

Knowledge, Attitude And Practices Of Voluntary Blood Donation Among Students Of Rawalpindi Medical University.

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Abstract

Background: Each year more than 1.5 million pints of blood are collected In Pakistan. Among them 25% are volunteer donors, about 65% of the donation is by family or replacement while about 10% is from professional donors. The aim of this study was to determine knowledge, attitude, and blood donation practices among medical students of Rawalpindi medical university. This study also determined the reasons for not donating blood.

Materials and Method: This cross-sectional descriptive study was conducted in Rawalpindi medical university from January 2018 to June 2018.

300 students were enrolled by non-probability consecutive sampling. A structured questionnaire was designed and SPSS version 22 was used for data analysis.

Results: Mean age of the respondents was 22±7 years. 269 (89.7%) of the participants knew their blood group. Among the respondents, 161(53.7%) knew minimum age for blood donation and 183 (61%) respondents had knowledge of weight requirement. 39 (13%) individuals have donated blood in the past .177 (59%) showed willingness to voluntarily donate blood in future

Conclusion: Knowledge of blood donation among undergraduate medical students was found to be satisfactory. While the frequency of blood donation was not satisfactory. Majority of students showed the willingness to donate blood in the future.

Keywords: Blood donation, medical students, blood group

Introduction

Blood is a noteworthy essential part of the human body. Since it can't be factory-made by artificial means so it must solely be obtained from human resources.

Blood donation has become very important and is essential for every health care facility.¹

There are 3 kinds of blood donors: unpaid voluntary, paid and family or substitution donors which are also known as replacement donors.²

In developing nations, up to 65% of blood transfusions are given to youngsters under 5 years old.³ An expansion of 10.7 million blood donations from willful unpaid givers has been accounted for from 2008 to 2013.³ Altogether, 74 nations gather more than 90% of their blood supply from intentional unpaid blood donors. While 71 other nations gather over half of their blood supply from family, substitution or paid blood donation.³

Each year more than 1.5 million pints of blood are collected In Pakistan. Among them 25% are the volunteer donors, about 65% of donation is by family or replacement while about 10% is from professional donors.⁴

Blood donor day is celebrated on 14 of June every year, which emphasizes the increased demand for blood and promoting blood donations.⁵

All around the world, paid donations have been related to higher rates of infections. In order to meet the increasing demand for blood, mindfulness and motivation towards voluntary unpaid blood donation is required. Thus there is a need to conduct studies which highlight these aspects along with barriers in voluntary blood transfusion⁶

It has been seen that absence of knowledge, facilities, and fear affect the decision of blood donation. Inspection and management of these factors are important to increase blood donors in the society.⁷

The aim of conducting this study is to understand existing knowledge, attitude and motivation of medical students about voluntary blood donation. This study will also determine the reasons for not donating blood.

An educational brochure will later be distributed among medical students to educate them and to increase the probability of blood donation.

Materials and methods:

This cross-sectional descriptive study was conducted in Rawalpindi medical university from January to June 2018.

300 students from the first year to final year were enrolled in this study by Systematic non-probability consecutive sampling. The study was approved by the research ethics committee. After obtaining verbal consent, investigator explained the purpose of study, the questionnaire was filled by the students. The inclusion criteria was students of Rawalpindi medical university. Unwilling students who refused to give consent were excluded from the study.

Data was collected using a structured questionnaire. The questionnaire was pretested and changes were made accordingly.

The questionnaire comprised of five major parts. Part one consisting of demographic details such as age, gender. Part two consists of knowledge of blood donation. Variables used to define knowledge include knowing their own blood group, minimum age, and weight required for blood donation, the minimum interval between two consecutive blood donations, these variables were defined from previous literature.⁸ Minimum age required for blood donation was taken as 18 years and minimum weight required for blood donation was taken 45 kg. The minimum interval between two consecutive blood donations was taken as more than 3 months.⁸

Part three and four consisted of questions to access attitude and practices. Part 3 consisted of one question related to the attitude of the participants towards blood donation. Willingness to donate blood in future was considered as the positive attitude. Past blood donation was used to determine practice. Part 5 consisted of two questions. One was about whom they will preferably donate blood and second question was about the reasons of not donating blood. These include Blood donation is painful, Fear of needle, No one asked me to donate blood, donated blood will be wasted, Unfit for blood donation and others are donating.

Statistical package for social sciences (SPSS) version 22 was used to enter and analyze data. Descriptive statistics were used to determine the percentage and frequencies of qualitative variables. Quantitative variable age was presented as mean and standard deviation.

Results:

In this study, 300 medical students were recruited. Mean age of the respondents was 22±7 years. Most of the subjects 123(41%) were male and 177 (59%) were female.

Regarding knowledge of the blood donation, most of the respondents 269 (89.7%) knew their blood group while 31 (10.3%) were not aware of their own blood group. 161(53.7%) had knowledge of the minimum age of blood donation while 139 (46.3%) did not know about it. 183(61%) knew about minimum weight required for blood donation while 117 (39%) had no knowledge of it.

About the minimum interval between two donations, 121(40.3%) were aware while 179 (59.7%) were not aware of it.

Regarding attitude towards blood donation, 177 (59%) participants showed the willingness to voluntarily donate blood in the future. 72 (24%) were willing to donate only for family or friends, 19 (6.3%) were willing if donation is paid while 32 (10.7 %) were not willing to donate in future.

Only 39 (13%) of the participants have donated blood in the past.

Reasons for not donating blood identified in the study were , no one approached personally to ask for blood donation 190(72.7%), fear of needles 89 (34%) and blood donation is difficult and time consuming 128(49%), donated blood will be wasted 86 (32.9%), unfit for blood donation 83(31.8%), others are donating enough 59 (22.6%).

Discussion:

Millions of lives can be saved by blood donation as blood is required for many surgical and medical conditions like anemia, trauma, and shock etc.⁸

In current study 121 (40.3%) of the participants had knowledge of interval between two consecutive blood donations. This is contrary to a study 219(79.3%) had knowledge of interval between two consecutive blood donations.¹⁵

In current study 161 (53.7%) of the respondents had knowledge of minimum age required for blood donation, while in another study 186(67.4%) of the participants had this knowledge.¹⁵

Despite the fair level of knowledge, only 39 (13%) participants in the current study had donated blood in past. In a similar study in Delhi, 157(78%) had a favorable attitude but less than 10(5%) had actually donated blood.⁸ Other studies also showed similar results.⁹

The current study showed positive attitude among students towards the participants 177 (59%) had shown willingness to donate blood in the future, these results were similar to a study conducted in medical students of Karachi.⁴

A study conducted in the republic of Serbia, medical students also showed positive attitude toward future voluntary blood donation.^{12,13}

In the current study, 24% (72) showed willingness to donate blood if the receipt is a family member or friend. This is contrary to a study conducted in Serbia, which showed 380 (97.9%) by the participants showed the willingness to donate blood if the receipt was a family member or friend.¹³

Reasons of not donating blood identified in the current study were no one approached personally to ask for blood donation 69.6% (190), fear of needles 32.6 (89), blood donation is difficult and time consuming 46.9% (128), fear of blood being wasted or misused 31.5% (86). Similar reasons were found in other studies as well.^{8,10,14} In a similar study conducted in India, 27.4% of the participants had fear of needles. ¹⁴In another study, 29.3% (56) participants think it is a lengthy process.⁸

Conclusion:

Despite good Knowledge and favorable attitude towards blood donation among undergraduate medical students, the frequency of blood donation was low. Motivational campaigns using mass media and seminars should be conducted. Students should be encouraged to regularly donate blood so that adequate blood supply can be ensured to those in need.

The study population includes only the medical students of Rawalpindi medical university. Medical students of the other colleges and university in the city were not included due to the limitation of resources.

Acknowledgement:

I would like to thank my parents and Mr. Saadat Nawaz for the support and encouragement throughout my study.

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