

Knowledge, Attitude and Perception amongst College Students Regarding Blood Donation

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Abstract

There is persistent shortage of active blood donors to meet the increased demand of blood in blood banks. The safety of blood with regard to the risk of transfusion transmissible infection is also an issue of utmost concern in India. Recruitment of voluntary non remunerated blood donors poses major challenge to transfusion services. Hence, there is a serious need to improve the recruitment and retention of healthy voluntary donor population to ensure a safe blood transfusion practice. Students are the appropriate, potential population to recruit regular blood donors and the role of college students in voluntary blood donation is crucial to meet the demand of safe blood. Knowing the attitude and perception of youngsters will help to identify factors and to develop strategies that influence the recruitment and retention of voluntary non-remunerated blood donors. Objective of this study is to assess the knowledge, attitude and practice regarding blood donation among college students. This is a cross-sectional descriptive study carried out at blood bank, Srinivas institute of medical sciences and research centre, Surathkal over a period of one year. A total of 250 college students were recruited. Pretested questionnaires were used to assess their knowledge, attitude, and practice towards blood donation. The age of respondents ranged from 18 - 30 years. Majority of the donor had good knowledge about the age criteria for donor selection, minimum body weight and minimum interval between two donations. Less than half of the participants had some knowledge about the volume of blood collected, provision for blood component separation, storage and shelf life of blood components. There were 115 respondents who had never donated blood before and the chief reason for not donating blood was fear of needle. Around 90% of donors showed positive attitude by expressing their willingness to donate blood if they were asked to donate blood in future. Assessment of knowledge, attitude and perception amongst student population regarding blood donation will help in designing effective health education strategy to improve voluntary blood donation.

Keywords: Blood Donors; Blood Bank; Voluntary; Knowledge; Attitude.

Introduction

Blood is an essential element of human life. Donating blood is an act that can save the lives of many people. The availability of blood still remains short to meet the increased demand for it. World Health Organization (WHO) advocates that 3-5% of

the population should donate blood every year, for maintaining a country's stock of blood and blood products at acceptable level [1]. In spite of extensive research, a true substitute for blood and blood components may not be available for many years [2]. The only source of blood is by blood donation [3]. According to WHO, 38% of reported voluntary blood donors are under the age of 25 years and WHO insists the countries to focus on young people to achieve 100% non-remunerated voluntary blood donation. Therefore, understanding the various factors contributing to knowledge, attitude, and practice of voluntary blood donation among college students is important [4].

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Material and Method

This is a cross-sectional descriptive study carried out at blood bank, Srinivas institute of medical sciences and research centre, Surathkal. A total of 250 college students from various colleges in and around Mukka, Surathkal were recruited. All respondents were within the eligible age group for blood donation, the age of respondents ranged from 18–30 years. A well-structured validated and pretested questionnaire was used to assess the knowledge, attitude and practice about voluntary blood donation. Questionnaire consist of three sections; practice, knowledge and attitude. Knowledge on blood donation was assessed through questions covering nature of donation, requirements of blood donation; test carried out at blood banks, blood components, health benefits of blood donation. Answers were recorded on the case record format. A scoring mechanism was used to understand overall knowledge level, attitude and practice on blood donation. After data collection, each questionnaire was checked for completeness, and data were entered and analysed by using Statistical package for Social Science.

Result

The age of respondents ranged from 18-30 years, out of them 62% male and 38% female donors. Majority (80.4%) of the donors had correct knowledge about the suitable age limits for blood donation. 130 out of 250 donors had knowledge about the minimum body weight to donate blood. Less than half of the participants had knowledge about the volume of blood collected, provision for blood component separation, storage and shelf life of blood components [Table 1]. Around 62% of the participants didn't know the importance and health benefits of blood donations.

There were 115 respondents who had never donated blood before and the chief reason for not donating blood was fear of needle or sight of blood [Table 2]. 'Nobody approached us for asking blood donation' is the next main reason for not donating blood by many first time donors. About 90% of donors showed positive attitude by expressing their willingness to donate blood if asked to donate blood in future [Table 3].

Table 1: Knowledge regarding blood donation among the college students

Knowledge regarding blood donation	Number of donors with correct knowledge	%
Suitable age for blood donation	201	80.4
Minimum gap between two blood donations	122	48.8
Minimum haemoglobin for blood donation	70	28
Minimum body weight for blood donation	130	52
Suitable blood pressure for blood donation	245	98
Suitable pulse rate for blood donation	230	92
Knowledge of blood group	244	97.6
Knowledge about transfusion transmitted diseases	247	98.8
Health benefits of regular blood donation	95	38
Volume of blood collected from a single donor	110	44
Separation of blood components from the donated blood	92	36.8
Storage life for various blood components	60	24
Storage temperature for different blood components	52	20.8

Table 2: Attitude regarding blood donation among the college students

Attitude regarding blood donation	Number	%
What do you think about blood donation? (n =250)		
a) Good	240	96
b) Bad	10	4
Reason for not donating blood before (n =115)		
a) Fear of needle, pain and fear of sight of blood	50	43.4
b) Fear of contracting disease	5	4.3
c) Blood donation can lead to weight gain	5	4.3
d) Blood donation can leads to weakness and anaemia	10	8.6
e) No one has ever asked to donate blood	40	34.7
f) Objection from family members	3	2.6
g) No time for donating blood	2	1.7

Table 3: Practice of blood donation among the blood donors (college students)

Practice of blood donation	Number	%
Have you donated before? (n=250)	Yes 135	54
	No 115	46
How often do you donate? (n=135)	<1 time/year 90	66.7
	1-3 times/year 45	33.3
Reason for previous Blood donation (n=135)	Voluntary 75	55.6
	Replacement 60	44.4
Do you want to become a regular voluntary donor in future? (n=250)	Yes 225	90
	No 25	10

Discussion

Millions of lives are saved each year through blood transfusions, but the quality and the safety of blood transfusion is still a matter of concern, particularly in the developing countries. Safe blood is a critical component in improving the health care and in preventing the spread of infectious diseases globally [5]. According to a study more than one third of the donor population is students [6]. The student population is highly amenable to the idea of voluntary blood donation and the student population is very good in recruiting new blood donors and we could retain them for future success [7]. College students are very important portion of the eligible donor population, by number as well as safety. Further, their retention as donors would form a reliable and sizeable reservoir of blood [4]. It is essential to understand the various factors that could change the perception and awareness about blood donation among the college students, which may be useful for the successful implementation of Voluntary Blood Donation program.

In the present study, it was observed that 80.4% of respondents knew about the suitable age group for blood donation. Similar findings were observed in the study done by Aslami et al [8] (85%) and Chopra et al [9] (90%). In our study, 48.8% subjects had the correct knowledge regarding minimum interval between two blood donations. In a similar study, Aslami et al [8] and Chopra et al [9] found that their subjects who had correct knowledge about minimum interval of blood donation was 45% and 48.9% respectively.

Most respondents (98.8%) were aware of the risk of transmission of infection by transfusion. Voluntary blood donation was considered as the best source of blood by 72% of our respondents, which is similar to the studies of Aslami et al (70%) [8].

In our study, the common reasons for not donating blood were fear of needle and the perception that 'blood donation can make them weak'. Their misconception and apprehension about blood

donation should be cleared. Their doubts regarding blood donation should be clarified and they should be inspired to become a regular donors.

Many students were willing to donate blood, but they were not able to do so because of lack of opportunity for blood donation. This finding has been corroborated by the findings of other studies [10]. This showed that if we have to improve the voluntary collection of blood from them, sufficient steps to be taken to involve students by creating opportunities and proper platform for them to donate blood. Many students are willing to donate blood on regular basis but they need constant and regular motivation for this. In our study finding, more male participants had positive attitude towards blood donation than female participants, fear of needle and pain may be the important factor playing its role in this regard, so provision for adequate awareness to address the fear factor may strengthen the recruitment.

In our study, we found that there were 135 (54%) students who had previously donated blood, amongst them 66.7% had donated blood only once. In the present study, it was found that 90% of all the respondents had shown interest and consented to donate blood in future. This was found consistent with the study performed by Aslami et al [8] who noted that 89.3% students were desirous to donate blood in future. Knowledge of blood donation is a prerequisite to obtaining access and to provide blood voluntarily on time. It is also an important tool for avoiding fear and building positive attitude [11]. Students with the negative attitude should be educated about significance and health benefits of regular blood donation.

Conclusion

Assessment of knowledge, attitude and perception amongst college student population regarding blood donation will help in designing effective health education strategy to improve voluntary blood donation and to strengthen the retention of voluntary

blood donors. Misconceptions and fear related to blood donation need to be addressed via a reliable measures and Public Awareness Campaigns. Involvement of college students in interactive awareness sessions on voluntary blood donation should be held regularly to create positive attitude and to remove misconceptions about blood donation, so that they can be inspired to become regular non-remunerated blood donors.

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