

Research Journal of Pharmaceutical, Biological and Chemical Sciences

A Study On Knowledge, Attitude and Practice of Voluntary Blood Donation Among the Medical Undergraduate Students.

Jyothsna Patil¹, Ameerul Ashraf bin Harunarasid², Nursyuhada binti Azmi², Abdul Hannan bin Mohd Junit², Muhammad Hasnan bin Suaimi², and Naveen Kumar^{1*}.

¹Department of Anatomy, Melaka Manipal Medical College (Manipal Campus), Manipal University, Manipal, India- 576104

²MBBS students, Melaka Manipal Medical College (Manipal Campus), Manipal University, Manipal, India- 576104

ABSTRACT

Blood donation is commonly practiced all over the world in order to meet the demands. Every donor is contributing to nation-wide challenge in providing life-saving products whenever and wherever they are required by donating blood. The current study was undertaken to understand the awareness of Medical undergraduate students of preliminary years on the voluntary blood donation service by assessing their knowledge, attitude and practice in blood donation. This cross-sectional questionnaire based study included 114 undergraduate students, who were studying in second year (para-clinical phase) of MBBS program. Majority of the students had good knowledge about few basic requirements of blood donation like minimum age requirement (78%), preliminary screening test to be performed before the donation (58%) and about the transfusion transferred diseases (79%). However, their knowledge is not up to the mark in other basic requirements as minimum required weight of the donor, amount of blood to be withdrawn and minimum interval between two successive donations etc. 62% of students showed positive attitude towards blood donation, 43% of students have donated blood. It can be inferred from the result of current study that the complete awareness about the voluntary blood donation need to be enhanced even among the medical undergraduate students by providing them adequate information and encouragement during their curricular activities.

Keywords: Blood donation, Knowledge, medical students, attitude, practice

**Corresponding author*



INTRODUCTION

Blood donation befalls when the blood is drawn from the person and transfused to other person in need. Donated blood is a lifeline for many people craving long-term treatments, not just in emergencies. The ABO blood group system was discovered by Karl Landsteiner in 1900, and 46 years later the blood transfusion service was formed. Ever since the blood transfusion service was created in every country, which tend to rely on one generosity of blood donor not only to maintain stock levels for all hospitals, but to provide the necessary range of common blood types. Nowadays, blood donation is commonly practiced widely in order to meet the demands. By giving blood, every donor is contributing to nation-wide challenge in providing life-saving products whenever and wherever they are required. Moreover, the health benefits of recipients who receives blood transfusion are clear, altruistic blood donor too can reap the benefits. It may be time to start thinking about it today, or muster up the courage to overcome the fear of needles, giving blood does not only help others but help us too.

The first step towards blood safety is to encourage voluntary blood donations to ensure low risk and regular donors, who donating blood two to three times a year and continues to donate least once a year. Youths, who are healthy, enthusiastic and approachable as a group, if recruited they become future donors and motivators. So, keeping in view the significance of blood donation and transfusion, the present study was conducted to assess the knowledge, attitude and practice about blood donation among medical undergraduate students of preliminary curricular stages. The myths and facts of blood donation should be well understood by the medical graduate students before they could promote importance of voluntary blood donation.

Hence the major objectives of the present study were to evaluate the knowledge, attitude and practice of blood donation among the students of preliminary medical undergraduates and to motivate and encourage the students in blood donation campaign.

MATERIALS AND METHOD

This cross sectional study was performed on 114 medical undergraduate (MBBS) Malaysian students of first year (preliminary curriculum) studying at Melaka Manipal Medical College (Manipal Campus), India.

Faculty validated questionnaire consisting of both close ended and open ended questions were developed. The questionnaire was set with 17 questions under 3 categories, namely knowledge, attitude and practice. There were 6 questions under 'knowledge' section bearing 4 close ended and 2 open ended questions. The 'attitude' section had all 8 close ended questions and 'practice' section had 3 close ended questions.

The knowledge domain designed to test basic information about the blood donors such as age limit, minimum body weight, amount of blood is collected, minimum interval of time between two donations etc. In addition to this, students' knowledge is also tested by asking informative questions like if any further investigations are made on the blood donated before transfusion and awareness about the transfusion transmitted diseases.

The attitude of students towards the blood donation was tested by providing questions if they are interested in blood donation, or are they scared about the procedure etc. Also students opinion about the blood donation, if they feel any side effect or if they are willing to donate for any incentives.

Practice questions

The questionnaire was given to the students without any prior intimation to avoid the biased results. Prior ethical approval was obtained from the institutional Research Committee. The data obtained from the results were

RESULTS

Questionnaire regarding general information about the donor	Awareness data
Minimum age of the donor	78%
Minimum weight of the donor	41%
Amount of blood would be withdrawn	45%
Minimum interval between 2 successful blood donation	30%
Prior investigation performed prior to donation	58%
Transfusion transferred diseases	79%

Table 1: Awareness data of medical undergraduate students about various basic aspects of voluntary blood donation [knowledge domain]

The awareness level of medical undergraduate students of preliminary curricula towards the basic requirements of the blood donation under the ‘knowledge’ domain has been tabulated in table 1. According to it, the medical undergraduates are ought to be aware of basic knowledge of blood donation such as minimum age requirement, prior tests to be done before the blood donation and various diseases that can be transferred from the donor to patients, they are seem to be lack of complete knowledge of blood donation like minimum weight of the donor, amount of blood withdrawn at the time of donation and minimum interval between two successive donations etc. (Table 1).

The attitude level of medical undergraduate students regarding the blood donation revealed encouraging attitudes which is quite satisfactory (Fig 1). Majority (62%) of students were showing positive attitude towards the blood donation.

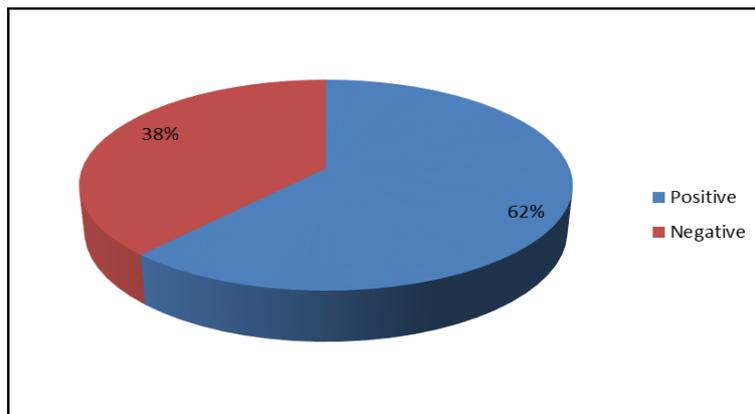


Figure 1: Medical students’ overall attitude level towards blood donation [attitude domain]

Conversely, 43% of students declared that they have already donated the blood before as a voluntary donor

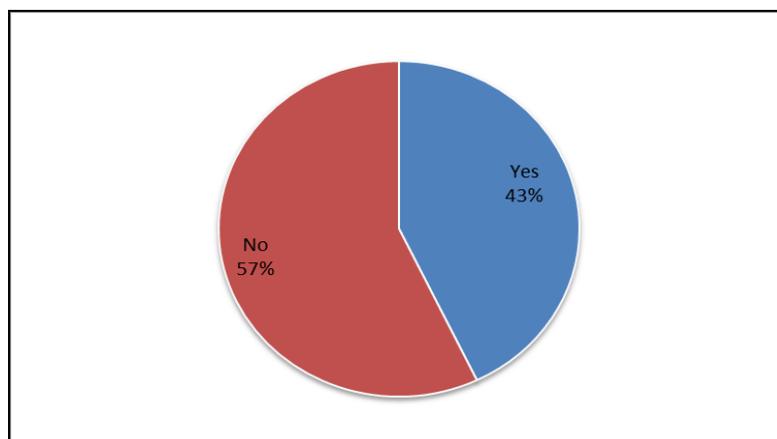


Figure 2: Percentage of student participants who donated blood before [practice domain]

DISCUSSION

Over the last few decades, knowledge, attitudes and decision making practices with regard to voluntary blood donation have been assessed in order to develop a better understanding of the process, so that donation efficiency, safety, retention, collection numbers and donor pool diversity may be effectively regulated. In our current setup, results of our study can act as pivotal tool in bringing about further improvements in future blood donation practices.

While knowledge of blood bank working and practices is not a major determinant in donor motivation (1), knowledge of donating blood among donors is an essential aspect for donor recruitment, especially volunteer donors. Based on our data analysis and graphs, most of the respondents have given the 'concerned' responses for each of the questions. The literatures reveal that medical students are justifiably expected to have better knowledge of both blood donations and blood banks than other groups in society (2). In fact, most of the students also aware about the additional information regarding blood donation such as listing the test needed before blood donation ; blood compatibility, tests for transfusion transmitted diseases, hemoglobin level etc (3).

Previous studies documented the higher incidence of knowledge level of blood donation among allied health sciences and the lowest among the pharmacy students (4). In the present study we are assessing medical undergraduate students level of knowledge, attitude towards the blood donation and practice of blood donation were tested with the use of simple but reliable questionnaire.

From a total of 114 respondents, 84.2% of students did show interest in donating blood while the remaining 15.8% are not. In comparison with the study done by Gilani et al., (5), 76% and 41% of the doctors and paramedics respectively are blood donors. 98.2% respondents think that it is meaningful to donate blood. On the other hand, 33.3% of respondents afraid of being injected. Only 20.2% of respondents think that side effects of donating blood outweigh its benefits.

Present cross sectional study testing the attitude of medical undergraduate students towards the blood donation revealed that, most of them (79.8%) are aware of the benefits of donating blood. Interestingly, majority of the (75.4%) students admitted that they are ready to donate the blood if there is incentive provided. Large majority of students (83.3%) expressed their concern that blood donation process could result in contact of several diseases, that hindering their interest in voluntary blood donation. Probably, lack of knowledge about the safety precautions taken during blood donation leading to think of this in the student population for which proper orientations is necessary in their early academic activities itself. Siddiqui et al., also opine the similar perception that lack of motivation and misconceptions in the practice of blood donation among the students prevent them from being voluntary donors. This may be overcome with the encouragement practices particularly through electronic media (6).

Results of current study witnessed the clearly positive attitude of medical students towards blood donation with various facts of causes. About 76% of the students wish to donate blood because of friend's influence, while about 46% would like to donate for religious purpose. And 55.3% of the students would like to donate blood that might help them to screen for any disease as well. Majority of the subjects (93.9%) donate blood because they think it as social responsibility. while some of the respondents give other reasons like to get an experience and to get incentive etc. 29.2% of the subjects state that donating blood will make them weak and only 7.9% think that immune response might reduce. 31.5% of subjects think that they might acquire anemia as well as other side effects when they donate blood.

Sabu et al., identified the significant association between different streams of students and levels of knowledge and attitude on blood donation issues. They found the commonest reason among the student population for not have been donated blood were the self -feeling of medically unfit or never thought of blood donation were the major reasons for not donating blood. In such scenario the importance of adopting effective measures in the campuses to motivate the students about voluntary blood donation becomes successful practice (4).

Upon examining the practice level of students in the blood donation attitude, 57% of students had not donated blood even once. 55% of them had joined events regarding blood donation. This shows that awareness program related to blood donation can be held successfully and can develop positive feedback from people. It is undeniable that not only government or local bodies have an important role in promoting blood donation events but also it is the responsibility of various social organizations and health centers. The commitment and support of the government to an effective national blood program is a prerequisite for the achievement of voluntary blood donation. Without concrete recognition of blood transfusion as an integral part of the health care system, the infrastructures and the human resources needed to ensure the availability of sufficient supplies of safe blood and blood products are unlikely to be provided.

A study report by Gilles in United Kingdom states that, there are four major 'fear' factors that can hinder the peoples from blood donation namely 'fear of needles', 'fear of fainting', 'fear of infection' and 'fear of being sick' (7). Keeping these facts in mind, the organization, could it be government or medical colleges/universities must arrange for relevant campaigns to create and strengthen the positive attitude towards blood donation. Implementing focused awareness program in this regard is indispensable (8).

All the previous studies about the knowledge, attitude and practice of blood donation in various nations did express positive response to the blood donation program. Hence, the organizer should be more proactive in providing initiative for them to become a volunteer like supportive promotion which is collaboration between the healthcare and communication media, visiting schools, colleges and companies etc. Giving them explanation about the procedure, adverse effects, rules and regulation etc. will help them to the fullest. This is because donors and non-donors even in medically oriented population do not differ significantly in their sentiment towards blood donation but lack motivation (9). Further, the medical students must be trained at utmost knowledge about all the aspects of blood donation in their early academic stages.

CONCLUSION

From the result of current study, it can be inferred that the total awareness about the voluntary blood donation is still lacking among the medical undergraduate students. In spite of having adequate knowledge and attitude, not more than 50% of the students had donated blood. The reasons being are some of them are scared of needle, busy in studying, not having enough weight and afraid of contacting diseases during the procedure. Therefore it is essential to emphasize the importance of voluntary blood donation by providing them adequate information during their curricular activities and encourage them in the involvement of blood donation campaign.

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