Effectiveness of Self- Instructional Module for Enhancing Knowledge and Attitude towards Angina Pectoris Prevention among Businessmen

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Abstract: *Background: A healthy heart is a vital for living life regardless of age or gender. According research studies Cardio Vascular disease have now become the leading causes of mortality in India. Angina pectoris and stroke are predominant causes and responsible for 80% of CVD deaths. Angina pectoris is associated with the habits and life styles of people. The healthy life style modification of general population can bring a reduction in morbidity and mortality rate due to angina pectoris. Hence there is a necessity of health education module for young adults regarding health life style for prevention angina pectoris. Objective: The objective of study is assessing the effectiveness of self-instructional module regarding prevention of angina pectoris among businessmen. Methodology: A quantitative research approach with quasi-experimental research design was used in present study. Two hundred businessmen of Alwar District were selected by convenient sampling technique. For data collection demographic tools, structured knowledge questionnaire and attitude scale on angina pectoris were used. Ethical permission and informed consent were taken from study participants. Result: The statistical finding shows that during pre-test maximum businessmen having inadequate knowledge and unfavourable attitude regarding prevention of angina pectoris. After providing self instructional module in experimental group, most of businessmen got adequate correct knowledge and favorable attitude regarding prevention of angina pectoris. Conclusion: Findings of the research study conclude that self instructional module was very effective method for increase correct knowledge and good attitude among businessmen regarding angina pectoris.*

Keywords: Businessmen, Angina pectoris, Knowledge, Attitude

1. Introduction

The French Quotes Angina usually causes uncomfortable pressure, fullness, squeezing or pain in the center of the chest. You may also feel the discomfort in your neck, jaw, shoulder, back or arm. Angina pectoris is a severe chest pain due to ischemia of the heart muscle, generally due to obstruction or spasm of the coronary arteries.[1]

As these may hear myocardial infarction, they require urgent medical attention and are generally treated as a presumed heart attack, likely as men are to have a heart attack, The number of people who go to the hospital for heart disease every year is about3.7 million. And a whopping 12.4 million people make heart disease related visits to their physician every year [2].

According World Heart Federation "more people die from CVD worldwide than from any other cause: over 20.5 million death every year, of these 85% were due to coronary heart diseases and cerebrovascular diseases and mostly affect low and middle-income countries [3].

Ischemic heart disease (IHD) is the leading cause of death worldwide [4].

The prevalence of coronary heart disease is higher in India, because of fast life, physical inactivity, people are under stress, adopt unhealthy food pattern, and there is no excuse all these risk factors predispose to coronary heart disease. The research studies conducted across India found that 13.5 % of adult population in urban area and 7.4 % of population in rural areas suffering from heart diseases [5].

According to the World Health Organization, India accounts for one- fifth of CVDs worldwide especially in younger population. The results of Global Burnden of Disease study state age –standardized CVD death rate of 272 per 100000 population in India[6].

2. Objectives of the Study

- To assess the knowledge and attitude on prevention of angina pectoris among businessmen in experimental and control group.
- To assess the effectiveness of self-instructional module on prevention of angina pectoris among businessmen in experimental group.
- To compare the knowledge and attitude on prevention of angina pectoris among businessmen between experimental and control group
- To associate the knowledge and attitude on prevention of angina pectoris among businessmen with their demographic variables in experimental and control group.

3. Methods

Quantitative research with quasi-experimental design was adopted to assess the effectiveness of self-instructional module on knowledge and attitude regarding prevention of angina pectoris among businessmen. Total 200 businessmen residing in Alwar district were selected by convenient sampling technique. Data was collected by administering structured knowledge questionnaire and attitude scale. The reliability of the tools was checked by using split half technique and Spearman Brown prophecy formula. Data

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analysis was done by using descriptive as well as inferential statistics. Ethical Committee permission was obtained from the concerned institutional authorities. Written consent was obtained from study participants.

4. Results

Table 1: Demographic characteristics of Businessmen by frequency and percentages (n=200)

Demographic variables	Group			
	Experimental (n=100)		Control (n=100)	
	f	%	f	%
Age in year				
a) 31 -35	64	64%	56	56 %
b) 36 -40	36	36%	44	44 %
Sex				
a) Male	97	97%	96	96%
b) Female	3	3%	4	4%
Education Status				
a) Primary education	20	20%	24	24%
b) Secondary education	54	54%	40	40%
c) Higher education	26	26%	36	36%
Monthly income (Rs)				
a) 5000- 10000	28	28%	30	30%
b) 11000- 15000	46	46%	45	45%
c)15000- 20000	26	26%	15	15%
Residence area				
a) Rural	40	40%	44	44%
b) Urban	60	60%	56	56%
Source of information				
a) Family members & friends	40	40%	43	43%
b) Mass Media	25	25%	27	27%
c) Health personal	35	35%	30	30%

Table No-1 shows that in experimental group most of participants (64%) and in control group (56%) were in between 31-35year of age, in experimental group (54%) and (40%) in control group were secondary educated. Nearby half of participants of both group having monthly income from 11000-15000 Rs/ month. 60 % in control group & 56 % in experimental group living in urban area. Nearby half of study participants of both groups have information about angina pectoris from family members and friends.

Table 2: Pre-test level of knowledge score. n=200

Level of knowledge	Experimental		Control	
	f	%	f	%
Inadequate	91	91%	90	90%
Moderately adequate	9	9%	10	10%
Adequate	00	00%	00	00%
Total	100		100	

Table No- 2 shows that maximum businessmen of both groups have inadequate knowledge regarding prevention of angina pectoris

Table 3: Pre-test level of attitude score. n=200

Level of attitude	Experimental		Control	
	f	%	f	%
Unfavourable	90	90%	88	88.0%
Moderately favourable	10	10%	12	12 %
Favourable	00	00%	00	00%
Total	100	100 %	100	100%

Table no- 3 show that in experimental group 90% businessmen and in control group 88% had unfavourable attitude regarding prevention of angina pectoris.

Table 4: Post-test level of knowledge score. n=200

Knowledge level	Experimental		Control	
	f	%	f	%
Inadequate	00	00%	88	88%
Moderately adequate	21	21%	12	12%
Adequate	79	79%	00	00%

Table no- 4 highlight post test result which shows that in experimental group 79% of study participants have adequate knowledge regarding prevention of angina pectoris after teaching programme but in control group 88 % of participants have inadequate knowledge.

Table 5: Post-test level of attitude score. n=200

Level of attitude	Experimental		Control	
	f	%	f	%
Unfavourable	00	00%	86	86%
Moderately favourable	16	16%	14	14%
Favourable	84	84%	00	00%

Table No- 5 show that after giving teaching maximum study participants (84%) in experimental group have favourable attitude regarding prevention of angina pectoris and 86 % participants have unfavourable attitude in control group.

Table 6: Effectiveness of Self-Instructional Module. n=200

Group	Variables	Test	Max score	Mean score	Mean Difference	Percentage Difference
Experimental	Knowledge	Pre-test	20	6.28	9.56	47.8%
		Post-test	20	15.84		
	Attitude	Pre-test	150	54.28	69.17	46.5%
		Post-test	150	123.45		
Control	Knowledge	Pre-test	20	6.51	0.36	1.8%
		Post-test	20	6.87		
	Attitude	Pre-test	150	56.42	2.61	1.6%
		Post-test	150	59.03		

Table no- 6 shows after providing self instructional module businessmen in experimental group improve 47.8% of knowledge whereas in control groups only 1.8% was improved and regarding attitude businessmen who were in experimental group have improve 46.5% whereas in control groups only 1.6% improve. It indicates that self-instructional module regarding prevention of angina pectoris was very effective.

Table 7: Comparison of Pre-Test and Post-Test Knowledge score in Experimental Group. n=200

Domains	Pre-test		Post-test		Difference	P-Value
	Mean	SD	Mean	SD		
Disease aspect of angina pectoris	1.04	.60	2.52	.73	1.48	0.001 **
Risk factors and management	5.24	1.78	13.32	1.69	8.08	0.001 **
Total Score	6.28	1.95	15.84	1.83	9.56	0.001 **

Student paired t-test
Table no 7 highlight that disease aspect of angina pectoris and risk factors and their management were statistically significant.

Table 8: Comparison of Pre-Test and Post-Test Knowledge score in Control Group (n=200)

Domains	Pre-test		Post-test		Difference	P-Value
	Mean	SD	Mean	SD		
Disease aspect of angina pectoris	1.11	.60	1.25	.59	0.14	0.07
Risk factors and their management	5.40	1.61	5.62	1.59	0.22	0.06
Total Score	6.51	1.73	6.87	1.73	0.36	0.07

Table No 8 shows that in control group knowledge score was not statistically significant.

Table 9: Comparison of pre-test and post-test attitude score in experimental group (n=200)

Attitude Domain	Pre-test		Post-test		Mean Difference	P-Value
	Mean	SD	Mean	SD		
Smoking	9.40	2.95	21.03	2.91	11.63	0.001 ***
Diet	9.20	2.22	21.50	2.75	12.30	0.001 ***
Obesity	9.90	4.20	20.44	4.39	10.54	0.001 ***
Stress	9.10	2.69	23.48	4.62	14.38	0.001 ***
Other risk factors	16.68	4.44	37.00	5.80	20.32	0.001 ***
Total	54.28	9.90	123.45	6.75	69.17	0.001 ***

***significant,

Student paired t-test
Table no 9 shows that in experimental group pre-test and post test score were statistically significant.

Table 10: Comparison of pre-test and post-test attitude score in control group (n=200)

Attitude Domain	Pre-test		Post-test		Mean Difference	P- Value
	Mean	SD	Mean	SD		
Smoking	10.00	2.46	10.26	2.32	**0.26**	**0.17**
Diet	9.65	1.78	10.02	1.81	**0.37**	**0.12**
Obesity	10.35	3.50	10.70	3.48	**0.35**	**0.14**
Stress	9.60	2.32	10.35	2.38	**0.75**	**0.10**
Other risk factors	16.82	4.76	17.70	4.86	**0.88**	**0.19**
Total	56.42	7.54	59.03	6.95	**2.61**	**0.09**

Student paired t-test
Table No- 10 shows that in control group pre-test and post test attitude domains score in control group were not statistically significant

Table 11: Association between knowledge score and demographic variables in experimental group (n=100)

Demographic variables	f	Knowledge gain score					P- Value
		Post-test		Pre-test		Mean Difference	
		Mean	SD	Mean	SD		
Age in year							
31-35	64	15.7	1.87	6.39	2.03	9.31	**P=0.01****
36-40	36	16.18	1.76	6.15	1.83	10.03	
Sex							
Male	97	15.81	1.85	6.28	1.98	9.54	
Female	3	16.67	0.58	6.33	0.58	10.33	
Education							
Primary	20	15.55	1.99	6.65	2.13	8.9	
Secondary	54	15.78	1.67	6.04	1.78	9.74	**P=0.05***
Higher	16	15.6	1.9	6.3	1.77	9.3	
Graduate & above	10	15.98	1.67	6.04	1.78	9.93	
Monthly income Rs							
< 5000	4	15.83	2.24	6.88	2.58	8.96	**P=0.01****

6000 -10000	24	15.42	2	5.96	1.87	9.46	**significant**
11000 – 15000	46	16.5	0.58	7	0.82	9.5	
Rs.15000	26	16.02	1.54	6.03	1.63	9.99	
Residence Place							
Rural	40	16.45	1.47	6.88	1.81	9.57	
Urban	60	15.43	1.94	5.88	1.95	9.55	
Source of health information							
Family members	20	16.45	1.57	6.9	2.15	9.55	
Neighbours	20	16.45	1.39	6.85	1.46	9.6	
Mass Media	25	16.24	1.74	6.52	1.85	9.72	
Health Personal	35	14.86	1.9	5.43	1.91	9.43	

Out of the several demographic variables, level of education and their age were significantly associated with knowledge gain score on prevention of angina pectoris.

5. Discussion

In the present study it was found that the self-instructional module was effective in improving the knowledge and attitude regarding prevention of angina pectoris among businessmen. Findings are consistent with systematic review study conducted by Lindsey Anderson, James PR Brown, Alexander M Clark et al. "Patient education in the management of coronary heart disease", The study result shows that in control group education-based interventions was effective to improve health-related quality of life[7].

Strength
Enhancement of knowledge and attitude regarding prevention of angina pectoris individual and community level is the most urgent need to reduce the incidence of cardiovascular disease

Limitations
Study design was confined only 200 businessmen age group 30-40 years as a study participant.

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Conflict of Interest: There is no conflict of interest

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