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A Study to Evaluate the Effectiveness of Planned Teaching Programme on Knowledge regarding Blood Donation among Students Studying in Selected Degree College

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Abstract: ***"If you donate money, you give food! But if you donate blood, you give life!" Introduction: Blood is the most important, precious and valuable gift that a healthy person can offer to a needy individual. It is vitally important for the human beings and plays a lifesaving role in the treatment of thousands of patients daily. The advances of the medical services have improved the treatment of the different disease specially the management of the trauma and the different surgical procedure. As the result the need for the blood donation and transfusion services has been increased many times. The Problem Statements: "A study to evaluate the effectiveness of a planned teaching programme on knowledge regarding blood donation among students studying in Selected Degree Colleges" Objectives of the Study: 1) To assess the knowledge regarding blood donation among students before a planned teaching programme. 2) To prepare and administer the planned teaching programme regarding blood donation. 3) To assess the knowledge regarding blood donation among students after a planned teaching programme. 4) To evaluate the effectiveness of a planned teaching programme on blood donation among students. Material and methods: This pre-experimental one group pre-test post-test study was conducted to evaluate the effectiveness of planned teaching programme on knowledge regarding blood donation among the students studying in selected degree colleges non – probability convenient sampling technique was used for the sample collection of 50 students studying in SMBT Institute of pharmacy Nashik. Structured knowledge questionnaire was used to evaluate effectiveness of planned teaching programme. The present study was evaluative in nature, conducted over the period of Feb 2023 to April 2023 and the conceptual framework used for the study was based on 'MODIFIED VON BERTTLANFFY'S' theory. Result: In the comparison between pre-test and post-test the knowledge score of students was more in post-test than pre-test. Pre-test 3 [6%] subjects had good score regarding blood donation, 5 [10%] subjects had poor knowledge, 42 [84%] subjects had average knowledge. In post-test 0 [0%] subjects had poor knowledge, 01 [2%] subject had average knowledge and 49 [98%] subject had good knowledge regarding blood donation The mean difference of pre-test and post-test is 10.22 and paired t value is 55.72, It shows that effectiveness of our planned teaching programme. Conclusion: This study reveals the main difference between pre-test and post-test. By seeing the results which shows that planned teaching program is helpful to increase knowledge regarding blood donation and awareness about to donate blood.***

Keywords: PTP, blood donation, pre-test, post-test

1. Introduction

Maharashtra currently has a stock of 43000 units and records a demand of 3000 units of blood per day. It's early blood collection dropped from 70.23 lakh blood unit in 2019 to 15.45 lakh blood unit in 2020 due to the covid-19 pandemic. In December 2020, Maharashtra collected 1.94 lakh blood units, the number fell to 1.53 lakh in January and 1.18 lakh in February a 39% drop in 2 months. Mumbai only has 4827 blood units left. Youngsters are the backbone of the country and they tend to bring changes in the world Youngsters not only have ability to gain knowledge rapidly but also, they will influence large numbers of peoples to promote blood donation. An effective planned teaching program me always tends to mould the behaviour of individuals to positive direction. The study involves assessment of knowledge of students regarding blood donation before and after giving planned teaching programme by comparing pre and post - test knowledge regarding blood donation. According to WHO, blood donation by 1% of the population is generally taken as the minimum need to meet a nation's basic requirement for blood. As per the above norm, India's demand for blood is around 13 million blood units (1% of 1.3 billion population.) Several studies and reports indicated varying amounts of annual blood collection in India. In 2007, the total collection in India was reported as 4 million blood units against the need of 10 million blood units (WHO 2008). In 2011, it was reported that Indian blood banks were able to collect 5.5 million blood units against the requirement of 9 to 9.5 million units/ year which is a serious mismatch in the demand and availability (sand Kulkarni 2011) (9). Every year our nation requires about 5 care units of blood, out of which only a 2-score unit of blood is available. There is no substitute for human blood. Every two second someone needs blood. In our country 63.6% of the population is between the age of 15.64 years. The average adult has around 5-6 litters of blood. (Roughly 7-8% of our blood weight) making a blood donation uses about 350 ml of blood. Adults body has an amazing capacity, energy and immunity to replace all the cell and fluid that have been lost during blood donation. There are some basic requirements individual need to fulfil in order to become a blood donor, Age between 18-65 years, Weight at least 50 kg, Haemoglobin level should be minimum 12.5 g/dl require during blood donation. some temporary contraindications for blood donation is fever (about 99.5degree F), pregnancy, recent alcohol intake, body tattooing. Some permanently contraindication for blood donation is Cancer, hepatitis B and C, HIV infection and unexplained weight loss of more than 5 kg over 6 months.

2. Material and Methods

Research approach is the most significant part of any research. The appropriate choice of research study which has been undertaken in order to accomplish the main objectives of the study. The essential question that research design is concerned with is how the study subjects will be brought into the research and how they will be employed within the research design. The research design used in this study was pre-experimental one group pre-test and post-test design. Distribution of Sample based on age revealed that 96% (48) of participants were in the age group 18-20 years, and 4% (2) were in the age group 20-22 year distribution of Sample based on the gender showed that 64% (32) of participants were male and 36% (18) were female. Distribution of sample based on the religion showed that, 90% (45) of participant's were from Hindu religion, 6% (03) from Muslim religion, and 04% (02) from other religion. Distribution of samples based on educational status showed that 82% (41) were studying in 1st year B.tech, 18% (09) were studying in 2nd year B.tech. Distribution of sample based on occupation of father showed that, 52% (26) participant's fathers occupation is other, 24% (12) participant's father is private employee, 18% (09) participant's father is government employee and 06% (03) participant's father is labor. Distribution of the sample based on income of the family showed that, 36% (18) participants belong to less than 10k income, 36% (18) belong to 10,000/- to 40,000/- and others belong to above 40,000/- Distribution of samples based on previous history of blood donation showed that 92% (46) were not donated blood previously and 8% (4) were donated blood previously.

Inferential statistics: Paired 't' test will be used to determine the effectiveness of planned teaching programme on knowledge regarding blood donation. Chi square test will be used to find the association between the post test score with the selected demographic variables.

Statistical Analysis: The present study was conducted to evaluate the effectiveness of the planned teaching programme among students studying in degree college regarding Blood donation. In order to achieve the objectives of the study, one group pre-test post-test design with evaluative approach was adopted. Non probability convenient sampling technique was used to select the sample. The data were collected from 50 participants by using structured knowledge questionnaire. The finding of the study has been discussed with reference to the hypothesis and objective. **H1:** There will be a significant difference in the mean pretest and post-test knowledge score regarding Blood donation among students studying in degree colleges. **H2:** There will be significant association between mean post test score with selected demographic variables.

Section A:
Frequency and percentage distribution of demographic variables of degree students.

Sr.no	Demographic variables	Frequency	Percentage
1	**Age**		
	18-20 year	48	96%
	20-22 year	2	4%
	22-24 year	0	0%
2	**Gender**		
	Male	32	64%
	Female	18	36%
3	**Religion**		
	Hindu	45	90%
	Christian	0	0%
	Muslim	3	6%
	Other	2	4%
4	**Studying in**		
	1St year B. Pharma	41	82%
	2nd year B. Pharma	9	18%
	3rd year B. Pharma	0	0%
	4th year B. Pharma	0	0%
5	**Occupation of father**		
	Labor	3	6%
	Private employee	12	24%
	Government employee	9	18%
	Other	26	52%
6	**Income of family**		
	Below 10,000/-Annum	18	36%
	10,000/- To 40,000/-Annum	18	36%
	Above 40,000/-Annum	14	28%
7	**Previous history of blood donation**		
	Yes	4	8%
	No	46	92%

Distribution of Sample based on age revealed that 96% (48) of participants were in the age group 18-20 years, and 4% (2) were in the age group 20-22 year

Distribution of Sample based on the gender showed that 64% (32) of participants were male and 36% (18) were female. GROUP-C 30. Distribution of sample based on the religion showed that, 90% (45) of participant's were from Hindu religion, 6% (03) from Muslim religion, and 04% (02) from other religion. Distribution of samples based on educational status showed that 82% (41) were studying in 1st year B. Tech, 18% (09) were studying in 2nd year B. Tech. Distribution of sample based on occupation of father showed that, 52% (26) participant's fathers occupation is other, 24% (12) participant's father is private employee, 18% (09) participant's father is government employee and 06% (03) participant's father is labor. Distribution of the sample based on income of the family showed that, 36% (18) participants belong to less than 10k income, 36% (18) belong to 10,000/- to 40,000/- and others belong to above 40,000/-. Distribution of samples based on previous history of blood donation showed that 92% (46) were not donated blood previously and 8% (4) were donated blood previously.

Section B: To prepare and administer the planned teaching programme regarding blood donation.

Graph:
Data from the above graph depicts that in pretest 42(84%) subjects had average knowledge, 05(10%) subjects had poor knowledge and 3(6%) subjects had good knowledge regarding blood donation. Where as in the post-test and 49(98%) subject had good knowledge regarding blood

donation, 1(2%) subject had average knowledge regarding blood donation.

Table: Pre test and post test frequency and percentage

	Pre-Test		Post-Test	
	Frequency	Percentage	Frequency	Percentage
Poor	5	10%	0	0%
Average	42	84%	1	2%
Good	3	6%	49	98%

Data from the above figure depicts that in pre test 42(84%) subjects had average knowledge, 5 (10%) subjects had poor knowledge & 3 (6%) subjects has good knowledge regarding blood donation. In post-test, 49 (98%) subject had good knowledge, 01(2%) subject had average knowledge regarding blood donation.

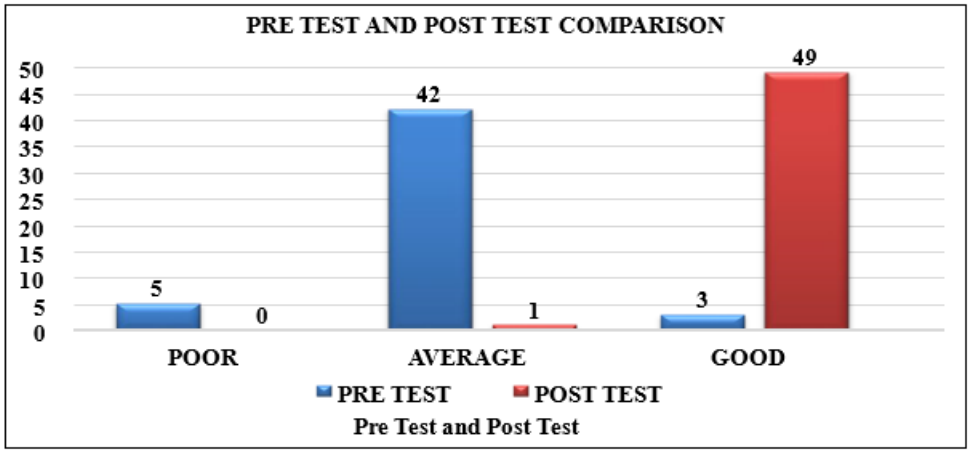
Effectiveness of planned teaching programme on knowledge regarding blood donation

Table 4: Knowledge Assessment

Knowledge Assessment	Mean	Mean Difference	SD	DF	Paired 't' Value	'P' Value
Pre test	14.22	10.22	3.42	49	55.72	0.05
Post test	24.44		2.61			

Significance at 5% level

The paired 't' value was computed to determine the effectiveness of planned teaching programme among degree students studying in degree colleges regarding blood donation. The following research hypothesis was selected. H1: There is significant difference between pre test & post test knowledge score regarding blood donation among degree students studying in degree colleges. Data in table 5 illustrates that the mean post test knowledge score (24.44) was greater than the mean pre test value was (14.22). The mean difference between pre test & post test score was (10.22). Paired t knowledge score was 55.72. Hence research hypothesis H1 was accepted. This indicated that PTP was effective in increasing the knowledge regarding blood donation among degree students studying in degree colleges.



3. Finding of the Study

Distribution of the frequency percentage of demographic variables: Distribution of Sample based on age revealed that 96% (48) of participants were in the age group 18-20 years, and 4% (2) were in the age group 20-22 year. Distribution of Sample based on the gender showed that 64% (32) of participants were male and 36% (18) were female. Distribution of sample based on the religion showed that, 90% (45) of participant's were from Hindu religion, 6% (03) from Muslim religion, and 04% (02) from other religion. Distribution of samples based on educational status showed that 82% (41) were studying in 1st year B.tech, 18% (09) were studying in 2nd year B. Tech. Distribution of sample based on occupation of father showed that, 52% (26) participant's fathers occupation is other, 24% (12) participant's father is private employee, 18% (09) participant's father is government employee and 06% (03) participant's father is labor. Distribution of the sample based on income of the family showed that, 36% (18) participants belong to less than 10k income, 36% (18) belong to 10 k to 14k and others belong to above 14k. Distribution of samples based on previous history of blood donation showed that 92% (46) were not donated blood previously and 8% (4) were donated blood previously. **The first and third objectives was to assess the knowledge of the degree students studying in Degree College regarding Blood donation, before and after the administration of the planned teaching programme.** The data depicts that in pre test 42(84%) subjects had average knowledge, 5(10%) subjects had poor knowledge & 3(6%) subjects has good knowledge regarding blood donation. In post-test, 49(98%) subject had good knowledge, 01(2%) subject had average knowledge regarding blood donation. The overall mean of knowledge regarding blood donation was 14.22 with SD +3.42 in pre-test and + 2.61 in post-test.

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