

Original Research Article

Knowledge, Attitude and Practice of blood donation among undergraduate medical students in Shimoga Institute of Medical Sciences.

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Abstract

Introduction: Blood donation is an important and integral part of our health care system and it needs no introduction to say that blood donation can save millions of lives across the world. India needs several million units of blood annually and we only see increase in the demand year after year. Voluntary blood donors are the low risk group of people who reduce the transmission of blood borne infections that mainly include HIV, HCV, HBsAg, Malaria, etc.. Young health care professionals that include medical students and doctors, who by the virtue of their training and medical practices, are expected to have sufficient knowledge about voluntary blood donation and its benefits. Many myths and misconceptions hinder them to come forward and actively participate in voluntary blood donation. The low level of awareness and unsatisfactory voluntary blood donation practices among the medical students marks the need to conduct more such studies thereby helping the medical students to contribute actively towards voluntary blood donation. **Methods:** A cross-sectional study was conducted by giving the students a questionnaire that included the questions regarding knowledge attitude and practice of blood donation 85 students participated in the study. Consent was taken prior to the study. The questions were answered by the students and responses were collected immediately. Data was entered in the MS Excel sheet and was analyzed. **Results:** 98.8% of the students had adequate knowledge of blood donation and 43% of the students had misconceptions. Students showed a positive attitude towards blood donation and 80% of the students opted for voluntary blood donation. Many students had not actively participated in blood donation, hence the practice of blood donation was poor. **Conclusion:** Young medical students, though enthusiastic and eligible to donate blood, due to lack of knowledge and misconceptions do not come forward and practice blood donation. They should be motivated and educated regarding blood donation. Need for blood donation and the scarcity of blood & blood products must be explained to the students. Blood donation camps on national festivals, college fests must be arranged periodically so that students come forward and participate actively in blood donation. Medical students in the healthcare institutions play a pivotal role in bridging the gap between the demand and the scarcity of blood and blood products.

Keywords: knowledge, attitude, practice, medical students, blood donation

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Introduction

The theme of world health day in 2000AD was "Blood saves life. Save Blood starts with me" Blood donation is an important and integral part of our health care system and it needs no introduction to say that blood donation can save millions of lives across the world. India needs several million units of blood annually and we only see increase in the demand year after year. Voluntary blood donors mark the practice of healthy and safe blood donation[1]. Voluntary blood donors are the low risk group of people who reduce the transmission of blood borne infections that mainly include HIV, HCV, HBsAg, Malaria, etc.. Thus, a policy that aimed at 100% voluntary non-remunerated donor blood procurement by year 2020 was adopted by WHO, as they belong to the low risk population[2,3]. Safe blood is a critical component in maintaining the health care system and prevention of spread of infections. Millions of the lives are saved by blood transfusions but the quality and the safe blood transfusion practices are very important[4]. Young students are enthusiastic and most eligible to donate blood as they belong to healthy and knowledgeable individuals who make a greater proportion of population of our country. Moreover, young health care professionals that include medical students and doctors, who by the virtue of their training and medical practices, are expected

to have sufficient knowledge about voluntary blood donation and its benefits. Medical college students are ready source of voluntary blood donors for the attached Medical College hospitals and will help in attending the need of blood and blood products. Many myths and misconceptions hinder them to come forward and actively participate in voluntary blood donation. Several misconceptions about blood donation such as acquiring any blood borne infections, weakness after blood donation, developing complications after blood donation, hesitation to donate blood, lack of knowledge makes the healthy and eligible donors, not to donate blood. Proper education and motivation is needed to achieve voluntary blood donation from the young and dynamic students. Knowledge, attitude, and practice studies are commonly used to investigate various aspects of human behaviour. It is used to assess what people know (knowledge), how they feel about it (attitude) and what they actually do based on that knowledge and attitude (practice). By such kind of studies, the investigator will be able to appreciate the perspectives of the people regarding their attitude and behaviour about blood donation. The low level of awareness and unsatisfactory voluntary blood donation practices among the medical students marks the need to conduct more such studies thereby helping the medical students to contribute actively towards voluntary blood donation. Thus, the present study has been carried out in Shimoga Institute of Medical Sciences Shimoga, Karnataka among the medical students of MBBS phase 2 2018-2019 to study the knowledge, attitude and practice about blood donation among these students. The second phase students are sensitized to clinical subjects and subject of Pathology that includes blood banking and several other aspects as a

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part of the academic curriculum where the students will know the need of blood and blood products in the hospital and the huge gap between the demand and scarcity. Hence these students were selected for the study.

Methods

A cross-sectional study was conducted by giving the students a questionnaire that included the questions regarding knowledge attitude and practice of blood donation 85 students participated in the study. Consent was taken prior to the study. The students were explained the purpose of the study and were handed the questionnaires. The questions were answered by the students and responses were collected immediately. Data was entered in the MS Excel sheet and was analyzed.

Questionnaire Validation:The questionnaire consisted of 3 parts - Knowledge, Attitude and Practice. 10 questions were on knowledge of blood donation, 6 on the attitude and practice of blood donation included 5 questions. The students were asked to choose the responses and other questions were YES/NO type.

Results

Knowledge :The knowledge based questions included questions regarding awareness of blood donation, health benefits, misconceptions, right age to start blood donation, interval between 2 blood donations, tests done, appropriate Hb level, volume of blood donated, maximum lives saved and the results were tabulated in table 1.

Table 1: Responses by the students to assess the Knowledge about blood donation.

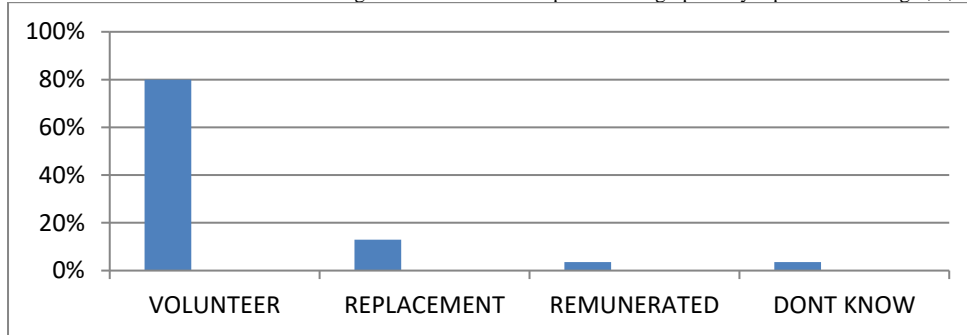
S. No	Total number = 85	Yes - Number (%)	No - Number (%)	Don't know- Number (%)
1.	Adequate knowledge of blood donation.	84 (98.8%)	1 (1.2%)	-
2.	What are the health benefits of blood donation?	64 (75.2%)	21 (24.8%)	-
3.	What are the misconceptions regarding blood donation?	43 (50.5%)	42 (49.5%)	-

Total number = 85

		Correct	Wrong	Don't know
4.	What is the right age to start blood donation?	65 (76.4%)	20 (23.6%)	-
5.	What is the minimum age to start blood donation?	42 (49.4%)	20 (23.5%)	23 (27.1%)
6.	What is the interval between 2 blood donations?	55 (64.7%)	30 (35.3%)	-
7.	What are the mandatory tests done after blood donation?	67 (78.8%)	-	18 (21.2%)
8.	What is the required Hb level for blood donation?	65 (76.4%)	20 (23.6%)	-
9.	What is the volume of blood collected?	72 (84.7%)	13 (15.3%)	-
10.	What are the maximum number of lives saved?	16 (18.8%)	69 (81.2%)	-

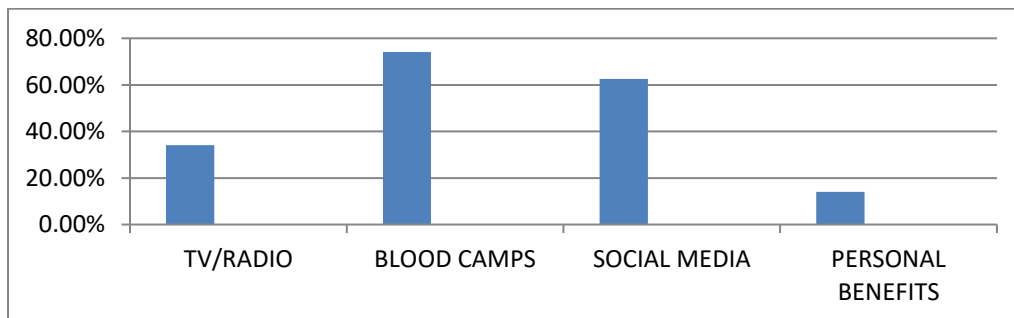
Total number = 85

Attitude:The attitude of the students was assessed by asking, which was the best source of blood donation, best way to disseminate message regarding blood donation and the reasons for not donating blood before. The response were graphically represented in Fig 1, 2, 3



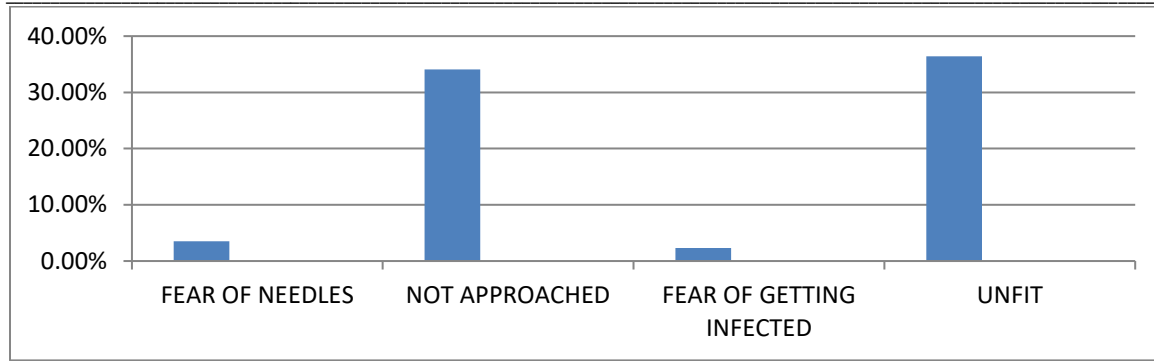
Total number = 85

Fig 1: Responses of the students to the attitude related questions - Best source of blood donation



Total number = 85

Fig 2: Responses of the students to the attitude related questions - Best way to disseminate message



Total number = 85

Fig 3: Responses of the students to the attitude related questions - Reasons for not donating blood before

Practice:The questions regarding practice of blood donation included whether they donated blood before, whether they were willing to become a regular donor, whether they would encourage their friends and relatives to donate blood to mark the important occasions in their lives such as birth anniversaries, birthdays, etc., and the results were tabulated in table 2

Table 2 : Responses by the students to assess their practice of blood donation.

S. No	Total number = 85	Yes –Number (%)	No-Number (%)	Dont know- Number (%)
1.	Have you donated before?	7 (8.3%)	78 (91.7%)	-
2.	Willing to become regular donor?	59 (69.4%)	13 (15.3%)	13 (15.3%)
3.	Will you donate if reminded?	78 (91.7%)	3(3.5%)	4 (4.8%)
4.	Do you encourage friends and relatives?	74 (87%)	11(13%)	-
5.	Celebrate birthdays/anniversaries?	38 (44.7%)	47 (55.3)	-

Total number = 85

Discussion

Knowledge:After analyzing all the responses of the students it was seen that 98.8% of the students, that is majority of them had good knowledge about blood donation, which is in concordance with study conducted by Giri A P et al, in which 92% of the students were aware of the appropriate age for blood donation[5]. Similar results were seen in the studies conducted by Gebresale H W et al[6] and Chopra D et al[7]which showed that 79.4% and 90% students had good knowledge about blood donation. In our study we noted 75.2% of the students were reasonably aware about benefits of blood donation but 24.8% were unaware. 81.2% i.e., majority of students did not know the number of lives saved by blood donation. 50% of the students had misconceptions about blood donation which is in concordance with study conducted by Desai NK et al [8]. and and Sahu DP et al [3]which showed 43.7% and 36% of the students respectively, who had misconceptions regarding blood donation. We must maintain an adequate and safe blood supply because of the increase in demand as a result of increase in population size and increase in the number of medical facilities in India. Therefore understanding the various factors contributing to the attitudes and the level of knowledge associated with blood donation and transfusion is crucial[5]. The blood banks in the hospitals must implement policies for appropriate use of blood and increase healthy donor recruitment[9].If the students are aware of their blood group, during the times of emergency, quick arrangement of blood can be made for self and also for others[4]. We can increase the knowledge among the students by conducting frequent seminars, road plays, skits thereby trying to increase the knowledge and awareness about the need for blood donation. Students must be taken to the blood banks in their college and must be taught how the blood banks function and thus students will develop interest in blood donation.

Attitude:In our study, 94.1% of the students had positive attitude towards blood donation which is also seen in study conducted by Chauhan R et al (62.6%) [4]Melku M et al (79.2%) [10] and Karrakamandapam S et al (82%)[11]. However, in a study

conducted by Gabrielle W H et al[6], less than half that is 46% had favorable attitude towards blood donation. Our study showed that 98.8% of the students had adequate information and the need for blood donation and were well motivated to donate blood. 69.4% of the students were willing to become regular donors which is in concordance with Chopra D et al[7] study which showed 75.54% and Chauhan R et al[4] study which showed 91% of the students who are willing to donate blood. Our students found that the best way to spread message about blood donation was by conducting camps (74.1%) promotion through social media (62.5%), other means of communication such as TV by radio (34.1%) and by personal requests (14.1%). We can motivate the students and develop interest among the students by explaining them the need for blood donation. Students should be made aware that the advantage of blood donation is not only for the recipient but also the benefits of the donor himself [8]. Students must be told about the recent findings like frequent and long term blood donation helps in lowering the risk of cardiovascular events[12].Annual statistics of the blood needed in the medical centres and the scarcity of blood must be updated to the students that will make the students realize the importance of blood donation and will in turn bring positive their attitude towards blood.

Practice:It was unfortunate to see that 91.7% of the students who participated in the study had not donated blood before. It was due to reasons like fear of needles (3.5%), having not approached for (34.1%), fear of getting infected (2.3%) and students considering them medically unfit (36.4%). Lack of knowledge and awareness was considered as an important factor for the students not participating in the blood donation. About 36.4% of students considered themselves medically unfit, which is also a misconception which can be dealt with by giving proper education on blood donation. This reflects the absence of commitment to their acceptance. Thus, there is disparity in their knowledge, attitude, and practice[13]. It was also seen that 91.7% of the students needed a constant reminder to donate blood which would be possible by giving proper information and updates on blood camps being conducted.

About 87% of the students were willing to encourage and motivate their relatives and friends to donate blood and hence they can be a source of guidance to their friends and general public and can motivate them about advantages of voluntary blood donation [14]. In order to bring about the best blood donation practices in students, blood donation awareness sessions must be made a part of regular training of medical undergraduates' right from the beginning of the course to address any misconceptions they might have regarding voluntary blood donation [15]. We must arrange blood donation camps at regular intervals in the college campus itself so that the students can conveniently donate blood and this in turn motivates the other students to actively donate blood if they have haven't donated before. We can arrange blood donation camps in the college premises on days that mark national festivals as these festivals are celebrated with pride in all the educational institutions.

Conclusion

Young medical students, though enthusiastic and eligible to donate blood, due to lack of knowledge and misconceptions do not come forward and practice blood donation. They should be motivated and educated regarding blood donation. Need for blood donation and the scarcity of blood & blood products must be explained to the students. Blood donation camps on national festivals, college fests must be arranged periodically so that students come forward and participate actively in blood donation. Medical students in the healthcare institutions play a pivotal role in bridging the gap between the demand and the scarcity of blood and blood products.

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