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"Evaluate The Effectiveness Of Video Assisted Teaching Programme On Knowledge And Attitude Regarding Blood Donation Among Adolescents In Selected Senior Secondary School Of Udaipur, Rajasthan".

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Abstract: *A quasi experimental study to assess the effectiveness of video assisted teaching programme on knowledge and attitude regarding blood donation among adolescents in selected senior secondary schools at Udaipur, Rajasthan. The sample consisting of 120 adolescents of senior secondary school studentswere selected by using simple random sampling technique. The tool comprised of structured and attitude self-administered questionnaire. The pretest was conducted and the video was showed. The post test was conducted after one week. The data obtained were analyzed by using descriptive and inferential statistics. The mean score of post-test knowledge 18.50 (66.01%) and attitude 34.5(90.97%) were apparently higher than the mean score of pre-test knowledge 10.55 (37.68%) and attitude 28.57(71.43%), suggesting that the video assisted teaching programme was effective in increasing the knowledge and attitude of the senior secondary school adolescents regarding blood donation. The mean difference 7.95 and 5.93 between pre-test and post-test knowledge and attitude score of adolescents of senior secondary school was found to be significant.*

Key words: *effectiveness, video assisted teaching programme, adolescents, blood donation, one group pre – test post – test, quasi experimental study*

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I. Introduction

The constancy of the composition of the blood is made possible by the circulation, which conveys blood through the organs that regulate the concentrations of its components. In the lungs, blood acquires oxygen and releases carbon dioxide transported from the tissues. The kidneys remove excess water and dissolved waste products. Nutrient substances derived from food reach the bloodstream after absorption by the gastrointestinal tract. Glands of the endocrine system release their secretions into the blood, which transports these hormones to the tissues in which they exert their effects. Many substances are recycled through the blood; for example, iron released during the destruction of old red cells is conveyed by the plasma to sites of new red cell production where it is reused. Each of the numerous components of the blood is kept within appropriate concentration limits by an effective regulatory mechanism. In many instances, feedback control systems are operative; thus, a declining level of blood sugar (glucose) leads to accelerated release of glucose into the blood so that a potentially hazardous depletion of glucose does not occur. In India there is a need of about 8 million units of blood per year and only one-third of this is obtained from voluntary donors.

About 108 million blood donations were collected globally in 2013. Nevertheless almost half of these are collected in high-income countries, home to only 18% of the world's population. The remaining 82% of the world's population contributed for half of the overall blood collections across the globe.

Donation of blood is a behavioral phenomenon and is always considered a humanitarian act. During national emergencies like the Gujarat earthquake, there was no dearth of voluntary donors. What is not realized perhaps is that, there is a necessity for blood even otherwise and hence there is a need for motivation to donate blood voluntarily. The decision to donate blood is motivated by a host of factors including altruism, social behaviors, social pressure and replacement.

There has been a steady decline of blood donation while the demand for transfusion continues to rise Recruitment and retention of donors to sustain and increase the donor base are critical for blood banks.

Millions of people owe their lives to millions of those who they will never meet, people who donate their population still does not have access to safe blood. Over 80 million units of blood are donated every year but only 38% are collected in developing countries, where 82% of global population resides. Hence, the need to increase the number of voluntary donors to ensure blood freely and without any reward. However, the overwhelming majority of the world's availability on regular basis is important all around the world. The eligibility to blood donation is not very demanding. A donor only needs to be between 18-60 years of age with a weight of 50 kg or above with pulse rate, body temperature and blood pressure should be normal. Both men and women can donate. Young people, in particular, are in demand because they are, generally, healthier than other age groups and thus, more able to give.

Jisha Jose, Jatin Panchal et al. (2017) conducted a study Quantitative research approach with Quasi-experimental one group pre-test post-test design was adopted. The study consists of 100 samples which were selected by non probability convenient sampling method. Data collection was accomplished by using structured questionnaire. The data was analyzed by using descriptive and inferential statistics. The demographic result shows that all participants were in the age group of 16-18 years. All samples were from 11th standard. Majority (56%) of participants were male. 67% of participants had previous knowledge regarding blood donation and major source of information was from newspaper and books. None of them had donated blood. The pre-test analysis result shows that majority of the participants (58%) had very poor knowledge regarding blood donation, 36% of them had average knowledge and very few students (6%) had good knowledge regarding blood donation. The post-test analysis result shows that majority of the students (63%) had average knowledge regarding blood donation and 37% of them had good knowledge regarding blood donation. None of them had poor knowledge regarding blood donation. It shows improvement in knowledge score. The mean of pre-test score was 7.08 with standard deviation 3.58 and post-test score was 12.51 with standard deviation 2.89.The post-test score was higher than the pre-test score. Z-Test was calculated. Z-value was found 11.83 and Z-table value was 1.96, since calculated Z-value was greater than tabulated Z-value, null hypothesis was rejected. It shows that there was a significant difference in level of knowledge regarding blood donation before and after planned teaching programmer. This reveals that planned teaching programme was effective.

If every adolescents had a better understanding of blood donation and its history, its need and importance of blood donation, we would be one step closer to stopping morbidity rate due to lack of blood donor and its devastating effect on people around the world. With the help of adolescentsas advocates for blood donor we can hopefully increase this overwhelming statistics.

Based on the above facts and review of literature the researcher comes to know that adolescents are necessary to knowledge and attitude about blood donation because the adolescents are the future of the nation and they can do the change in the statistics and will improve. So the researcher felt that it is very necessary to imparting knowledge and attitude on blood donation for early and prompt intervention may lower the risk of death of someone in the future.

II. Research Elaborations

Statement of problem

'' Evaluate the effectiveness of video assisted teaching programme on knowledge and attitude regarding blood donation among adolescents in selected sr. sec. school at Udaipur.''

III. Objectives

1. To assess the existing knowledge and attitude score regarding blood donation among adolescents.
2. To evaluate the effectiveness of video assisted teaching programme regarding blood donation among adolescents.
3. To find the correlation between knowledge and attitude score of adolescents in selected sr. sec. schools.
4. To find out the association between pre-test knowledge and attitude score regarding blood donation with selected demographic variables.

IV. Hypothesis

H_1- There is a significant difference between the pretest and post-test knowledge scores.
H_2. There is a significant difference between the pre test and post test attitude score.
H_3- There is a positive correlation between knowledge and attitude of adolescents regarding blood donation.
H_4- There is a significant association between pre test knowledge score regarding blood donation with selected socio demographic variables.
H_5- There is a significant association between pre test attitude score regarding blood donation with selected socio demographic variables.

V. Material and method

Population- adolescents of senior secondary school.
Sample- The adolescents of selected senior secondary schools in Udaipur.
Sample size-120 adolescents.
Settings- The study was conducted in The Scholars Arena Senior Secondary Sshool, Udaipur.
Sampling technique- simple random sampling technique
The conceptual framework for the study was developed on the bases of WHO's System Model.

VI. Research design

The research design selected for the present study was a one group per-test post-test research design.

PRE TEST (Dependent variable)	INTERVENTION (Independent variable)	POST TEST Dependent variable)
O1 Knowledge and attitude of adolescents	X Video assisted teaching programme regarding blood donation	O2 Knowledge and attitude of adolescents

Table 1: Quasi experimental One group pre and post-test research design
The interpretations of the symbol are as below
O1 - Administration of pretest knowledge and attitude Questionnaire
O2 - Administration of posttest knowledge and attitude Questionnaire
X - Intervention (Video Assisted Teaching Programme)

Ethical Consideration

After obtaining permission from research committee of Geetanjali College of nursing, prior permission was obtained from Head of the selected senior secondary school at Udaipur. Consent was taken from each participants who had participated in the study.

Descrition Of The Tool

Section A- Demographic Data: consisted of selected socio-demographic variables such as age in year, gander, religion, education, family income per month, source of information, stream of education, habitat, type of family regarding blood donation.
Section B- Tools and scoring technique: A structured and attitude self-administered questionnaires were selected based on the objective of the study as it was considered the based and appropriate instrument to elicit the response from the literate subject.

Scoring

The **knowledge and attitude** of adolescents regarding the outcomes of blood donation knowledge was scored as follows, one mark for each correct answer and zero marks for incorrect answer.
The maximum score was 28 to interpret level of knowledge the score was distributed as follows; Interpretation of knowledge:

Level	Range
Inadequate knowledge	<50 %
Moderate knowledge	51-75 %
Adequate knowledge	>75 %

An answer key was prepared for scoring answer to the structured knowledge questionnaire.
The maximum score was 40 to interpret level of attitude the score was distributed as follows;
Interpretation of attitude:

Level	Range
Favorable attitude	>75%
Neutral attitude	51-75%
Unfavorable attitude	<50%

Data Collection And Data Analysis

The data was presented under the following sections
Section-I: Description of socio-demographic variables of the respondents.
Section-II: Distribution of Respondents according pre-test and post-test level of knowledge and attitude score.
Section III: Correlation between knowledge and attitude score regarding blood donation.

Section-IV: Effectiveness of video assisted teaching programme on knowledge and attitude regarding blood donation among adolescents

VII. Result

Section- I:Description of sample characteristics.

Table- 2: Distribution of frequency and percentage analysis of selected variables

N = 120

SL No	Demographic variables	Variables	Frequency	Percentage
1	**Age in years**	15 - 16 years	44	36.7%
		17 - 19 years	76	63.3%
2	**Gender**	Male	76	63.3%
		Female	44	36.7%
3	**Religion**	Hindu	84	70%
		Muslim	15	12.5%
		Christian	09	7.5%
		Others	12	10%
4	**Education**	11th STD	60	50%
		12th STD	60	50%
5	Family income per month	Below 10000 rupees	19	15.8%
		Rs 10001 – 20000	39	32.5%
		Rs 20001 – 30000	46	38.3%
		Rs 30001 and above	16	13.4%
6	Source of information	Mass media	41	34.2%
		Health personnel	37	30.8%
		Peer group	20	16.7%
		Any other	22	18.3%
7	Stream	Arts	40	33.3%
		Science	40	33.3%
		Commerce	40	33.4%
8	Habitat	Rural	67	55.8%
		Urban	53	44.2%
9	Type of family	Nuclear family	22	18.3%
		Joint family	98	81.7%

Section Ii

Table 3: frequency and Percentage distribution of respondents to their level of knowledge score.

N=120

Level of Knowledge	Score	Respondents			
		Pre-test		Post-test	
		Frequency	Percentage	Frequency	Percentage
Inadequate	**<50%**	57	47.5%	**00**	**00%**
Moderately adequate	**51-75%**	63	52.5%	**73**	**60.8%**
Adequate	**>75%**	00	00%	**47**	**39.2%**

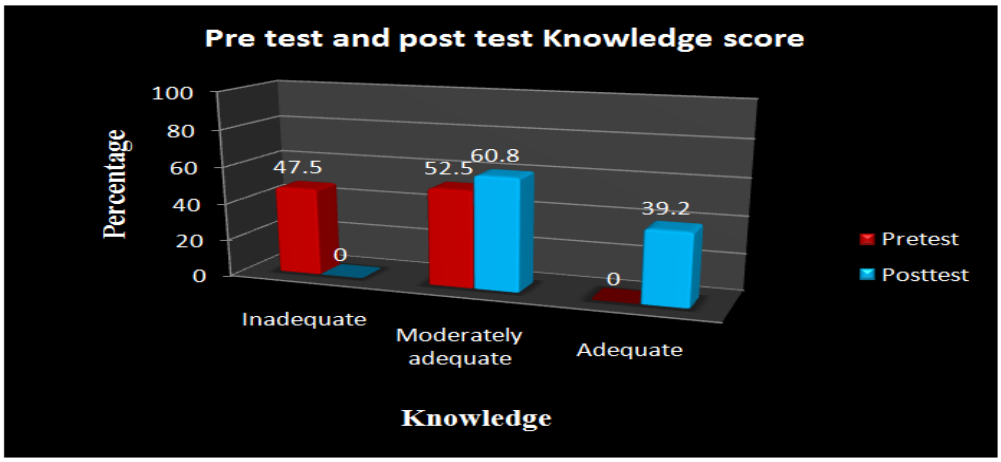

Figure 1: comparison of pre test and posttest knowledge score

Table 4: Distribution of respondents by the level of Attitude
N=120

Attitude score	Score	Respondents			
		Pre-test		Post-test	
		Frequency	Percentage	Frequency	Percentage
Favorable attitude	**>75%**	73	60.8%	105	87.5%
Neutral attitude	**51-75%**	47	39.2%	15	12.5%
Unfavorable attitude	**<50%**	00	00%	00	00%

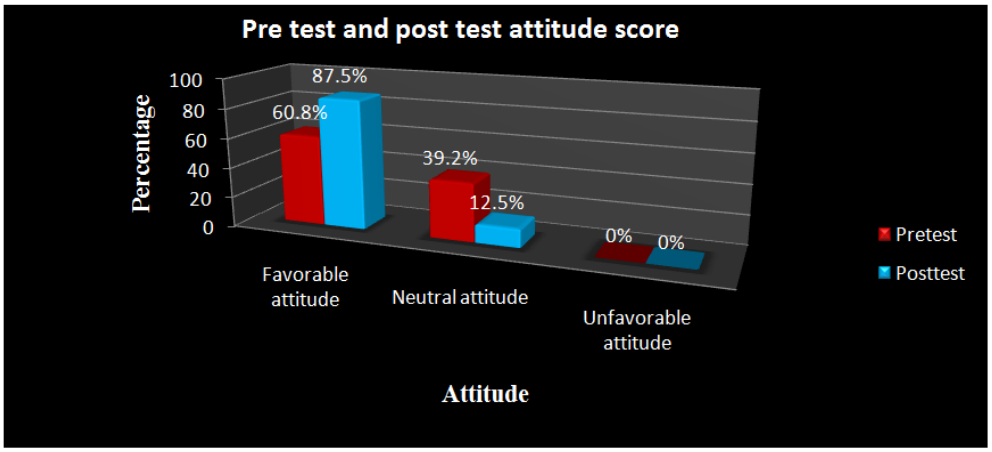

Figure 2: Distribution of respondents by the level of Attitude

Table 4&Figure 2 showed that in the pre-test most of the respondents i.e. 60.8% had unfavorable attitude followed by 39.2 % respondents had neutral attitude about blood donation. Whereas in post-test most of the respondents i.e. 12.5% had neutral attitude and only 87.5% respondents had favorable attitude regarding blood donation.

Section III: Correlation between knowledge and attitude

Table 5 : correlation between knowledge and attitude

Aspects	Correlation
Knowledge	0.15
Attitude	

Scoring key:
-1 = Negative correlation
0 = Absolute/ no correlation
+1= Perfect/ Positive correlation
0.75 & above = strong positive correlation
<0.75 = Weak positive correlation

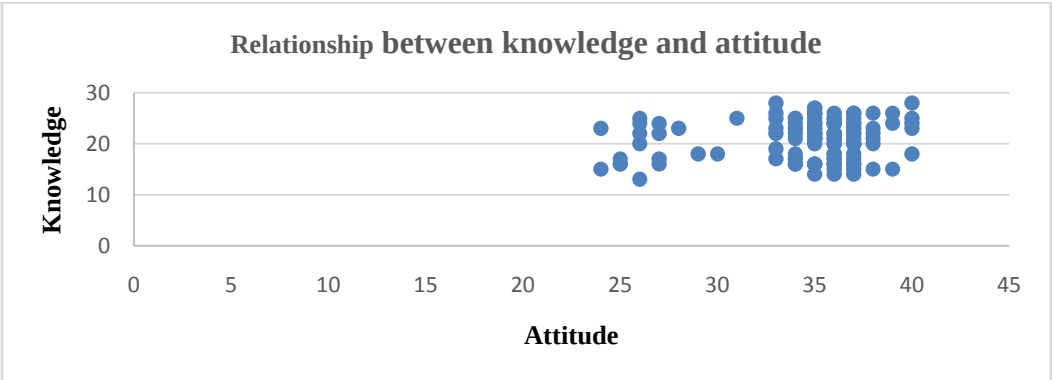

Figure 3: correlation between knowledge and attitude

The obtained correlation value was 0.15. Hence there is a weak positive correlation between knowledge and attitude. The research hypothesis H_3 is accepted.

Section-IV:

Effectiveness of video assisted teaching programme regarding blood donation among adolescents

The Z value was computed to determine the effectiveness of video assisted teaching programme of knowledge and attitude of adolescents of senior secondary school regarding blood donation.

The following research hypothesis was stated

H_1- There is a significant difference between the pretest and post-test knowledge scores.

H_2. There is a significant difference between the pre test and post test attitude score.

H_3- There is a positive correlation between knowledge and attitude of adolescents regarding blood donation.

H_4- There is a significant association between pre test knowledge score regarding blood donation with selected socio demographic variables.

H_5- There is a significant association between pre test attitude score regarding blood donation with selected socio demographic variables.

Table 6: Distribution of respondents by the level of knowledge
N=120

Knowledge assessment	Mean	Mean %	Mean difference	Enhancement of knowledge	Population variance	Z Score	Remarks
Pre test	10.55	33.84%	7.95	32.17%	9.93	20.30	Significant
Post test	18.50	66.01%			8.47		

The mean post-test knowledge score (18.50) was greater than the mean pre-test score (10.55). The mean difference between pre-test and post test score was (7.95) with enhancement of knowledge (32.17%). The calculated z statistical score was20.30 is greater than the z- critical value 1.96. Hence research hypothesis H_1 was accepted. This indicates that the video assisted teaching programme was effective in increasing the knowledge of adolescents of Sr. secondary student's regarding blood donation.

Table 7: Area wise comparison of mean pre-test and post-test knowledge scores
N=120

Sr. no	Area	Pre-Test			Post-Post		
		Mean	Mean %	SD	Mean	Mean %	SD
1	Introduction	1.60	40	0.96	2.82	70.5	0.67
2	Functions of blood	1.77	35.4	1.10	3.16	63.2	0.83
3	Blood donation	1.88	37.6	0.92	3.20	64	0.92
4	Eligibility criteria	1.38	34.5	0.75	2.52	63	0.70
5	Process of blood donation	3.97	39.7	1.64	6.72	67.2	1.29

Table 7: The result showed that in the area of introduction mean score 1.60 and SD 0.99 in pre test of the respondents and mean value 2.82 and SD 0.67 in the posttest of the respondents. In the area of function of blood mean score 1.77 and SD 1.10 in the pre test of respondents and mean value 3.16 and SD 0.83 in the posttest of the respondents. In the area of blood donation mean score 1.88 and SD 0.92 in the pretest of the respondents and mean score 3.20 and SD 0.92 in the posttest of the respondents. In the area of eligibility criteria mean score 1.38 and SD 0.75 the pretest of the respondents and mean score 2.52 and SD 0.70 in the posttest of the respondents. In the area of process of blood donation mean score 3.97 and SD 1.64 in the pretest of the respondents and mean score 6.72 and SD 1.29 in the posttest of the respondents. Therefore, the result confirmed that the video assisted teaching programme was highly effective in improving the knowledge of adolescents regarding blood donation.

Effectiveness of video assisted teaching programme on attitude regarding blood donation among adolescents

Table 8: distribution of respondents by the level of attitude score
N=120

Attitude assessment	Mean	Mean %	Mean difference	Enhancement of attitude	Population variance	Z Score	Remarks
Pre test	28.57	71.43%	5.93	19.36%	10.86	12.88	Significant
Post test	34.5	90.79%			14.36		

The mean post-test attitude score (34.5) was greater than the mean pre-test score (28.57). The mean difference between pre-test and post test attitude score was (5.93) with the mean percentage of (19.36%). The calculated z statistical score was 12.88 is greater than the z- critical value 1.96. Hence research hypothesis H_2

was accepted. This indicates that the video assisted teaching programme was effective in increasing the attitude of adolescents of Sr. secondary student's regarding blood donation.

VIII. Conclusion

The study concluded that there is improvement in the knowledge and attitude level of adolescents of senior secondary school which indicate that the video assisted teaching programme is effective. The demographic variables of the respondents significantly associated with the pretest knowledge score. The development of video assisted teaching programme will help the adolescents to enhance their knowledge and attitude about blood donation.

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