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An Experimental Study to Evaluate the Effectiveness of Video Assisted Teaching on Knowledge Regarding Early Sign & First aid Management of Cardiac Symptoms among General Population of Rohtas, Bihar

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Abstract: *Introduction: Cardiovascular disease (CVD) is the leading cause of death worldwide. The prevalence of coronary artery disease (CAD), a major contributor to CVD, is related to the increasing Prevalence of modifiable risk factors, previous studies identified diabetes mellitus, hypertension, hypercholesterolemia, smoking, alcohol consumption, obesity and sedentary lifestyle as risk factors. However, certain risk factors may predominate in certain regions. Smoking is the main determinant of ischemic heart disease (IHD) amongst the East Indians of Bangalore, India and populations of certain Arab countries. India is also experiencing a large rise in chronic diseases, especially heart disease, stroke and diabetes. Cardiovascular disease will be the largest cause of death and disability by 2020 in India. It has been forecasted that 2.6 million people will die from coronary heart disease, which constitutes 54% of all cardiovascular disease deaths.*

AIM: To evaluate the effectiveness of video assisted teaching on knowledge regarding early sign & first aid management of cardiac symptoms among general population of Rohtas, Bihar

METHODOLOGY: The Experimental research is conducted using group pre-test and post-test design at Karkatpur, Akhorigola, Rohtas, Bihar from 6/02/2023 to 11/02/2023. A self-structured questionnaire tool was used to assess the knowledge regarding early sign & first aid management of cardiac symptoms among 60 general population by adopting random sampling technique. Pre-test is conducted by using questionnaire tool and immediately after pre-test video assisted teaching programme was implemented. Just after the implementation of video, post-test was conducted by using same questionnaire tool. The results were analysed using descriptive and inferential statistical.

RESULTS: The present study was aimed at assessing the effectiveness of video assisted teaching on knowledge regarding early sign and first aid management of cardiac symptoms among general population Akhorigola, Bihar. The relevant data was collected statistically based on objectives of the study. There are 60 participants. Before intervention in pre-test about early sign (10%) has good knowledge, (50%) has moderate knowledge and (40%) has poor knowledge. Whereas about first aid management (5%) has good knowledge, (70) has moderate knowledge and (25%) has poor knowledge. After intervention there is increase in knowledge about both early sign and first aid management. In post-test (88%) has good knowledge, (12%) has average knowledge and (0%) has poor knowledge about early sign. Whereas (66.7%) has good knowledge, (30%) has average knowledge and (3.3%) has poor knowledge regarding first aid management.

CONCLUSION: At last as a researcher we concluded that there is increase in knowledge regarding early sign and first aid management of cardiac disease after video assisted teaching and there is no any correlation between both the variable early sign and first aid management. There is no association.

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Keywords: Valuate, Effectiveness, Video Assisted Teaching, knowledge, Early sign, First aid management, cardiac disease.

I. INTRODUCTION

India is experiencing a large rise in chronic diseases, especially heart disease, stroke and diabetes. Cardiovascular disease will be the largest cause of death and disability by 2020 in India. It has been forecasted that 2.6 million people will die from coronary heart disease, which constitutes 54% of all cardiovascular disease deaths. Approximately half of these deaths will occur in young and middle-aged individuals, making the impact to society and the economy even more significant. **(Original article, 2012)** Cardiac disease is the leading cause of mortality and morbidity in many countries worldwide. It is estimated that it will be the single largest cause of disease burden globally by the year 2020. (World Health Organization, (2007). Mortality from cardiovascular disease reached 17.5 million in 2005, which is 30 percent of all global deaths. (Wood, 2005) The World Health Organization (WHO) estimated that if no appropriate action is taken, 20 million people would die from cardiovascular disease every year by 2015. (Ukraine, 2007). In India, heart disease is the single largest cause of death with heart attacks being responsible for 1/3rd of all deaths caused by heart diseases. According to the projection by the WHO and the Indian Council for Medical Research (ICMR), India will not only be the heart attack capital but also the capital of diabetes and hypertension by 2020.According to WHO, 60 percent of the world's cardiac patients will be Indians by 2010 and according to the International Obesity Task Force, a medical NGO that coordinates with the WHO on obesity issues, of all Asians, South Asians have the worst problems when it comes to heart disease. Cardiovascular disease (CVD) is the leading cause of death worldwide. The prevalence of coronary artery disease (CAD), a major contributor to CVD, is related to the increasing Prevalence of modifiable risk factors, previous studies identified diabetes mellitus, hypertension, hypercholesterolemia, smoking, alcohol consumption, obesity and sedentary lifestyle as risk factors. Other risk factors identified were waist-to-hip ratio, dietary patterns, physical inactivity, blood lipoproteins, psychosocial factors, loneliness and social isolation and C-reactive protein, Uric acid and homocysteine levels. However, certain risk factors may predominate in certain regions. Smoking is the main determinant of ischemic heart disease (IHD) amongst the East Indians of Bangalore, India and populations of certain Arab countries.

Aim:

To evaluate the knowledge regarding early sign & first aid management of cardiac symptoms among general population of Karkatpur, Akhorigola.

Objective:

Primary Objective

- To find out the knowledge regarding early sign of cardiac symptoms among general population of Karkatpur, Akhorigola.
- To find out the knowledge regarding first aid management of cardiac symptoms among general population of Karkatpur, Akhorigola.
- To evaluate the effectiveness of video assisted teaching on knowledge regarding early sign of cardiac symptoms among general population of Karkatpur, Akhorigola.
- To evaluate the effectiveness of video assisted teaching on knowledge regarding first aid management of cardiac symptoms among general population of Karkatpur, Akhorigola.

Secondary Objective

- To find the association of knowledge regarding early sign of cardiac symptoms with selected socio-demographic variables Karkatpur, Akhorigola.
- To find the association of knowledge regarding first aid management of cardiac symptoms with selected socio-demographic variables Karkatpur, Akhorigola.

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II. METHODOLOGY

The Experimental research is conducted using group pre-test and post-test design at Karkatpur, Akhorigola, Rohtas, Bihar from 6/02/2023 to 11/02/2023. A self-structured questionnaire tool was used to assess the knowledge regarding early sign & first aid management of cardiac symptoms among 60 general population by adopting random sampling technique. Pre-test is conducted by using questionnaire tool and immediately after pre-test video assisted teaching programme was implemented. Just after the implementation of video, post-test was conducted by using same questionnaire tool. The results were analysed using descriptive and inferential statistical.

III. RESULT

This table presents the comparison of Experimental and Control Group on the basis of socio demographic data of general population.

n_1+n_2 =60+60

	Socio-demographic variable	Experimental group Frequency (%)	Control group Frequency (%)	χ^2	df	þ value
1.	**Age group**					
1.1	**25-45yr**	27(45%)	28 (47%)	0.292573	2	0.86391
1.2	**46-65yr**	24(40%)	25(42%)			
1.3	**> 65yr**	9(15%)	7 (11%)			
2.	**Gender**					
1.1	**Male**	25(42%)	22 (37%)	O.315769	2	0.85394
1.2	**Female**	35(58%)	38 (63%)			
1.3	**Others**	0(0%)	0 (0%)			
3.	**Marital Status**					
1.1	**Married**	42(70%)	40 (67%)	1.306746	3	0.727592
1.2	**Un Married**	14(23%)	18 (30%)			
1.3	**Widow**	04(7%)	02 (3%)			
1.4	**Separated**	0(0%)	0 (0%)			
4.	**Educational Qualifications**					
1.1	**No Formal Education**	14(23%)	12 (20%)	1.433607	3	0.697676
1.2	**Primary Education**	15(25%)	11 (18%)			
1.3	**Secondary education**	13(22%)	17 (28%)			
1.4	**Graduate**	18(30%)	20 (34%)			
5.	**Have you ever felt any kind of cardiac problem?**		11 (18%)	0.242036	1	0.622739
1.1	**Yes**	9(15%)	49 (82%)			
1.2	**No**	51(85%)				
6.	**Have you ever seen any case of cardiac disease in your life?**					
1.1	**Yes**	17(28%)	15 (25%)		1	
1.2	**No**	43(72%)	45 (75%)	0.170968		O.679253

þ ≥ 0.05, not significant

Table 1 depicts the frequency and percentage distribution of the general population in Experimental and Control group according to their socio-demographic variables.

It is evident from the table that in Experimental group 45% of the general population were in the age group 25-45yr, 40% were in the age group 46-65yr and 9% were in the age group ≥65yr of age. In Control group, 47 % were in age group 25-45yr, 42% were in the age group 46-65yr and 15 % were in the age group ≥65yr of age.

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In both the group more than half of the general populations were females i.e., 58% and 63% in Experimental and Control group respectively.
In both the groups more than half of the general populations were married i.e. 70% and 67% in Experimental and Control group respectively.
In relation to educational status in both the groups majority of the general population were graduate i.e. 30% and 34% in Experimental and Control group respectively.
In both the group more than half of the general populations were never felt any kind of cardiac disease i.e., 85% and 82% in Experimental and Control group respectively.
In both the group more than half of the general populations were never seen any case of cardiac disease i.e., 72% and 75% in Experimental and Control group respectively.

Comparison of Early sign Knowledge Score among General population of Experimental and Control Group after Video Assisted Teaching Programme

n_1+n_2 =60+60

Variable	Experimental Group Mean±SD	Control Group Mean±SD	t value	df	p value
Early sign	9.93±1.10	5.75±2.24	10.9	40	**<0.001****

**þ value ≤ 0.001,highly significant

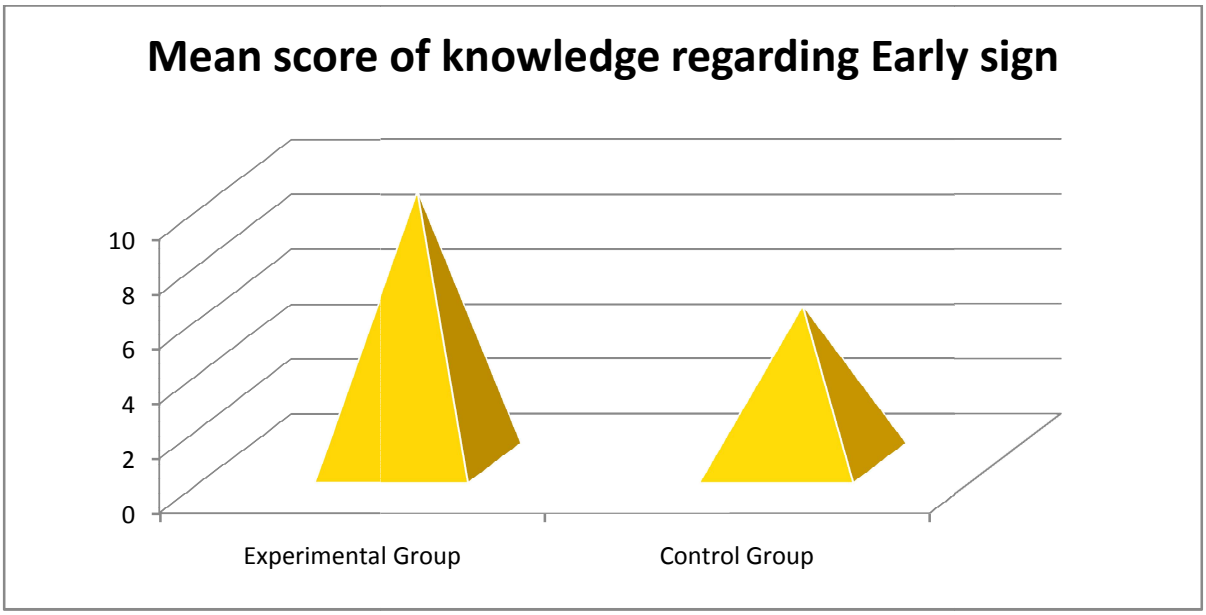

Figure 1 depicts the Post-test Mean Scores of Early sign among general population of Karkatpur in Experimental Group and in Control Group. Figure 4 clearly shows that the Early sign Scores were more in Experimental Group 54.76 as compared to Control Group 75.94 at p value <0.001

n_1+n_2 =60+60

Variable	Experimental Group Mean±SD	Control Group Mean±SD	t value	df	p value
First aid management	16.8±2.4	9.48±2.36	16.9	40	**<0.001****

**þ value ≤ 0.001,highly significant

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Comparison of First aid management knowledge Score among General population of Experimental and Control Group after Video Assisted Teaching Programme

Figure 5 depicts that Mean post-test First aid management Scores of General population of Karkatpur, Akhorigola in Experimental Group. Figure 2 clearly shows that the first aid management Score was more in Experimental Group (40.52) as compared to Control Group (26.96) at p= <0.001.

IV. CONCLUSION

The present study was aimed at assessing the effectiveness of video assisted teaching on knowledge regarding early sign and first aid management of cardiac symptoms among general population Akhorigola, Bihar.

The relevant data was collected statistically based on objectives of the study. There are 60 participants. Before intervention in pre-test about early sign (10%) has good knowledge, (50%) has moderate knowledge and (40%) has poor knowledge. Whereas about first aid management (5%) has good knowledge, (70) has moderate knowledge and (25%) has poor knowledge.

After intervention there is increase in knowledge about both early sign and first aid management. In post-test (88%) has good knowledge, (12%) has average knowledge and (0%) has poor knowledge about early sign. Whereas (66.7%) has good knowledge, (30%) has average knowledge and (3.3%) has poor knowledge regarding first aid management.

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