A Study to Determine the Effectiveness of Video Assisted Teaching Vs Lecture Method on Knowledge of Staff nurses Regarding Immediate Management of Patients with Myocardial Infarction, at a Selected Hospital, in Visakhapatnam District

Adduri Sarika

Lecturer, Gangasheel School of Nursing, Bareilly, Uttar Pradesh, India

Abstract: _Introduction: The Heart is having a superb mechanism, with a great wisdom in its construction. It is the central organ of the circulatory system' acting as a force and suction pump in relation to the blood vessels. The integrity of the coronary arteries is an important determinant of oxygen supply to the heart muscle. Any disorder that reduces the lumen of one of the coronary arteries may cause a decreased in blood flow and oxygen delivery to the area of the myocardium supplied by that vessels and leads to acute coronary syndromes of Angina pectoris, myocardial infarction and sudden cardiac death. Worldwide 32.4 million people are suffering from cardiovascular diseases. In India 30 million suffer from cardiovascular disease Methodology: An quantitative research approach with pre-experimental one group pretest post-test design was used for the study. The subjects were 60 staff nurses selected by non- probability convenience sampling technique. Video assisted teaching and Lecture was administered after the assessment of pre-test knowledge on immediate management of patient with Myocardial infarction. Post intervention knowledge was assessed on the 7 day of the administration of Video assisted teaching and Lecture through the same structured knowledge questionnaire. Results:- The study revealed that out of 60 samples pretest knowledge of staff nurses 9 (96.67%) in video assisted teaching and 27(90.0%) in lecture method had moderate knowledge. Pre-test mean score was 17.766 for video assisted teaching and 17.3 for lecture method. After intervention the Knowledge level of staff nurses were increased from moderate knowledge to adequate knowledge level 29 (96.67%) in video assisted teaching and 9(30.0%) in lecture method had adequate knowledge. The mean post test knowledge score of Video assisted teaching 25.4 was greater than the mean post test score of lecture 19.36, showed that there is a significant difference between the post test knowledge scores of staff nurses. The obtained 't' Value 10.7869 is greater than table value 2.001 at 58 DF at 0.05 level of significance. Therefore the obtained 't' value is found to be significant. Hence, we have sufficient evidence to conclude that video assisted teaching gives more knowledge than lecture method. The chi- square test revealed that there was no significant association between the demographic characteristic and their knowledge regarding immediate management of patient with myocardial infarction. Conclusion: This study concluded that intervention programme played an important role in enhancing the knowledge level of respondents._

Keywords: Effectiveness; Staff nurses; Knowledge; Video Assisted teaching (VAT), Lecture method

1. Introduction

The Human body is a wonderful creation of God, and is composed of numerous cells. The heart is a free and fetterless thing, like wave of the ocean. All these are merely literary expressions and not far away from physiological truth. In fact the heart is the nonstop pump which maintains circulation to every part of body especially the essential organs of heart,brain,liver and kidney thus maintaining life[1].

The heart is supplied with arterial blood by the right and left coronary arteries which is a direct branch from the aorta. Myocardial infarction (MI) or acute myocardial infarction (AMI), commonly known as a heart attack, results , if the coronary artery either right or left becomes occluded, results in the partial interruption of blood supply to any part of the heart, causing heart cells to die. This most commonly occurs due to the rupture of a vulnerable atherosclerotic plaque, which is an unstable collection of lipids (cholesterol and fatty acids) and white blood cells (especially macrophages) in the wall of an artery[2].

The cause of death in Myocardial infarction is due to insufficient coronary blood flow, resulting in a decreased oxygen supply when there is increased myocardial demand for oxygen in response to physical exertion or emotional stress[3].

Globally about 4,00,000 patients go to their doctors with new onsets of Myocardial infarction each year. Among them about 174.000 people had new onset Myocardial infarction over a two years period. Indian statistics show that in a total average of 8.8% for Myocardial infarction[4].

According to World Health Organization (WHO) forecast the annual number of deaths from cardiovascular diseases rise from 17.5 million in 2012 to 22.2 million by 2030. Approximately one million Americans suffer a heart attack each year of them 400,000 of them die as a result of their heart attack[5].

As Myocardial infarction is a major medical problem faced in our country, the researcher felt the need to conduct a study on the subjects which would help to gather good information on the best method of teaching the subjects which would help practicing nurses to identify the patient

suffering from myocardial infarction and to perform the life saving emergency measures competently[7].

Objectives of the Study:
- To assess the level of knowledge regarding immediate management of patient with Myocardial Infarction among staff nurses as measured by structured questionnaire.
- To develop and implement video assisted teaching and lecture regarding immediate management of patient with myocardial infarction among staff nurses.
- To Evaluate the effectiveness of video assisted teaching and Lecture method regarding Immediate management of patient with myocardial infarction among staff nurses before pretest and after post test.
- To compare the effectiveness of video assisted teaching versus lecture method regarding immediate management of patient with myocardial infarction among staff nurses.
- To find out the association between post test knowledge scores of video assisted teaching and Lecture method among staff nurses with selected demographic variables.

2. Materials and methods

A quantitative approach with pre-experimental design (One group pre- test post-test design) was used for the study to assess the knowledge of staff nurses regarding immediate management of patient with myocardial infarction..The study was conducted in care hospital, Ram nagar,Visakhapatnam. and the staff nurses who were willing to give consent and participate in the study were included the study. The staff nurses were selected by non -probability convenient sampling techniques and 60 staff nurses were selected for the study. The tools used for conducting the study were a set of demographic variables and structured questionnaire. Video assisted teaching and lecture given on immediate management of patient with myocardial infarction. The subjects were administered structured questionnaire on immediate management of patient with myocardial infarction with pre-test and post-test assessment of structured questionnaire was done.Data was analysed with the help of descriptive and inferential stastistics.

3. Results

Table 1: Frequency and Percentage Distribution Of Video Assisted Teaching And Lecture Method On Level Of Knowledge among Staff Nurses With Selected Demographic Variables

S.NO	Demographic Variables	video assisted teaching		Lecture method	
		Frequency	**Percentage**	**Frequency**	**Percentage**
1	**AGE**				
	a. Below 22 years	6	20.0%	8	26.7%
	b. 22-25 years	20	66.67%	22	73.3%
	c. 26-29 years	2	6.67%	0	0%
	d. Above 30 years	2	6.67%	0	0%
2	**Gender**				
	a. Male	1	3.3%	1	3.3%
	b. Female	29	96.7%	29	96.7%
3	**Professional education**				
	a. General nursing & midwifery	10	33.33%	2	6.67%
	b. B.Sc. nursing	11	36.66%	13	43.33%
	c. Post basic nursing	9	30.00%	15	50.0%
4	**Working area of nurses**				
	a. Emergency areas	6	20.0%	2	6.7%
	b. Medical and surgical wards	8	26.7%	10	33.3%
	c. General wards	12	40%	13	43.3%
	d. Other Areas	4	13.3%	5	16.7%
5	**Years of Experience**				
	a. 0-3 years	26	86.7%	30	100%
	b. 4-6 years	3	10.0%	0	0%
	c. Above 7 years	1	3.3%	0	0%
6	**In service education**				
	a. Yes	30	100%	30	100%
	b. No	0	0	0	0

Table 2: Frequency And Percentage Distribution Of Levels of Knowledge among Staff Nurses According To Their Knowledge Scores Before And After Giving Video Assisted Teaching and Lecture Method, N = 30

	Level	Pre-test		Post-Test	
Video Assisted Teaching		**F**	**%**	**F**	**%**
	Inadequate knowledge	0	0.00%	0	0.00%
	Moderate knowledge	29	96.67%	1	3.33%
	Adequate knowledge	1	3.33%	29	96.67%
Lecture method	Inadequate knowledge	0	0.00%	0	0.00%
	Moderate knowledge	27	90.00%	21	70.00%
	Adequate knowledge	3	10.00%	9	30.00%

*F-Frequency %-Percentage

Table 3: Evaluation of the Effectiveness of Video Assisted Teaching on Level of Knowledge Among Staff Nurses Regarding Immediate Management of Myocardial Infarction, N=30

Aspects	Scores	Mean	Standard deviation	Paired t value	Table value	DF	P Value
Pre test	533	17.766	2.5688	15.961	2.05	29	0.05
Post test	762	25.4	2.1591				

Table 4: Evaluation of the Effectiveness of Lecture on Knowledge Levels of Staff Nurses Regarding Immediate Management of Myocardial Infarction, N =30

Aspects	Scores	Mean	Standard deviation	Paired t value	Table value	DF	P Value
Pre test	519	17.3	2.4795	6.9080	2.05	29	0.05
Post test	581	19.366	2.1732				

Table 5: Evaluation The Effectiveness of the Video Assisted Teaching Vs Lecture Method Post Test Scores Among Staff Nurses Regarding Immediate Management of Myocardial Infarction, **N =60**

Aspects	Mean	Standard deviation	Calculated value	Tabulated Value	DF	P Value
Video assisted teaching- Post test	25.4	2.1591	10.7869	2.001	58	0.05
Lecture- Post test	19.36	2.1732				

Table 7: Association between the Post Test knowledge scores of staff nurses attended video assisted teaching with their selected demographic variables.

Items	Variables	Inadequate Knowledge	Moderate Knowledge	Adequate Knowledge	X^2	DF	Table value	P – value (0.05) level & Significance
Age	Below 22 Years	0	0	6	0.517	6	12.59	NS
	22-25 Years	0	1	19				
	26-29 years	0	0	2				
	Above 30	0	0	2				
Gender	Male	0	0	1	0.036	2	5.99	NS
	Female	0	1	28				
Professional Education	General nursing & midwifery	0	0	10	1.787	4	9.49	NS
	B.Sc. nursing	0	1	10				
	Post basic B.Sc. nursing	0	0	9				
Working Area of nurses	Emergency	0	0	6	2.845	6	12.59	NS
	Medical and surgical wards	0	1	7				
	General Wards	0	0	12				
	Other areas	0	0	4				
Years of experience	0-3 years	0	1	25	0.159	4	9.49	NS
	4-6 years	0	0	3				
	Above 7 years	0	0	1				

* Significant at 5% level, the result is not significant at p < 0.05

Table 7 portrays that the Association between the Post Test knowledge scores staff nurse attended video assisted teaching with their selected demographic variables.

4. Discussion

The aim of the present study was to Determine the Effectiveness of Video Assisted Teaching Vs Lecture Method On Knowledge of Staff nurses Regarding Immediate Management of Patients With Myocardial Infarction, at Care Hospital, Ramnagar, Visakhapatnam District .A total of 60 staff nurses (30 for video assisted teaching and 30 for lecture) were selected for the study by using Purposive sampling method at Care hospital, Visakhapatnam. A pre test was conducted on the staff nurses followed by lecture for 30 min and then the post test was administered. Similarly a pre test was conducted followed by a video assisted teaching for 30 min and then post test was administered to another samples.

5. Conclusion

The study reveals that the comparison of pre test knowledge scores among staff nurses attended video assisted teaching none of them had (Inadequate level of knowledge), 96.67% (Moderate level of knowledge), 3.33% (Adequate level of knowledge); in post test, none of them had (Inadequate level of knowledge), 3.33% (Moderate level of knowledge), 96.67% (Adequate level of knowledge); where as in Lecture method pre test none of them had (Inadequate level of knowledge), 90.0% (Moderate level of knowledge), 10.0% (Adequate level of knowledge); in post test none of them had (Inadequate level of knowledge), 70.0% (Moderate level of knowledge), 30.0% (Adequate level of knowledge).

The findings of the study showed the mean post test knowledge score of Video assisted teaching 25.4 was greater than the mean post test score of lecture method 19.36, showed that there was a significant difference between the post test knowledge scores of staff nurses attended video assisted teaching Vs lecture.

The obtained 't' Value 10.7869 is greater than table value 2.001 at 58 DF in 0.05 level of significance. Therefore the obtained 't' value is found to be significant. Hence, we have sufficient evidence to conclude that video assisted teaching gives more knowledge than lecture method.

This study concluded that intervention programme played an important role in enhancing the knowledge level of respondents.

There is no statistical association between the posttest knowledge scores of staff nurses the selected demographic variables at p value 0.05 level such as age, Gender, Professional Education, Working area of nurses, Years of experience, Underwent in service education .

6. Implications of the Study

The finding of the study has valuable implications towards nursing education, nursing practice, nursing administration and nursing research.

Nursing Education
Nursing education plays a vital role in student education. Nursing education plays a vital role in preparing the nurses for the well being of the people in various areas. This study finding helps the nurse educator to update their knowledge and guide the student nurses in cardiac assessment in assessing cardiac cases in managing cardiac diseases there by promoting health.The present study reveals the importance of imparting and improving knowledge regarding immediate management of myocardial infarction among staff nurses. The adoption of teaching strategies like discussion method, brain storming, AV Aids such as video, power point presentations, distribution of handouts and leaflets and using advanced technological methods into the curriculum should be emphasized.

Nursing Practice
Nurses working in hospital and community play an important role in giving health education regarding prevention of cardio vascular problems. Identifying emergency cases, understanding the methods of providing care and managing in emergency situations and prevent complications is one of the most important aspects of nursing practice, so every nurse should make use of these results to update their knowledge.

Nursing Administration
The nurse administrators influence the quality of nursing care through the formulation of policies and protocols. They must motivate and encourage the staff to keep abreast with the current health problems, the preventive and treatment strategies. The nurse administrator should take initiative to plan and implement staff development programmes, and inservice education programmes on various aspects of management of myocardial infarction patients. Necessary administrative support should be provided for the preparation of educational materials and designing staff education programmes on various aspects of management of patients with myocardial infarction. The nurse administrative may initiate policy making at the hospital and community setting to develop awareness regarding immediate management in emergency situations.

Nursing Research
Nursing research is used to describe the evidence for nursing practice used to support nursing practice. Various methods may be used to strengthen the knowledge of the staff nurses, such as study findings may be published for the benefit of those staff nurses who are not having adequate knowledge in the studies. This study throws light on knowledge of staff nurses in providing immediate care of the patient with Myocardial infarction. More research can be carried to improve the trends in nursing management in emergency situations to prevent complications. Research should be taken up on preparation of innovative methods of teaching, evidence based nursing practice and utilizing in practice. Future researchers can utilize these findings as evidences to solve their problems. The study findings can be published to help the people who have not participated and to give awareness regarding immediate management of patients with myocardial infarction.

7. Recommendations

- A similar study can be replicated on a large sample there by generalized the findings to the large population.
- A Quasi experimental study can be carried out to determine the effectiveness of structured teaching programme on immediate management Myocardial infarction.
- A similar study can be conducted to assess knowledge and practice among staff nurses regarding immediate management of myocardial infarction.
- A similar study can be conducted using true experimental design.
- A comparative study can be carried out between video assisted teaching and demonstration regarding immediate management of myocardial infarction.

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Author Profile

Adduri Sarika is working as a Lecturer, in Medical Surgical Nursing at Ganga Sheel school of nursing, Bareilly, U.P. She awarded B.sc Nursing and M.sc Nursing degree from Dr.NTR University, vijayawada During student period organized Workshop, Seminars.