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Original Research Article

Knowledge Regarding Blood Donation among Students of a College in Western Nepal

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ABSTRACT:

Introduction: Blood can save millions of lives, and young people are the hope and future of safe blood supply worldwide. This study was conducted with an objective to assess knowledge level regarding blood donation among college students. **Methods:** A cross sectional study was conducted at Shree Mandavya Multiple Campus, Palpa, among all years of Bachelor in Business Studies students. Census sampling technique was used and the sample size was 78. A structured questionnaire was used for data collection. Descriptive and inferential statistics (Chi-square) was used for analysis. The level of significance (p) was set at 0.05. **Results:** The mean age of the participants was 19.5 years. Majority (67.9%) of the participants were male and the remaining 32.1% were female. Most (87.2%) of them had never donated blood. Few (38.5%) of them had history of blood requirement in the family whereas, 23.1% had blood donation in family. More than half (51.3%) of participants had inadequate level of knowledge regarding blood donation. The study showed that sex (p=0.04), history of self-blood donation (p=0.03) and history of blood requirement in the family (p=0.01) were found statistically significant with level of knowledge regarding blood transfusion. **Conclusion:** This study showed that majority of the students had inadequate knowledge regarding blood donation. Thus, it is very important to adopt strategies to sensitize and motivate them towards voluntary blood donation.

Keywords: Blood donation, College students, Knowledge

INTRODUCTION:

Human blood is an essential component of human life which is universally recognized as the most precious element that sustains life of human and there are no substitutes to blood as yet.[1] Voluntary blood donors are the major source of blood. There is a great need to create awareness of blood donation among the population.[2] Blood can save millions of lives, and young people are the hope and future of a safe blood supply in the world. The theme of World Health Day on 2000 "Blood saves life, safe blood starts with me" also encouraged donors voluntarily for this novel cause.[3]

A loss of more than 30% of the total blood of the body could be fatal for which blood donations could play a pivotal role to save a life. Moreover, various medical and surgical procedures could not be granted without blood and blood products. But many youths specially belonging from developing countries face ignorance, misperceptions and fears about the blood donation process, resulting in a limited numbers of voluntary blood donors.[4] To the best of our knowledge, limited studies have been conducted that have investigated the knowledge

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regarding blood donation among younger people. Thus, this study was conducted with an objective to assess the knowledge regarding blood donation among college students.

METHODS:

A cross sectional study was conducted at Shree Mandavya Multiple Campus Palpa among all Bachelor in Business studies (BBS) students on 25th May 2019. Ethical clearance was obtained from Institutional Review Committee of the institute (IRC-LMC 09-C/019) prior to data collection. Census sampling technique was adopted to include all the students who were willing to participate. The sample size was 78.

Self-administered structured questionnaire in a simple understandable language was developed on the basis of objective of the study which consisted of two parts:

PART I: Demographic variables

PART II: Self-administered structured questionnaire on knowledge regarding blood donation which consisted of:

Section A: Introduction regarding blood donation
Section B: Importance of blood donation
Section C: Criteria for donating blood
Section D: Preparation, procedure and donor recovery of blood donation
Section E: Health benefits of donating blood
Section F: Complications and risks of blood donation

There were total 25 items and for each correct answer "one" score was given and "zero" score was given for wrong answer. Based on a study conducted in India, those who had scored less than and equal to 60% of total score was classified as inadequate level of knowledge and those scoring more than 60% were having adequate level of knowledge.[5]

The research questionnaire was pretested among 10% of the total sample among students of Tansen Multiple Campus, Palpa who were excluded from the actual study. The obtained reliability coefficient of the questionnaire was 0.90. The actual data was collected from all the BBS students of Shree Mandavya Multiple Campus, Palpa. Those students who did not give consent and were below 18 years of age were excluded from the study. Rapport was established and the purpose of the study was clearly explained prior to data collection. Informed consent was taken from each student. Approximately, 30-35 minutes was provided for completion of the questionnaire. At the end, informal health education was provided regarding blood donation.

The data thus collected was entered to and analyzed using Statistical Package for Social Sciences (SPSS™) software version 16. All the data was kept in order for coding and editing. Descriptive statistics (frequency, percentage, mean and standard deviation) and inferential statistics (Chi-square test) were used for statistical analysis. The confidence interval was taken as 95% and probability significance (p) was set as less than 0.05.

RESULTS:

The mean age of the participants was 19.5 years. Majority (91%) of the participants belonged to the age group less than 20 years and more than 20 years were seven (9%). Two-third (67.9%) of participants were males and remaining 25 (32.1%) were females. Regarding the history of previous blood donation, most (87.2%) of the participants had never donated whereas, only 10 (12.8%) had donated. Forty-eight (61.5%) participants responded that there was no requirement of blood transfusion in the family but 30 (38.5%) had requirement of blood transfusion. Majority (76.9%) of the participants had no history of blood donation in the family whereas, 18 (23.1%) had history of blood donation.

The present study revealed that more than half (51.3%) of participants had inadequate level of knowledge regarding blood donation and remaining 48.7% had adequate level of knowledge (Table 1).

Table 1. Knowledge level of participants on blood donation (N=78).

Level of Knowledge	Frequency (%)
Inadequate knowledge	40 (51.3)
Adequate knowledge	38 (48.7)

Sex (p=0.04), history of self blood donation (p=0.03) and history of blood requirement in the family (p=0.01) were found statistically significant with level of knowledge regarding blood donation. The results are depicted in Table 2 and Table 3.

Table 2. Association between level of knowledge and demographic variables (N=78).

Variables		Level of knowledge		Statistics
		Inadequate	Adequate	
Age	≤20 years	37 (52.1%)	34 (47.9%)	X^2 (1, 78)= 0.22, p= 0.64
	> 20 years	3 (42.9%)	4 (57.1%)	
Sex	Male	23 (43.4%)	30(56.6%)	X^2 (1, 78)= 4.12, p= 0.04
	Female	17 (68.0%)	8 (32.0%)	

Table 3. Association between level of knowledge and history of blood donation, history of blood requirement and blood transfusion in the family (N=78).

Variables		Level of knowledge		Statistics
		Inadequate	Adequate	
History of previous blood donation	Yes	2(20.0%)	8(80.0%)	p = 0.03
	No	38(55.9%)	30(44.1%)	
History of blood requirement in the family	Yes	10(33.3%)	20(66.7%)	X^2 (1, 78) = 6.29, p = 0.01
	No	30(62.5%)	18(37.5%)	
History of blood donation in the family	Yes	6(33.3%)	12(66.7%)	X^2 (1, 78) = 3.0, p = 0.08
	No	34(56.7%)	26(43.3%)	

DISCUSSION:

Majority (67.9%) of participants in the study were male and the remaining (32.1%) were female which was similar with the study conducted in India. [6]

Regarding the history of previous blood donation, most (87.2%) of the participants had never donated blood whereas, only 12.8% had ever donated blood which was consistent with the findings of other studies conducted in Saudi Arabia and in India**.** [6,7,8] But another study revealed that more than 50% had history of previous blood donation which is inconsistent with present study.[9] This might be the result of lack of awareness regarding the need and importance of blood donation and related fear and anxiety to donate blood among young adults.

The present study revealed that half of the participants had inadequate knowledge regarding blood donation. This finding was similar with the study conducted in a general college in India.[5] Also, a comparative study conducted in Nepal too revealed a low knowledge score among non-medical students.[10] But this finding contradicted with study conducted in Southern Ethiopia.[11] The reasons behind it may be the curriculum of non-medical studies does not include the information and also lack of mass awareness programme regarding blood donation.

The study showed that sex (p= 0.04) had a significant association with the knowledge level. This finding was similar with the study conducted in Karachi.[12] But contradicted with study conducted by Hiremath P.[13] This might be due to a limited sample size in the study.

The present study showed that history of previous blood donation (p=0.03) had a significant association with the knowledge level. This finding is similar with study conducted in north India.[14] The history of blood requirement in the family (p=0.01) had significant association with the knowledge level as the need of blood donation had made them aware about its importance. As youths are valuable assets for healthy donation, awareness is needed to be created among them for voluntary donation which could be achieved by organizing various educational packages for sensitization and awareness, designing curriculum about its importance specially for general colleges, and organizing voluntary blood donation camps time and often.

The limitation of study was that the study

was conducted at one setting with limited sample size; hence the results cannot be generalized. As well there are possibilities of recall bias that could hinder the results.

CONCLUSION:

Majority of bachelor level students of general college had inadequate level of knowledge regarding blood donation. Sex, history of self blood donation and blood requirement in the family had an impact on overall knowledge. Various educational packages, awareness programmes and blood camps could encourage for voluntary blood donation among young adults.

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Conflict of Interest:

The authors declare that no competing interests exist.

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