

Knowledge and attitude of people in Meghalaya toward blood donation

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ABSTRACT


Background: The demand and supply imbalance of safe blood in our country is due to deficit of awareness. Attitude also plays a role but attitude is driven by knowledge. It is important therefore to know the level of knowledge and nature of attitude of the people to understand the demand and supply imbalance of safe blood. **Objectives:** This study aims in assessing knowledge and attitude of the residents of East Khasi Hills district of the state of Meghalaya toward blood donation. **Materials and Methods:** It is a descriptive, cross-sectional study that involved 382 participants who were between 18 and 65 years of age and were residents of East Khasi Hills district. A self-administered questionnaire was given to participants selected randomly on a first-come-first-serve basis. **Results:** Out of 382 participants, 163 (42.7%) were blood donors. Again 163 (42.7%) participants had a knowledge score of 5 out of 5. 48.2% of participants said that the reason for blood donation is to save lives. As for reason for not donating blood, 23.3% said that it is the lack of time. 73% of the non-donors were willing to donate blood when needed in the future. **Conclusion:** Although knowledge regarding blood donation was sound, the percentage of non-donors is significantly large at 57.3% and 73% of the non-donors were actually willing to donate blood. Most potential donors would donate for replacement only. Motivation is important to convert the replacement donors into regular voluntary blood donors.

KEY WORDS: Attitude; Blood Donation; Knowledge; Voluntary Blood Donors

INTRODUCTION

India requires 12.8 million units of blood annually but could collect only 63.85 lakhs units in 2015-16.^[1] This huge demand which is met with a short supply is perplexing since India is a nation with an enormous population of 1.34 billion. With the global framework for action to achieve 100% of voluntary blood donation set by the World Health Organization and

the International Federation of Red Cross and Red Crescent Societies,^[2] the challenge is even more tough but necessary to ensure blood safety and donation of safe blood. There is a big and a justified question mark as to what cause this imbalance in the demand and supply of blood in this country. There must indeed be a deficit of awareness on the issue of blood donation, and especially voluntary blood donation. Undoubtedly, attitude also plays a very important role, but it is important to note that peoples attitude is mostly driven by their level of knowledge apart from other influencing factors such as culture, religion, and tradition. Hence, it is imperative to study the prevailing knowledge and attitude of the society to understand what causes the imbalance in the demand and supply of safe blood. The objective of this study is therefore to assess the knowledge and attitude of the people of East Khasi Hills district of Meghalaya toward blood donation.

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MATERIALS AND METHODS

This descriptive, cross-sectional study involving 382 participants 263 males and 119 females was carried out in East Khasi Hills district of Meghalaya during the year 2016 and the early part of 2017. A self-administered questionnaire was prepared after reviewing various similar studies. The questionnaire was prepared and set in a manner that it will be easy and quick for participants to complete. The questionnaire is divided into three sections which comprised section for demographic data, then section related to knowledge, and another section comprising opinion and practice reflecting attitude. The total knowledge score was 0-5. These questionnaires were given to all the participants who were selected randomly on the first-come-first-serve basis and who fulfills the inclusion criteria. Participants who were in the age range between 18 and 65 years who could be potential donors and who were residents of East Khasi Hills districts only were included in this study.

RESULTS

Out of 382 participants, 263 (68.8%) were males and 119 (31.2%) were females, 216 (56.5%) were urban residents,

Table 1: Demographic characteristics

Characteristics	Frequency (%)
Age group	
18-20	70 (18.3)
21-30	247 (64.7)
31-40	54 (14.1)
40 above	11 (2.9)
Total	382 (100)
Gender	
Female	119 (31.2)
Male	263 (68.8)
Total	382 (100)
Resident	
Rural	166 (43.5)
urban	216 (56.5)
Total	382 (100)
Occupation	
Working	181 (47.4)
Student	201 (52.6)
Total	382 (100)

166 (43.5%) were rural residents, 201 (52.6%) were students, 181 (47.4%) were working (Table 1), (42.67%) were blood donors, and 57.7% were non-donors (Table 2).

Table 3 shows that 66.2% of the total participants, 72% of the male participants, and 52% of the female participants knew that blood can be donated at an interval of every 3 months. Then, 77.2% of the total participants, 82.1% of the male participants, and 66.3% of the female participants knew that the quantity of blood that can be donated each time is 350 ml. Furthermore, 73.8% of the total participants, 82.1% male, and 55.4% female have knowledge regarding the age group that qualifies a person as a donor. As for the required body weight that donor must have to qualify as blood donors, 92.6% of the total participants, 92% of the males, and 94.1% of the female participants chose the correct answer. Furthermore, 94.2% of the total participants, 95.4% of the males, and 91.5% of the female participants have knowledge that blood can be donated any time of the day. As it reflects in Table 4, out of the 5 questions related to knowledge 163 (42.7%) knew all, 122 (31.9%) knew 4 out of 5, 57 (14.9%) knew only 3 out of 5, 22 (5.8%) knew only 2 out of 5, 16 (4.2%) knew only 1 out of 5 questions, and only a very small number of 2 (0.5%) knew none of the questions. Again, when we look at gender as reflected in Table 5, 135 (51.3%) males scores a total of 5 out of 5, whereas only 28 (23.5%) females could score a total of 5 out of 5 (Table 6). On the question about reason to donate blood voluntarily, 48.1% said that it is to save a life, 30.9% have not responded in spite of the availability of nine options of choice and as well as the availability of an option to state their own reason and 7.9% chose the option "to do good to others." On the question for reasons that prevents people from donating blood (Table 7), 89 (23.3%) said that it is the lack of time, 39 (10.2%) said that it is the lack of awareness, 51 (13.4%) said that it is the fear of needle, 29 (7.6%) said that they fear of losing blood, and 16 (4.2%) said that they fear they might fall ill (Table 6).

It is heartening to see that 73% of the non-donors were willing to donate blood in the future. As for donors, 95.7% of them will continue to donate blood in the future and 3.7% were unsure (Table 8). On the question of in what capacity will they be ready to donate blood, 47.6% said that they would donate for replacement, 12.3% as a voluntary donor, and only 0.5% for remuneration, whereas 39.5% did not respond (Table 9).

Table 2: Blood donation gender- and residence-wise

Type of donors	Male (%)	Female (%)	Total (%)	Urban (%)	Rural (%)	Total (%)
Donors	122 (46.4)	41 (34.4)	163 (42.7)	91 (42.1)	72 (43.3)	163 (42.7)
Non-donors	141 (53.6)	78 (65.6)	219 (67.3)	125 (57.9)	94 (56.6)	219 (67.3)
Total	263 (68.8)	119 (31.2)	382 (100)	216 (56.5)	166 (43.5)	382 (100)

Table 3: Gender-wise percentage of people with correct answers

Questions	Male (%)	Female (%)	Total (%)
Blood donation interval	72	52	66.2
Quantity of blood in each unit	82.1	66.3	77.2
Qualifying age for blood donors	82.1	55.4	73.8
Qualifying weight for blood donors	92	94.1	92.7
Time for blood donation	95.4	91.5	94.2

Table 4: Knowledge score

Knowledge score	Frequency (%)
0	2 (0.5)
1	16 (4.2)
2	22 (5.8)
3	57 (14.9)
4	122 (31.9)
5	163 (42.7)
Total	382 (100)

Table 5: Number of people with correct answers in each query

Gender	Number of correct answers						Total
	0	1	2	3	4	5	
Female	2	5	16	28	40	28	119
Male	0	11	6	29	82	135	263
Total	2	16	22	57	122	163	382

DISCUSSION

This study which is an assessment of knowledge and attitude of people in the district of East Khasi Hills of Meghalaya state had collected data pertaining to knowledge and attitude toward blood donation from 382 participants. The demographic data indicates that 163 (42.6%) participants were blood donors and out of the 163 blood donors, 122 (74.8%) were males and 41 (25.2%) were females which are a finding that is comparable to studies done in North India and even in some western countries.^[3,4] Again out of 163 (42.6%) blood donors, 18.8% were rural donors and 23.8% were urban donors which are showing no major difference. The analysis on knowledge of issues related to the basics of blood donation was found to be encouraging as 42.7% of the participants knew all the answers of the knowledge-related queries in the questionnaire and 89.5% knew 60% of the answers of the queries in the questionnaire. This level of knowledge is better than the level of knowledge in studies done in North India and Chennai, South India.^[5] In Chennai, 51.2% of donors knew that blood could be donated once in 3 months, whereas in our study, we found that participants who knew about this were 66.2%. It can also be noted that participants who knew the appropriate

Table 6: Reasons for donating blood

Reasons	Frequency (%)	Valid %
No response	118 (30.9)	30.9
As a spiritual act	13 (3.4)	3.4
For experiencing the joy of giving	6 (1.6)	1.6
For getting screened for diseases	4 (1)	1
For knowing blood group	4 (1)	1
For recognition and awards	1 (0.3)	0.3
Sense of social responsibility	17 (4.5)	4.5
Social pressure	5 (1.3)	1.3
To do good to others	30 (7.9)	7.9
To save a life	184 (48.1)	48.1
Total	382 (100)	100

Table 7: Reasons for not donating blood

Reason	Frequency (%)	Valid %
No response	74 (19.4)	19.4
Believe that blood should not be donated	1 (0.3)	0.3
Fear of HIV transmission	5 (1.3)	1.3
Fear of discovering diseases	4 (1)	1
Fear of contracting illness	16 (4.2)	4.2
Fear of losing blood	29 (7.6)	7.6
Fear of needle	51 (13.4)	13.4
Fear of sight of blood	4 (1)	1
Health problem	11 (2.9)	2.9
Lack of awareness	39 (10.2)	10.2
Lack of time	89 (23.3)	23.3
Less hemoglobin	2 (0.5)	0.5
Nobody asked me to donate blood	13 (3.4)	3.4
No reason	22 (5.8)	5.8
Objection from parents and elders	5 (1.3)	1.3
Tattoo	10 (2.6)	2.6
Underweight	7 (1.8)	1.8
Total	382 (100)	100

age for blood donation was 73.8% which is a little lower than in study done on medical and nursing students in Karnataka where 85% knew about the appropriate age.^[6]

Regarding attitude, 48.1% of the participants were of the opinion that the reason to donate blood is to save lives, 7.9% were of the opinion that it is to do good to others, 4.5% felt it was a social responsibility, only 3.4% were of the opinion that it is a spiritual act, and 30.9% have not responded. It is interesting to note that only 3.4% of the participants saw it as a spiritual act which is an attitude that is linked or motivated by a religious belief in spite of the fact that 70% of Meghalaya is a Christian population. Studies done in some Muslim countries found a strong link between blood donation and religious obligation. In Saudi Arabia, 91% of blood donors in one study^[7] and 71% in another study^[8] belief

Table 8: Participants committed to donate blood in the future

Types of donors	No response	No	Not sure (%)	Yes (%)	Total (%)
Non-donors	5	4	53 (24.6)	157 (73)	219 (57.3)
Donors	1	0	6 (3.7)	156 (95.7)	163 (42.67)

Table 9: Participants option for donation of blood

Participants option	Frequency (%)	Valid %
No response	151 (39.5)	39.5
As voluntary	47 (12.3)	12.3
Remuneration	2 (0.6)	0.6
Replacement	182 (47.6)	47.6
Total	382 (100)	100

blood donation is a religious obligation. On reasons that prevent participants from donating blood, the lack of the time (23.3%) is the major factor that is indicated, only 10.2% felt that they lack in awareness, and the rest are reasons that imply the lack of motivation. As indicated in the findings wherein 73% of participants (Table 7) who had never donated blood, which is similar to a study done in Bangladesh^[9] and 95.7% of participants who had donated blood showed willingness to donate blood in the future. In spite of having a high level of knowledge and a strong expression of willingness to donate blood in the future, however, the willingness to donate blood as a voluntary donor is very low which is at 12.3% (Table 9). Majority of these participants (47.6%) were willing to donate blood only if it comes to replacing blood for relatives, family members, and friends (Table 9).

Although the study could not penetrate deeper into other factors that can influence attitude such as cultural background, ethnicity, religious affiliation, traditions, and level of education, the study has however provided a bird's-eye view of the level of knowledge and the general attitude of the people in the largest district of Meghalaya which also housed the capital city of the state, Shillong. There is no study ever of this nature that has been undertaken in this part of the country. The findings of this study will, therefore, be an eye-opener to blood banks operating in the state and policy makers in their effort to create awareness and to motivate more and more donors to opt as voluntary blood donors.

CONCLUSION

This study reveals a paradox that in spite of a sound knowledge on the basics of blood donation, there is still a large section of people who are non-donors. This study has indicated the existence of a potential to convert non-donors to donors. This study has also highlighted the reservation that participants expressed to donate as voluntary blood donors in spite of

showing a strong willingness to donate for replacement. It is time to change this attitude and practice and motivate all the replacement donors who were prepared to donate blood only to people close to them and convert them into regular voluntary blood donors. By focusing on this, a paradigm shift can be created where the culture of replacement blood donation will be replaced by a culture of voluntary blood donation on a regular basis. Probably, there is also need to innovate ways to increase blood collection by putting donors convenience as a priority.

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