

residence area, religion, type of family, and family income, and the study variable was attitude regarding blood donation. The study was conducted among the undergraduate Engineering Students of SRM University, Kattankulathur. A total of 150 undergraduate engineering students who fulfilled inclusion criteria were selected as samples by adopting non probability purposive sampling technique. The tool consists of two sections; Section A: Demographic data which consist the item for obtaining information about the selected background factors such as age, sex, year, residence, type of family, religion, and family income. Section B: Three-point Likert scale developed by the investigator was used for assessing the attitude of undergraduate students regarding blood donation. A three-point Likert scale consisting of 20 statements with a total score of 60 was used. The three-point Likert scale was framed with a number of statements that would reflect their inner feelings toward blood donation. Reliability of the tool was established using split-half method. The r value of the tool was $r=0.83$ which indicates positive correlation.

Ethical considerations

The study was approved by the Dean of SRM College of Nursing, SRM University, Kattankulathur, Kancheepuram district. Permission was obtained from Director of SRM Engineering College, and the written consent was obtained from the participants. Prior permission for the conduct of the study was obtained from the HOD of concerned department. Consent was obtained from the students, and they were explained about the purpose of the study and ensured that their response will be kept confidentially. Questionnaire was distributed to students. Clarifications were given to students in between to obtain accurate data. On an average, each student took around 5-10 min to complete the tool. The collected data were coded and analyzed using descriptive and inferential statistics.

RESULTS

Table 2 reveals that among 150 engineering students, 10 (6.7%) students had moderately favorable attitude, 140 (93.3%) students had favorable attitude, and none of them had an unfavorable attitude (Fig. 1).

Table 3 reveals that there was a significant association between the level of attitude on blood donation among engineering students and with their demographic variables of the year of study, residential area, type of family and religion. There was no association with respect to other variables.

DISCUSSION

India with a population of over 1 billion is naturally the country which requires a lot of blood to save lives of its citizens. It has been quoted that there is a need for about 8 million units of blood every year in our country. Of this, only half, that is around 4 million units, can be obtained from voluntary blood donors. Rest all comes from replacement blood donation from relatives or paid donors.

It was evident from the present study that the majority of the students (93.35%) had favorable attitude toward blood donation and 6.7% had moderately adequate attitude. None of the subjects have an unfavorable attitude.

At this stage in the development of the transfusion service, the current study tests the very basic nature of the attitude of students to blood donation, in the hope of illuminating the way forward toward emphasizing the vital aspect of many emergency and non-emergency at large scale.

A similar study was conducted by Okpara which probed the attitude of university students to blood donation found that 80% of the respondents were prepared to donate freely. Similarly, in a study among Dhaka University students [33], 93% of the respondents objected to monetary incentives. Similarly, the attitude of the students in this study was 90% positive attitude toward blood donation [8].

Kriebardis A.G also conducted a similar study among health professionals regarding voluntary blood donation in Greece found that 97% of respondents were aware of the shortage of blood and responded correctly to most questions regarding blood donation and transfusion. The results also showed that women and young people donate the least in Greece and only 17% were volunteers [9].

It was also revealed that there was a significant association between the levels of attitude on blood donation and year of study, residential area, and type of family and religion. The result of the present study was consistent with the study done by Ownby (1999) which reported that rate of donation increased with age and education, and the results of another cross-sectional study in India by Singh (2002) concluded that donor status was significantly associated with age, sex, literacy

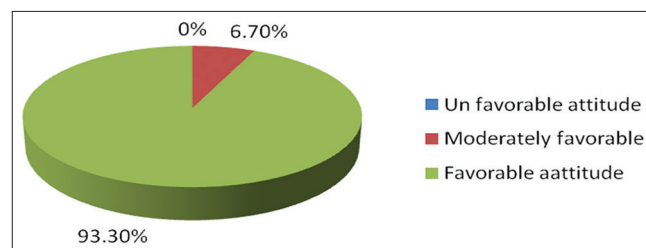


Fig. 1: Percentage distribution of level of attitude regarding blood donation among engineering students

Table 1: Frequency and percentage distribution of engineering students n=150

Demographic variables	Engineering students	
	Number	(%)
Age (years)		
18	50	(33.3)
19	39	(26.0)
20	36	(24.0)
>20	25	(16.7)
Sex		
Male	64	(42.7)
Female	86	(57.3)
Year of study		
I year	50	(33.3)
II year	58	(38.7)
III year	42	(28.0)
Residential area		
Rural	30	(20)
Urban	120	(80)
Type of family		
Nuclear	110	(73.3)
Joint	36	(24)
Extended	4	(2.7)
Religion		
Hindus	113	(75.3)
Christians	18	(12)
Muslims	10	(6.7)
Others	9	(6)
Income		
Rs. 10000-20000	29	(19.3)
Above Rs. 20000	121	(80.7)

Table 2: Assessment of the level of attitude regarding blood donation among engineering students n=150

Level of attitude	Number (%)
Un favorable attitude	0 (0)
Moderately favorable attitude	10 (6.7)
Favorable attitude	140 (93.3)

Table 3: Association between the levels of attitude regarding blood donation among engineering students with their demographic variables n=150

Demographic variables	Level of attitude, n (%)			Chi-square test
	Un favorable	Moderately favorable	Favorable	
Age (years)				
18	0 (0)	4 (40)	46 (32.9)	$\chi^2=2.80$ p=0.42 NS
19	0 (0)	4 (40)	35 (25)	
20	0 (0)	2 (20)	34 (24.3)	
>20	0 (0)	0 (0)	25 (17.8)	
Sex				
Male	0 (0)	7 (70)	57 (40.7)	$\chi^2=3.27$ p=0.07 NS
Female	0 (0)	3 (30)	83 (59.3)	
Year of study				
I year	0 (0)	7 (70)	43 (30.7)	$\chi^2=6.52$ p=0.038 Significant
II year	0 (0)	2 (20)	56 (40)	
III year	0 (0)	1 (10)	41 (29.3)	
Residential area				
Rural	0 (0)	6 (5)	50 (25)	$\chi^2=6.02$ p=0.015 Significant
Urban	0 (0)	5 (50)	115 (82.2)	
Type of family				
Nuclear	0 (0)	3 (30)	107 (76.4)	$\chi^2=2.47$ p=0.002 Significant
Joint	0 (0)	7 (70)	29 (20.7)	
Extended	0 (0)	0 (0)	4 (2.9)	
Religion				
Hindus	0 (0)	3 (30)	110 (78.6)	$\chi^2=24.31$ p=0.000 Significant
Christians	0 (0)	6 (60)	12 (8.6)	
Muslims	0 (0)	1 (10)	9 (6.4)	
Others	0 (0)	0 (0)	9 (6.4)	
Monthly income				
Rs 10000-20000	0 (0)	4 (40)	25 (17.9)	$\chi^2=3.03$ p=0.21 NS
>Rs 20000	0 (0)	6 (60)	115 (82.1)	

status, occupation, and knowledge about other aspects of blood donation [10].

One can almost say that blood is that magic potion which gives life to another person. Although we have made tremendous discoveries and inventions in science, we are not yet able to make the magic potion called blood. Human blood has no substitute. The requirement of safe blood is increasing, and regular voluntary blood donations are vital for blood transfusion services.

CONCLUSION

The study concluded that majority of the undergraduate engineering students had (93.3%) good attitude toward blood donation. There was a significant association between the levels of attitude on blood donation among engineering students with their demographic variables such as year of the study, residential area, and type of family and religion. Hence, the investigator felt that specific campaigns are needed to convert favorable attitude toward blood donation into regular voluntary blood donation. Nurses need to take up the responsibilities to create awareness among the students about blood donation. The school health nurse can utilize educational material for teaching higher secondary school children and inspire students to donate blood on attaining the

age of 18. The nursing curriculum should provide an opportunity to conduct blood donation education program in various settings.

Community health nurse should play a vital role in sensitization of the population using motivational advocacy messages, introducing culturally relevant social incentives to voluntary donors, launching promotional programs with an emphasis on the elimination of certain indigenous misconceptions regarding blood donation.

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CONFLICTS OF INTEREST

The authors have no conflicts of interest to declare.

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