

A STUDY ON THE KNOWLEDGE, ATTITUDE, AND PRACTICES REGARDING VOLUNTARY NON-REMUNERATED DONATION OF BLOOD AMONG SECONDARY SCHOOL TEACHERS IN TAMILNADU

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ABSTRACT

BACKGROUND

The aim of this study is to assess the level of awareness on blood donation among the secondary school teachers by ascertaining the level of knowledge, attitude and practices toward blood donation. In this regard, measures to fill the deficit would be suggested, if any discrepancies are found.

MATERIALS AND METHODS

This was a cross sectional study done in department of blood bank, Tagore medical college and Hospital. The study population were secondary school teachers from three higher schools in Tamil Nadu, India. A total of 109 teachers participated in the study. Questions regarding the knowledge, attitude and practices towards donating blood were prepared and questionnaires were distributed to the study population and their responses were analysed.

RESULTS

A total of 109 teachers participated in the study. 82.6% of the teachers have never donated blood. The most common reason for not donating blood is no one has asked them to do so. The teachers had a good knowledge and a positive attitude towards blood donation. However, the practice of blood donation is very poor among teachers. 96.3% teachers assured to motivate the students and 81.7% were willing to donate blood in future.

CONCLUSION

The teachers in our study had adequate knowledge and a positive attitude towards voluntary donation of blood. However, practice on blood donation is very poor. This could be due to the lack of opportunity for blood donation and communication gap between the blood banks and the school teachers. Hence there must be a system to create opportunities for blood donation and measures to bridge the communication gap so that more donors would be volunteering to donate blood.

KEYWORDS

Voluntary Blood Donation, KAP on Blood Donation, Secondary School Teachers, Blood Transfusion.

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BACKGROUND

Blood transfusion saves many lives. The demand for blood in India, a lower middle income country is high. This is due to increased incidence of pregnancy related complications and severe anaemia in children under 5 years of age.¹ Till date, there are no satisfactory blood substitutes available. Since 1628, when William Harvey discovered the circulation of blood, many centuries passed without replaceable blood alternatives.

According to WHO, 112.5 million blood donations are collected globally, out of which 50% of the blood donations are from high income countries.¹ India, being a lower middle income country, there are only 4.6 blood donations per 1000 people.¹ But the supply of blood is very short mainly due to lack of awareness and apprehensions about donation.² The constant concern in the effort to meet the demands for blood is the fact that only a small percentage of eligible population actually choose to donate blood on a regular basis and that a significant number of eligible donors are deferred temporarily or permanently because of strict deferral criteria being practiced to ensure blood safety.³ In order to ensure safe blood donation, the government of India adopted the National Blood Policy in April 2002 to ensure easy access to adequate and safe blood.⁴ It is a well-established fact that blood collected from regular voluntary non remunerated blood donors are the safest. However, in India, replacement donors constitute more than 45% of the blood donors.⁵

In creating awareness to the general public, the mass media has to play a major role.⁶ However, in creating the awareness in the long term, the young minds of the school children need to be instilled with the benefits of donation and

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the virtues of nobility towards the society they thrive, on donating blood. Teachers play a vital role in making the students imbibe these 'lessons for life'. For this to occur, the teachers must have a good knowledge, a cheerful attitude and the habit of being a regular, voluntary blood donor. Donor deferral can also be overcome by teaching the students not to indulge in activities that would lead to deferral. The most common reason for people not to donate blood in India is the counterargument that they were not asked by anyone to do so.⁶ This being the case in a highly populous country, the idea of this study is to shift the emphasis towards teachers on explaining the students about the importance of donating blood and thereby saving life.

MATERIALS AND METHODS

This was a cross sectional study carried out at department of blood bank, Tagore medical college and Hospital between March to July 2015. The study was approved by the Ethical Committee of the institution. The study population were secondary school teachers from three government schools in Tamil Nadu, India. A total of 109 teachers participated in the study. Teachers who have been qualified with at least an undergraduate degree in teaching and taking classes for students of 9th to 12th standards were included in the study. Retired teachers were excluded from the study as the purpose of the study is to motivate the students on voluntary blood donation.

A pre-formed, pre-tested and structured questionnaire, conveying consent was used. Their socio demographic profile, educational qualification and other relevant data was sought in the first part of the questionnaire. The second part contained specific questions regarding the knowledge, attitude and practices of donating blood. Questionnaires were distributed to the study population. Participants willing to participate were asked to sign the consent form, which was present in the questionnaire. Participants were informed about the privilege to leave the study at any point of time. Thus, the consent obtained was free, voluntary, direct, informed, written and personal. They were encouraged to fill the questions with the best of their knowledge. Sufficient time was provided for them to complete. The queries were clarified as and when required. While collecting and storing the data, utmost care was taken to maintain confidentiality.

The data obtained was entered in MS Office Excel 2007. The data analysis was done using SPSS software.

OBSERVATION AND RESULTS

A total of 109 teachers participated in the study. Out of 109, 79 were females and 30 were males. The median age of the study population was 39 years. The most common blood group in our study is O+ve. The prevalence of various blood groups among the study population is summarized in table 1.

Sl. No.	Blood Group	No. of Participants
1	O+ve	43
2	A+ve	18
3	B+ve	34
4	AB+ve	08
5	O-ve	00
6	A-ve	02
7	B-ve	02
8	AB-ve	02
Total		109

Table 1. The prevalence of ABO blood groups among the study population

Only 19 teachers (17.4%) have donated blood already. The rest (90 teachers, 82.6%) have never donated blood. Out of 19 donors, 18 donated only once and only one male teacher has donated 4 times. Hence 94.7% of the donors in our study were first time donors in our study.

The knowledge was evaluated by a set of 10 questions. 74.3% knew the minimum age to donate blood and 77.1% knew the minimum weight for blood donation. 97.2% said there are no ill effects to the donor and 85.3% were aware that they will not become anaemic after blood donation. Only 55% knew the minimum interval between two donations and 34.9% knew the duration of actual blood donation. The awareness on the mandatory infections to be screened is poor except HIV which 82.6% of the respondents were aware of. The knowledge on blood donation was summarized in table 2.

Sl. No.	Questions Assessing Knowledge on Blood Donation	Response	No. of Respondents	%
1	Minimum age to donate blood	Correct	81	74.3
		Incorrect	25	22.9
		Don't know	3	2.8
2	Minimum weight for donating blood	Correct	84	77.1
		Incorrect	21	19.3
		Don't know	4	3.6
3	Blood is collected from? Vein/artery	Correct	82	75.3
		Incorrect	25	22.9
		Don't know	2	1.8
4	Are there any ill effects to donor? Yes/No	Correct	106	97.2
		Incorrect	2	1.8
		Don't know	1	0.9
5	Will you become anemic after donation? Yes/No	Correct	93	85.3
		Incorrect	16	14.7
		Don't know	0	0
6	Volume of blood taken from donor in one sitting	Correct	79	72.4
		Incorrect	27	24.8
		Don't know	3	2.8
7	Minimum interval between two donations	Correct	60	55
		Incorrect	49	45
		Don't know	0	0
8	Required haemoglobin level to donate blood	Correct	42	38.5
		Incorrect	62	56.9
		Don't know	5	4.6
9	Mandatory tests for which donated blood is screened for	Correct	34	31.5
		Incorrect	58	53.7
		Don't know	17	15.7

Table 2. The knowledge on blood donation among school teachers

The attitude towards voluntary blood donation was evaluated by 4 questions and the responses were summarized in table 3. 97.2% felt that blood donation is painless and 96.3% said it is unethical to receive money for blood donation. The most common reason for not donating blood (53.3%) is no one had asked them to donate. 23.3% felt that they are not fit to donate blood. Fear of needles was the reason in 11.1% of the respondents and 4.4% felt they did not think about blood donation at all. Other health reasons constituted 7.7% of non-donation.

Sl. No.	Questions Assessing the Attitude on Voluntary Blood Donation	Responses	No. of Respondents	%
1	Is blood donation very painful? Yes/No	Correct	106	97.2
		Incorrect	3	2.8
		Don't know	0	0
2	Will you get money for voluntary blood donation	Yes	04	3.7
		No	105	96.3
3	Reason for not donating blood	Fear of needles	10	11.1
		I think, I am not fit to donate blood	21	23.3
		No one has asked me to donate blood	48	53.3
		Didn't think of it	04	4.4
		Pre-existing illness	07	7.7
4	What is the most effective source of knowledge on voluntary blood donation	Mass media (TV/Radio/Movie)	105	96.3
		Electronic media (Facebook & Twitter)	23	21.1
		Printed articles (Newspaper/books/posters)	88	80.7
		People	28	25.7
		Workshops/camps/seminars	68	62.4

Table 3. The attitude towards voluntary donation of blood

The practice of the teachers on voluntary blood donation was tested by 4 questions and the responses were summarized in table 4. 46.8% teachers needed blood for their family and friends. However only 17.4% donated blood. 56.9% teachers motivated their students about voluntary blood donation. 81.7% were willing to donate blood in future and 96.3% assured to motivate their students on voluntary blood donation.

Sl. No.	Questions	Response	No. of Respondents	%
1	Have you ever needed blood for you/family/friends	Yes	51	46.8
		No	58	53.2
2	Are you willing to donate blood in future	yes	89	81.7
		No	20	18.3
3	Have you ever motivated your students to donate blood	Yes	62	56.9
		No	47	43.1
4	Will you motivate your students to donate blood in the future	Yes	105	96.3
		No	04	3.7

Table 4. The practice of blood donation among school teachers

DISCUSSION

There are lots of studies available in the literature on the knowledge, attitude and practices on voluntary donation of blood among health care workers, college students, voluntary

blood donors, high school students in various demographic profiles across the globe. However, there are no studies which assess the same on school teachers.

In our study, most of the teachers (82.6%) never donated blood. Only 19 teachers who constituted around 17.4% (18 female and one male) donated blood. In a similar study on health care workers in Nigeria, 22.1% donated⁷ and 39% among health care staff in Gujarat have donated blood.⁸ In a study done in Karachi,⁹ 18% of the medical students and 27% of the non-medical students donated blood. 94.7% of the donors were first time donors in our study. However, studies done by Uma et al¹⁰ showed 46% were first time donors whereas Zaller et al¹¹ study showed only 17.5% of the donors were first time donors. This clearly states that the practice of blood donation among teachers was very poor compared to other study groups. The most common blood group in our study is O+ve which is the most common blood group in South India.¹²

The knowledge on blood donation was assessed by a set of 9 questions. The overall knowledge percentage was 67.4%. The respondents scored more than 70% on the general aspects of blood donation. Surprisingly the knowledge on the actual process of blood donation was also better than studies done on health care workers,⁷ medical students¹³ and the general public.¹⁰ The questions testing the actual process of blood donation were the volume of blood taken, required haemoglobin level and the minimum interval between two donations. Hence the teachers had a very good knowledge on blood donation.

The teachers had a positive attitude towards blood donation. 96.3% felt that blood donation is a voluntary process and the donors should not receive money for the same. The most common reason for not donating blood is no one has asked them to do so. The same fact has been highlighted by several studies as the most common reason for not donating blood.^{6,7,14} The second common reason is that they believed they are not fit to donate blood. Other reasons being the fear of needles, did not think about blood donation and other health issues. According to our study and other studies^{15,16} the most effective medium for dissemination of knowledge on blood donation is mass media followed by printed articles such as newspapers and books. Hence advertisements and talk shows on blood donation can create awareness regarding voluntary blood donation.

The knowledge and attitude on blood donation when put into practice, the results are not satisfactory. Though 46.8% needed blood for their family and friends, only 17.4% donated blood and 43.1% teachers never motivated their students about blood donation. However, 96.3% teachers assured to motivate the students in future and 81.7% were willing to donate blood. These results are comparable to other studies.^{7,17} Hence the disparity between the knowledge, attitude and practice on blood donation could be due to the lack of opportunity¹⁰ and communication gap between the blood banks and the school teachers.

CONCLUSION

This study revealed the secondary school teachers have more than adequate knowledge and attitude towards voluntary blood donation. However, practice on blood donation is very poor.

This could be due to the lack of opportunity for blood donation and communication gap between the blood banks and the school teachers. Hence there must be a system to create opportunities for blood donation and measures to bridge the communication gap so that more donors would be volunteering to donate blood. Being teachers, they are the role model to the students. As the saying goes, 'Practice what you preach', if the teachers donate blood, the students will obviously come forward to donate blood.

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