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A study to assess the efficacy of self instructional module on knowledge regarding Cardiomyoplasty among the staff nurses working in selected hospitals in Aurangabad

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Abstract
"A study to assess the efficacy of self instructional module on knowledge regarding cardiomyoplasty among the staff nurses working in selected hospitals in Aurangabad"

Objectives

1. To assess the knowledge of staff nurses regarding cardiomyoplasty before and after the administration of self instructional module.
2. To compare the pre test and post test knowledge of staff nurses regarding cardiomyoplasty.
3. To assess the association between selected demographic variables and the post test knowledge score regarding cardiomyoplasty.

Methodology: The conceptual framework used for this study was based on modified Nola J. Pender health promotional model focused on three areas. This study was conducted on a sample of 40 staff nurses working in selected hospitals in Aurangabad. Non probability convenient sampling technique was used for selected samples. In the present study Pre-experimental one group pretest posttest research design was adopted. The tool used for data collection was structured knowledge questionnaire on the based on self instructional module. The data was collected, tabulated and analyzed by using descriptive and inferential statistics. The level of significance was at 0.05 levels.

Results: The study reveals that maximum 36(90%) had excellent knowledge, 10(10%) had an good knowledge and 00 had poor knowledge regarding cardiomyoplasty.

Keywords: Cardiomyoplasty, self instructional module

Introduction

"Take care of your heart. Don't let it fall apart".
"Let's have a Heart to Heart about Heart disease".

Cardiomyoplasty is a surgical procedure in which healthy muscle from another part of the body is wrapped around the heart to provide support for the failing heart. Most often the latissimus dorsi muscle is used for this purpose. A special pacemaker is implanted to make the skeletal muscle contract. Cardiomyoplasty is related to damage myocardium remodeling. [1] The heart pumps blood with a rhythm determined by a group of peacemaking cells in the sinoatrial node. These generate a current that causes contraction of the heart, traveling through the atrio-ventricular node and along the conduction system of the heart. The heart receives blood low in oxygen from the systemic circulation, which enters the right atrium from the superior and inferior vena cave and passes to the right ventricle. From here it is pumped into the pulmonary circulation, through the lungs where it receives oxygen and gives off carbon dioxide. Oxygenated blood then returns to the left atrium, passes through the left ventricle and is pumped out through the aorta to the systemic circulation−where the oxygen is used and metabolized to carbon dioxide. [8] The heart beats at a resting rate close to 72 beats per minute. [9] Exercise temporarily increases the rate, but lowers resting heart rate in the long term, and is good for heart health. [10] An aging population and a high rate of coronary heart disease and high blood pressure have led to an increase in the prevalence of chronic heart failure in Spain. Deaths resulting from heart failure are as common, if not more common, as deaths resulting from certain types of cancer, and they often occur as a result of the development of cardiac disease [12]. The management of patients with end-stage heart failure is a daily challenge in cardiac surgery. Cardiac transplantation and mechanical assist device do not cover all the needs [24]. The cardiomyoplasty procedure is to restore or enhance the myocardial contractility using the patient's latissimus dorsi muscle (LDM) which is wrapped around the ventricles and electro-stimulated in synchrony with the contractions of the heart. This surgical procedure consist in the dissection and transposition into the chest of the entire left latissimus dorsi muscle flap, which will be positioned around both ventricles, afterwards, the latissimus dorsi muscle will be chronically electro-stimulated in synchrony with ventricular systole [15].

Statement of the problem

"A study to assess the efficacy of self instructional module on knowledge regarding cardiomyoplasty among the staff nurses working in selected hospitals in Aurangabad"

Research Objective

1. To assess the knowledge of staff nurses regarding cardiomyoplasty before and after the administration of self instructional module.
2. To compare the pre test and post test knowledge of staff nurses regarding cardiomyoplasty.

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Material and methods

Conceptual framework: Modified Nola J. Pender's Health Promotional Model

Research Design: Pre-Experimental One group pretest posttest research design

Research Setting: The study was conducted in selected hospitals in Aurangabad.

Sample: Staff nurses working in selected hospitals in Aurangabad.

Sample size and Sampling Technique: Sample size considered for the study was 40 staff nurses working in selected hospitals. Sampling technique was according to Pilot and Hungler convenient which is a type of non-probability sampling.

Development and description of tool: The tool used for gathering relevant data, structured knowledge questionnaire, to assess the knowledge regarding cardiomyoplasty among the staff nurses working in selected hospital in Aurangabad.

Description of tool

Section 1: It deals with selected demographic variables such as age, gender, education, are of work, work experience, special training to assess the knowledge regarding cardiomyoplasty.

Section 2: It consists of structured questionnaire to assess the knowledge of staff nurses working in selected hospitals regarding cardiomyoplasty.

Inclusion criteria

1. This study will include staff nurses who are working in cardiac department.
2. This study will include staff nurses who are able to read, write and speak English Hindi and Marathi.
3. This study will include staff nurses who are available at the time of data collection.

Exclusion criteria

1. This study will include staff nurses who are not willing to participate.
2. This study will include staff nurses who are not registered.

Procedure for data collection

1. The investigator introduced themselves and explained the purpose of the study.
2. On the day of pretest at the very beginning we explained the purposes of study and inform consent was obtained from the staff nurses working in hospital. The pretest was conducted through structured questionnaire.
3. Self instructional module was provided at the end of the pretest.
4. The post test was taken 7 days later using the same structure questionnaire given for pretest.

The samples for pretest and posttest were the same with same structured questionnaire.

Post-test

The post test was carried out after 6 days for the group using the same tool used for pretest. The group staff nurses working in hospitals asked to gather in a auditorium in the break and data collected using same technique that was used for pre-test. Entire procedure of pots-test was carried out in the presence of an investigator.

Result and discusion

Table 1: Frequency and percentage distribution of the samples according to selected demographic variables

Sr. No.	Variables	Frequency (f)	Percentage (%)
1	**Age (in years)**		
	a. 21 – 30yrs.	15	37.5%
	b. 31 – 40 yrs.	12	30%
	c. 41 – 50 yrs.	06	15%
	d. 51 and above	07	17.5%
2.	**Gender**		
	a. Male	18	45%
	b. Female	22	55%
	Education		
	a. G.N.M	17	42.5%
	b. B.B.Sc. Nursing	11	27.5%
	c. P.B.B.Sc. Nursing	10	25%
	d. M.Sc. Nursing	02	05%
3.	**Working in any specific ward**		
	a. Cardiac ICU	14	35%
	b. Cardiac OT	04	10%
	c. Cardiac ward	16	40%
	d. Other ward	06	15%
4.	**Any special training**		
	a. Yes	10	25%
	b. No	30	75%
5.	**Specify.**		
	a. BLS and ACLS	02	05%
	b. Diploma in cardiac emergencies	03	7.5%
	c. Diploma in clinical cardiology	0	00
	d. Other	05	12.5%
6.	**Years of experience**		
	a. 0 – 4	16	40%
	b. 5 – 7	03	7.5%
	c. 8 - 10	13	32.5%
	d. 11 and above	08	20%
7.	**Previous knowledge regarding cardio myoplasty**		
	a. yes	17	42.5%
	b. No	23	57.5%
8.	**Specify sources**		
	a. Workshop	06	15%
	b. Journal	03	7.5%
	c. Mass media	07	17.5%
	d. Any other	01	2.5%

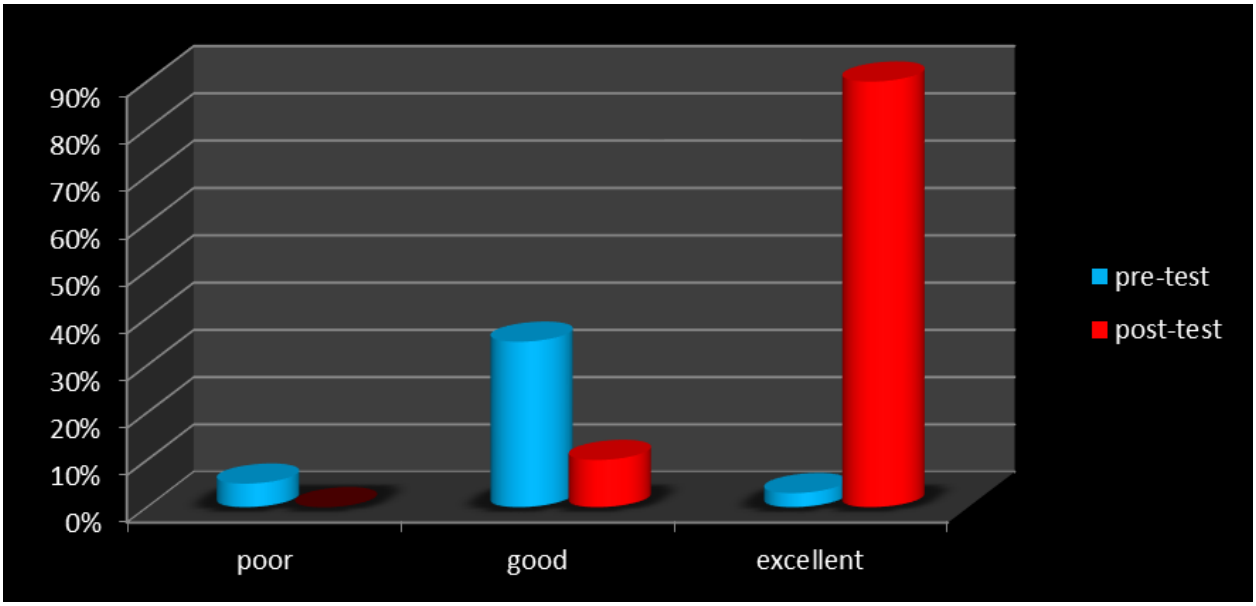
Table no 1 reveals that the Majority 37% of staff nurses belongs to 21-30 years of age group, 30% belongs to 31-40 years, 19% belong to 41 to 50 years and 15% of staff nurses belong to 51 and above years. Gender 45% of staff nurses belongs to male gender, (55%) belongs to female. Majority 42% of staff nurses were from G.N.M, 28% of staff nurses were from B. B.Sc. Nursing, 25% of staff nurses were from P.B.B.Sc. Nursing, and 0.5% were from M.Sc. Majority

40% of staff nurses were working in cardiac ward. 35% of staff nurses were working in cardiac ICU, 15% of staff nurses were working in other ward, and 10%of staff nurses were working in cardiac OT. Majority 75% of staff nurses had taken special training. and 25% of staff nurses had not taken any special training. Majority 50% of staff nurses were taken other training in cardiac. 30% of staff nurses were taken diploma in cardiac emergencies, 20% of staff nurses were taken training in BLS and ACLS, and 00%of staff nurses were taken diploma in clinical cardiology. Majority 40% of staff nurses has 0 – 4 years of work experience. 32.5% of staff nurses has 8 – 10 years of work experience, 20% of staff nurses has 11 and their above years of work experience, and 7.5 % of staff nurses has 5 – 7 years of work experience. Majority 43% of staff nurses were having previous knowledge regarding cardiomyoplasty. And 58% of staff nurses were not having previous knowledge regarding cardiomyoplasty. Majority 17.50% of staff nurses Has previous knowledge regarding cardiomyoplasty by Mass media. 15% of staff nurses has previous knowledge regarding cardiomyoplasty by workshop. 7.50% of staff nurses has previous knowledge regarding cardiomyoplasty by journal. And 2.50 % of staff nurses has previous knowledge regarding cardiomyoplasty by other method

Table 2: Mean, mode, median, Standard deviation of knowledge of staff nurses working in selected hospitals regarding cardiomyoplasty. N=40

Test	Mean	SD	't' value	Table value	P<0.05
Pre-test	13.15	2.79	17.02	2.02	(S)*
Post-test	22.97	2.36			

Reveals that the Obtained 't' value =17.02 is more than the table value 2.02 at
P< 0.05 level of significance.
The observed mean post test knowledge 22.97was greater than the mean pre test knowledge 13.15.



Graph 1: Frequency distribution of samples according to their pre-test and post test level of knowledge on Cardiomyoplasty Among staff nurses working in selected hospitals.

It reveals that In the pre-test – Maximum 35 (87.5%) had good knowledge and minimum 02 (05%) had poor knowledge and remaining 03(7.5%) had excellent knowledge on cardiomyoplasty.
In the post test – maximum 36(90%) had excellent knowledge and minimum 0 had poor knowledge and remaining 10(10%) had good knowledge on cardiomyoplasty.

Conclusion

The findings of the study showed that majority of staff nurses had excellent knowledge regarding cardiomyoplasty. Thus it was found to be important to provide knowledge regarding cardiomyoplasty so they can use this knowledge in their clinical practices.

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