formal education	0	0	
	Primary (1-8th)	0	0	
	Secondary (9-12th)	0	0	
	Certificate and above	180	100	

**Table: 2**

Knowledge Variables	Frequency	Percentage
Place of donation	128	71.11
Interval of blood donation	92	51.11
Age to start blood donation	113	62.78
Volume of blood can be donated	113	62.78
Minimum Hb% for blood donation	120	66.67
<b>Did you know?</b>		
Does diabetic /hypertensive patient can donate blood	62	34.44
Do you know what task performed on your blood sample given for blood donation	90	50
Do you know the period of deferral in case of following disease	42	23.33



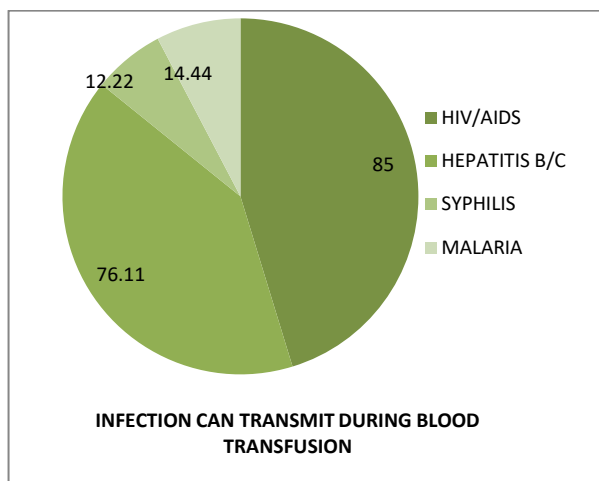


Figure: 1

**Attitude**

From the table.no.03, it was assessed that attitude towards source of information about blood donation among 180 individuals were found to be as following percentage in following sources television (81.67%), radio (25%), Newspaper/ internet (56.67%) were source of knowledge.

From the table.no.03, it was assessed that attitude towards the view of donating blood is a need among 180 individuals were found to be as cent percentage and assessed that people should donate blood for only family members were found to be 2.78%, for any needful individuals were 97.22%.

Table: 3

Attitude Variables		Frequency	Percentage
Source of information	Television	147	81.67
	Radio	45	25
	Newspaper/ internet	102	56.67
Do you think people should donate blood	Yes	180	100
	No	0	0
For whom you would like to donate blood	Only family members	5	2.78
	Any needful individuals	175	97.22

**Practice**

From table No: 04, 28.89% are having history of blood donation, among that 25.56% have donated blood voluntarily, 3.33% have donated blood for friends/relatives. Among 180 individuals 8.33% are regular donors and 99.44% of individuals are willing to donate blood in future. In assessment it shows that frequency of blood donation were found to be as follows Once (13.89%), Twice (5.56%), Thrice (4.44%), More (5.56%).

Table: 4

Practice variables		Frequency	Percentage
History of blood donation	Yes	52	28.89
	Not done	128	71.11
Type of blood donation	Voluntary	46	25.56
	Friends/relatives	6	3.33
	Regular donor	15	8.33
Willingness in future to donate blood	Yes	179	99.44
	Not done	127	70.56
Frequency of donation of blood	Once	25	13.89
	Twice	10	5.56
	Thrice	8	4.44
	More	10	5.56
	Not done	127	70.56

From fig no.02, it was assessed that reasons of not donating blood is due to 22.78% didn't think of it, 23.33% lack of opportunity, 8.89% lack of time, 3.33% fear of knowing my status, 1.11% no remuneration.

From fig no.03, it was assessed that 23.89% don't know and 76.11% know that plateletpheresis is conducting in tertiary care hospital.

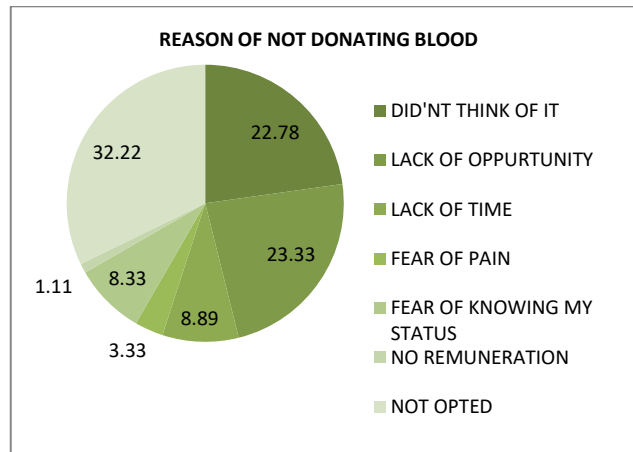


Figure: 2

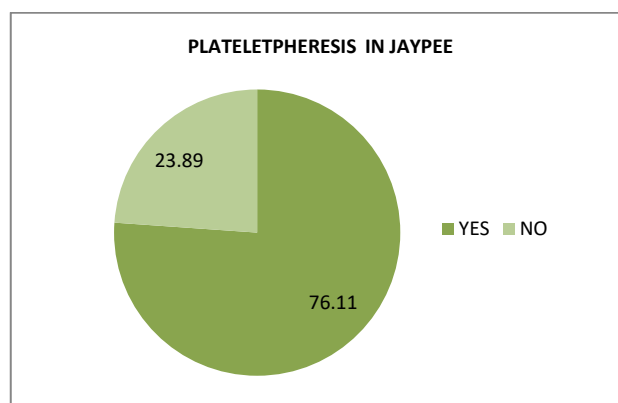


Figure: 3

### Overall assessment of variables

From fig.no.04, main findings were clinical faculties have more knowledge than non-clinical faculties in the hospital, both clinical and non-clinical faculties have positive attitude towards the blood donation but practice among both clinical and non-clinical faculties in hospital was found to be poor.

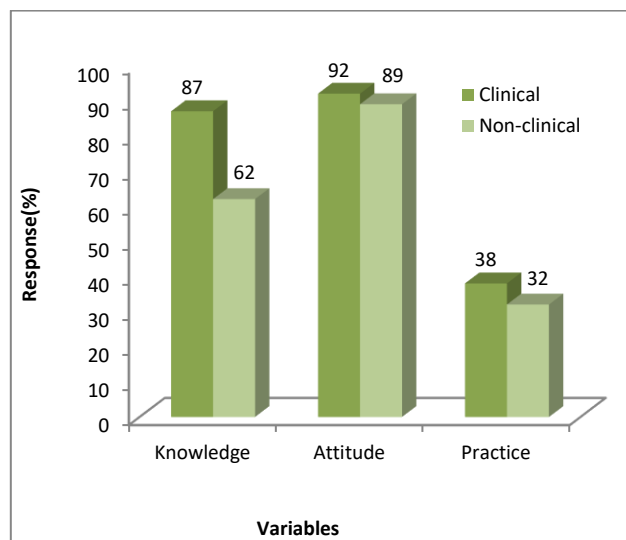


Figure: 4

### DISCUSSION

This study was conducted in a tertiary care hospital as an assessment survey project about the knowledge, attitude and practice towards the blood donation among clinical and non-clinical faculties in hospital. In this study 180 individuals were assessed, among them 102 were clinical and other 78 were nonclinical staffs. Among 180, females were more assessed than males and study was mostly conducted among the age group of 20-40 years. The cent percent study was among educated individuals.

In our study the main findings were clinical faculties have more knowledge than non-clinical faculties in the hospital, both clinical and non-clinical faculties have positive attitude towards the blood donation but practice among both clinical and non-clinical faculties in hospital was found to be poor. Similar study conducted by Hasanain Faisal Ghazi *et al*, in that study the main findings was that the majority of respondents have good knowledge and good attitude but practice of blood donation is poor among both clinical and nonclinical faculties.<sup>3</sup>

Clinical faculties have more knowledge about transmission of infectious diseases than non-clinical faculties in the hospital. Similar study conducted by Priya Arora *et al*, in that study knowledge of transmission of infectious diseases like HIV/AIDS, malaria, hepatitis B/C, syphilis was more found in clinical faculties than non-clinical in hospital.<sup>5</sup>

Knowledge about deferral period of diseases for blood donation was poor among both clinical and non-clinical

faculties. The overall level of knowledge towards blood donation was found to be higher in clinical faculties than non-clinical faculties in hospital.

Source of information about blood donation was more through television than other sources. Similar study conducted by Renu Chauhan *et al*, in that study attitude of individuals towards blood donation was found to be good in both clinical and non-clinical. The source of information about blood donation was found to be more through television than radio and newspaper/internet.<sup>4</sup>

Most of the respondents have positive attitude toward blood donation. Among 180 respondents cent percent of respondents think people should donate blood and among them 175 would like to donate blood for any needful individuals than for only family members.

Reason for not donating blood among both clinical and non-clinical faculties in the hospital was found to be due to lack of knowing their health status followed by the lack of opportunities for donating blood. Similar study conducted by Benedict Nwogoh *et al*, in that study practice variables assessed shows that reason for not donating blood were found to be more due to lack of opportunity than other reasons suggested.<sup>6</sup>

Both clinical and non-clinical faculties are equaled in percentage of donating blood even though the practice percentage is poor compared to knowledge and attitude percentage. Among clinical faculties physicians were found to be more in number in donating blood than other clinical faculties. Similar study conducted by Anand N *et al*, in that study it was assessed that more donation of blood was done by physicians among clinical respondents than non-clinical in hospital.<sup>7</sup>

### CONCLUSION

Our study showed that the prevalence of knowledge and attitude of blood donation is found to be higher and the level of practice is found to be lower. Younger age group, female sex, who attended formal education and television listener, was significantly associated with knowledge of blood donation. Among clinical and nonclinical faculties in hospital, clinical staffs are having more knowledge towards blood donation than nonclinical. But attitude towards blood donation are equally positive among both clinical and nonclinical faculties in hospital and practice were poor among both clinical and nonclinical.

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