

A study on knowledge, attitude and practice on blood donation among medical students in a tertiary care teaching hospital, Chennai, Tamil Nadu, India

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ABSTRACT

Background: Role of youngsters in voluntary blood donation is crucial to meet the demand of safe blood. Therefore understanding the various factors contributing to knowledge, attitude and practice of voluntary blood donation (VBD) among youngsters is important. The objective of this study was to assess the level of knowledge, attitude and practice regarding blood donation among the health care medical students.

Methods: A cross-sectional study was conducted among 100 students in second MBBS in a tertiary care teaching Hospital in Chennai, Tamil Nadu, India, using a structured survey questionnaire.

Results: The present study shows majority of the medical students have very good knowledge and attitude towards blood donation. Compared to knowledge and attitude, the practice is good and 66% of responses were above average. Majority of the students have an intention to donate blood and 46% of the students have donated blood. Most of the students have positive attitude towards blood donation, even the reason for non-donation is just not getting opportunity for donation. The non-donors showed positive attitude by expressing their willingness to donate blood if they were asked to donate blood.

Conclusions: The present study shows second MBBS students participated in the study has adequate knowledge and attitude. The practice of blood donation is also good and further can be improved by educational programmes.

Keywords: Blood donation, Medical students, Knowledge, Attitude, Practice

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 Blood is defined as most valuable drug by the world health organization that can be substituted only by blood. It is the nature’s unique gift to the human beings for the survival, maintenance and normal restoration.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.

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 Voluntary, non-remunerated blood donation has been universally shown to be the cornerstone of safe blood.⁵

Blood is scarce; its demand far outweighs the supply. There is shortage of active blood donors to meet the increased demands of blood, in addition to limited supply, the issue of safety especially with regard to the risk of transfusion transmissible infection is also an issue of utmost concern especially in the developing countries. Donor blood procurement from voluntary non remunerated donor has been adjudged the safest source of blood. Hence the world health organization (WHO) has adopted a policy aimed at 100% voluntary non-remunerated donor blood procurement by the year 2020.⁶

According to WHO, an estimated 38% of reported voluntary blood donations are contributed by people under the age of 25. WHO also insist countries to focus on young people to achieve 100 per cent voluntary unpaid blood donation.⁷ Young students are healthy, active, dynamic and receptive and constitute a greater proportion of population. They have to be encouraged, inspired and motivated to donate blood voluntarily. Medical students by virtue of their knowledge in this field and their clinical exposure to patients in need of blood are the right persons to educate and motivate others.

Hence the present study has been carried out to understand knowledge, attitude and practice about blood donation among under graduate health science students in a tertiary care teaching hospital in Chennai, Tamilnadu, India.

METHODS

A cross sectional study was conducted among second MBBS undergraduate students in a tertiary care teaching hospital in Chennai, Tamilnadu, India. The study was conducted from June 2015 to July 2015. The total no. of enrolment in second MBBS was 149. By random sampling 100 students were included in the study. Data was entered in the MS Excel and statistical analysis was done using statistical package for social sciences version 15. Structured pretested questionnaire, containing 20 questions was used to assess the knowledge, attitude and practice of the participants. All participants were explained the purpose of study and were requested to complete and return the questionnaire immediately. Consent was obtained from the participants prior to the study.

Questionnaire validation

Questionnaire consists of three sections: knowledge, attitude and practice. Knowledge part contains 10 questions; knowledge on blood donation was assessed through questions covering benefits, requirements and restrictions of blood donation. The attitude for blood donation was assessed through five questions with ‘yes’ and ‘no’ options. Blood donation practice was assessed through five questions addressing the nature of donation, frequency of donation, reasons for not donating blood etc.

A scoring mechanism was used to understand overall knowledge level; a score of one was given for each correct response and zero for wrong response. Respondents with all correct response got a maximum of 20 points, higher points indicate good knowledge. Based on total score, knowledge level on voluntary blood donation was categorized into poor (0-8 points), average (9 -12 points) and good (13-16 points) and excellent (17-20 points). Ethical approval for the study was obtained from the institutional ethics committee, Government Kilpauk medical college, Chennai, Tamilnadu, India.

Data analysis

Data analysis was done using MS Excel spread sheet and percentage observations were noticed.

RESULTS

A total of 100 students from second MBBS participated. All 100 responses were received. The results were analysed and tabulated. Interestingly the responses in poor category were nil and 48 responses fell in good category and 44 response fit into excellent category 8 responses were in average category.

Table 1: Students’ percentage and category based on their marks.

II Year MBBS Students			
Mark	Number of responses	% of responses	category
0-8	0	0	Poor
9-12	8	8	Average
13-16	48	48	Good
17-20	44	44	Excellent

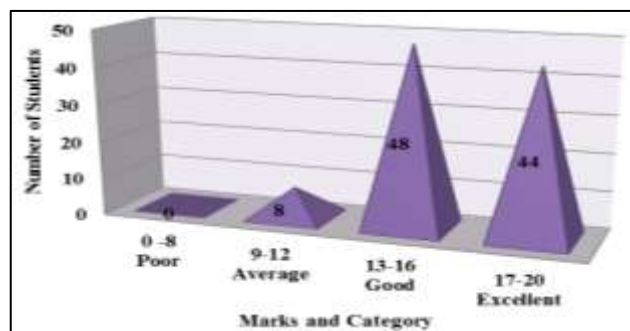


Figure1: Graphical representation of the response and their category.

Regarding knowledge part of the questionnaire all the students scored above 5 out of 10 marks and 26 students scored 10 out of 10. The attitude of the students is also good only 5 students scored less than 3 and 95 students scored above 3 and 55 students scored 5 out of 5. Regarding practice 34 students scored less than 3, 66 students scored more than 3 and 6 students scored 5 out of 5.

DISCUSSION

Escalating demand for safe blood and its availability in our country can only be ensured through enhancing voluntary blood donations. Role of youngsters in voluntary blood donation is crucial to meet the demand of safe blood. In spite of the extensive promising research, a true substitute for blood and blood components (red blood cells, platelets, blood clotting factors, fresh frozen plasma or white blood cells) will not be available for many years.⁸ The national blood policy of any country relies heavily on voluntary blood donors as they are usually assumed to be associated with low levels of transfusion transmitted infections.⁹ Acquiring 100% voluntary, non-remunerated donors is a challenge for many countries. For a country to maintain a sustainable blood supply only 1 to 3 percent of a country's populations need to donate blood. However, 2007 WHO figures show the donation rate in 73 countries is less than 1 percent of the population.¹⁰

Maintaining an adequate supply of safe blood is a challenge for health planners in the face of increasing demand and shortage of supply. College students form a large and healthy group of the general population eligible for blood donation. Recruiting and retaining college students for blood donation would go a long way to meet the nation's demand of blood supplies. So the younger population should be motivated and encouraged for this noble service, and they should have adequate knowledge regarding blood donation so that they will come forward for blood donation. Medical students, because of their exposure and knowledge in this field can involve other persons in blood donation. For this we must know the knowledge and awareness of medical students on blood donation to understand whether their knowledge is adequate and the need for educational programmes to create awareness on blood donation.

The present study shows majority of the medical students have very good knowledge and attitude towards blood donation. Compared to knowledge and attitude, the practice is good and 66 % of responses were above average. Majority of the students have an intention to donate blood and 46 % of students have donated blood. Most of the students have positive attitude towards blood donation, even the reason for non-donation is just not getting opportunity for donation.

CONCLUSION

This study compared to some other studies have shown that medical students have very good knowledge and attitude and willing to donate blood if get an opportunity. This may be due to their knowledge on the subject and exposure to patients. 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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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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