

A study to assess the effectiveness of structured teaching programme on attitude regarding blood donation among selected students in centre of excellence government Degree College, Sanjauli, Shimla, Himanchal Pradesh. 2019-2021

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Abstract

Blood donation is an integral and essential part of our health care system without which many of the medical procedures could not take place. Blood can save millions of lives, and young people are hope or future of safe blood. Blood Donation is important for proper and adequate supply of blood as it is the only source to fulfil the need of the people. The aim of the study was to assess the attitude regarding blood donation among student of college. Quantitative research approach was used with pre-Experimental one group-pre-test design was used with for the study. Study population was B.A. 1st year student. Non-probability convenient sampling technique was used to select the sample. The sample size was 80 political science students. The data collected by 5 point Likert scale. The result of the study shows that the mean Post-test attitude score 71.80 was significantly higher than the mean pre-test attitude score 59.61 as evident by paired t-test 39.61 (p value-0.00 **) at 0.05 level of significance. It showed that structured teaching programme was found effective to change the attitude of the students. The conclusion of the study revealed that structured teaching programme was highly effective to change the attitude regarding blood donation so the educational programme should be used as an effective teaching strategy to change the attitude of the students.

Keywords: assess, attitude, effectiveness, structural teaching programme, blood donation, students

Introduction

Blood Donation is a life Donation. Blood donation made by us saves many lives. We realize this when one of our own blood struggles between life and death. At that time, we wake up from sleep and struggle to arrange blood to save it. Blood donation is Mahadan. Blood donation is the most valued service to mankind. Nothing is comparable to the preciousness of human blood. The gift of blood is the gift of life. There is no substitute for human blood. Blood cannot be manufactured; it can only come from generous donors. The blood cells are mainly red blood cells also called RBCs or erythrocytes, white blood cells also called WBCs or leukocytes and platelets also called thrombocytes. Human body has approximately 5.5 liters of blood of which only 350ml-450ml of blood is taken depending upon weight of donor. The withdrawn blood volume is restored within 24 hours and the haemoglobin and cell components are restored in 2 months. Therefore, it's perfectly safe to donate blood every three months

Blood had increase day by day because more than 1200 road crashes occurring every day in India, 60 million trauma induced surgeries are performed in the country every year. The 230 million major operations, 331 million cancer related procedures like chemotherapy and 10 million pregnancy complications all require blood transfusion.



Fig 1: Depicts Blood Donation Motto

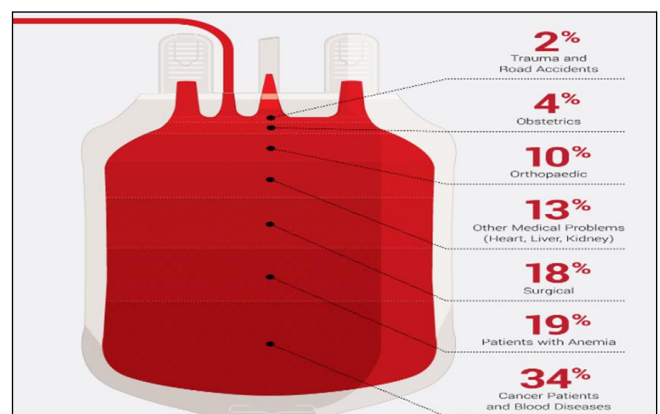


Fig 2: Depicts Need of blood

In many countries, now a days every year our nation requires about 5 Crore units of blood, out of which only a meager 2.5 Crore units of blood are available. More than 38,000 blood donations are needed every day. A total of 30 million blood components are transfused each year. Young people have been at the forefront of activities and initiatives aimed at achieving safe blood supplies through voluntary, non-remunerated blood donations. Blood can save millions

of lives, and young people are the hope of future of a safe blood supply in the world. Blood donation is a major concern to the society as donated blood is life saving for individuals who need it. The WHO advocates that 3%-5% of the population should donate blood every year. This would be the ideal rate for maintaining a country's stock of blood and blood products at acceptable level. Donation is a social responsibility the donor donating blood as it will be used in saving lives of his fellow beings. So, today's donor may be tomorrow's recipient. Some medical emergencies have become heavily dependent on replacement blood donations which are not only unsafe but also a way of exploiting patients and their families. The availability of blood in blood bank is in the good amount. But there are many formalities for issuing blood. People hardly have accessed for blood. People die because of unavailability of blood at the needed hours. Some people have myths regarding blood donation such as it causes fatigue, it reduces blood in the body and it is a painful process. This motivates the researcher to change the attitude regarding blood donation among college students and also want to dispel the myth regarding blood donation so that this may help to reduce all these difficulties up to some extent. With the help of this study researcher create awareness regarding blood donation and motivate the people to donate more and more blood. The significant number of deaths could be reduced if people donate blood regularly and voluntarily. So, the youth are educated regarding blood donation for the prevention of mortality rate due to shortage of blood. Increase in the level of awareness regarding blood donation is the highest priority of all blood transfusion centers. The initial step for achieving this goal is to perform comprehensive studies measuring the current situation of awareness, attitude, beliefs, of the population towards blood donation. From researcher experience, it was seen that due to lack of availability of blood, people face many difficulties. By the time the blood is made available to the patient, the condition worsens and may prove to be fatal. Reflecting back to short experience where researcher during clinical duty found a patient with severe trauma who was in immediate need of blood, then an NGO arranged a donor, but the donor couldn't reach on time, and the patient passed away. Here it is concluded that majority of Indian population comprise of young generation who need to be educated regarding blood donation. The attitude of college students is crucial to know in order to aid large number of blood donation to meet the rising need of blood so the researcher is interested to assess the attitude regarding blood donation. By keeping all this in mind the researcher felt that there is a need to assess the attitude regarding blood donation among student.

Material and Method

It is the significant part of any research study, which enables the researcher to project a blue print of the research understanding. The research methodology includes the strategies to be used to collect and analyse the data to accomplish the research objectives. The methodology of research indicates the general pattern organizing the

procedure for gathering valid and reliable data for investigation. It deals with the description of methodology and different steps, where taken for gathering and organising data for investigation. It includes research approach, research design, the setting, the population, and sample, and sampling techniques, development and description of tool, procedure for data collection and the plan for data analysis.

Research design selected for the study was pre-experimental one group Pre-test and Post-test design. The study was conducted at Centre of Excellence Government Degree College, Sanjauli, Shimla Himachal Pradesh (2021). The sample size was 80 Political Science students at Centre of Excellence Government Degree College, Sanjauli, Shimla. With the extensive review of literature, Guide's opinion discussion with the experts and with the researcher's personal and professional experience, 5-point Likert scale were developed to assess the effectiveness of structured teaching programme on attitude regarding blood donation among students. In this present study '5-point Likert scale' were developed to assess the attitude regarding blood donation among students. The tool for the data collection consists of two parts. Part I: Demographic variables is used to collect data about certain characteristics of sample population. Part II: 5-point Likert scale were developed to assess the attitude of students regarding blood donation. Validity of tool was established by experts from nursing field for content. The reliability of the tool was determined by using the Split- half method & tool was found to be highly reliable. The r value calculated was $r=0.86$, hence the tool was considered highly reliable for proceeding with the main study. The ethical approval was conducted from the Principal, research & ethical committee of Shimla Nursing College, Shurala. The written permission was taken from the Principal of Centre of Excellence Government Degree College, Shimla for conduct the study. The purpose and detail of the study was explained to the students. Written consent was taken from the students. Data collection was conducted during the free time without interrupted of study. Data collection will be carried out by using developed and validated 5-point Likert scale. Assurance was given to the study students regarding the confidentiality of the data collected. The tool for the data collection was consist of three phases. Phase I: Assessed the attitude regarding blood donation by conducting pre-test on dated 3 September 2021 among students of Centre of Excellence Government Degree College, Shimla. Phase II: that Structured Teaching Programme (STP) was administered to the students on dated 4 September 2021 among students of Centre of Excellence Government Degree College, Shimla. Phase III: Post-test was conducted by the researcher after one week i.e., on 11 September 2021 among students of Centre of Excellence Government Degree College, Shimla. After the collection of whole data from the students, researcher was thankful to the s and concerned authority for their full cooperation.

Result

Section-A findings of demographic variables among students

Table 1: Frequency and percentage distribution among students based on demographic variables such as Age, Gender, Religion, Marital status, father's qualification, mother's qualification, type of family, dietary pattern, knowledge regarding blood donation, Source of information regarding blood donation, Have you ever donated Blood

N=80

Sr. No	Demographic variables	Frequency (f)	Percentage (%)
1.	Age		
	18-21 years	77	96.3%
	22-23years	3	3.8%
	24-26years	-	-
	More than 26	-	-
2.	Gender		
	Male	34	42.5%
	female	46	57.5%
3.	Religion		
	Hindu	80	100%
	Muslim	-	-
	Christian	-	-
	Sikh	-	-
	others	-	-
4.	Marital status		
	Unmarried	80	100%
	Married	-	-
	Divorced/ Separated	-	-
	Widow/ widower	-	-
5.	Father's qualification		
	No formal education	5	6.3%
	Primary education	12	15%
	Secondary education	35	43.8%
	Graduate	18	22.5%
	Other	10	12.5%
6.	Mother's qualification		
	No formal education	8	10%
	Primary education	14	17.5%
	Secondary education	40	50%
	Graduate	15	18.7%
	Other	3	3.8%
7.	Type of family		
	Nuclear	41	51.3%
	Joint	36	45.0%
	Extended	3	3.8%
8.	Dietary Pattern		
	Vegetarian	56	70.0%
	Non-vegetarian	3	3.8%
	Eggetarian	1	1.3%
	Both a) & b)	20	25.0%
9.	Knowledge regarding blood donation		
	Yes	73	91.3%
	No	7	8.75%
10.	Source of information regarding blood donation		
	Family members	17	21.3%
	Peer group	1	1.3%
	Health care personnel	7	8.8%
	Mass media (TV, Internet)	39	48.8%
	Other	9	11.3%
	Nil	7	8.8%
11.	Have you ever donated Blood		
	Yes	05	6.3%
	No	75	93.8%

Table 1: Showed the frequency and percentage distribution of demographic variables in terms of age, Gender, Religion, Marital status, father's qualification, mother's qualification,

type of family, dietary pattern, knowledge regarding blood donation, Source of information regarding blood donation, Have you ever donated Blood.

1. Depicts bar diagram regarding percentage distribution among students as per Age

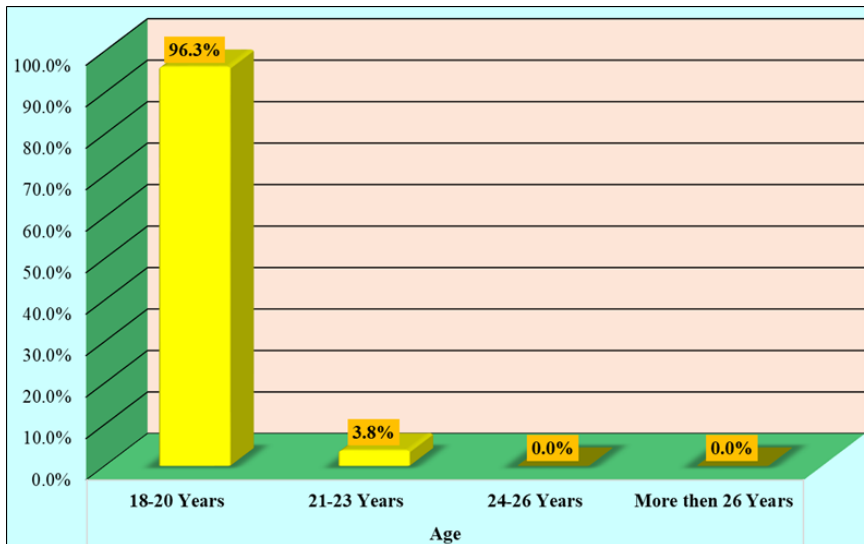


Fig 1: reveals that majority of student’s i.e., 77 (96.3%) were in age of 18-20 years, 3 (3.8%) were in age of 22-23 years

2. Depicts bar diagram regarding percentage distribution among students as per Gender

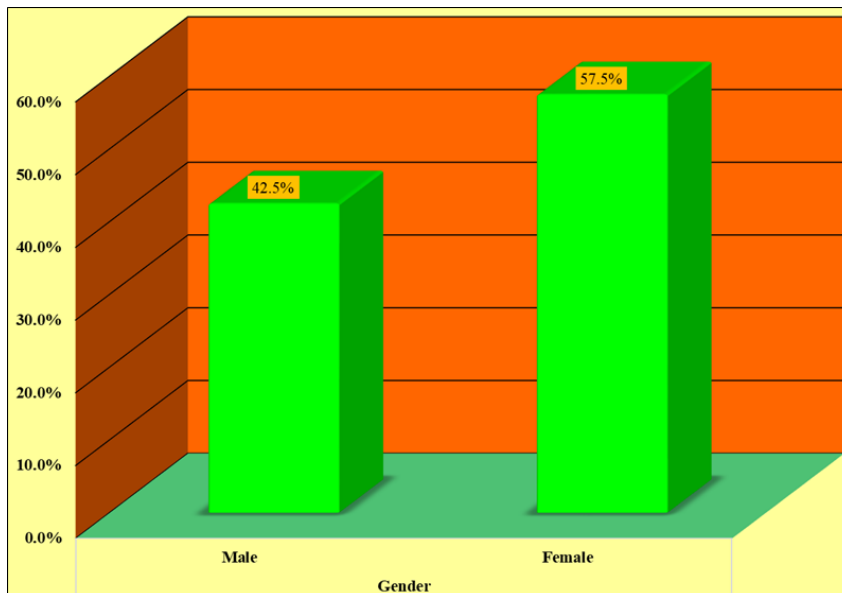


Fig 2: With regards to age, in term of gender majority of students i.e., 46 (57.5%) were in female and 34 (42.5%) were male

3. Depicts bar diagram regarding percentage distribution among students as per Religion

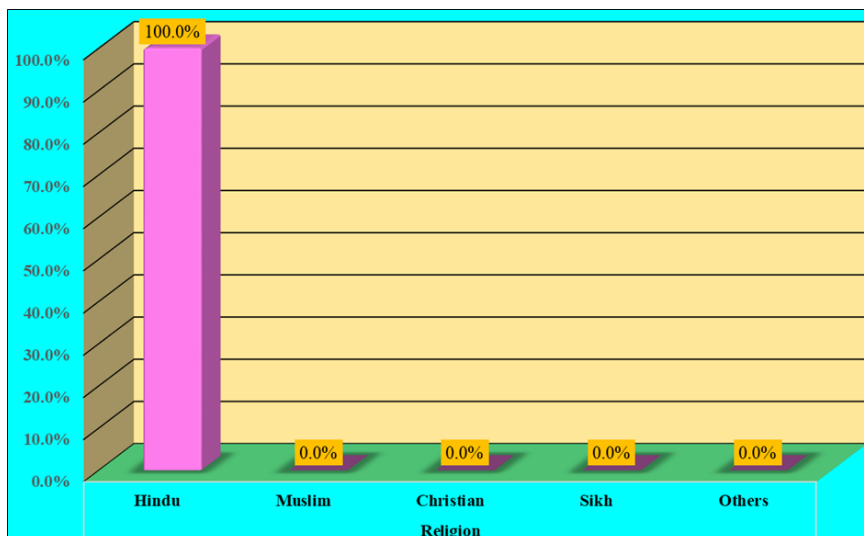


Fig 3: With regards to religion all were Hindu i.e., 80 (100%)

4. Depicts bar diagram regarding percentage distribution among students as per marital status

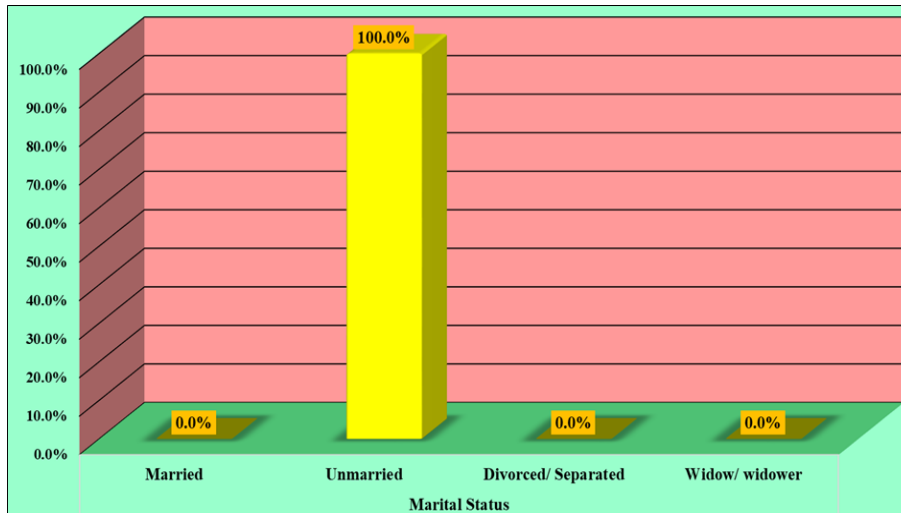


Fig 4: On the basis of marital status majority of students i.e., 80 (100%) were unmarried

5. Depicts bar diagram regarding percentage distribution among students as per father’s qualification.

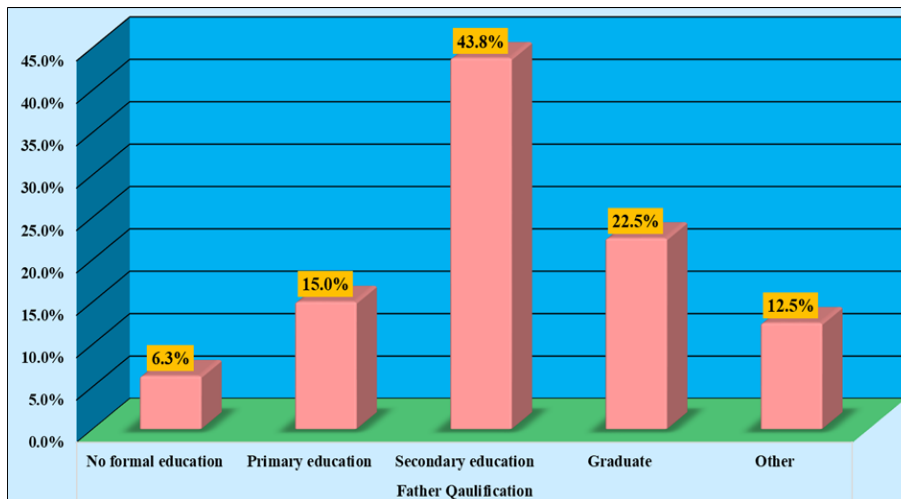


Fig 5: With regards to father’s qualification, majority of students i.e., 35 (43.8%) were in secondary education, 18 (22.5%) were in graduate, 12 (15%) were in primary education, 10 (12.5%) were in other education, 5 (6.3%) were of no formal education

6. Depicts cone diagram regarding percentage distribution among students as per mother’s qualification.

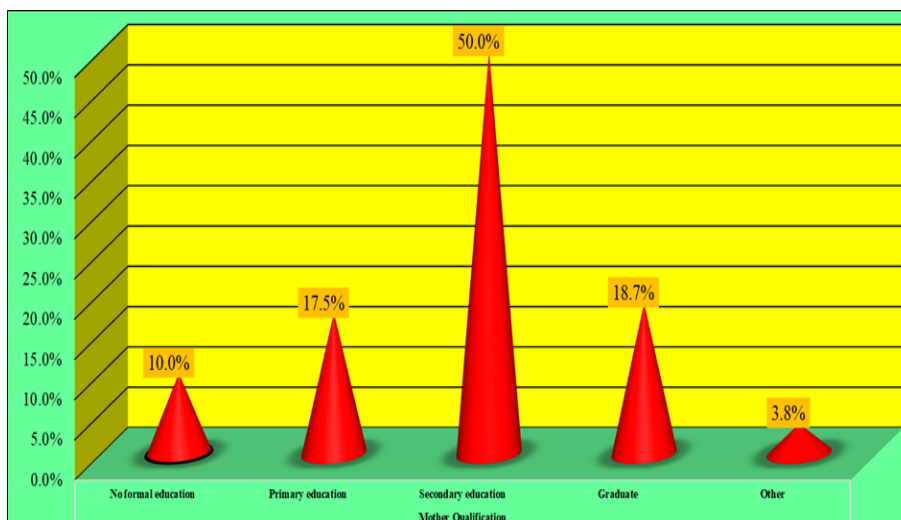


Fig 6: In terms of mother’s qualification majority of students 40 (50%) were in secondary education, 15 (18.5%) were in graduate, 14 (17.5%) were in primary education, 8 (10%) were in no formal education, 3 (3.8%) were of other education

7. Depicts bar diagram regarding percentage distribution among students as per type of family.

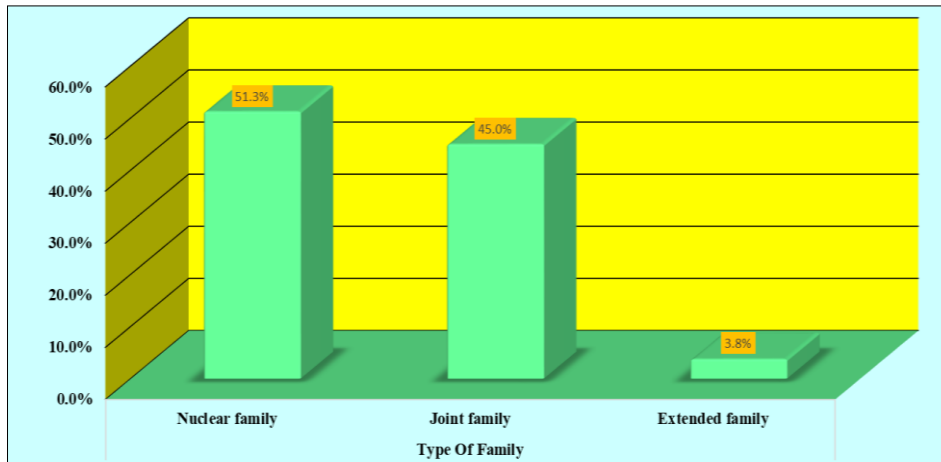


Fig 7: With regards to type of family, majority of the students 41 (51.3%) were having nuclear family, 36 (45.0%) were in joint family and 3 (3.8%) were of extended family

8. Depicts bar diagram regarding percentage distribution among students as per dietary pattern.

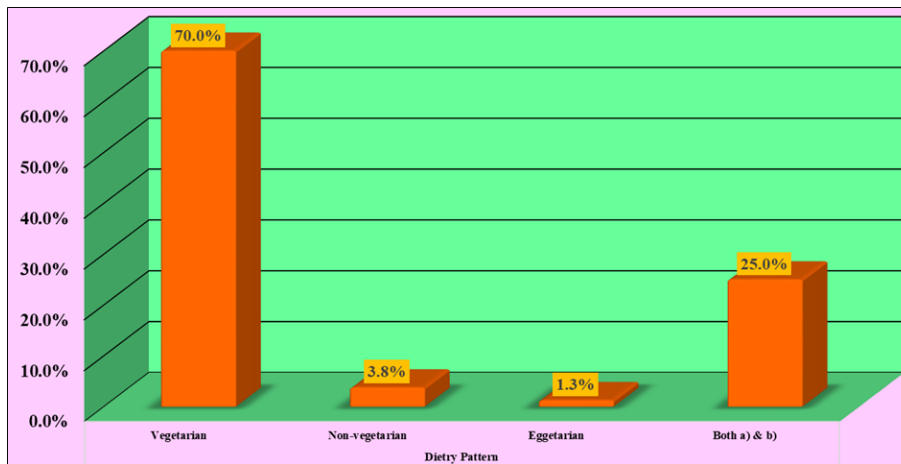


Fig 8: With regards to dietary pattern, majority of students 56 (70%) were of vegetarian, 20 (25%) were in vegetarian and non-vegetarian, 3 (3.8%) were in non-vegetarian, 1 (1.3%) were in eggetarian

9. Depicts cylindrical diagram regarding percentage distribution among students as per knowledge regarding blood donation.

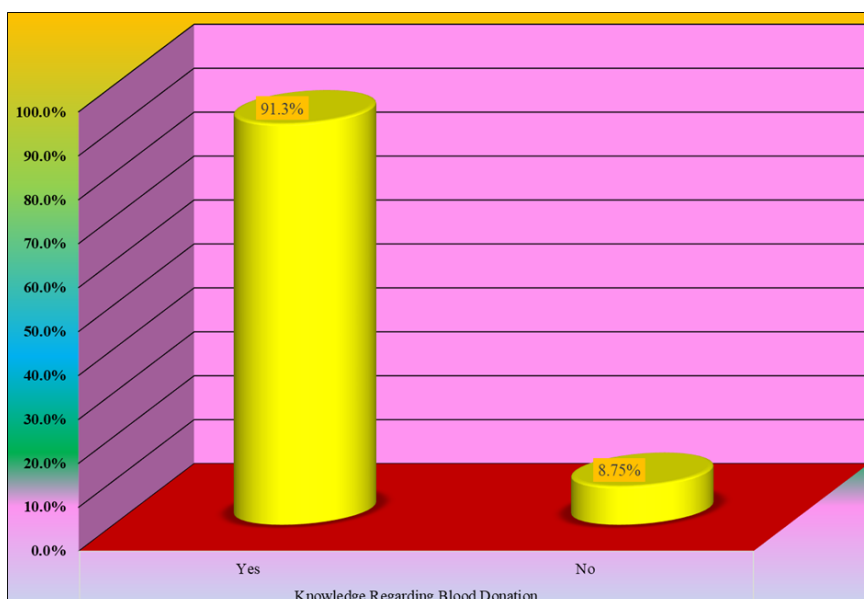


Fig 9: With regard to prior knowledge regarding blood donation, majority of students i.e., 73 (91.3) were having prior knowledge regarding blood donation, i.e., 7 (8.75%) were having no knowledge regarding blood donation

10. Depicts bar diagram regarding percentage distribution among students as per source of information regarding blood donation.

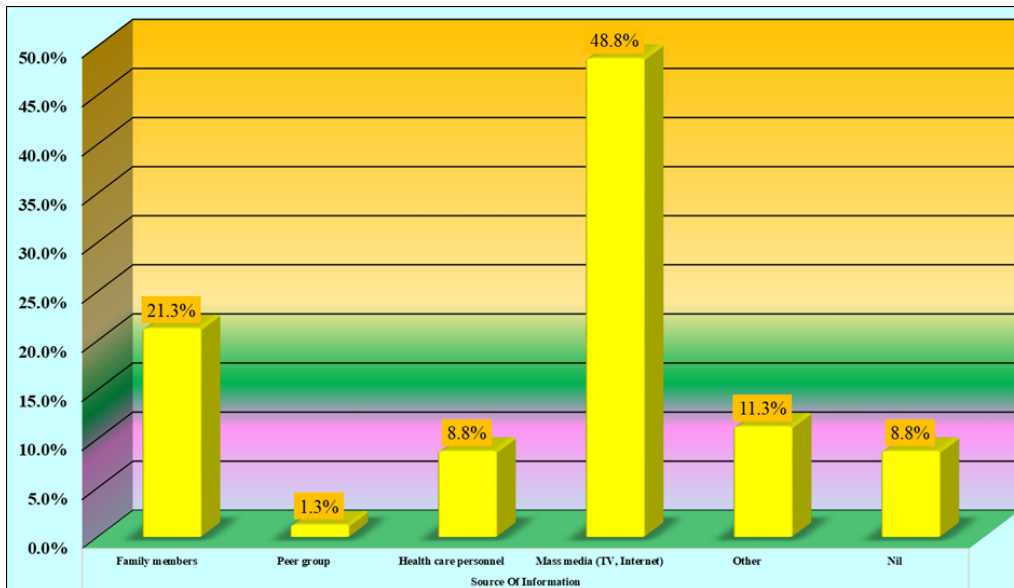


Fig 10: With regard to source of information, regarding blood donation the majority of student i.e., 39 (48.8%) were from mass media (TV, Internet), 17 (21.3%) were from family members, 9 (11.3%) were from other source, 7 (8.8%) were from health care personnel and 7 (8.8%) were from nil

11. Depicts pie diagram regarding percentage distribution among students as per have you ever donated blood.

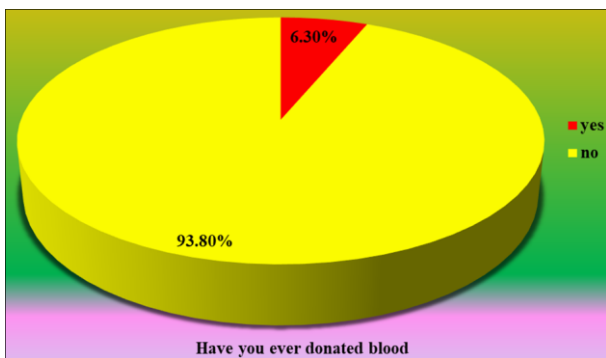


Fig 11: In terms of donated blood 75 (93.8%) have never donated blood, 5 (6.3%) had donated blood

Section B: Findings related to assessment of the pre-test and post-test attitude scores regarding blood donation among students

Table 2: Depicts Frequency and percentage distribution of Pre-test attitude scores among students

N=80

Sr. No	Level of attitude	Range of Attitude	Frequency (f)	Percentage (%age)
1	Unfavourable attitude	18-42	-	-
2	Moderately favourable Attitude	43-66	71	88.75%
3	Favourable attitude	67-90	9	11.25%

Minimum marks=18 Maximum marks=90

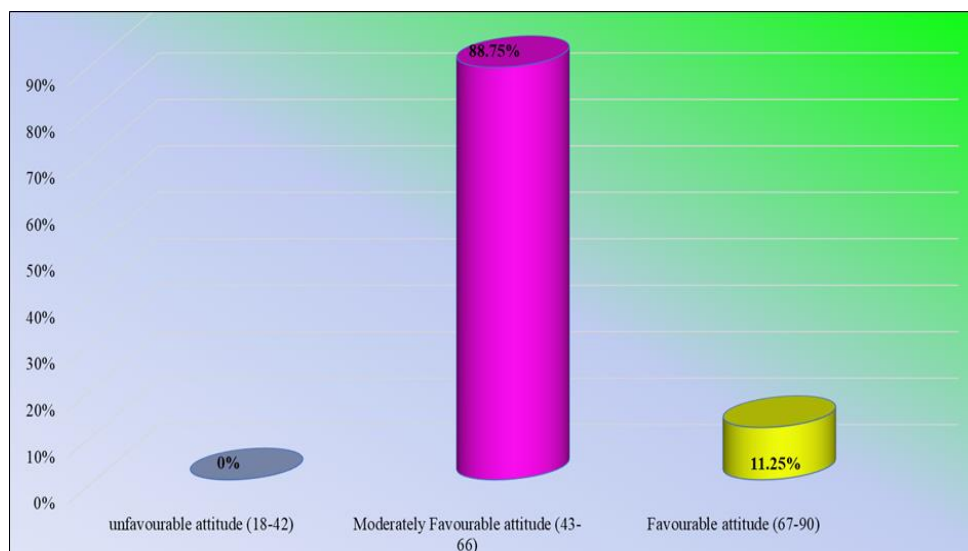


Fig 12: Pre-Test Attitude Scores

Pre-test: Majority of students 71 (88.75%) had moderately favourable attitude, 9 (11.25%) had favourable attitude and

none of them had unfavourable attitude.

Table 3: Depicts Frequency and percentage distribution of Post-test Attitude scores among students

N=80				
Sr. No	Level of attitude	Range of Attitude	Frequency (f)	Percentage (%age)
1	Unfavourable attitude	18-42	-	-
2	Moderately favourable Attitude	43-66	4	5%
3	Favourable attitude	67-90	76	95%

Minimum marks=18 Maximum marks=90

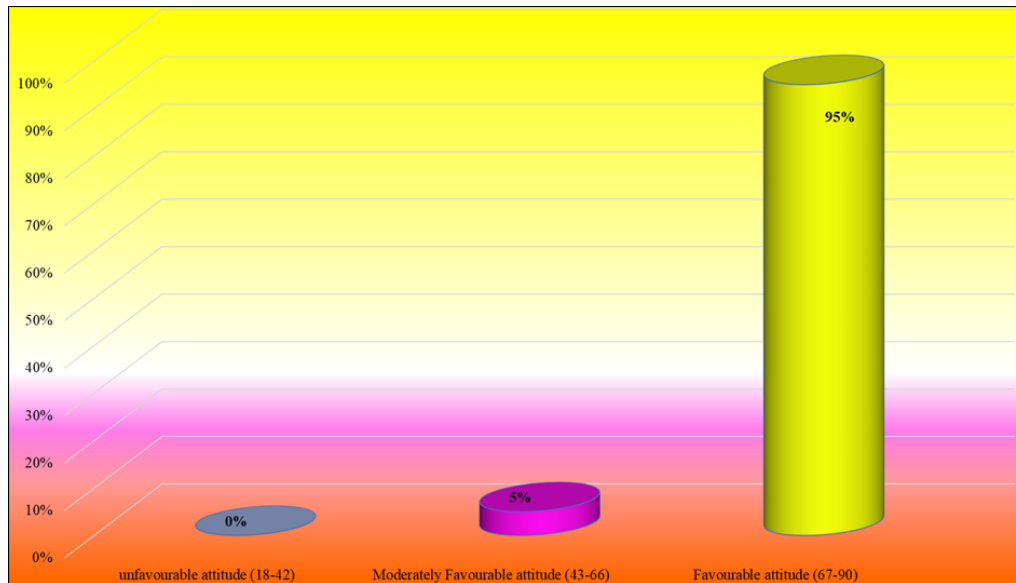


Fig 13: Post-Test Attitude Scores

Post-test

Majority of students 76 (95%) had favourable attitude, 4 (5%) had moderately favourable attitude and none of them had unfavourable attitude.

Section C: findings related to comparison of pre-test and post-test attitude scores among students to determine effectiveness of STP

Table 4: Depicts Comparison of Pre-test and post- test attitude scores to determine the effectiveness of structured teaching programme regarding blood donation among students

N=80									
Group	Pre-test attitude scores		Post-test attitude scores		M.D.	df	Paired t-test		
	Mean	SD	Mean	SD			t-test	T-value	P value
Research Group	59.61	4.064	71.80	4.193	12.19	79	39.61	1.99	0.00**

It concluded that mean Post-test attitude scores 71.80 was significantly higher than the mean pre-test attitude scores 59.61 as evident by paired t-test 39.615 at 0.05 level of significance. It showed that structured teaching programme was effective to change the attitude among students.

Discussion

This chapter concentrates on findings derived from the statistical analysis.

Blood is that magic portion which gives life to another person. Blood can save millions of lives, and young people

are the hope of future of a safe blood supply in the world. Blood is categorized into four main groups (types of blood) – A, B, AB and O. The blood group is determined by the genes which we inherit from our parents. Human body has approximately 5.5 liters of blood of which only 350ml-450ml of blood is taken depending upon weight of donor. The withdrawn blood volume is restored within 24 hours and the haemoglobin and cell components are restored in 2 months. The objective of the study were: First objective was to assess the attitude regarding blood donation: The pre-test score was 59.61 and it revealed that, majority of students 71 (88.75%) had moderately favourable attitude, 9 (11.25%) had favourable attitude and none of them had unfavourable attitude. Second objective was to develop and administered the structured teaching program on attitude regarding blood donation among students: Researcher administered structured teaching programme regarding blood donation among students. After administration of structured teaching programme, attitude was changed regarding blood donation among students. Third objective was to evaluate the effectiveness of structured teaching programme on attitude regarding blood donation among students: In pre-test mean attitude score was 59.61 and post-test attitude scores was 71.80. This result showed that the structured teaching programme was significantly effective to change the attitude regarding blood donation among students. Nurse educator have a great role to create awareness among a student’s regarding blood donation in order to maintain a regular blood supply. Some people have myths regarding blood donation such as it causes fatigue, it reduces blood in the body and it is a painful process so with the help of education researcher change the attitude regarding blood donation

among students. The study finding implies that the educational programs can be conducted by the health personnel both in the college students and in the community area, which will help to prevent the shortage of blood in India. Nilesh Rawal (2016) conducted a pre-experimental study on Health Awareness on Knowledge and Attitude Regarding Blood Donation among Degree Students of Selected Colleges of Vadodara District. The aim of this study to assess knowledge and attitude of blood donation among degree student with the help of health awareness programme. The sample size was 100 and the sample technique was non-probability Convenience sampling technique. Result showed that the, In the post test mean score among staff nurse's knowledge regarding Blood donation was 14.40 ± 1.595 higher than pre-test mean score 10.31 ± 2.481 among degree students regarding blood donation, the mean post-test knowledge scores (14.40) was higher than the mean pre-test knowledge scores (10.31). Hence proved that there exists a positive correlation between knowledge and attitude. Conclusion of the study findings revealed that health awareness programme was highly effective in improving knowledge and attitude of blood donation in under graduate students.

After reviewing the literature data was collected and analysed. A pre-test was conducted to assess the previous attitude regarding blood donation among students. After a day structured teaching programme regarding blood donation among students was administered as intervention and thereafter post test was conducted after a week and the result was then analysed on the basis of these. The finding shows that total post-test score was higher than the pre-test score and there was a much difference in the attitude score of students after pre-test attitude scores majority of students 71 (88.75%) had moderately favourable attitude, 9 (11.25%) had favourable attitude and none of them had unfavourable attitude and after the post-test, attitude scores majority of students 76 (95%) had favourable attitude, 4 (5%) had moderately favourable attitude and none of them had unfavourable attitude. The result showed that structured teaching programme was found effective to change the attitude regarding blood donation among students.

Conclusion

The conclusion of the study revealed that the structured teaching programme regarding blood donation was found effective to change the attitude regarding blood donation among students.

Reference

1. Blood Donation, Rakatdaan h Mahadan, Web dunia Hindi [Internet], 2021. Available from: <https://hindi.webdunia.com/disease>.
2. The gift of blood is the gift of life [Internet]. Gulf-Times, 2019, [cited 2021 Feb 5]. Available from: <https://gulf-times.com/story/634054>
3. Blood. In: Wikipedia [Internet], 2021. [cited 2021 Feb 5]. Available from: <https://en.wikipedia.org/w/index.php?title=Blood&oldid=1002502560>
4. Donating Blood Can Save Your Life! HHP, LLC,2021:(480)448-0266. [Internet]. Home Hazard Prevention, LLC. [cited 2021 Feb 24]. Available from: <http://homehazardprevention.com/donating-blood-is-healthy/>
5. Patel1 B, Patel1 M, Vankar1 P, Rabari1 R, Patel1 R, Patel1 S, *et al.*. A Study to Assess the Knowledge and Attitude Regarding Blood Donation among Undergraduate Nursing Students of Selected Colleges of Anand District. *International Journal of Psychiatric Nursing*,2020;9:6(2):12-20.
6. <https://www.fix.com/blog/your-guide-to-blood-donation/> [cited 2021 Feb 24].
7. Why Is There A Blood Shortage In India [Internet]. [cited 2021 Feb 5]. Available from: <https://www.ndtv.com/health/why-is-there-a-blood-shortage-in-india-1712012>
8. Shidam U, Lakshminarayanan S, Saurabh S, Roy G. knowledge and attitude regarding blood donation in rural Puducherry, India. *National Journal of Community Medicine*,2015;31:6:64-8.
9. Friends2 support. World's Largest Voluntary Blood Donors Database, India blood donors, Indian Blood donors a click away: [Internet]. [cited 2021 Feb 6]. Available from: <https://www.friends2support.org/inner/about/blood.aspx>
10. Rawal Nitesh. Health Awareness on Knowledge and Attitude Regarding Blood Donation Among Degree Students of Selected Colleges of Vadodara District. *Indian journal of applied research*,2016;6(5):774-775.
11. D v, s sd. to assess the effectiveness of STP (structure teaching programme) on knowledge of blood donation among arts and science students in selected college at vadalur. *International education and research journal*, 2019, 5(3).
12. Alfouzan N. to assess the Knowledge, Attitudes, and Motivations towards Blood Donation among King Abdulaziz Medical City Population, *International Journal of Family Medicine*. Hindawi, 2014, e539670.
13. S. Dr, Parimala, *et al.* "A study to assess the level of knowledge regarding blood donation among students of art & science at selected college, Coimbatore". *International Journal of Medicine and Pharmaceutical Science*, 2020, 10(1).
14. Varghese E, Josemon R, Moncy A, Lj M, Chavan L, Shahare A, *et al.* Assess the knowledge regarding blood donation among students. *Pharma Innovation Journal*,2019;8(5):4314.
15. Bharati Vidyapeeth Deemed University School of Nursing, Pune, Raju MR. A Study to Assess the Knowledge Regarding Blood Donation among the Adolescents of Selected Colleges in Pune City. *Journal of Medical Science and Clinical Research*, 2018, 6(5).
16. K L, B BB. Knowledge and Attitude regarding Blood Donation among Adults. *RGUHS Journal of Nursing Science*, 2018, 8(2).
17. Kanani A, Vachhani J, Upadhyay S, Dholakiya S. A study on knowledge and awareness about blood donation amongst government medical, para-medical and nursing undergraduate students in Jamnagar, Gujarat. *Global Journal of Transfusion Medicine*,2018;3:46.
18. Senior Resident, Department of Pathology, Government Medical College, Patiala, Sharma A. Knowledge about Blood Donation among Undergraduate Students of GMC, Patiala, Punjab, India. *Journal of Medical Science of Clinical Research*,2017;05(04):21057-62.