



A STUDY TO ASSESS THE EFFECT OF PLANNED TEACHING ON KNOWLEDGE AND PRACTICES REGARDING PREVENTION OF ACUTE MYOCARDIAL INFARCTION AMONG THE POLICE PERSONNEL IN MUMBAI CITY

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ABSTRACT

In India heart disease is the single largest cause of death and heart attacks being responsible for one third of all deaths caused by heart diseases. According to a projection by the World Health Organization (WHO) and the Indian Council of Medical Research (ICMR), India will not only be the 'heart attack capital' but also the capital of diabetes and hypertension by 2020. The Stress, excessive workload, irregular meals, lack of proper exercise, are the reasons behind the heart ailments. Health is not something that one possesses as a commodity, but connotes rather a way of functioning within one's environment (work, recreation, and living). The work environment constitutes an important part of man's total environment, so health to a large extent is affected by work conditions. Occupational environment too plays a major role on the health of the exposed. The health hazards get more severe when the duration of exposure increases. This fact is more important in situations as the personnel engaged in police duty. These personnel have to undergo tremendous physical strain, stress and longer duty hours.

The aforementioned factors pose as a health hazard. Still little has been done to assess their health status and suggest preventive measures for the upliftment of their health. The objective of study is to find out the effect of planned teaching on knowledge and practices regarding the prevention of acute myocardial infarction among police personnel in the Mumbai city.

METHODOLOGY: An evaluative approach and one group pre-test and post-test design was used to conduct the study. The sampling technique used was non profitability convenience sampling. Sample size of 100 was selected. The data was collected using self-administered structured questionnaire. Data was analysed using frequency percentage 't' test and ANOVA.

RESULTS: Most cops among the 100 personnel were not aware of the heart diseases, symptoms of heart attack and seeking immediate medical attention is essential to prevent death due to heart attacks and also to lessen the amount of damage to the heart and the preventive measures. There was a significant difference between mean score of pre and post-test knowledge score on the myocardial infarction at 0.05 levels thus, the null hypothesis (H₀) is rejected and the alternative hypothesis (H₁) is accepted.

CONCLUSION: Overall, the study revealed that the planned teaching programme is an effective method for improving the knowledge and practices of the police personnel regarding myocardial infarction and its preventive measures.

KEYWORDS : Police Personnel, Knowledge, practices, Prevention, Myocardial Infarction

INTRODUCTION:

Heart diseases account for almost 30 % of all deaths in a year. It is estimated that 16 million people die due to disease of the heart and blood vessels world wide. The police as one of the visible important component governance and control have always been under intense scrutiny and hence vulnerable to wide spread criticism. Growing unemployment, increasing violence and rising expectations of the people have caused serious challenges before police. They work routinely for 12 hours or more often goes a couple of days nonstop at police station with a catnap in between. Medical board of police hospital in Sector 26 conducted the study and its Senior Medical Officer Dr. Sujata Sharma presented the report. It revealed that 311 police personnel were suffering with dyslipidaemia (problems with lipid profile), 200 had hypertension, 126 were obese, 150 had diabetes and 50 had uric acid-related problems or other conditions. A member of the medical board told Times of India, "There were more than 1,000 cops who failed the test in which they had to run two laps on a 400m track. Many of them completed the distance by walking as they did not have the strength to run." The Senior Medical Officer said, "Stress, excessive workload, irregular meals, lack of proper exercise, etc., are the reasons behind the ailments of these cops. They work routinely for 12 hours or more, often goes to a couple of days nonstop at police station with a catnap in between.

Special emphasis should be laid on educating the cops about high-risk factors, prevention, management, of the myocardial infarction; lifestyle modification along with drug compliance and periodic laboratory investigations is need.

THE OBJECTIVES OF THE STUDY:

- To assess the knowledge and practice of police personnel regarding the prevention of acute myocardial infarction before and after planned teaching.
- To find out the effect of planned teaching on knowledge and practices regarding the prevention of acute myocardial infarction among police personnel in the city of Mumbai.
- To find out the association between knowledge and practices with selected demographic variables.

METHODOLOGY:

The present study was conducted in the selected police stations in Mumbai city. An evaluative approach with one group pre-test and post-test design was used. The sampling technique used was non profitability convenience sampling. Sample size of 100 was selected from the selected police station. The data was collected using self-administered structured questionnaire & observation checklist to elicitate the responses from the respondents. Data collected was analysed using frequency percentage, 't' test and ANOVA using SPSS - 16 statistical software.

FINDINGS OF THE STUDY:

Table 1 shows socio demographic profile of Mumbai Police personnel.

Table 1: Socio demographic variables of Mumbai police personnel

Sr. No	Socio-demographic factor	Category	Frequency N = 100(100%)
1	Age	25 - 34	35
		35 - 44	37
		45 - 54	24
		55 and above	4
2	Gender	Male	88
		Female	12
3	Marital status	Married	82
		Single	16
		Divorced	1
		Widow	1
4	Education	S.S.C.	6
		H.S.C	48
		Graduate	42
		P.G.& above	4
5	Monthly income	10001-15000	3
		15001-20000	44
		20001-25000	49
		25001 & above	4

6	Religion	Hindu	92
		Muslim	6
		Christian	1
		Any Other	1
7	Working place	Traffic Duty	23
		Police Station	32
		Office	12
		Bandobasta	28
		Control Room	5

Table 2: Source of information on the prevention of Myocardial Infarction of Mumbai Police

Sr. No.	Demographic characteristics (Source of information)	Freq N = 100(100%)
1	Newspaper/Magazine	34
2	Radio	31
3	Television	29
4	Internet	5
5	Health Program	41

Table 3: Shows history of myocardial infarction in the family of Mumbai Police

Sr. No.	Demographic characteristics (family history)	Frequency
1	No problem	20
2	Hypertension	56
3	Diabetics	16
4	High Cholesterol	8

Majority (56%) of them had family history of Hypertension, DM (16%), and High cholesterol (8%)

Figure 1 shows knowledge of Mumbai Police personnel regarding prevention of Myocardial infarction

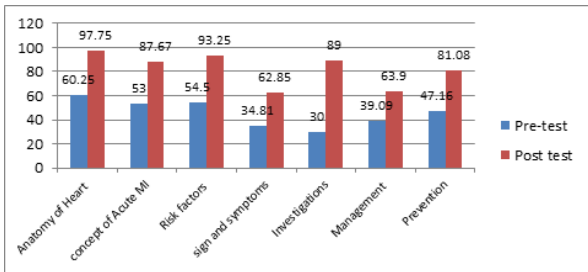


Fig. 1: Part wise knowledge regarding Acute Myocardial infarction

The above graph depicted the knowledge of the Mumbai Police regarding prevention of Myocardial Infarction; the mean score in pre-test was 45.54 which improved 82.21 in post test after planned teaching.

Figure -2 shows the practices of Mumbai Police personnel regarding prevention of Myocardial infarction in pre-test and post-test

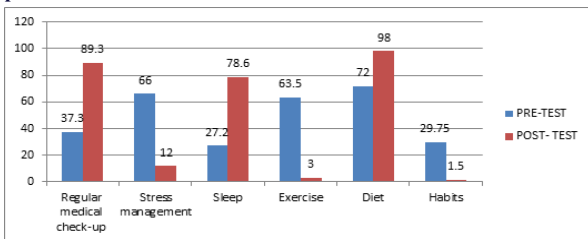


Fig. 2: Practices of the Police personnel regarding Acute Myocardial infarction in pre-test and post-test

Table: 4 shows the effect of planned teaching on knowledge regarding prevention of Acute Myocardial infarction't' value of Mumbai Police personnel.

Sr. No.	Knowledge score		Max score	MD	SEMD	Calculated t value		
	Pre-test	Post test						
	M1 SD1	M2 SD2						
	19.53	4.54	33.84	4.63	44	14.31	0.49	29.30

df= 99, level of significance is 0.05 for 't' table value of 1.64

Before calculating the't' value the following hypotheses were stated

H₀ – There is no difference in the mean scores of knowledge & practices in pre-test and post-test after the administration of planned teaching programme on prevention of Acute Myocardial Infarction among police personnel in the city.

H₁ – There is no difference in the mean scores of knowledge & practices in pre-test and post-test after the administration of planned teaching programme on prevention of Acute Myocardial Infarction among police personnel in the city.

The findings showed that, the calculated t' value (29.30) was found to be greater than the table 't' value (1.64) at 0.05 level, thus, the null hypothesis (H₀) was rejected in case of knowledge .

Table: 6 shows the effect of planned teaching on Practices regarding prevention of Acute Myocardial infarction't' value of Mumbai Police personnel.

N=100

Good Practice score		Max score	MD	SEMD	Calculated t value
Pre-test	Post test	12	5.95	0.27	
M1	SD1	M2	Sd2		
4.32	2.51	10.27	1.78		

df= 99, level of significance is 0.05 for 't' table value of 1.64

The calculated' value for practice was found to be 21.66 which is greater than the table 't' value 1.64 at 0.05 , thus, null hypothesis (H₀) was rejected in case of practices.

Table -7 Shows the association of knowledge and practices with selected demographic variables.

Table 7 - Association of knowledge with demographic variables

N = 100

Association of knowledge with demographic variables	N	df	Chi square value	x ² Table value	Significance at 0.05 level	
Age	25 - 34	35	7.49	16.91	0.587	
	35 - 44	37				
	45 - 54	24				
	55 and above	4				
Type of Family	Male	88	3	4.42	7.81	0.220
	Female	12				
Marital status	Married	82	9	12.12	16.91	0.206
	Single	16				
	Divorced	1				
	Widower	1				
Qualification	S.S.C.	6	9	4.99	16.91	0.835
	H.S.C	48				
	Graduate	42				
	P.G.& above	4				
Monthly Income	10001-15000	3	9	10.40	16.91	0.319
	15001-20000	44				
	20001-25000	49				
	25001 & above	4				
Working place	Traffic Duty	23	12	8.76	21.02	0.723
	Police Station	32				
	Office	12				
	Bandobasta (Duty on special events)	28				
	Control Room	5				

Based on the 'x² test for unpaired sample, the calculated x² values are less than the table x² values which indicated null hypothesis(H₀) is accepted and alternate hypothesis(H₁) is rejected for all demographic variables .This indicated that, there is no association of demographic variables with the knowledge.

Table-8 shows Association of practices with demographic variables

Association of knowledge with demographic variables	N	Mean	Std. Deviation	Std. error Mean	df	F value	F Table value	Significance at 0.05 level
Age	1) 25-34yr	35	8.17	2.87	3, 96	2.042	2.70	0.113
	2) 35-44yr	37	7.56	3.37				
	3) 45-54yr	24	8.41	3.17				
	4) 55yr & Above	4	4.50	1.29				
Gender	1 Male	88	7.65	3.08	1,	3.03	3.94	0.085
	2 Female	12	9.33	3.44	98			
Education qualification	1) S.S.C.	6	8.66	3.14	3, 96	1.31	2.70	0.273
	2) H.S.C.	48	7.22	3.07				
	3) Graduate	42	8.47	2.91				
	4) P.G. & above	4	7.75	5.90				
Religion	1) Hindu	92	7.77	3.16	2, 97	1.02	3.09	0.389
	2) Muslim	6	8.50	2.94				
	3) Christian	1	7.00	0				
	4) Any other	1	13.00	0				
Working place	1) Traffic	23	7.00	2.90	4, 95	1.11	2.46	0.358
	2)Police station	32	8.43	3.07				
	3) Office	12	8.00	2.92				
	4) Bandobasta	28	8.14	3.43				
	5) Control room	5	6.20	3.49				

To s Based on the 'x²' test for unpaired sample, the calculated x² values are less than the table x² values which indicated null hypothesis (H0) is accepted and alternate hypothesis(H1) is rejected for all the demographic variables .This indicated that, there is no association of demographic variables with the practices in prevention of Acute MI.

DISCUSSION:

We found 35-44 yrs age group predominant among policemen (37%) compared to other age groups. Maximum policemen were married (82%), Educational qualification in policemen we noted was primary (6%), higher secondary (48%), and graduation (42%) PG and above.

Majority of them (49%) belonged to the 20001-25000Rs/monthly income group. As far as their religion was concerned, majority (92%) belonged to Hinduism, 32% reported to be working in the Police Station, traffic police duty (32%), Bandobast duty (28%) and very few working in the office.

The study revealed that, majority (41%) replied as they are aware about myocardial infarction through Health Programs, Newspaper/Magazine (34%), radio (31%), and television (29%) where as 5 said internet. Health programs play important role in detection of the problem. Hence, more health programs are necessary. Very few Policemen use internet for health related issues.

During the study, it was observed that from sample who had been diagnosed as hypertension and had history of myocardial infarction were very keen to listen and more interested. Such kind of session was conducted for them first time so they asked many queries related to topic. The reviews given also prove that there is need for information in above areas, considering the objectives that were laid down, the planned teaching programme was developed and printed. The finding of the study also revealed that information provided in the planned teaching programme was found to be effective in improving the knowledge and improving the practices of the sample which would further help in improving the daily practices for managing the myocardial infarction and avoid complications. Overall, the study revealed that the planned teaching programme is an effective method for improving the knowledge and practices of the sample in the study.

CONCLUSION:

In the present scenario there are increase in drug addiction, smuggling, economic crimes, insurgency and terrorist activity which have thrown new challenges for Indian police. However, the police are not able to keep pace with these newer forms of organised crime by mafia gangs and militants. This stressors caused numerous deaths and injuries to police personnel. Policemen require periodic medical examination to remain healthy. The Mumbai city is the hub for the various crimes and disasters which caused tremendous stress on the working conditions of the police. Various researches suggested that, they are suffering from the various communicable and non communicable diseases and subsequent death of the police personnel.Government machinery requires looking into the health problems of Mumbai policemen to

form a comprehensive health insurance policy. Periodic counselling is required on health issue as well as job stressor from team consisting of specialist in medicine, psychiatry, dieticians and psychologist. Stressors put them at risk of heart attack which life is threatening, thus, they need to know about its prevention.

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