



KNOWLEDGE ABOUT BLOOD DONATION AMONG COLLEGE STUDENTS IN BASTAR REGION, CHHATTISGARH, INDIA

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Background-A blood bank plays a pivotal role in ensuring the supply of safe blood as and when required basis. The first step towards blood safety is to encourage blood donations from voluntary non-remunerated donors. Because of changing socio-economic environment and human factors, it is a challenge to retain and recruit healthy donors that faces the health industry today. The only source of blood is blood donation. With increase in educational level, the

awareness level is also found to be increased. **Aims**-The aim of our study was to find out the knowledge of students about blood donation in this rural area. **Settings and Design**- This was a cross-sectional study, conducted among 260 students in different colleges in Bastar region, Chhattisgarh, India. **Materials and Methods**-By interview technique, using the pre-test structured close-ended questionnaire, the data were collected and analyzed. **Inclusion Criteria**-Students studying in different colleges in this region after giving verbal consents for interview were included in the study. **Results**- Majority of the students had knowledge about importance of blood donation and the reasons for need of blood but few of them (13.84%) had donated blood previously. The most common cause for not donating blood was weakness after blood donation followed by fear about blood donation. **Conclusions** Educational

Institutes across India have plenty of potential blood donors in the form of young and healthy students which can fulfill the demand of safe blood in our country. Only knowledge about blood donation does not lead to blood donation among these students as seen in our study. Therefore, specific campaigns are needed to eliminate their misbeliefs and reinforce motivational perceptions among these students to convert into actual donation.

KEYWORDS: Knowledge, blood donation, students.

INTRODUCTION

The National AIDS Control Organization's (NACO) statistics show that the annual rate of blood donation in India is about 7.4 million units, against the requirement of 10 million units.^[1] According to World Health Organization (WHO) figures, over 81 million units of blood are collected annually but only 39% are collected in developing countries which have 82% of the world's population.^[2]

Blood bank plays a pivotal role in ensuring the supply of safe blood as and when required basis. Because of changing socio-economic environment and human factors, it is a challenge to retain and recruit healthy donors that faces the health industry today.^[3]

The only source of blood is blood donation,^[4] However, recruitment of voluntary, non remunerated blood donors pose major challenges to transfusion services throughout the world.^[5] Blood can save millions of life, and young people are the hope and future of a safe blood supply in the world.^[6] With increase in educational level, the awareness level is also found to be increased. The first step towards blood safety is to encourage blood donations from voluntary non-remunerated donors and obtained from low risk and regular donors, who donating blood two to three times a year and continues to donate at least once a year. Blood donors of younger age group are especially advantageous as they possess overall good health and potential for lifelong donations. Nevertheless, there is evidence that young people in general are more likely to practice risk behavior-associated with transfusion transmissible infections. There is very little published data on status of Blood transfusion service in different states in the country^[7]. So the aim of our study is to find participant's knowledge about blood donation that motivate them to donate blood voluntarily and regularly.

MATERIALS AND METHODS

This was a cross-sectional study, conducted among college students of different sections like science, arts, law and ITI in Bastar region, Chhattisgarh, India. A total of 260 students were participated in the study. The main outcome variables were knowledge of blood donation. By interview technique, using the pre-test structured close-ended questionnaire, the data were collected. The questionnaire of students included knowledge about blood donation.

All the participating students were explained about the study. The verbal informed consents were taken from them before the interview. By interview technique, the data were collected and analyzed about knowledge of blood donation. The interviews were conducted in colleges of Bastar region.

Inclusion Criteria

Students studying in different colleges of this region after giving verbal consents for interview were included in our study.

RESULTS

In our study, 56.14% students were male while 43.84% students were female.

70.76% students had knowledge about minimum age required for blood donation while only 26.20% students had knowledge about minimum weight required for blood donation. Majority of the students (60.00%) had knowledge about the importance of blood donation as shown in table 1.

Most of the students in our study had knowledge about place of blood donation (70.00%) and transfusion transmitted infections (76.90%) as shown in table 2.

In our study, analysis for requirements of blood transfusion by the participated students was done and it was found that the most common need for blood transfusion is anaemia (59.24%) followed by blood loss due to accident (17.70%) as shown in table 3.

In our study, majority of students 224(86.16%) had not donated the blood. Further evaluation was done to know the reasons for not donating blood among students and it was found that the most common reason for not donating blood was misbeliefs of weakness after blood donation (37.50%) followed by fear (23.65%) as shown in Table 4.

Table 1: Student's knowledge related to blood donation

Knowledge about blood donation	Yes	No	Total donors
Importance of blood donation	156(60.00%)	104(40.00%)	260(100%)
About types of blood donors	96 (36.92%)	164 (63.08)	260(100%)
Their blood groups	146(56.15%)	114(43.85%)	260(100%)
Female can donate blood	224 (86.15%)	36 (13.85%)	260(100%)
Amount of blood withdrawn	16(6.15%)	244(93.85%)	260(100%)
Weakness while blood donation	141(54.23%)	119 (45.77%)	260(100%)
Minimum age for donation	184 (70.76%)	76(29.24%)	260(100%)
Minimum weight for donation	68 (26.20%)	192(73.80%)	260(100%)

Table 2: Student's view about place of blood donation and TTIs

	No of students(percentage)	Total students
Blood bank only	58(22.30%)	260(100%)
Blood donation camp only	20(7.70%)	
Both	182(70.0%)	
Transfusion transmitted Infections (TTIs)	200(76.90%)	260(100%)
Not know about TTIs	60(23.10%)	

Table 3: Student's knowledge about need for blood transfusion

Reasons for Blood transfusion	No of students
Anemia / Low Hb	154 (59.24%)
Accident	46 (17.70%)
Weakness	35 (13.46%)
Diseases	25 (9.60%)
Total	260 (100%)

Table 4: Reasons for not donating blood by the students

Reasons	No of students (Percentage)
Weakness after blood donation	84 (37.50%)
Fear about blood donation	53 (23.65%)
No one has asked to donate blood	42 (18.75%)
Feels medically unfit	33 (14.75%)
Chances of disease transmission like HIV	12 (5.35%)
Total	224 (100%)

DISCUSSION

This study was conducted to find out the information and inputs from the college students which could be useful in implementing relevant donor recruitments and to introduce strategies for maintaining an adequate and safe blood supply.

A study done by Mortazavi et al^[8] in Zanjan, conducted on 600 students, revealed a higher awareness about the suitable age and a lower awareness about the minimum weight.

The finding in our study was same with the study done by Mortazavi et al, i.e higher awareness about suitable age and lower awareness about the minimum weight.

A study conducted among female African American college students shows 51% were non-donors^[9], a similar study was carried out in Thailand indicated that 89% of students never donated blood.^[10]

A study conducted among youngsters in Sikkim by Shenga et al^[3]. indicated 87.3% had never donated blood.^[3]

The finding in our study (86.16% were non-donors) was similar with the study done by Shenga et al in Sikkim.

In a study, done by Sabu et al^[11] observed that majority of non-donors felt they were medically unfit to donate blood while in other studies,^[8-9] the major reasons for not donating blood were fear about blood donation.

Comparing with the above studies, it was observed that the main reason for not donating blood in our study was perception of weakness after blood donation (37.50%) followed by fear about blood donation (23.65%).

In a study, it was found that about 90% of healthcare students said that they were interested in donating blood if they had known the importance of blood donation. This indicated that proper awareness about blood donation or information on safe blood requirements were not percolated among healthcare students.^[12]

Studies done by Singh et al^[12] and Wake et al^[13] found that planned awareness and motivational programmes among students on blood donation could bring lot of positive changes in voluntary blood donation.

In this study done by Sanayaima et al^[14] it was observed that only 33.1% of the students had adequate knowledge about blood safety and donation. However, another study^[15] reported that 75% of an urban population knew it correctly.

Compared with the above studies, in our study, majority of students had knowledge about importance of blood donation and need of blood but few of them donated the blood. It might be due to misbeliefs about blood donation. Therefore, specific campaigns are needed to eliminate misbeliefs and reinforce motivational perceptions among these students to convert into actual voluntary donation.

CONCLUSION

Educational Institutes across India have plenty of potential blood donors in the form of young and healthy students which can fulfill the demand of safe blood in our country. Only knowledge about blood donation does not lead to blood donation among these students as seen in our study. Therefore, specific campaigns like motivational programmes and media are needed to eliminate their misbeliefs and reinforce motivational perceptions among these students to convert into actual donation.

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