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A STUDY TO ASSESS KNOWLEDGE REGARDING BLOOD DONATION AMONG ADOLESCENT STUDENTS AT SELECTED COLLEGE IN GUWAHATI, ASSAM

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Abstract:

Introduction: Blood donation refers to the process of collecting, testing, preparing and storing blood and blood components, donors are most commonly unpaid volunteers. The shortage of voluntary blood donors is a problem in many countries including India. Many precious lives are lost because of lack of voluntary blood donors. Immediate measures are required to eliminate myths in the community regarding blood donation in order to encourage voluntary donation.

Objectives: To assess the knowledge about blood donation and its benefits among adolescent college students. To find out the association between knowledge of blood donation and selected demographic variables

Methodology: After obtaining formal permission from principle and ethical committee the study was conducted selected college, Guwahati, Assam. Sample were selected by using Non probability purposive sampling technique. The study included 100 adolescents who fulfilled inclusion criteria and 20 questions it took 30 minutes to complete the tool. The data collection procedure was done for a period of 1 week and the data was analyzed by using descriptive and inferential statistics.

Results: The knowledge regarding blood donation among adolescent college students 3 (3%) had adequate knowledge, 26(26%) had moderately adequate knowledge and 71(71%) students had inadequate knowledge.

Conclusion: The study concluded that, majority of adolescent college students had inadequate knowledge regarding blood donation. Hence future researchers encourage the public education and programme which enable public to have accurate knowledge and positive attitude about blood donation.

Keywords: Blood Donation, Knowledge, Adolescent College Students.

Introduction

Blood is described as a connective tissue. It provides one of the means of communication between the cells of different parts of the body and it is composed of a fluid part called plasma and a cellular mass called Corpuscles. The cell mass is also called as formed elements. Blood maintains the internal equilibrium; the excess heat produced is taken up by the blood and distributed throughout the body. Thus body helps in the regulation of body temperature. The different food substances like glucose, proteins, fats, minerals, enzymes etc are stored in a great extent in the blood. The dead cells formed due to confrontation between the WBC and the foreign organisms are taken to sites of disposal.

Health benefits of donating blood are like this reduces the chance of heart disease**.** It has been observed that increase in blond iron level enhances the production of new red blood cells**.** As the blood is withdrawn from the donors body there will be a decreased blood cells, to replenish it immediately new cells will be produced by marrow and this way blood gets refreshed, and helps in fighting Hemochromitosis (genetic disorder), wherein iron accumulates in the body tissue because of improper iron metabolism, this condition may lead to organ damage.

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Blood donation refers to the process of collecting, testing, preparing and storing blood and blood components, donors are most commonly unpaid volunteers. But they may also be paid by commercial enterprises. Blood registry refers to the collection and sharing of the data about donated blood. Knowledge and attitude towards voluntary blood donation among adolescent students in India is eighty two percent of students show positive attitude towards blood donation. However, only 16% of respondents actually ever donated blood voluntarily, among the non donor respondents, physical harm and fear were found to be common reasons for not donating blood.

Need for the study:

Blood banks are the lifeline of hospitals, and their success relies heavily on blood donors. Human blood is a precious resource that's often in short supply, making efficient management crucial to meet demand. Globally, progress is being made towards voluntary blood donation, with 62 countries now relying entirely on this practice, up from 39 in 2002. The Melbourne Declaration's goal of 100% voluntary donation by 2020 has driven this effort. In India alone, nearly 10,000 deaths were attributed to blood-related diseases in 2008, highlighting the need for increased voluntary blood donation. This include the following, 4800 due to anaemia, 1800 due to coagulation defects, 800 due to purpura, 2500 due to other disease, in 2008 blood disease cost the nations economy $10 billion. More than 38,000 blood donations are needed every day and one out of every 10 people admitted in a hospital needs blood. Sickle cell disease affects more than 80,000 people in the U.S, 98% of whom are African American. Sickle cell patients require frequent blood transfusions throughout their lives. More than 1 million new people are diagnosed with cancer each year, many of them will be in need of blood, sometimes daily, during their chemotherapy treatment.

Adolescence is the period where there is transition from childhood to adulthood inculcating good attitude and knowledge towards blood donation. So the researcher felt to take this study to assess the knowledge and attitude of adolescents regarding blood donation and its benefits to provide essential information regarding blood donation there by encouraging voluntary blood donation among adolescents.

Objectives of the study:

1. To assess the knowledge about blood donation and its benefits among adolescent students.
2. To find out association between knowledge of blood donation and selected demographic variables

Hypothesis:

H_1: There will be significant association between knowledge regarding Blood Donation and selected demographic variables.

Delimitations: The study is delimited

- ❖ To adolescent students, studying in selected college.
- ❖ Students who know Assamese and English.
- ❖ The data collection period of one week only.
- ❖ To 100 subjects
- ❖ Available at the time of data collection

Meterials and Methods

Research Approach: A quantitative research approach was used for the present study.

Research Design: The descriptive design was adopted to conduct the present study.

Setting of the study: The study was conducted in a selected college, Guwahati, Assam

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Target Population: In this study target population was adolescent students aged between 16-18 years.

Accessible population: In this study population was adolescent students with ages between 16-18 years studying at selected school both males and females.

Sample: The sample for the present study include100 adolescent students with ages between 16 to 18 years.

Sampling technique: Non probability purposive sampling technique was adopted to assess the level of knowledge regarding blood donation among adolescent students.

Sample size: Sample comprises of 100 adolescent students who fulfill inclusive criteria.

Criteria for sample selection

Inclusion criteria:

The study includes the adolescent students who are

- Between ages 16 to 18 years both male and female
- Studying in the selected college, Guwahati,Assam
- Able to understand, read & write English.
- Willing to participate.
- Available at the time of data collection.
- **Exclusion criteria:** The study excludes the adolescent students who are
- With ages below 16 years above 18 years
- Unable to understand, read & write English.
- Not willing for participation
- Not available at the time of data collection
- **Description of tool:** Based on the objectives of the study, the assessment tool was prepared to gather information from the adolescent students. The tool consist of two sections.

Section-I: It consists of Demographic characteristics of adolescent students which include the variables of age, sex, Religion, Course of study, Year of study, Total family income per month, Type of family, Place of residence, Fathers Occupation, Type of house and Source of information.

Section-II: Included 20 structured questions on knowledge regarding blood donation.

Score interpretation:

Total score was 20 each question carries 1 mark for correct answer and zero for wrong answer.

In the present study categorization of knowledge was done based on the scores by classify the subjects in to 3 groups.

0 – 50% : Inadequate knowledge

51 – 75% : Moderately adequate knowledge

>75% : Adequate knowledge

Content Validity:

The content validity of the tool was obtained from Nursing and Medical experts.. The experts were requested to give their opinions and suggestions regarding “adequacy” and “appropriateness” of the study. After obtaining suggestions from the experts, necessary modification was made in the tool. The modified tool was used for the study.

Reliability Of The Tool:

The reliability of the tool was established by split half method. Obtained ‘r’ value is 0.834. Hence it was statistically determined to be reliable.

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Pilot Study:

Pilot study was conducted among adolescent students at in Vikash Academy. Randomly 10 subjects were selected and assessed for the knowledge with help of questionnaire. Pilot study concluded that it is feasible to conduct on large sample.

Procedure Of Data Collection:

The data collection procedure was done for a period of 1 week after obtaining formal permission from the head master of junior college, data collection was started. Hundred subjects were selected by using purposive sampling technique. Adolescent students who fulfilled the inclusion criteria were included in this study after obtaining informed consent from them and the confidentiality of shared information was assured. For the present study structured questionnaire was used to collect data, 30 minutes was given to complete the questionnaire. Data collection was closed by thanking the participants.

Results: The data was tabulated analyzed and interpreted. The data obtained was mainly classified into sections;
SECTION - I: It deals with frequency and percentage distribution of Demographic characteristics of the adolescent students.
SECTION - II: Level of knowledge regarding blood donation among adolescent.
SECTION - III: It consists of Mean and standard deviation of knowledge scores of adolescent students regarding blood donation.

SECTION -IV: The association between knowledge scores regarding blood donation with the selected variables.

Socio Demographic: In relation to age, 37 (37%) are between 17 - 18 years and 21 (21%) are between 16 - 17 years of age. In relation to sex 63 (63%) were females. In relation to religion, 46 (46%) were Hindus, 29 (29%) were Muslims.; regarding Course of study 70 (70%) were in Bi.PC and, 14 (14%) were in M.P.C and pertaining to family income per month 57 (57%) earn Rs.3000/- per month and 28 (28%) earn Rs 3001- 6000/- per month and 62(62%) belong to nuclear family and 38 (38%) belong to joint family and pertaining to place of residence 67 (67%) reside in urban area and 33 (33%) reside in rural area and regarding occupation 33(33%) were government employees and 29 (29%) were business men and regarding source of information 70 (70%) obtained from mass media, 14 (14%) from magazines.

Section II:

Table- 1: Knowledge Scores Of Adolescent Students On Blood Donation. n=100

Knowledge Score	Frequency (f)	Percentage (%)
Below Average	71	71
Average	26	26
Above Average	3	3

Table 2:

mean and standard deviation

Mean and standard deviation were used to analyze knowledge on blood donation among the adolescent students studying in selected college, Guwahati,Assam

n=100

S.No	Variable	Mean (X)	Standard Deviation (SD)
1.	Knowledge	15.52	6.8

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The data presented in the table 2 shows that mean knowledge is 15.52 and Standard deviation is 6.8.

Table-3: Association of demographic variables of adolescent students with the knowledge on blood donation.

n=100

S.no	Demographic variables	Below average		Average		Above average		Chi square	
		N	%	N	%	N	%	Value	Sign
1.	Age in years								
	a) 16-17 yrs	21	21	3	3	0	0	1.461	
	b) 17-18 yrs	37	37	21	21	3	3	Df=6	*
	c) 18-19 yrs	11	11	2	2	0	0		
	d) 19-20 yrs	2	2	0	0	0	0		
2.	Sex								
	a) Male	8	8	3	3	0	0	3.49	
	b) female	63	63	23	23	3	3	Df=2 0.900	*
3.	Course of study								
	a) Bi.PC	44	44	9	9	0	0	24.34	
	b) M.P.C	12	12	12	12	3	3	Df=6	*
	c) C.E.C	10	10	5	5	0	0	P=	
	d) M.E.C	5	5	0	0	0	0	0.005	
4.	Year of study								
	a) I year	26	26	7	7	0	0	X^2=	
	b) II year	45	45	19	19	3	3	4.93 df=2 P= 0.100 00	*
5.	Residence								
	a) Rural	-	-	28	28	28	26	23.97	
	b) urban	-	-	8	8	8	9	P=7.82	*
	c) slums	-	-	15	15	15	14	df=4	

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Note: **= Significant; *=Non Significant

Table -3 reveals that there was no significant association between level of knowledge and demographic variable such as age, sex, year of study, and however the demographic variable course of study showed significant association with level of significance $p<0.05$.

Recommendations:

Based on the findings, the following recommendations are proposed for future research.

- The study can be conducted in a large sample.
- A study can be done to assess the effectiveness of structured teaching programme on blood donation.

Conclusion:

The following conclusion are drawn from the study majority (71%) of adolescent students had inadequate knowledge and 26% had moderately adequate knowledge and 3% had adequate knowledge. The level of knowledge was influenced by background variable i.e., course of the study. Hence the research hypothesis was rejected.

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