



Original article

A Cross-Sectional Study on Knowledge, Attitude and Practice on Blood Donation among Medical Students of South India

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ABSTRACT

Background: Safe blood is a critical component in improving the health care and in preventing the spread of infectious diseases globally. Millions of lives are saved each year through blood transfusions, but yet the quality and the safety of blood transfusion is still a concern, particularly in the developing countries. The present study was carried out with the objective of to find out the knowledge, attitude and the practice with regards to voluntary blood donations among medical undergraduate students. **Materials and methods:** This cross-sectional study was conducted among second and final year medical students of Katuri Medical College and Hospital, Guntur(A.P.). A well-structured, pretested questionnaires was used to assess the knowledge, attitude and practice about voluntary blood donation. **Results:** Majority 164(87.23%) of students never donated blood. The various reasons stated by non-donors for not donating blood were 48(29.27%) students never thought about donating blood and due to fear of sickness or complications was the reason given by 42(25.61%) students. **Conclusions:** All the college students should be given an interactive awareness session on voluntary blood donation as early as possible, following their college entry and the right opportunities should be created for them to voluntarily donate blood.

KEYWORDS: Knowledge, Attitude, Blood donation

INTRODUCTION

“Safe blood starts with me, blood saves lives” was the W.H.O theme for 2000 AD. Blood has always held a mysterious fascination for all and it is considered to be the living force of our body. Today, the use of whole blood is a well-accepted and a commonly employed measure without which many modern surgical procedures cannot be carried out [1]. Human blood is an essential element of the human life and there are no substitutes for it [2]. There is a considerable shortage of blood, even in large metropolises, with the supply being less than 50% of the requirement [3]. Safe blood is a critical component in improving the health care and in preventing the spread of infectious diseases globally. Millions of lives are saved each year through blood transfusions, but yet the quality and the safety of blood transfusion is still a concern, particularly in the developing countries. The reason for this includes blood collection from unsafe donors, poor laboratory procedures and the inadequate testing of blood. Blood will be safe if there is a nationally coordinated blood transfusion service, collection of blood only from voluntary non-remunerated donors, testing of blood for transfusion transmissible infections and if there is transfusion of the right blood to the right patient through the appropriate clinical use of blood [4].

The need for blood is growing day by day as a result of the advancement in the clinical medicine. In terms of the need for blood transfusion, it is noted that in India, the death toll which is caused by road accidents has increased due to the unavailability of blood transfusion services near the accident site [5]. Voluntary, non-remunerated blood donation has been universally shown to be the cornerstone of safe blood [6]. Truly speaking, voluntary blood donors are the bricks of the edifice which is called ‘blood transfusion’.

College students, particularly from medical colleges, can be a very good source of quickly accessible, quality blood if they are motivated and are willing to be voluntary blood donors. So the present study was carried out with the objective of to find out the knowledge, attitude and the practice with regards to voluntary blood donations among medical undergraduate students.

MATERIALS AND METHODS

This cross-sectional study was conducted among second and final year medical students of Katuri Medical College and Hospital, Guntur(A.P.). An ethical clearance was taken from

College Ethical Committee. The study period was January-March 2011. A well-structured, pretested questionnaire was used to assess the knowledge, attitude and practice about voluntary blood donation.

All participants were given a briefing about objective of the study and assured confidentiality in collection of personal data. Data was analyzed and results were expressed as using proportional percentage.

RESULTS

The response was gathered from total of 188 medical students who voluntarily participated in the study. **Table 1** shows the socio-demographic characteristics of the study subjects. The study sample consisted of 86 males (45.74%) and 102 females (54.26%). Most of the students were of 18 and 19 yrs (40.96% and 44.15%).

Table 1: Socio –demographic characteristics of respondents (n=188)

Socio demographic characteristics	Frequency(Percentage)
Sex	
Male	86(45.74%)
Female	102(54.26%)
Age	
18 yrs	77(40.96 %)
19 yrs	83(44.15%)
20 yrs	18(9.57%)
Above 20 yrs	10(5.32%)

Table 2 shows Knowledge of the respondents on blood donation. The overall knowledge on blood donation was observed as good in students.

Table 2: Knowledge of the respondents on blood donation (n=188)

Variable	Frequency(Percentage)
Have you heard of blood donation	
Yes	188(100%)
No	0(0%)
Are you aware of blood donation	
Yes	149(79.26%)
No	39(20.74%)
Do you know your blood group	
Yes	141(75%)
No	47(25%)
How often can one donate blood	
Weekly	8(4.26%)
Monthly	18(9.57%)
Quarterly	51(27.13%)
Annually	64(34.04%)
No idea	47(25.00)
What volume of blood is collected during each donation	
< 500 ml	119(63.30%)
500-1000 ml	28(14.89%)
Don't know	41(21.81%)

Majority 164(87.23%) of students never donated blood. Among 24(12.77%) donors, all have donated blood only once and whenever there is a need and had donated blood only for relatives or friends. Among students who donated

the blood, they told it was our moral duty 08(33.33%), It was a charity work to help the sick people 06(25.00%) (**Table 3**).

Table 3: Distribution of the different motivations for previous blood donation among students

Motivational factors	Frequency(Percentage)
It was our moral duty	8(33.33%)
Saving the life is a charity work	6(25.00%)
It was to help the acquaintances	4(16.67%)
Maintenances of once own health	4(16.67%)
It gives pleasure	2(08.33%)

Table 4: Reasons for not donating blood among students (n=164)

Reasons for not donating blood	Number(Percentage)
They never thought about donating blood	48(29.27%)
Due to fear of sickness or complication	42(25.61%)
Due to safety reasons	36(21.95%)
Medically unfit to donate blood	21(12.80%)
Due to myths and misconception	17(10.37%)

Table 4 shows the various reasons stated by non –donors for not donating blood .48(29.27%) students never thought about donating blood. Due to fear of sickness or

complications was the reason given by 42(25.61%) students. Medically unfit to donate blood was the reason given by 21(12.80%) students.

DISCUSSION

This study among the medical students, who are a very potential and accessible source of voluntary and safe blood revealed that, parental education seemed to have an overall impact on the knowledge regarding blood donation among the students. Most of the students who were willing to donate blood were not able to do because of the lack of an opportunity to do so. This finding has been corroborated by the findings of past studies [7]. This shows that sufficient steps to involve students and to create opportunities for them to donate blood, is something that needs to be given due consideration, if we have to improve the voluntary collection of blood from them.

In contrast to a previous study among the general population in India, where only 46% of the respondents were willing to voluntarily donate blood, the present study found that among the medical students, the willingness to voluntarily donate blood was much higher (82%), which augurs well for the drive towards voluntary blood donation [8].

As compared to a previous study among college students, where there were a high number of respondents with a negative attitude towards blood donation [7], in our study, we found that most of the students had a positive attitude. Most of them felt that blood donation was a noble act. The study also revealed that the unwillingness to donate blood was more among the female students and the measure reasons were fear and a perceived inconvenience which was associated with blood donation. This was corroborated by the results of a past study [9].

It is a proven fact that voluntary non-remunerated blood donation is the safest and the most ideal way for improving the quality of blood which is collected through the blood banking services across the country. The youth from medical colleges, who are a very potential group of readily available donors, have to be encouraged to participate voluntarily in the blood donation activities. In a medical college and hospital, they are very much accessible to the

teaching faculties as a part of their training programme and this fact can be made use of, to include awareness sessions as a part of their regular training, right in the beginning of their course itself, so as to diffuse any doubts and misconceptions that the students may have regarding voluntary blood donation. Our study which found a lot of lack of information among the medical students validates the need for such early awareness programs.

The present study shows majority of the participants (87.23%) never donated blood .A similar study carried out in Thailand indicates 89% of respondents never donated blood [10] A study conducted among youngsters in Sikkim indicates 87.3% had never donated blood [11] .Majority of non-donors felt that they never thought about it and they had some fear about it.

CONCLUSION

Role of healthcare institutions and its students in voluntary blood donation are pivotal. They should lead from the front to donate blood voluntarily and take all necessary steps to create more awareness program on blood donations among entire student community. We conclude this study with the recommendation that all the college students should be given an interactive awareness session on voluntary blood donation as early as possible, following their college entry and the right opportunities should be created for them to voluntarily donate blood.

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