Universe International Journal of Interdisciplinary Research
(Peer Reviewed Refereed Journal)

© UIJIR | ISSN (O) – 2582-6417
OCT. 2020 | Vol. 1 Issue 5
www.uijir.com

SELF INSTRUCTIONAL MODULE ON KNOWLEDGE ABOUT CORONARY ANGIOGRAPHY, AMONG PATIENTS UNDERGOING CORONARY ANGIOGRAPHY

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DOI No. – 08.2020-25662434

Abstract

In India an estimated 2.27 million people died due to cardiovascular disease during 1990, and according to projections the number of deaths due to IHD was increase from 1.17 million in 1990 to 1.59 million in 2000 and 2.03 million by2010. The aim of the study was to prepare and validate the self-instructional module on knowledge about coronary angiography. Pre-experimental, one group pre-test post-test research design (O_1 X O_2) was used. Total 30 patients undergoing coronary angiography sample were taken by convenience sampling technique. There was a significant difference between pre-test and post test score on knowledge about coronary angiography. The result from the study reveals that self-instructional module is effective to improve knowledge about coronary angiography.

Keywords: *Coronary Angiography, Self-instructional module, patients with CAD*

INTRODUCTION

In today's world, most deaths are attributing to non-communicable disease (32 million) and just over half of these (16.7 million) are as a result of cardiovascular disease (CVD) more than one third of these deaths occur in middle age adults.

In India an estimated 2.27 million people died due to cardiovascular disease during 1990, and according to projections the number of deaths due to IHD was increase from 1.17 million in 1990 to 1.59 million in 2000 and 2.03 million by2010. There were over 5 million persons suffering from cardiovascular disease during 1999. The prevalence of cardiovascular disease in reported to be 2-3 times higher in urban population as compared to rural population. Education programme for cardiac patient is an essential part of quality health care today, Hence effectiveness of therapeutic regimen to be beneficial, patient must be informed about their own health and motivated to share responsibility in maintaining good health.

PROBLEM STATEMENT

A pre-experimental study to evaluate the effectiveness of self-instructional module on knowledge about coronary angiography among patients undergoing coronary angiography in selected hospitals, Salem.

NEED FOR STUDY

Coronary angiography is a unique physiological and psychological experience for patient. The nurse who knows and understands the steps involved in the procedure or should instruct the patients with adequate information so as to prevent as minimize its adverse effects. The

investigator believe that good psychological support and knowledge about coronary angiography like structure of heart, coronary artery disease, risk factors, prevention and procedure of coronary angiography in self-instruction module . Self-instruction module helps the patient to improve knowledge and reduce anxiety level of patient. Because most
Patients are unaware about coronary angiography as a diagnostic tool for coronary artery disease.

OBJECTIVE OF THE STUDY

- To prepare and validate the self-instructional module on coronary angiography.
- To determine the knowledge level of patients undergoing coronary angiography before and after administration of self-instructional module on coronary angiography.
- To find out effectiveness of self-instructional module on coronary angiography in terms of difference in knowledge by comparing mean pretest knowledge score and mean posttest knowledge score on coronary angiography.
- To find out association between the mean pretest knowledge scores with selected demonstration variables like age, sex educational status, duration of present illness.

Hypotheses: - Level of significance P < 0.05.

H_1 The mean posttest knowledge score of patients o coronary angiography will be significantly higher than the mean pretest knowledge score.

H_2 There will be a significant association between the mean pretest knowledge score and selected demography variables.

ASSUMPTIONS

- Self-instructional module on coronary angiography can bring about change in knowledge of the patients undergoing coronary angiography and is an effective tool for giving health education about coronary artery disease and coronary angiography.

DELIMITATION

- This study is delimited any to patients undergoing coronary angiography and receiving treatment in selected hospitals at Salem.
- Total period of data collection is delimited 6 weeks only.
- The study is delimited to 30 samples.

METHODOLOGY

Research approach: - in view of the nature of problem selected for the study and objective to be accomplished, quantitative research design and evaluative approach was considered as an appropriate research approach for the study.

Research Design: - The research design selected for the present study was one group pretest, posttest only, and pre experimental design. In this study, the pretest was done to the subjects on day 1, followed by instruction module was distributed on same day. Post test was conducted on the 7th day.

Pretest (O_1)	Treatment (x)	Post test (O_2)
Day-1	Day-1	Day-7
1. Demographic variables 2. Assessment for knowledge on	Self instructional module on coronary angiography	Assessment of knowledge on coronary angiography among patients

coronary angiography among patients undergoing coronary angiography		undergoing coronary angiography

POPULATION

The population was composed of coronary artery disease patients selected for coronary angiography during the period of study at SPMM Hospital Salem and Vinayka Mission Hospital, Salem.

SAMPLE SIZE

Sample consisted of 30 subjects diagnosed to have coronary artery disease (angina pectoris, congestive failure and myocardial infraction).

SAMPLING TECHNIQUE

Non probability convenience sampling was used.

INCLUSION CRITERIA

- Patients who was diagnosed to have CAD planned for coronary angiography.
- Both male and female patients.
- Patients belong to the age group of 20 to 80 years.
- Patients who were able to read and speak Tamil and English.
- Patients who were willing to participate in the study.

EXCLUSION CRITERIA

- Those who had previous exposure to health education programme for knowledge about coronary angiography.
- Patients who have other chronic disease along with coronary artery disease.

TOOL

The tool consisted of two sections

Section-A: -Socio-demographic data of subjects.

Section-B:-Structured questionnaire to assess knowledge of subject on coronary angiography.

DATA ANALYSIS

The collected data was tabulated, organized and analyzed by using descriptive and inferential statistics.

Table-1: - Frequency and percentage distribution of area wise and overall pretest mean knowledge scores.

N=30

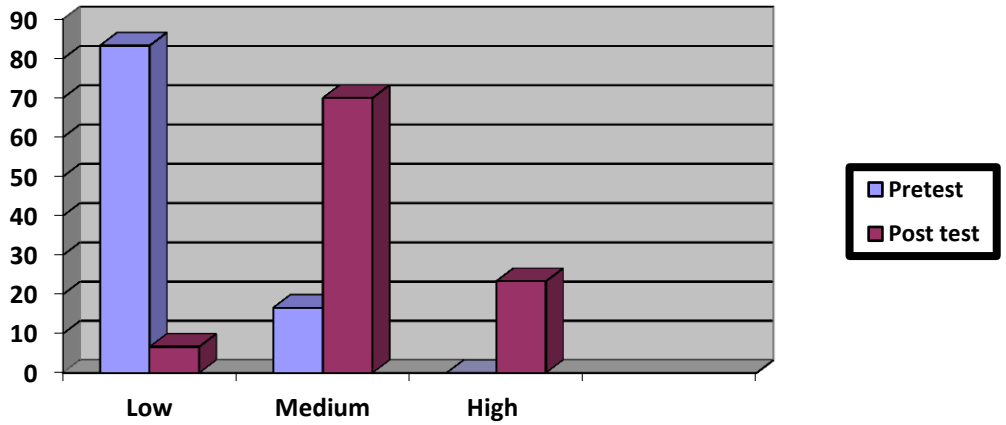
Sl. No.	Area of Knowledge	Level of knowledge in pretest					
		Low		Medium		High	
		f	%	f	%	f	%
1.	**Part-I** Structure of Heart	25	83.33	05	16.66	0	0
2.	**Part-II** Coronary artery disease	20	66.66	09	30.00	01	33.33
3.	**Part-III**						
	A. Coronary angiography procedure	29	96.66	0	0	1	3.33
	B. Pre catheterization care	23	76.66	3	10	4	13.33
	C. Post catheterization care	28	93.33	2	6.66	0	0
4.	**Overall**	25	83.33	05	16.66	0	0

Table-2: - Frequency and percentage distribution of area wise and overall post test mean knowledge scores.

N=30

Sl. No.	Area of Knowledge	Level of knowledge in post test					
		Low		Medium		High	
		f	%	f	%	f	%
1.	**Part-I** Structure of Heart	09	30	08	26.66	13	43.33
2.	**Part-II** Coronary artery disease	04	13.33	11	36.66	15	50
3.	**Part-III**						
	A. Coronary angiography procedure	08	26.66	13	46.66	09	30
	B. Pre catheterization care	06	20	10	33.33	14	46.66
	C. Post catheterization care	10	33.33	11	36.66	09	30
4.	**Overall**	02	6.66	21	70	07	23.33

Graph-1 Overall comparison between the mean pretest and posttest knowledge scores on coronary angiography



MAJOR FINDING OF THE STUDY

After data analysis in terms of objective of study percentage, descriptive and inferential statistics. The analysis reveals the following facts.

(i) Majority (33.33%) of the patients belongs to age group 60-69, 26.07% belongs to 50-59 years.

(ii) More than half (66.7) were male.

(iii) Most of patients (43.3%) were under graduates, 30% were 10th standards and 10% were postgraduate.

(iv) Majority of patients (73.3%) has no family history of heart disease.

(v) Most of patients (66.7%) have 6 months duration of present cardiac illness.

(vi) In pretest knowledge score, most of patients (83.33%) were having low and 16.66% having medium knowledge score on knowledge of coronary angiography.

(vii) In posttest knowledge score (70%) patients were having medium, 23.33% were having high and 6.66% were having low score on coronary angiography.

(viii) Mean posttest knowledge score (20.87%) is higher than mean pretest knowledge score (12.40%). Comparison of pretest and post test score was assessed by using paired't' (14.939) test analysis.

(ix) The paired't' test (14.939) analysis results were to be highly significant at 0.05 level.

(x) Results suggested that reading self instructional module was significantly effective in increasing the knowledge among patients undergoing coronary angiography.

(xi) There was significant association between the mean pretest knowledge score and duration of present cardiac illness.

(xii) These were no association between mean pretest score and their age, sex, educational status, family history of heart disease.

IMPLICATIONS

The finding of study has implications in various areas of nursing practice, nursing education, nursing administrations and nursing research.

NURSING PRACTICE

Coronary angiography is used most commonly to assess coronary artery patency and to determine if revascularization procedures are necessary (percutaneous trasluminar coronary angioplasty or coronary artery bypass surgery). The study concluded that the self-instructional module was effective in increasing knowledge of patients undergoing coronary angiography procedure.

Nurses plays a vital role in health care delivery system and today more emphasis is given on self-reliance and client participation in health care system. By using teaching strategies that are best suited to the clients, nurses can motivate them to improve their knowledge and co-operative with the diagnostic procedures. Self-instructional module on coronary angiography should encourage the nurses providing information to coronary artery disease patients undergoing cardiac invasive procedure like coronary angiography procedure.

NURSING EDUCATION

The nursing curriculum should emphasize on imparting health information newly diagnosed patient using self-instructional module. Nursing students should be educated on health promotions and preventions of complications in coronary artery disease. Every student should be encouraged in providing information to the community for which they have to be prepared properly.

NURSING ADMINISTRATION

Nurse administration should take adequate steps in formulating policies I providing patients education and also plan for manpower, money, material and time to conduct successful and useful patient educational material. Nurse administration can also organize continuing nursing education programme or in service education programme for staff nurses regarding coronary angiography.

NURSING RESEARCH

Cardiovascular diseases are leading cause of death in the world. This trend has been predicted to continue until 2020. Research studies can be conducted in cardiac nursing unit to take up projects on new methods of teaching, focusing on people interest, its quality and cost effectiveness.

RECOMMENDATIONS

1. A similar study can be conducted with a control group using a larger population of the community.
2. The study can conducted in two different hospitals with similar facilities.
3. The study can be done away staff nurses working in coronary care units.
4. A comparative study can be done for newly diagnosed and previous of heart, disease patients.

LIMITATIONS

1. The study was limited to 30 Patients undergoing coronary angiography.
2. The study was limited only with in the out patients department / in patient department of S. Palaniyandi Mudaliar Memorial hospital, Salem and Vinayka Mission hospital, Salem.

CONCLUSION

From this study finding it can be concluded that the mean post test knowledge score (20.87%) is higher than pretest knowledge score (12.40%). The calculated paired't' value (14.939) in greater than table value at 0.05 level of significance. This indicates that self instruction module was effective in increasing knowledge on coronary angiography.

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