

A Study of Knowledge, Attitude and Practice (KAP) Regarding Voluntary Blood Donation among Health Care Professionals in Dhiraj Hospital- Vadodara

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Abstract

Background: Blood components like PCV, Whole Blood, Fresh Frozen Plasma(FFP), Platelet Rich Plasma(PRP), Cryoprecipitate demands are increasing day by day in developing countries like India. So in our study to assess the overall knowledge, attitude and practice regarding the extent of blood donation practice among health care workers have been importance.

Methods and Material: Our study which is a cross sectional study includes total of around 80 health care workers of Dhiraj Hospital - Vadodara. On the basis of socio-demographic characteristics and according to the levels of Knowledge, Attitude and Practice among participants data were collected using a self – administered questionnaire. A structured questionnaire was given to all the health care workers working in the Dhiraj hospital were taken into consideration.

Results: Eighty health care workers were involved in our study which was conducted at Dhiraj hospital Vadodara among which it was found that about 55% donated to serve for humanity. A large group of around 15% were donating as a replacement for their kith and kin. Around 10% were because of self motivated decisions. And on the other side the reasons for non-donation by non-donors was that nobody approached to them and it constituted to about 6%. Around 57% non donated due to some health related reasons while rest of them non donated due to fear of disease transmission and fear of needle which constituted to about 17%.

Conclusions: The health care workers of Dhiraj hospital were having overall level of knowledge, attitude and practice was satisfactory. Health Professionals, various hospitals and blood banks services are demanded to develop new ways so to make blood donation services more reliable and accessible

Key-words: Knowledge, Attitude, Practice, Health Care Professionals.

Introduction

“Blood donation and universal access to safe blood transfusion” is the WHO theme for blood donor day

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2020. Globally, the demand for blood products in India is projected to increase substantially in coming future and many people die every year due to insufficient supply of blood products. Population growth and population ageing are the challenges which can endanger the supply of adequate blood products in the coming future. Millions of lives are saved every year through blood transfusion, yet the quality and safety of blood transfusion are still the matter of concern especially in the developing countries like India¹. Health care workers if they are motivated and are willing to be voluntary blood donors can be a very good source of quickly accessible and quality blood².

So, a cross sectional study was conducted to identify and assess the problems that prevent participants from becoming voluntary blood donors.

For blood transfusion a healthy blood supply is important as it would otherwise affect the health of targeted population. For overall blood transfusion inviting and maintaining low risk population groups for voluntary blood donation is the important management strategy. Constant knowledge, awareness and attitudes of each of the health care workers from the primary level is must. Therefore, combine effort by blood transfusion organization system to increase the number of participants who donate blood regularly is required and needs to be planned accordingly^{2,3,4}. The information so obtained could be helpful in developing appropriate messages to be used during recruitment campaigns, creating and strengthening positive attitudes towards blood donation and developing and implementing focused awareness programs for target populations⁵. In other developed countries with advanced health systems, the demand for blood products continues to rise sophisticated medical and surgical procedures, trauma care and the management of blood disorders⁶.

Materials and Methods

Study population:

1. Study type and area: This was a cross-sectional study that was conducted from January- December 2019 among health care workers of Dhiraj hospital Vadodara.

2. Study population, sample size and study procedure: The study population included health care workers of Dhiraj hospital. The hospital has over 1500 health care workers in various departments among which a total of sample size of 80 health care workers were selected. Self- administrative paper pencil questionnaires were used as a tool of data collection. It includes six parts.

Part 1- Socio-demographic characteristics of participants.

Part 2- Awareness and knowledge of blood donation.

Part 3- Practice of blood donation.

Part 4 & 5- Attitude towards donating blood.

Part 6- Source of information.

3. Data Processing and Analysis: Questionnaires were collected and checked for any errors and completeness. Data were calculated and statistically analyzed. In the questionnaires, any information which was unclear was rechecked.

4. Ethical Clearance: Ethical clearance was sought from the Sumandeep Vidyapeeth ethical committee(SVEC) before starting the research. Written and informed consent was obtained from all the participants in the study after explaining the purpose of the study before distributing the questionnaires.

Study selection Criteria:

Inclusion criteria:

1. All the health care workers upto 60 years of age.
2. All the health care workers those working in Dhiraj Hospital of Vadodara.

Exclusion criteria:

1. Those health care workers who are absent in the time of data collection.
2. Health care workers of more than 60 years of age.
3. Not willing to participate in the study

Results

The results of the overall data collected from the health professionals are divided in three division:

1. Knowledge score in health workers:

Regular voluntary donor are the safest donor as their blood is checked at frequent intervals of time for example health care workers as they are having knowledge regarding all transfusion transmitted infections, their safety and risk factors associated with donation as shown in Table 1.

Table 1. OVERALL KNOWLEDGE REGARDING BLOOD TRANSFUSION TRANSMITTED INFECTIONS(TTI), SAFE PRACTICE AND RISK FACTORS IN HEALTH CARE WORKERS.

- KNOWLEDGE OF BLOOD TRANSFUSION TRANSMITTED INFECTIONS (TTI) AMONG WORKERS IN HEALTH CARE INDUSTRY	TTI IN HEALTH PROFESSIONALS	(A) TUBERCULOSIS	(B) HEPATITIS B AND C VIRUS	(C) HUMAN IMMUNO DEFICIENCY VIRUS	(D)HUMAN T-CELL LEUKEMIA VIRUS	TOTAL
	TOTAL NUMBER	45	20	10	05	80
KNOWLEDGE OF HEALTH CARE WORKERS WITH RESPECT TO SAFE BLOOD DONATION PRACTICE	KIND/TYPE OF DONOR	REGULAR VOLUNTARY DONOR	FAMILY REPLACEMENT DONOR	COMMERCIAL DONOR	PROFESSIONAL DONOR	TOTAL
	TOTAL NUMBER	55	15	05	05	80
KNOWLEDGE OF RISKS ASSOCIATED WITH HEALTH CARE WORKERS REGARDING BLOOD DONATION	RISK FACTORS	SEXUAL ACTIVENESS	TATTOOING	UNSAFE SEX	I.V.DRUG ABUSERS	TOTAL
	TOTAL NUMBER	69	06	03	02	80

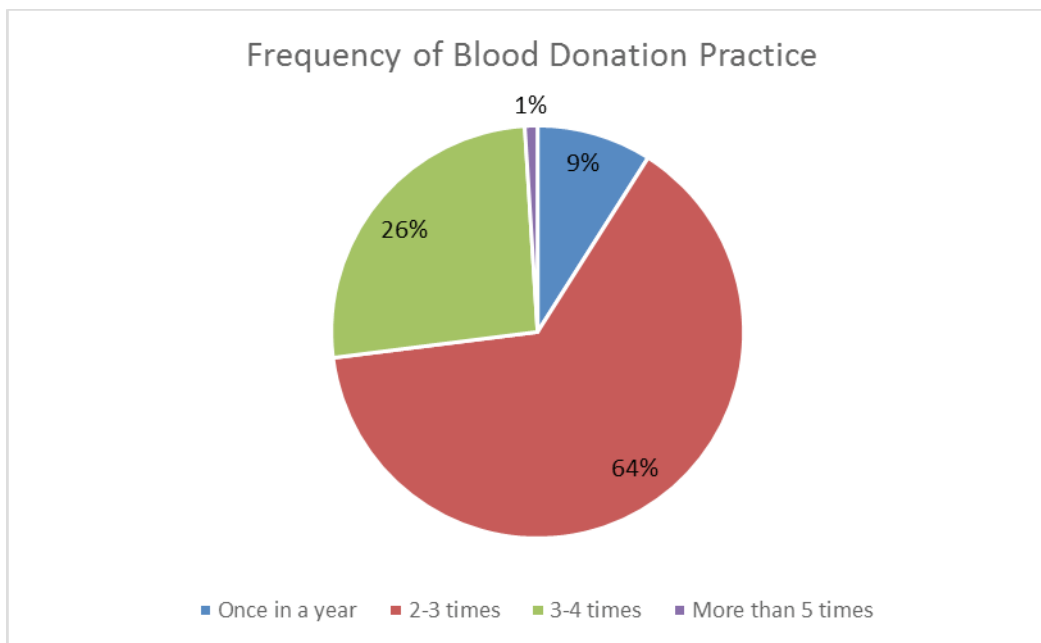
Table 2 reveals the knowledge about signs & symptoms and knowledge pertaining to various tests in health professional.

KNOWLEDGE ABOUT SIGNS AND SYMPTOMS	(A)) CHRONIC DIARRHEA	(B) HUMAN IMMUNO DEFICIENCY VIRUS (HIV)	(C) SKIN REACTIONS AND SWOLLEN GLAND	(D) BRUCELLOSIS AND HERPES ZOSTER	TOTAL
TOTAL NO OF HEALTH WORKERS	35	25	15	25	80
KNOWLEDGE ABOUT TESTS	ABO AND RH INCOMPATIBILITY	HBSAG AND ANTI-HCV	ANTI HIV-1 AND ANTI HIV-2	ANTI TRYPANOSOMA CRUZI AND SYPHILIS	TOTAL
TOTAL NO OF HEALTH WORKERS	44	16	15	05	80

2. Attitude of blood donation in health workers:

While conducting the study the overall attitude of the health workers regarding donation of blood by donor on one side was a main cause to serve humanity which constituted to about 55%. A large group of around 15% were donating as a replacement for their kith and kin.

Around 10% were because of self motivated decisions. And on the other side the reasons for non-donation by non-donors was that nobody approached to them and it constituted to about 6%. Around 57% non donated due to some health related reasons while rest of them non donated due to fear of disease transmission and fear of needle which constituted to about 17%.



The above pie - chart shows the percentage of frequency of blood donation practice done by the health professionals are 64% of them donated 2-3 times in a year, 26% donated about 3-4 times in a year, 9% donated once in a year and 1% donated more than 5 times in a year.

3. Practice of blood donation in health workers:

Health care worker who were blood donors showed their active and voluntary involvement for donating blood when they were being studied for various practices involving in blood donation. The health care professionals provide and conduct predonation information, orientation, general health check ups and appropriate selection of donors. They are also involved with post donation information, orientation and supervision through blood tests. All this measures are aimed at safe blood donation practices involving appropriate donor selection, Transmission transmitted

infection (TTI) reduction and quality transfusion to the people needing blood transfusion.

Discussion

To meet the increasing demand of blood products, there is overdependence on family replacement and remunerated donors which can poses serious danger to potential recipient. In our study serological screening tests play a vital role for detection of transfusion transmissible infections in potential donors; failure to take care of pathogen macromolecule detection technique, pathogen inactivation and irradiate blood products are more liable to infection. There are many similar studies conducted however only few of them can assess safety of blood through quality donors in blood transfusion services. There are two perspectives, on one hand health workers have knowledge regarding blood groups and possible TTIs and on other hand they are less involved in practice of blood donation. So overall knowledge, attitude and

practice is not up to the point which is expected in health workers. The major reason given by the health workers for not donating was that nobody approached to them. This shows that there is serious need to educate them for a safe donation practice. During our study on various health workers of Dhiraj hospital we also found that there is strong association between blood donor involved in donation and sex. In our region male health workers are more likely to donate blood than female health workers as the women which are in the donor age group usually have their monthly menstrual cycles, lactational period and pregnancy which prevent them from donating. So active education program must be conducted to educate all health workers for safe blood transfusion.

Conclusion

The study revealed that almost two-third of the health care workers in Dhiraj hospital in Sumandeep Vidyapeeth had ever donated blood with the majority of them willing to donate in the future. Awareness, motivation and positive attitude towards blood donation should be given to these potential blood donors. Proper information about the process of blood donation, TTI and the knowledge of blood in saving lives increase the frequency of blood donation. Along with it, education messages should be delivered to females to encourage more female health care workers to donate blood.

Ethical Clearance- Taken from institutional ethical committee.

Source of Funding- Self funded.

Conflict of Interest – Nil.

References

- [1] S. A. Nwabueze et al. Perception of Blood Donation among Medical and Pharmaceutical Science Students of Nnamdi Azikiwe University, Awka. *Open Journal of Preventive Medicine*. 2014;4:515-22.
- [2] Bharatwaj RS, Vijaya K, Rajaram P. A descriptive study of knowledge, attitude and practice with regard to voluntary blood donation among medical undergraduate students in Pondicherry, India. *Journal of clinical and diagnostic research*. 2012; 6(4): 602-4.
- [3] Alam M, Talha M, Ahmed S. Perceptions about blood donation among army personnel. *PAFMJ*. 2006; 3: 311-5.
- [4] Fekr FR. Effective factors on willingness to donate blood. *IJCRB*. 2012; 4(7): 677-82.
- [5] Moore RJ. Promoting blood donation: a study of the social profile, attitude, motivation and experience of donors. *Transfus Med* 1991; 1: 201-207.
- [6] WHO. Towards 100% voluntary blood donation: a global framework for action. 2010.