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A study to assess the effectiveness the structural teaching program on knowledge regarding emergency management of myocardial infarction patients among staff nurses working in selected hospital in Jaipur, Rajasthan

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Abstract
In a myocardial infarction, an area of myocardium is permanently destroyed. MI is a killer disease and required treatment immediately the symptoms have been established.
Objectives: 1. To assess the knowledge level of staff nurses regarding emergency management of myocardial infarction patients 2. To assess the knowledge level of staff nurses regarding emergency management of myocardial infarction patients after administration of structural teaching program 3. To evaluate the effectiveness of structural teaching programme. 4. To find out the association between pre-test knowledge of staff nurses their selected demographic variables.
Methodology: Study was conducted with evaluative approach with pre-experimental research design and 60 samples selected through the purposive sample technique. Data was collected with help of structured knowledge questionnaire at selected hospital of Jaipur city.
Result: The overall mean of pre-test score is 29.12 whereas the mean of post-test score is 47.02 with 17.9 mean differences. The median of pre-test score is 29 and the median of post-test score is 48 and the standard deviation of pre-test was 2.83 whereas in post-test the standard deviation was 4.46. The calculated value of 't' is 47.98 at the 0.05 level of significance and the tabulated value of 't' is 1.96 at the 0.05 level of significance on 59 degree of freedom. The calculated value is higher than the tabulated value so we can say that the structured teaching programme on myocardial infarction can enhance the knowledge of Staff Nurses.
Conclusion: The study found that structured teaching program effectively enhance knowledge of nurses about emergency management of myocardial infarction patients.

Keywords: Assess, effectiveness, structural teaching program on knowledge, emergency management, myocardial infarction, staff nurses

Introduction
In a myocardial infarction, an area of myocardium is permanently destroyed. MI is usually caused by reduced blood flow in a coronary artery due to rupture of an atherosclerosis plaque and subsequent occlusion of the artery by a thrombus.

Coronary occlusion, heart attack and MI are term used synonymously, but the preferred term is MI. As the cells are deprived of oxygen, ischemia develops, cellular injury occurs, and the lack of oxygen results in infarction, or the death of cells. Cardiovascular disease is the commonest cause of death globally and account for approximately 12 million deaths annually. Despite impressive strides in diagnosis and management over the last three decades, acute myocardial infarction (AMI) continues to be major public health problem in the industrialized world. Although the death rate of AMI has declined by about 30% over last decade, its development is still a fatal event in approximately one third of the patients MI is a killer disease and required treatment immediately the symptoms have been established. The term "myocardial

infarction" focuses on the myocardium (the heart muscle) and the changes that occur in it due to the sudden deprivation of circulating blood, hence limited oxygen supply.

Need of the study
Almost every day, the news media covers a story on a celebrity who has suffered from or was treated for chest pain heart attack or cardiac arrest. It is well known that now-a-days myocardial infarction is one of the most important mortality factors. In Hungary some 25000 people suffer acute myocardial infarction (AMI). The Global Burden of Disease study estimate of age-standardized CVD death rate of 272 per 1T0 000 population in India is higher than the global average of 235 per 100 000 population. WHO estimated that globally 29 per cent of deaths were due to cardiovascular diseases and among them, 25-28 per cent of deaths were due to Myocardial Infarction. The population based surveys conducted in India shows that there is an increase in the prevalence rate of Ischemic heart disease from 1-4 per cent to 10 per cent. Patients at increased risk of developing acute myocardial

infarction include those with multiple coronary risk factors namely smoking, hypercholesterolemia, hypertension, diabetes mellitus, family history of premature coronary artery disease, high lipoprotein (a) level, hyperfibrinogenemia, hyperhomocysteinemia, physical inactivity and obesity. Smoking and hyperlipidemia are major risk factors.

Objectives of the study
▪ To assess the knowledge level of staff nurses regarding emergency management of myocardial infarction patients before administration of structural teaching program
▪ To assess the knowledge level of staff nurses regarding emergency management of myocardial infarction patients after administration of structural teaching program
▪ To evaluate the effectiveness of structural teaching programme regarding emergency management of myocardial infarction for staff nurses.
▪ To find out the association between pre-test knowledge of staff nurses their selected demographic variables.

Hypotheses
H1: There will be significant difference between pre-test and post-test knowledge score regarding emergency management of myocardial infarction patients among staff nurses.
H2: There will be a significant association between knowledge levels with selected demographic variables.

Conceptual framework
To describe the relationship of concepts in the study, open system model by J.W. Kenny's was used. Open system model serves as a model for reviewing people as interacting with the environment.
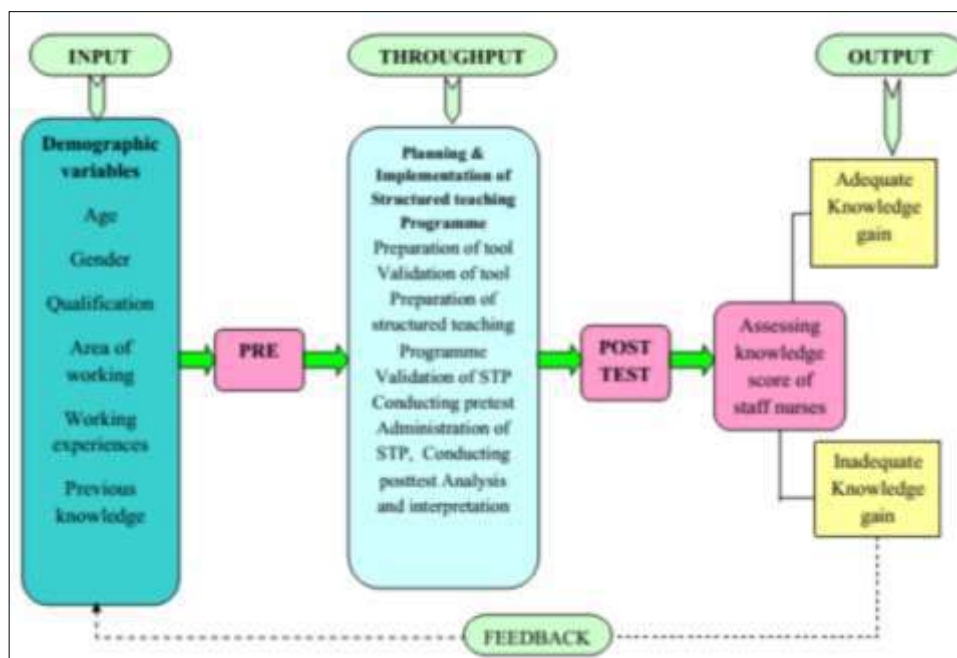

Fig 1: Conceptual framework

Review of literature
For the present study, the researcher made an extensive review of literature to collect information related to research topic. Around 80 literature were included which support the study and made a strong base and background to conduct a study. The researcher has made use of various journals, research reports, unpublished thesis, texts, Medline research and Internet

Methodology
Research approach: An evaluative approach was used by researcher.

Research design: A pre experimental; one group pre-test post-test research design was selected for research study.

Variables: Structured teaching programme was used as independent variable and knowledge of nurse was considered as dependent variable.

Study setting
Sample and sampling technique: The Sample Size was 60 staff nurses which were selected by purposive sampling technique.

Data collection and analysis: Data was collected with help of structured knowledge questionnaire regarding emergency management of myocardial infarction patients after establishing of reliability and validity and getting consent from 60 samples. The data were analyzed in terms of the objectives of the study, using descriptive and inferential statistics.

Result
Part 1

Table 1: Description of demographic variables of the staff nurses

S. No.	Demographic variable	Frequency	Percentage (%)
	Age (In years)		
1	21 - 30	15	25%
	31 - 40	25	41.66%
	41 - 50	15	25%
	51 - 60	05	08.33%
	Gender		
2	Male	20	33.33%
	Female	40	66.66%
	Educational qualification		
3	GNM	27	45%
	PB B.Sc. Nursing	22	36.66%
	B.Sc. Nursing	11	18.33%
	M.Sc. Nursing	00	00%
	Work experience		
4	< 5 years	15	25%
	5 - 15 years	35	58.33%
	16 - 25 years	05	08.33%
	> 25 years	05	08.33%
	Previous knowledge		
5	Yes	15	25%
	No	45	75%

Part II

Table 2: Comparison of pre-test and post-test level of knowledge regarding emergency management of myocardial infarction patients of staff nurses

S. No.	Level of knowledge	Pre-test		Post-test	
		F	%	F	%
1	Poor (< 50%)	103	51.5%	00	00%
2	Average (50 to 75%)	97	48.5%	56	28%
3	Good (>75%)	00	00%	144	72%
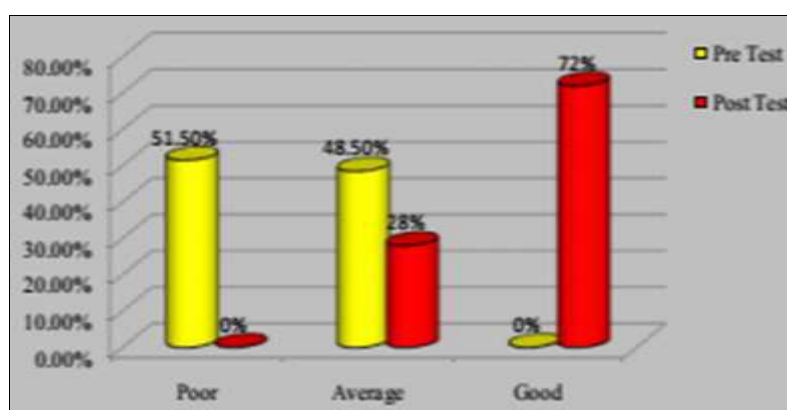
Fig 2: Comparison of pre-test and post-test level of knowledge among staff nurses

The table and figure no. 2 showed the comparison of pre-test and post-test level of knowledge regarding MI of Staff Nurses. With regard to scores, during pre-test 103 (51.5%) Staff Nurses had poor knowledge, 97 (48.5%) had average knowledge and 00 (00%) Staff Nurses had good knowledge regarding MI while during post-test 00 (00%) Staff Nurses had poor knowledge, 56 (28%) Staff Nurses had average knowledge and 144 (72%) Staff Nurses had good knowledge regarding MI.

Table 3: Shows In Pre-test and Post-test

	Mean	Median	SD	Mean difference	T value
Pre-test	29.12	29	2.83	17.9	47.89
Post-test	47.02	48	4.46		

The overall mean of pre-test score is 29.12 whereas the mean of post-test score is 47.02 with 17.9 mean differences. The median of pre-test score is 29 and the median of post-test score is 48 and the standard deviation of pre-test was 2.83 whereas in post-test the standard deviation was 4.46. The calculated value of 't' is 47.98 at the 0.05 level of significance and the tabulated value of 't' is 1.96 at the 0.05 level of significance on 59 degree of freedom. The calculated value is higher than the tabulated value so we can say that the structured teaching programme on myocardial infarction can enhance the knowledge of Staff Nurses.

Table 4: Association between knowledge level and demographic variable of sample

S. No.	Variables	Df	X2 Value	Table value	Remarks
1	Age	6	13.53	12.59	S
2	Gender	2	5.75	5.99	NS
3	Education qualification	6	13.53	12.59	S
4	Work experience	6	6.42	12.59	NS
5	Previous knowledge	2	9.21	5.99	S

Age, education qualification and previous knowledge was had a significant relationship with knowledge score and there was no significant relationship between gender and work experience with knowledge score of sample.

Conclusion
The study found that structured teaching program effectively enhance knowledge of nurses about emergency management of myocardial infarction patients.

Limitations
The study was conducted with a small group of nurses. So it can be conducted with large number for generalization of result.

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