

Cross Sectional Study on Knowledge and Perceptions about Voluntary Blood Donation among First Year Medical Students

Dr. Arifuddin MK¹, Dr. Shashiraj HK^{2*}, Dr. Kavitha BS¹

¹Assistant Professor, Department of Physiology, Sri Siddhartha Medical College, Tumkur, India

²Associate Professor, Department of Physiology, Sri Siddhartha Medical College, Tumkur, India

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*Corresponding author: Dr. Shashiraj HK

Abstract

Background: Blood transfusion is one of the commonest and important procedures done in patient care to treat variety of disorders like accidental trauma, pre operative blood transfusion and various other hematological diseases. In India the annual requirement of blood is close to 8 million units of which only 30% is being procured from voluntary donors. Healthy young adults are more proactive and motivated to voluntarily donate blood. Medical students can form one of the important cohort of voluntary blood donors to the hospitals to which they are attached. **Objectives:** To assess the background knowledge and perceptions of the first year medical students about voluntary blood donation. **Methodology:** A self structured questionnaire was prepared consisting of questions which were used to assess the knowledge and perceptions of first year medical students regarding voluntary blood donation. The responses were analyzed using Microsoft excel and Epi Info 7. **Results:** All the 130 students (100%) revealed that they had heard about blood donation and entire study group knew their blood group types. 65 (50%) reported that they knew about the average amount of blood donated by the donor and 71(54.61%) cited that they had prior knowledge about the criteria for selecting a voluntary blood donor. 95.38% opined that they were willing donate blood if and when the need arises. **Conclusion:** First year medical students had good background knowledge about blood donation and majority of the study group were willing to voluntarily donate blood and render their service to the society.

Keywords: Blood donation, first year medical students, voluntary donor.

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INTRODUCTION

Blood transfusion is one of the commonest and important procedures done in patient care to treat variety of disorders like accidental trauma, pre operative blood transfusion and various other hematological diseases [1]. WHO prescribes that atleast 1% of total country's population should voluntarily donate blood to meet the baseline requirements of blood products [2]. People who voluntary to donate blood without receiving remuneration for the same form an important source of supply of blood components [3]. There is a gross mismatch between the demand for the blood products and the availability of blood from voluntary donors which is considered as one of the safest sources of blood [4]. WHO recommends that for a successful implementation of blood transfusion programme there is a need for coordinated blood transfusion service with proper screening to rule out the presence of transmittable diseases and collection and storage of blood from voluntary donors [5]. In India the

annual requirement of blood is close to 8 million units of which only 30% is being procured from voluntary donors [6]. Replacing blood through family members and friends accounts for approximately 45% of blood donations in India [2]. WHO estimates show that 38% of voluntary blood donors belong to the age group of less than 25 years [7]. Healthy young adults are more proactive and motivated to voluntarily donate blood. Medical students can form one of the important cohort of voluntary blood donors to the hospitals to which they are attached. Determination of blood group is one of the practical exercises which is done in first year of medical course as a part of their curriculum. So it resumes importance to assess their knowledge and attitude towards blood donation among first year medical students to motivate them for voluntary blood donation and also train them to communicate the importance of necessity of voluntary blood donation to the community at large. Hence the present study was taken up to assess

the background knowledge and perceptions of the first year medical students about voluntary blood donation.

MATERIALS AND METHODS

This cross sectional study was carried out among first year MBBS students belonging to 2016-17 batch of Sri Siddhartha Medical College, Tumkur, Karnataka All the 130 students were enrolled in the study. A self structured questionnaire was prepared

consisting of questions which were used to assess the knowledge and perceptions of the students regarding voluntary blood donation after obtaining the approval of institutional ethical committee. Informed consent was taken and the confidentiality was maintained during the process of this survey. The responses were analyzed using Microsoft excel and Epi Info 7.

RESULTS

Table-1: Age and gender distribution

	Mean Standard deviation	Mean Standard deviation
Age of the subject	18.05	0.52
Sex	Frequency	Percentage
Female	72	55.38
Male	58	44.61

Table-2: Knowledge and attitude about voluntary blood donation

Questions:	
Heard of blood donation before the study	130 (100%)
Knowledge about the blood group types	130 (100%)
Knowledge about the average amount of blood than can be donated by donor	65 (50%)
Knowledge about the criteria of selecting a blood donor	71 (54.61%)
Can blood donors be able to donate once in 3 months?	94 (72.03%)
Should blood be tested before blood donation?	116 (89.23%)
Could infections be transmitted by blood donation?	119 (91.53%)
There is no need to give incentives to those who donate blood	43 (33.07%)
I will donate blood if there is a need	124 (95.38%)
I understand that blood donation doesn't lead to Anaemia and I will donate blood if there is a need.	106 (81.53%)
Have you attended any awareness program related to the importance of blood donations?	53 (40.76%)
Do you think that there is a need for blood donation awareness program among medical students?	98 (75.38%)
Do you think that blood donation should be a voluntary service to the society?	126 (96.92%)

DISCUSSION

A total of 130 students belonging to first year MBBS of Sri Siddhartha Medial College were included in the study. The mean age of the study population was 18.05 years in which 55.38 % were females & 44.61% were males.

All the 130 students (100%) revealed that they had heard about blood donation and entire study group knew their blood group types. Similar findings were reported in another study done by Tinju James among all students belonging to first, second and final year in a medical college in Kerala [8].

65 (50%) reported that they knew about the average amount of blood donated by the donor and 71(54.61%) cited that they had prior knowledge about the criteria for selecting a voluntary blood donor. These findings are in accordance with another study done by Deepak et al., [9].

94 (72.03%) answered that blood can be donated once in three months and 89.23% reported that they were aware of the need for the blood to be tested before blood donation. 91.53% of the study population

had the knowledge that various infections could be transmitted by blood donation. These findings are in concordance with another study done by Renu Chauhan and et al among medical college students in north India [10].

33.07% were of the opinion that there is no need to give incentive to those who donate blood. 95.38% opined that they were willing donate blood if and when the need arises. 81.53% of the study population reported that they understand that blood donation does not lead to anemia. 40.76% of the first year medical students reported to have attended awareness programmes about blood donation and 75.38% of the same study population opined that there is a need for blood donation awareness programmes to be conducted among medical students. 96.92% were of the opinion that the blood donation should be considered as a voluntary service to help the society.

CONCLUSION

First year medical students had good background knowledge about blood donation and majority of the study group were willing to voluntarily donate blood and render their service to the society.

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