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A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge regarding Cardio Pulmonary Resuscitation among Higher Secondary School Students in Selected Schools, Aizawl, Mizoram

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Abstract: ***Background: Cardio pulmonary resuscitation is a process of oxygenating heart, lung through external cardiac massage and artificial respiration until the definite medical treatment can restore the normal functioning of heart, lung and brain. Cardio pulmonary resuscitation (CPR) is a lifesaving technique that is useful in many emergencies in which someone's breathing or heartbeat has stopped. The purpose of this study is to assess the knowledge and effectiveness of Structured Teaching Programme regarding cardio pulmonary resuscitation among higher secondary school students.***
Methods: The research design used in the study was one group pre-test post-test design, in which stratified random sampling technique was used to select 100 students of Govt. Chaltlang Higher Secondary School. Self-Structured Knowledge Questionnaires was used to collect the Data. Post test was conducted after 7 days using the same self-structured knowledge questionnaires used for the pre- test.
Results: The mean difference between the pre - test and post- test knowledge score was found to be 12.29 with t-value=-24.82, & p value =0.05 which indicates that indicates that Structured Teaching Programme regarding cardio pulmonary resuscitation was effective. Thus, the research Hypothesis H_1 ***is accepted.***
Conclusion: The overall findings of the study suggested that Structured Teaching Programme on Cardio pulmonary resuscitation was significantly effective in improving the knowledge of students regarding Cardio pulmonary resuscitation technique.

I. INTRODUCTION

Cardiopulmonary resuscitation (CPR) is a lifesaving technique that is useful in many emergencies in which someone's breathing or heartbeat has stopped.

Cardio Pulmonary resuscitation is the technique of basic life support for the purpose of oxygenating heart, lung, brain and other vital organs as appropriate medical treatment can restore the heart function and ventilatory action. If a person is afraid to do CPR or unsure how to perform CPR correctly, know that it's always better to try than to do nothing at all. If not trained in CPR then start chest compressions at a depth of 5 cm (2.0 in) and 6cm (2.4 in) and at a rate of 100 to 120 a minute until paramedics arrive and they don't need to try rescue breathing. This technique implies to situation in which adult, children and infant need Cardio pulmonary resuscitation but not on newborns.

A. Statement Of The Problem

A study to assess the effectiveness of Structured Teaching Programme on knowledge regarding Cardio pulmonary resuscitation among higher secondary school students in selected schools, Aizawl, Mizoram"

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B. Objectives

1) To assess the pre-test level of knowledge regarding cardio pulmonary resuscitation.
2) To assess the post-test level of knowledge regarding cardio pulmonary resuscitation.
3) To assess the effectiveness of Structured Teaching Programme on knowledge regarding cardio pulmonary resuscitation**.**
4) To determine the association between pre-test knowledge and selected demographic variables of higher secondary school students.

C. Hypothesis

- H_1- There is significant mean difference between the pretest and post-test knowledge score among the higher secondary school students regarding cardio pulmonary resuscitation.
- H_2- There is significant association between the pre-test knowledge score with selected demographic variables.

II. MATERIALS AND METHOD

One group pre-test post-test design was used in the study. Stratified random sampling technique was used to select 100 higher secondary school students. Self-Structured Knowledge Questionnaires was used to collect the right information required for the study. The analysis was done by using descriptive and inferential statistics in terms of frequency distribution, percentage, mean, standard deviation, paired 't' test and association between the knowledge of students.

III. RESULTS

Table 1 : Frequency and Percentage distribution of Demographic Performa n=100

Sl no	Demographic perfoma	Pre test		Post test	
1	Age (in years)	Frequency(f)	Percentage(%)	Frequency(f)	Percentage(%)
	• 15-17	71	71%	71	71%
	• 18-20	29	29%	29	29%
2	Gender				
	• Male	37	37%	37	37%
	• Female	63	63%	63	63%
3	Grade				
	• Class 11	58	58%	58	58%
	• Class 12	42	42%	42	42%
4	Stream				
	• Arts	46	46%	46	46%
	• Science	44	44%	44	44%
5	Previous knowledge of CPR				
	• Yes	11	11%	11	11%
	• No	89	89%	89	89%

Table 1 represent that Majority (71%) of higher secondary school students were between the age group 15-17 years. Majority (63%) were females and the remaining participants (37%) are males students. Majority (54%) higher secondary school students were Class 12 and (54%) were from science stream and the remaining participants (46%) are arts stream. Majority (89%) students does not have any previous knowledge of CPR and the remaining participants (11%) have any previous knowledge of cardio pulmonary resuscitation

Table 2: Assessment of pre-test and post-test level of knowledge regarding cardio pulmonary resuscitation
n=100

Knowledge score	Inadequate	Average	Adequate
Pre-test level of knowledge	4.3	57	-
Post-test level of knowledge	-	14	86

Table 2 shows that majority 57% of the students have average knowledge in pre- test and 86% of the students have adequate knowledge in post- test.

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Table 3: Descriptive analysis of the effectiveness of structured teaching programme on knowledge regarding cardio pulmonary resuscitation. n=100

Knowledge	Mean	Standard Deviation	Mean difference	T-value	df	S
Pre-test	11.09	2.24	12.29	-24.82	99	<0.05(S)
Post-test	23.38	4.15				

The above table shows that mean difference between the pre - test and post- test knowledge score was found to be 12.29 with t-value=-24.82, & p value =0.05 which indicates that indicates that Structured Teaching Programme regarding cardio pulmonary resuscitation was effective. Thus, the research Hypothesis H_1 is accepted.

Table 4: Association between pre-test knowledge score and selected demographic variables

	Knowledge score			Chi-Square	Df	p-value	Inferences
	Inadequate	Average	Adequate				
Age							
15-17 years	30	41	-	0.28	2	5.99	NS
18-20 years	14	15	-				
Gender							
Male	17	20	-	0.092	2	5.99	NS
Female	27	36	-				
Grade							
Class 11	12	46	-	0.129	2	5.99	NS
Class 12	10	32	-				
Stream							
Arts	11	35	-	0.18	2	5.99	NS
Science	11	43	-				
Previous knowledge							
Yes	6	5	-	0.85	2	5.99	NS
No	56	33	-				

Table 4 shows that X^2 (chi square) value computed between the knowledge scores of cardio pulmonary resuscitation and selected demographic variables. It reveals that there was no significant association between the pre-test knowledge score of students regarding cardio pulmonary resuscitation with selected demographic variables. Thus the research hypothesis H_2 was rejected.

IV. CONCLUSION

The study was conducted to determine the effectiveness of structured teaching programme on knowledge regarding cardio pulmonary resuscitation among higher secondary school students in selected schools at Aizawl, Mizoram.The study reveals that, Structured teaching programme on cardio pulmonary resuscitation among Higher Secondary School students was highly effective.

V. RECOMMENDATION

On the basis of the study it is recommended that-

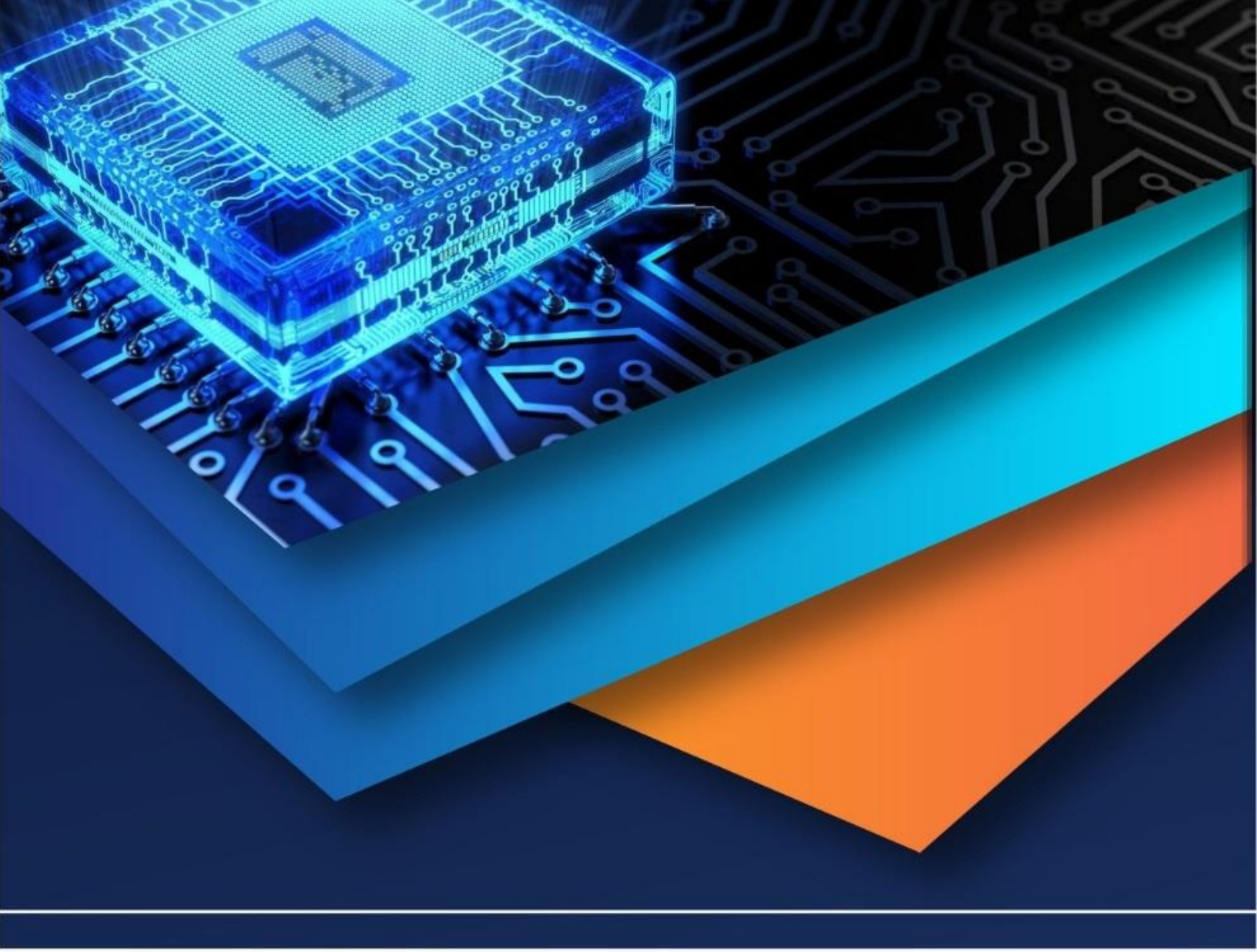
1) The same study can be conducted in a different setting.
2) The same study can be done using other data collection method.
3) The same study can be conducted using other teaching method like demonstration, video assisted teaching, self-instructional module.
4) This study can be replicated on a larger scale.

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