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Effectiveness of structured teaching program (STP) on knowledge regarding early signs and immediate management of myocardial infarction among the ANM students in selected nursing school in Amravati

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Abstract
Effectiveness of structure teaching program (STP) on knowledge regarding early signs and immediate management of myocardial Infarctions among the ANM students in selected nursing school in Amravati.
Background: The evidence suggest that smoking and other modifiable risk factors represent over 90% of the risk for acute myocardial infarction.
Objectives
Primary Objective
1. To assess the effect of Structured Teaching Program (STP) on knowledge regarding early signs and immediate management of myocardial infarction among ANM students in selected Nursing school at Amravati.

Secondary Objective
1. To Assess pre-existing Knowledge Regarding Early Signs and Immediate Management of Myocardial Infarction among ANM students in selected Nursing school at Amravati.
2. To evaluate the effect of Structured Teaching Program (STP) assess the Knowledge regarding early signs and immediate management of myocardial infarction among ANM students in selected Nursing school at Amravati.
3. To Find Out the Difference Between Pre-Test and post-test Knowledge Score on the Myocardial Infarction among ANM students in selected Nursing school at Amravati.

Research Methodology: This was a quantitative research approach, 40 ANM students were selected from Nursing school in amravati by non-probability sampling technique. A self-administered knowledge questionnaire was used to assess knowledge with observational checklist.
Result: The study found that the knowledge on early signs and immediate management of myocardial infarction among ANM was 45.5 % to overall mean percentage of knowledge. The mean knowledge score is 13.95+6.65. There is no significance association between knowledge scores into age in years, gender, marital status, education, and teaching experience (years) & source of information of school teachers working in selected Nursing schools in Amravati.
Conclusion: Conclusion there is statistically improvement in the knowledge among the ANM Students who underwent the self-instructional module on knowledge regardingmyocardial infarction.

Keywords: Assess effectiveness, anm students, structured teaching program, myocardial infarctions, knowledge and nursing school

Introduction

"Health does not always come from medicine. Most of the time it comes from peace of mind, peace in the heart, peace of soul. It comes from laughter and love."
We all know the popular saying 'Health is Wealth'. By health we do not mean the absence of physical troubles only. But it is a state of complete physical, mental and social well – being. The loss of health is a loss of all happiness. Mahatma Gandhi also says, "It is health which is real wealth, and not pieces of gold and silver." "Heart beat represents life and lack of it pronounces death" Myocardial infarction is technical name for a heart attack. Myocardial infarction is the irreversible necrosis of heart muscle secondary to prolonged ischemia. This usually results from an imbalance in oxygen supply and demand, which is most often caused by plaque rupture with thrombus formation in a coronary vessel, resulting in an acute reduction of blood supply to portion of the myocardium. (National heart lung blood institute, 2011). The age-standardized death rate for CVD in India (282 deaths/100,000 (264–293)) was higher compared with global levels (233 deaths per 100,000 (229–236)).
Acute myocardial infarction is one of the leading causes of death in the developed world. The prevalence of the disease approaches three million people worldwide with more than one million deaths in the United States, annually. Myocardial Infarction occurs when blood flow to a section of heart muscle becomes blocked. If the flow of blood isn't restored quickly, the section of heart muscle becomes damaged from lack of oxygen and begins to die.

Objectives

The objectives of study are;

Primary Objective

1. To assess the effect of Structured Teaching Program (STP) on knowledge regarding early signs and immediate management of myocardial infarction among ANM students in selected Nursing school at Amravati.

Secondary Objective

1. To Assess pre-existing Knowledge Regarding Early Signs and Immediate Management of Myocardial Infarction among ANM students in selected Nursing school at Amravati.
2. To evaluate the effect of Structured Teaching Program (STP) assess the Knowledge regarding early signs and immediate management of myocardial infarction among ANM students in selected Nursing school at Amravati.
3. To Find Out the Difference Between Pre-Test and post-test Knowledge Score on the Myocardial Infarction among ANM students in selected Nursing school at Amravati.

Materials and Methods

Data shall be collected by the research scholar herself.' Pretest shall be conducted by using STP on early signs and immediate management of myocardial infarction among students before intervention. However, the data will be collected by the investigator. Intervention on the same day of pretest, a STP early signs and immediate management of myocardial infarction shall be used to ANM students of selected nursing school at Amravati. Post test After one week of intervention, post test shall be conducted by using same tool that was used for pre-test.

Statistical Analysis

The data was analyzed by descriptive and inferential statistics. Demographic data was analyzed using frequency and percentage, data from the questionnaire before and after planned teaching program administered was also analyzed using frequency, percentage and 't' test. The association between knowledge findings and demographic variables was found by using t test and chi square.

Results

Table 1: Frequency & percentage distribution of the ANM students in selected nursing school at Amravati

Sr. No.	Variable	Groups	Frequency	Percentage
1	Age	18	28	70.00
		19	7	17.50
		20	3	7.50
		21 & above	2	5.00
2	Gender	Male	0	0.00
		Female	40	100.00
3	Education	ANM	40	100.00
		GNM	0	0.00
		OTHER	0	0.00
4	Residence	Urban	11	27.50
		Rural	29	72.50
5	Religion	Hindu	30	75.00
		Muslim	3	7.50
		Buddhism	7	17.50
		Others	0	0.00

In the study, according to age of the ANM students in selected nursing school at Amravati, 70% of them were of age 18 years, 17.50% students were of age 19 years, 7.50% students of age 20 years and 5% of them of age 21 & above years.

Section II

Deals with analysis of data related to assessment of the knowledge regarding early signs and immediate management of myocardial infarction among the ANM students in selected nursing school at Amravati in terms of frequency and percentage.

Table 2: General assessments of Knowledge PRE-Test

Variable	Groups	Score	Pre-Test	
			Frequency	Percentage
KNOWLEDGE	Inadequate	0-10	34	85.00
	Moderate	11-20.	6	15.00
	Adequate	21-30	0	0.00
KNOWLEDGE	Minimum		3	
	Maximum		13	
	Average (SD)		7.82 (2.46)	

At the time of pretest, assessment of knowledge regarding early signs and immediate management of myocardial infarction among the ANM students in selected nursing school at Amravati, 85% of them had inadequate knowledge, 15% had moderate knowledge and no one of them had adequate knowledge. Average knowledge score at the time of pretest was 7.82 with standard deviation of 2.46. The minimum score of knowledge was 3 with maximum score of 13.

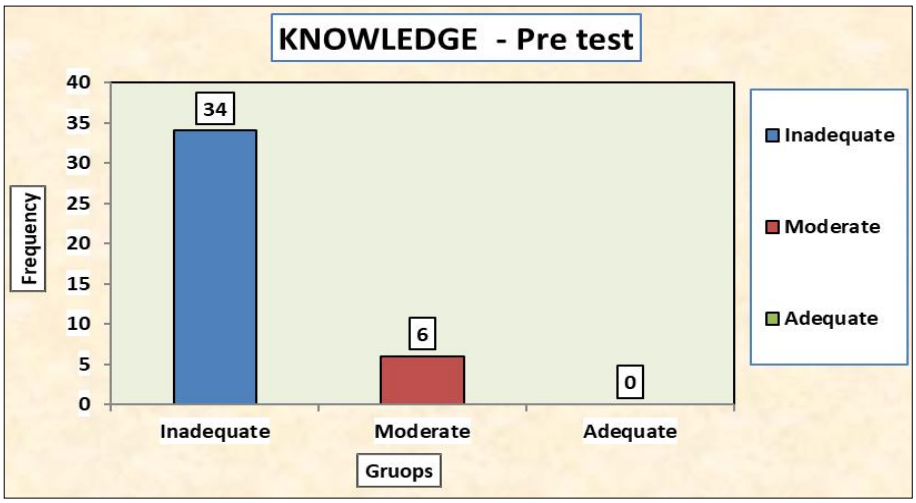

Fig 1: General assessments of Knowledge PRE-Test

Table 3: General assessments of Knowledge POST Test

Variable	Groups	Score	Post Test	
			Frequency	Percentage
KNOWLEDGE	Inadequate	0-10	2	5.00
	Moderate	11-20.	36	90.00
	Adequate	21-30	2	5.00
KNOWLEDGE	Minimum		10	
	Maximum		22	
	Average (SD)		15.72 (2.92)	

At the time of posttest, assessment of knowledge regarding early signs and immediate management of myocardial infarction among the ANM students in selected nursing school at Amravati, 5% of them had inadequate knowledge, 90% had moderate knowledge and 5% of them had adequate knowledge.

Average knowledge score at the time of posttest was 15.72 with standard deviation of 2.92. The minimum score of knowledge was 10 with maximum score of 22.

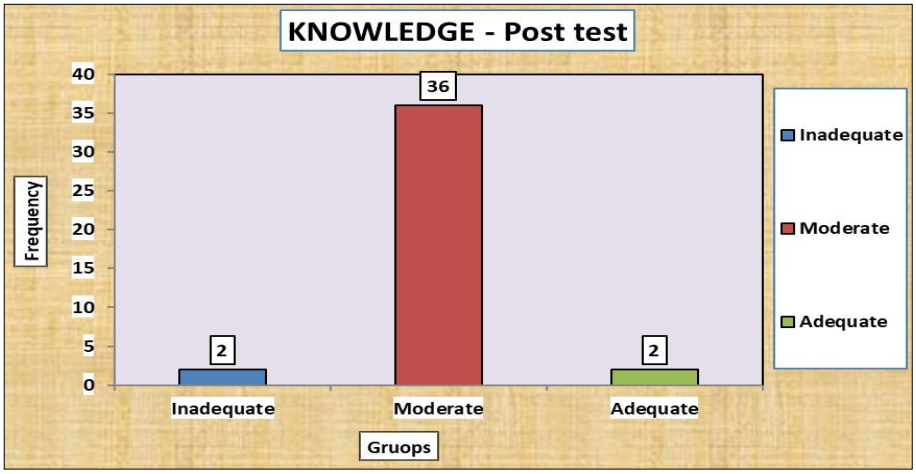

Fig 2: General assessments of Knowledge POST Test

Deals with analysis of data related to assessment of the pre-& posttest knowledge in terms of frequency and percentage.

Table 4: General assessments of Knowledge- PRE-& POST test

Variable	Groups	Score	Pre-Test		Post Test	
			Frequency	Percentage	Frequency	Percentage
Knowledge	Inadequate	0-10	34	85.00	2	5.00
	Moderate	11-20.	6	15.00	36	90.00
	Adequate	21-30	0	0.00	2	5.00
Knowledge	Minimum		3		10	
	Maximum		13		22	
	Average (SD)		7.82 (2.46)		15.72 (2.92)	

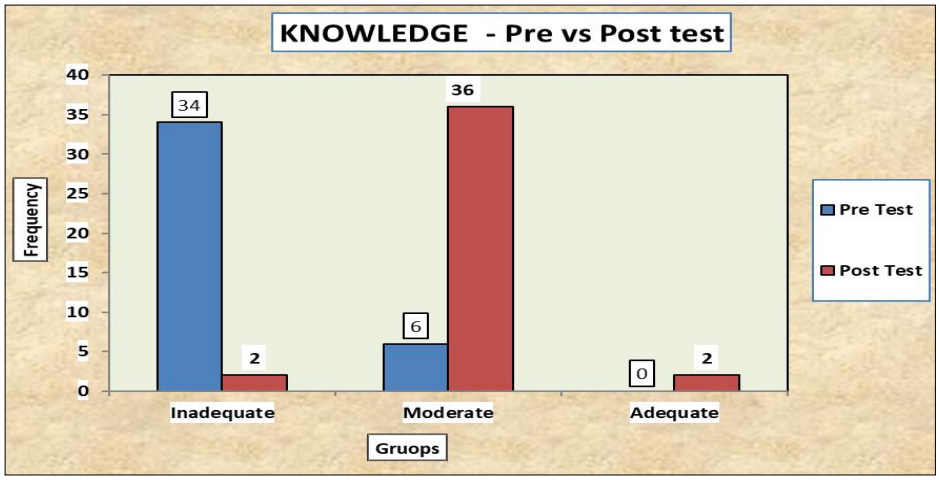

Fig 3: General assessments of Knowledge - PRE-& POST test

General assessments of Knowledge regarding early signs and immediate management of myocardial infarction among ANM students

For the assessment purpose total score of knowledge was divided in to three groups like inadequate (0-10 score), moderate (11-20 score) and adequate (21-30 score).

Pre-Test

At the time of pretest, assessment of knowledge regarding early signs and immediate management of myocardial infarction among the ANM students in selected nursing school at Amravati, 85% of them had inadequate knowledge, 15% had moderate knowledge and no one of them had adequate knowledge.

Average knowledge score at the time of pretest was 7.82 with standard deviation of 2.46. The minimum score of knowledge was 3 with maximum score of 13.

Post Test

At the time of posttest, assessment of knowledge regarding early signs and immediate management of myocardial infarction among the ANM students in selected nursing school at Amravati, 5% of them had inadequate knowledge, 90% had moderate knowledge and 5% of them had adequate knowledge.

Average knowledge score at the time of posttest was 15.72 with standard deviation of 2.92. The minimum score of knowledge was 10 with maximum score of 22.

Section III

Deals with analysis of data related to the effectiveness of structured teaching program (STP) on knowledge regarding early signs and immediate management of myocardial infarction among the ANM students in selected nursing school at Amravati.

Table 5: Comparison of the pre and posttest Knowledge (paired t test)

Group	Frequency	Mean	S.D.	t value	P value
Pre-Test	40	7.82	2.46	20.50	0.000
Post Test	40	15.72	2.92		

The comparisons of pretest and posttest means of knowledge were done by paired t test. The test was conducted at 5% level of significance.

The pretest average score was 7.82 with standard deviation of 2.46. The posttest average score was 15.72 with standard deviation of 2.92. The test statistics value of the paired t test was 20.50 with p value 0.00. The p value less than 0.05, hence reject the null hypothesis. That means there is significant difference in pre and posttest knowledge.

Shows that, structured teaching program (STP) on knowledge regarding early signs and immediate management of myocardial infarction among the ANM students in selected nursing school at Amravati was effective.

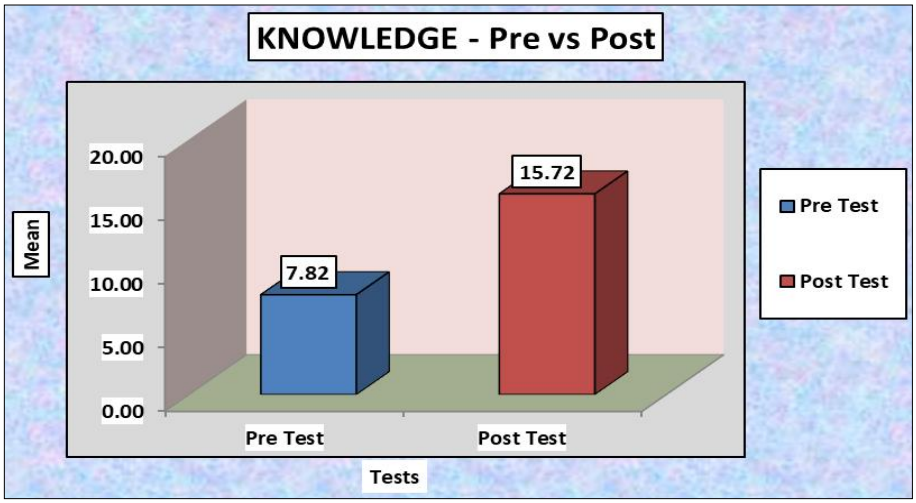

Fig 4: Comparison of the average pre and posttest Knowledge score

Section IV

Deals with analysis of data related to the association between pre-test knowledge scores regarding early signs and immediate management of myocardial infarction among ANM students with their selected demographic variables.

Association of Knowledge Score in Relation to Demographic Variables

Table 6: Association of Knowledge with demographic variables

Variable	Groups	Knowledge		Chi Square	d.f.	p Value	Significance
		Below Md	Above Md				
Age	18	26	2	11.98	3	0.007	Significant
	19	3	4				
	20	3	0				
	21 & above	2	0				
Residence	Urban	9	2	0.12	1	0.73	Not Significant
	Rural	25	4				
Religion	Hindu	24	6	2.35	2	0.31	Not Significant
	Muslim	3	0				
	Buddhism	7	0				
	Others	0	0				

Discussion

The study was undertaken to assess the knowledge of ANM students regarding early signs and immediate management of myocardial infarction among ANM students. A descriptive Evaluatory approach was used to collect data among 40 ANM students drawn conveniently using inclusion and exclusion criteria. The following Assumption were made by the investigator-

The ANM students will have some knowledge on myocardial infarctionThe demographic variables may influence the knowledge of ANM students regarding myocardial infarctionThe study was conducted in ANM Nursing School of Maharashtra state. The SAQ were used to collect the data among ANM Nursing students. Accordingly, collected data were analyzed using descriptive and inferential statistics. The knowledge on early signs and immediate management among ANM students is 46.5%. Hence, Assumption: the school teacher will have some knowledge on myocardial infarction is supported. There was no association of knowledge score with demographic variables among ANM students regarding myocardial infraction.

Conclusion

The knowledge regarding early signs and immediate management on myocardial infarction of ANM students is low. The demographic variables were not influenced to knowledge of ANM students regarding myocardial infarction.

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