

VISITORS' KNOWLEDGE REGARDING BLOOD DONATION AT A TEACHING HOSPITAL, CHITWAN, NEPAL

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ABSTRACT

Human blood is an essential element of human life and there are no substitutes to blood as yet. The need for blood is growing day by day as a result of advancement in the clinical medicine but its supply remains short. Hence, it is essential to identify significant factors affecting blood donation. For this reason, the aim of this study was to assess the knowledge regarding blood donation among patients' visitors at Chitwan Medical College Teaching Hospital, Bharatpur, Chitwan, Nepal. A descriptive cross sectional study design was used. Data were collected by using non-probability purposive sampling technique with face to face structured interview schedule among 100 respondents. Data were analysed in descriptive and inferential statistics. Results of this study revealed that the mean age of the respondents was 31.55 SD=11.72. The study revealed that the proportion of individuals with knowledge on blood donation is quite high. Majority of the respondents (88%) of them mentioned that the main goal of blood donation was to save someone's life. Sixty percent of them answered that the major benefit of blood donation was a sense of psychological wellbeing. Only one-fourth of the respondents had ever donated blood. The major reason for not donating blood was the lack of opportunity to do so. It is important to increase the number of donors in order to meet the requirement of blood. Targeted strategies should be designed to increase more awareness among people about blood donation and to utilize potential donors who lack opportunities to donate blood.

KEYWORDS: Blood Donation, Visitors' knowledge, Teaching Hospital, Chitwan.

INTRODUCTION

Blood is a vital, life-sustaining fluid. Blood transfusion is the process of receiving blood products and is used in various medical conditions to replace lost components of the blood. Blood transfusion is considered an indispensable component of health care as it saves millions of lives each year worldwide, permits complex medical and surgical interventions and improves the life expectancy and life quality in patients with a variety of acute and chronic conditions.^[1]

Large volume of blood could be lost as a result of numerous varying serious conditions such as road traffic accidents, surgery, trauma, chemotherapy, and long-term therapies as well as anemia of medical or hematologic conditions or cancer. Therefore, blood transfusion is now considered as an essential component of medical management of many diseases.^[2]

National requirements for blood are, in part, determined by the capacity of the country's health care system and its coverage of the population. In developed countries with advanced health systems, the demand for blood

continues to rise to support increasingly sophisticated medical and surgical procedures, trauma care and the management of blood disorders.^[1]

As a result of advances in clinical sciences and global increase in population, the need for blood is growing day by day. However, problems regarding short supply of blood are observed in blood services all over the world.

Around 92 million blood donations are collected annually from all types of blood donors (voluntary unpaid, family/replacement and paid).^[3] World Health Organization estimates that blood donation by 1% of the population is generally the minimum needed to meet a nation's most basic requirements for blood.^[1]

Although the demand for blood supply has progressively increased in the developing countries, evidences indicate that there is a major shortage of blood and blood products in these countries. According to the World Health Organization, South East Asia's estimated blood requirement is about 16 million units per year, but it collects just about 9.4 million units annually, leaving a

gap of 6 million units.^[4] Hence, it is essential to identify motivational factors affecting the gap between the need and supply of blood. Considering the magnitude and the gravity of the problem, only few studies have been conducted regarding knowledge on blood donation among patients' visitors. For this reason, this study aims to assess the knowledge on blood donation among visitors of admitted patients in teaching hospital.

MATERIALS AND METHODS

A descriptive cross sectional study was conducted at Chitwan Medical College teaching Hospital, (CMCTH)

Chitwan, Nepal after getting ethical clearance from Chitwan Medical College Institutional Review Committee (CMC-IRC). non-probability purposive sampling technique was used and data were collected by face to face structured interview schedule. A total number of 100 visitors of admitted patients were selected in CMCTH. Entire research was carried out from May-August 2019. Data were analysed by using descriptive statistics. Findings were presented in tables and interpreted accordingly.

RESULTS

Table 1: Respondents' Socio-demographic Information. n=100

S.N.	Socio-Demographic Characteristics	Number	Percent
1.	Age (Completed years)		
	<=20	14	14.0
	20-40	67	67.0
	40-60	18	18.0
	>=60	1	1.0
	Mean=31.55 SD=11.72		
2.	Gender	Number	Percent
	Male	46	46.0
	female	54	54.0
3.	Religion	Number	Percent
	Hindu	81	81.0
	Non-Hindu	19	19.0
4.	Education	Number	Percent
	Literate	94	94.0
	Illiterate	6	6.0
5.	Occupation	Number	Percent
	Service	38	38.0
	Non- Service	62	62.0
6.	Residence	Number	Percent
	Eastern Development Region	69	69.0
	Central Development Region	27	27.0
	Western Development Region	4	4.0

Table 1 shows socio-demographic characteristics of the respondents. Majority of respondents (67%) fell under the age group 20-40 years and were female (54%). In terms of religion, 81% of the respondents were Hindus whereas 19% of them followed other religion. Ninety-

four percentage of the respondents had some form of formal education, 38% of them were service holders and majority of them resided in the Eastern Development Region (69%).

Table 2: Respondents' Knowledge on Blood Donation. n=100

Goal of Donating Blood	Number	Percent
Save the life of a relative	9	9.0
Save someone's life	88	88.0
Get health insurance	1	1.0
Don't Know	2	2.0

Table 2 indicates that from the total respondents, 88% of them thought that the main goal of blood donation was to save someone's life while 1% of them believed that it

was to get health insurance and 2% of the respondents were unaware of the purpose of donating blood.

Table 3: Respondents' Knowledge on Benefits of Blood Donation.
n=100

Benefits of Blood	Number	Percent
Activating Blood Circulation	58	58.0
Screening of Blood Donor	33	33.0
Sense of psychological Well-being	60	60.0
Screening of Diseases	34	34.0
Earning Source	2	2.0

Table 3 shows that majority of the respondents (60%) answered that one of the major benefits of blood donation was a sense of psychological wellbeing while

others thought it was to activate blood circulation (58%), to screen the blood donor (33%), to screen diseases (2%) and the other 2% viewed it as a source to make money.

Table 4: Respondents' Knowledge on Source of Information of Blood Donation.
n=100

Source of information	Number	Percent
Friends/ Relatives	56	56.0
Health Personnel	37	37.0
Newspaper	48	48.0
T.V and Radio	59	59.0
Blood Donation Camp	51	51.0

Table 4 reveals that the major source of information among majority of the respondents (59%) was mass

media (TV and Radio) while 37% reported that health personnel played a significant role in influencing them.

Table 5: Respondents' Knowledge on Criteria for Blood Donation.
n=100

Criteria for Blood Donation	Number	Percent
Donor's Age should be 17 years or more	60	60.0
Donor's Weight should be 45kg or more	71	71.0
Donor should be healthy	86	86.0
Donor shouldn't intake alcohol one day prior	50	50.0
Donor shouldn't intake medicine	53	53.0
Donor shouldn't present illness	63	63.0
Donor shouldn't have low Hb level*	61	61.0
Donor shouldn't be heavy smoker	41	41.0
Interval of Blood donation should be > 3 month	53	53.0

Note-Haemoglobin level*

Table 5 reveals that most of the respondents (86%) thought that the main criteria for a blood donor to be fit for blood donation is donor's health. Likewise more than fifty percent of the respondents knew the donor's age and

weight requirements, their other health requirements like (absence of any illness, no history of intake of any medicine) and the frequency of blood donation (> 3 months).

Table 6: Respondents' Knowledge on Frequency of Blood Donation.
n=100

Frequency of Blood Donation	Number	Percent
Every week	2	2.0
Every month	5	5.0
Every 3 month	57	57.0
Every 6 month	36	36.0

Table 6 indicates that more than half of the respondents (57%) were found to be well-informed regarding the frequency of blood donation that is every 3 months while only 2% thought blood should be donated on a weekly basis.

Table 7: Respondents' Knowledge on Reason behind Blood Donation.
n=25

Reason Behind Blood Donation	Number	Percent
Sick relative	11	44.0
Peer influence	6	24.0
Media	3	12.0
Screening of disease	5	20.0
Blood donation program	20	80.0
Social responsibility	14	56.0
Good for Health	12	48.0
Moral satisfaction	17	68.0
For the sake of experience	4	16.0

Table 7 shows that out of the total respondents, one-fourth of them had donated blood. Out of the donors, most of the respondents (80%) had answered blood donation program was the main reason that motivated them to donate blood. Similarly 68% mentioned moral

satisfaction was also a reason likewise 56% felt a social responsibility, 48% viewed it good for health, 44% of them donated for sick relatives while 24% and 12% were influenced by peers and media respectively.

Table 8: Respondents' Knowledge on Reasons for not donating Blood.
n=75

Reasons for not donating Blood	Number	Percent
Fear of vein-puncture	6	8.0
Fear of diagnosis	1	1.3
Fear of weakness	22	29.3
Fear of risk of infected	4	5.3
Fear of looking at blood	3	4.0
Fear of adverse effects	5	6.7
No one ask to donate	38	50.7
Medical unfit	20	26.7

Table 8 depicts that major reason mentioned by non-donors (50.7%) for not donating blood was no one asking them to donate. Out of 75 respondents 29.3% mentioned the fear of getting weak after blood donation. About 8.0% reported they had a fear of vein puncture while 4.0% feared seeing blood. Other reasons for not donating blood include fear of adverse effects post donation (6.7%) and risks of infection (5.3%) while 1.3% of them had a fear of being diagnosed with some kind of disease. About 26.7% of the non-donors were deemed medically unfit for the donation process.

DISCUSSION

Majority of respondents (67%) in the current study fell under the age group 20-40 years and were female (54%). Another study is consistent with this finding, in which majority of the respondents were female (59.8%).^[7] It was due to satisfactory literacy rate of the female and availability of the respondents at the data collection period.

In terms of religion, 81% of the respondents were Hindus whereas 19% of them followed other religion. Most of the respondents (94%) had some form of formal education, 38% of them were service holders and majority of them resided in the Eastern Development

Region (69%). Religion is another significant factor affecting knowledge towards blood donation.

In this study, about three-fourth of the respondents replied that the main goal of donating blood was to save someone's life. The findings of the present study is consistent with another study which revealed that among donors (56.1%) and non-donors (85.7%) who answered that the goal of the donating blood was to save someone's life.^[5]

Likewise more than half of them (60%) thought one of the major benefits of blood donation was a sense of psychological well-being. The result of this study is consistent with another study in which 26% of donors and 22.8% of non-donors mentioned similar benefits of blood donation.^[5]

The findings of this study revealed that majority of the respondents (59%) acquired information about blood donation from mass media namely television and radio. In line with this result, another study found that among 22% of donors and 8.5% of non-donors, their primary source of information regarding blood donation was also television and radio.^[5,7]

The current study revealed that a range of socio-demographic, organizational, physiological and

psychological factors may influence an individual's willingness to donate blood. Most respondents in this study admitted that blood donation camps and moral satisfaction were the two main reasons influencing their decision to donate blood whereas one study conducted in Jordan revealed peer influence as the top most influential factor in motivating people to donate blood.^[6]

One interesting finding in current study was that despite having knowledge about blood donation, only one-fourth of the respondents had donated blood. The major reason for not donating blood was the lack of opportunity to do so. About 29.3% of them mentioned the fear of getting weak after blood donation and about 6.7% of them mentioned that they had a fear of adverse effects post donation. These findings are similar to another study findings where about 40 non- medical and 49 medical students mentioned that the fear of weakness was one of the reasons behind not donating blood likewise 8 non-medical and 14 medical students had not given blood due to fear of adverse effect on health.^[8] About 6% reported that they had a fear of vein puncture while 3% feared seeing blood. Another reason of non-donors among the respondents for not donating blood was risks of infection (5.3%) while 1% of them had a fear of being diagnosed with some kind of disease. About 26.7% of the non-donors were deemed medically unfit for the donation process.

Despite a significant number of respondents having knowledge on blood donation, the numbers of voluntary donors were alarmingly less. It is important to increase the number of donors in order to cater an increase in requirement of blood. This can be done by providing adequate information about donation to potential donors. The gap between the demand and the supply of the country could be narrowed down by creating opportunities for blood donations.

CONCLUSIONS

In general, the study revealed that the proportion of individuals with knowledge on blood donation is high. Majority of the respondents mentioned that the main goal of blood donation was to save someone's life. Despite being knowledgeable, only one-fourth of the respondents have donated blood. The major reason for non-donors to not donate blood was the lack of opportunity to do so. Targeted strategies should be designed to increase more awareness among people about blood donation, to encourage them to donate blood voluntarily and to utilize potential donors who lack opportunities to donate blood.

REFERENCES

1. World Health Organization. Towards 100% voluntary blood donation: a global framework for action. (2010). <https://apps.who.int/iris/handle/10665/44359>.
2. Amatya M. Study on knowledge, attitude and practice of blood donation among students of

- different colleges of Kathmandu, Nepal, *International Journal of Pharmaceutical and Biological Archives*, 2013; 4(30): 424–428.
3. WHO, Blood Safety Factsheet, www.who.int/who_blood_safety_factsheet_2011
4. Available from: http://www.searo.who.int/LinkFiles/BCT_BTS-SEAR.pdf. [Last accessed on May 5, 2011].
5. Alzaben S, salameh A, Alhiary M, Al qadry Y, Alatoom M. Knowledge and Attitude about Blood Donation Among Blood Donors at King Hussein Medical Center. *Princess Iman Center for research and laboratory sciences, Department of blood bank, Amman/Jordan ASIAN J. EXP. BIOL. SCI.*, 2012; 3(2).
6. Abderrahmana, BH, Saleh Mohammad YN. Investigating Knowledge and Attitudes of blood donors and Barriers concerning blood donation in Jordan. *5th World Conference on Educational Sciences - WCES 2013 Procedia - Social and Behavioral Sciences*, 2014; 21 February 116: 2146-2154. online at www.sciencedirect.com/https://doi.org/10.1016/j.sbspro.2014.01.535
7. Sanayaima Devi H, Laishram J, Shantibala K, Elangbam V. Knowledge, Attitude and Practice of Blood Safety and Donation. *Indian Medical Gazette*, 2012; 1(1): 1-5.
8. Amatya M, Prajapati R, Yadav R. Knowledge and practice of blood donation: a comparison between medical and non-medical Nepalese students. *Nepal Medical College journal Nepal Med Coll J*, 2012; 14(4): 283-286.