"A Study to Assess the Knowledge of Staff Nurses Regarding First 24 Hours Care of Patients with Myocardial Infarction at J.K. Hospital of Bhopal with a View to Develop Self Instruction Module".

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Abstract: *A non experimental descriptive Study to assess the knowledge of staff nurses regarding first 24 hours care of patients with myocardial infarction in selected hospital of Bhopal with a view to develop self instruction module. The population was the staff nurses in working in JK Hospital Bhopal (M.P.). The sample consists of 50 staff nurses in working in JK Hospital Bhopal (M.P.). The subjects are selected by non probability convenient sampling technique. The tool comprised of knowledge questionnaires. The pre-test was conducted and self instruction module was provided to staff nurse. The data obtained was analyzed using descriptive and inferential statistics. In relation to self instruction module, the paired "t" test showed that, the SIM was statistically significant at p<0.0001 level in staff nurse. These data proved that the knowledge of staff nurse had been markedly increased after the provided of self instruction module.*
Key words: *Knowledge, myocardial infarction, self instruction module.*

I. Introduction

The essential components of the human cardiovascular system are the heart, blood and blood vessels. It includes the pulmonary circulation, a "loop" through the lungs where blood is oxygenated; and the systemic circulation, a "loop" through the rest of the body to provide oxygenated blood. The systemic circulation can also be seen to function in two parts–a macro circulation and a microcirculation. An average adult contains five to six quarts (roughly 4.7 to 5.7 liters) of blood, accounting for approximately 7% of their total body weight. Blood consists of plasma, red blood cells, white blood cells, and platelets. Also, the digestive system works with the circulatory system to provide the nutrients the system needs to keep the heart pumping.

The Cardiovascular disease (CVD) is a class of diseases that involve the heart or blood vessels. Cardiovascular disease includes coronary artery diseases (CAD) such as angina and myocardial infarction (commonly known as a heart attack). Other CVDs include stroke, heart failure, hypertensive heart disease, rheumatic heart disease, cardiomyopathy, heart arrhythmia, congenital heart disease, valvular heart disease, carditis, aortic aneurysms, peripheral artery disease, thromboembolic disease, and venous thrombosis.

About 610,000 people die of heart disease in the united states every year that's 1 in every 4 death. Heart disease is the leading causes of death for both man and woman. The cardiovascular disease especially coronary heart diseases are epidemic in India. The Register general of India reported that coronary heart disease leads to 17 % of total death and 26% of adult death in 2001-2003. Which increase to23% of total and 32% adult death in 2010-2013. The term heart diseases refer to several types of heart condition. The most common type is coronary artery disease which can causes heart attack.

The coronary artery disease also known as ischemic heart disease, it refers to group of disease which includes stable angina, unstable angina, myocardial infarction and sudden cardiac death. The coronary artery disease occurs when the arteries that supply blood to heart muscles become hardened and narrowed due to accumulation of cholesterol and other material called plaque on their inner walls. This build up is called atherosclerosis due to this condition the less blood can flow through arteries and less blood supply reaches this can lead to angina pain and heart attack. In 2016, According to American Heart Association reported that 15.5 million person >20 years of age have CHD.

The term "myocardial infarction" focuses on the myocardium (the heart muscle) and the changes that occur in it due to the sudden deprivation of circulating blood, hence limited oxygen supply. The main change is necrosis (death) of myocardial tissue. The incidence of AMI is high, and it is the leading cause of death in the elderly. Acute myocardial infarction is a disease which affects the patient in an extremely stressful way. It is

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described as a threat that leads to a life crisis in one's whole life and it is also a high family stress especially for the couples. According to national health and nutrition examination survey (NHENEI), MI prevalence was compared by seen in middle age individual.

Desai, CS Blumenthal, RS Greenland, P (2014) The coronary artery disease also known as ischemic heart disease, it refers to group of disease which includes stable angina, unstable angina, myocardial infarction and sudden cardiac death. The coronary artery disease occurs when the arteries that supply blood to heart muscles become hardened and narrowed due to accumulation of cholesterol and other material called plaque on their inner walls. This build up is called atherosclerosis due to this condition the less blood can flow through arteries and less blood supply reaches this can lead to angina pain and heart attack.

WHO estimated that globally 29 per cent of deaths were due to cardiovascular diseases and among them, 25-28 per cent of deaths were due to Myocardial Infarction. And more than one million Americans had a new or recurrent acute coronary syndrome and responsible for more than 250,000 deaths annually.

In the developing countries like India, Myocardial Infarction is one of the leading cause of deaths. The prevalence of Myocardial Infarction has increased from 40 per 1000 in 1968 to nearly 110 per 1000 in 2001. The prevalence of coronary heart disease in urban population has increased from 3.5 per cent in 1960's to 9.5 per cent in 1990's,and in rural areas it has been increased from 2 per cent in 1970's to 4 per cent in 1990's. In the year 2005, it was estimated that 30 per cent of deaths in India were due to coronary syndrome.

Hence, the researcher felt the need to assess the knowledge of staff nurses regarding first 24 hours care of patients with Myocardial Infarction in J.K. Hospital of Bhopal with a view to develop self instruction module.

II. Research Elaborations

Statement of problem-

"A study to assess the knowledge of staff nurses regarding first 24 hours care of patients with myocardial infarction at J.K. Hospital of Bhopal with a view to develop self instruction module**".**

III. Objectives

1. To **assess** the knowledge of staff nurses regarding first 24 hours care of patients with Myocardial Infarction admitted in the hospital.
2. To find out association between knowledge of staff nurses regarding first 24 hours care of patients with Myocardial Infarction admitted in the hospital with selected socio-demographic variables.
3. To develop a self instruction module regarding first 24 hours care among patients with Myocardial Infarction.

IV. Hypothesis

There is a significant association between the knowledge of staff nurses regarding first 24 hours care of patients with Myocardial Infarction with selected socio-demographic variables

V. Material And Method

Population- The staff nurses
Sample- The staff nurses working in JK Hospital Bhopal (M.P.)
Sample size-.50 staff nurses
Settings- JK Hospital Bhopal (M.P.)
The conceptual framework at this study was derived from "Open System Theory" organizations by Katz and Kahn (1978).

VI. Research Design

The research design is non experimental descriptive study was use to conduct study. Data Collection would be conducted by administration of knowledge questionnaire to measure the knowledge of staff nurses of first day regarding first 24 hours care of patients with myocardial infarction.

Ethical Consideration

After obtaining permission from research committee of research committee of L.N. Nursing college, prior permission was obtained from Head of the J.K. Hospitals at Bhopal. Consent was taken from each participants who had participated in the study.

Description of the Tool

Section A- Demographic Data: consisted of selected socio-demographic variables such as Age, gender, educational status, working area, experience etc.

Section B- Tools and scoring technique: A structured self-administered questionnaires was selected based on the objective of the study as it was considered the based and appropriate instrument to elicit the response from the literate subject.

SCORING

The knowledge of staff nurses regarding first 24 hours care of patients with myocardial infarction was scored as follows, one mark for each correct answer and zero marks for incorrect answer. The maximum score was 20, to interpret level of knowledge the score was distributed as follows; Interpretation of knowledge:

Level	Range
poor knowledge	<25 %
average knowledge	25-50 %
good knowledge	50-75%
very good knowledge	>75 %

An answer key was prepared for scoring answer to the structured knowledge questionnaire.

DATA COLLECTION AND DATA ANALYSIS

The data was presented under the following sections
Section-I: Description of socio-demographic variables of the respondents.
Section-II: Analysis of the knowledge of respondent regarding first 24 hours care of patients with Myocardial Infarction.

VII. Result

SECTION- I

Table 1: Description of socio-demographic variables of the respondents

N=50

| Demographic characteristics		No. of staff nurses	Percentage%
Age (in years)	21-25	9	18.00%
	26-30	23	46.00%
	31-35	10	20.00%
	>36	8	16.00%
Gender	Male	10	20.00%
	Female	40	80.00%
Qualification	GNM	14	28.00%
	B.SC	25	50.00%
	Post B.SC	5	10.00%
	M.SC	6	12.00%
Working area	Casualty	11	22.00%
	ward	15	30.00%
	ICCU	14	28.00%
	MICU	10	20.00%
Experience	<1 year	14	28.00%
	1-2 year	25	50.00%
	3-4 year	5	10.00%
	>5 year	6	12.00%
Additional Specialization course	ACLS	25	50.00%
	BLS	20	40.00%
	Nurse practitioners	0	0.00%
	Other course	5	10.00%

SECTION II

Table 2: Frequency and percentage distribution of knowledge of respondent regarding first 24 hours care of patients with Myocardial Infarction.

N=50

Level of knowledge	Knowledge score	Frequency	Percentage	Mean	S.D
poor	00- 05	02	4%	7.2	2.33
Average	06-10	44	88%		
Good	11-15	4	8%		
Very Good	16-20	00	0%		

Table 2: Data in figure reveals that most of them (88.00%) of the staff nurses had Average knowledge & (8.00%) of them had good knowledge And (04%) of them had poor Knowledge staff nurse regarding first 24 hours care of patients with Myocardial Infarction
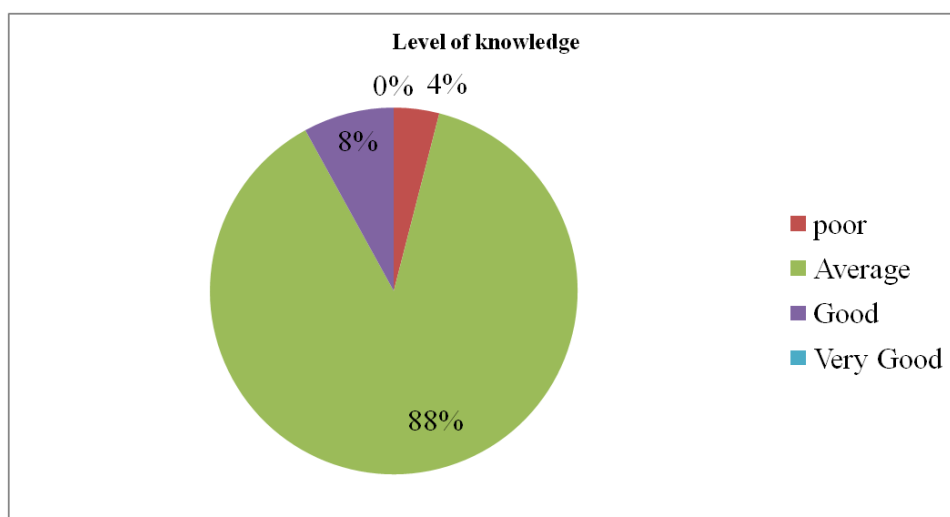
Figure 1: Frequency and Percentage distribution of respondents to their level of knowledge score.

Table-3 Overall range, mean, median & standard deviation of knowledge scores of staff nurse on first 24 hours care of patients with Myocardial Infarction.   **N=50**

Test	Range	Mean	Mean Percentage	Median	Standard deviation
Test	5-11	7.2	14.4	8.5	2.33

Maximum score 20

Table 3: denote the mean, mean percentage, standard deviation of test knowledge score of staff nurse on first 24 hours care of patients with Myocardial Infarction.

VIII. Conclusion

The aim of this study was to assess the knowledge of staff nurses regarding knowledge on first 24 hours care of patients with Myocardial Infarction as well as to provide information to them about regarding staff nurses regarding first 24 hours care of patients with Myocardial Infarction. The information was given with the aid of self instruction module which included various aspects such as introduction, causes, types, complication and management, which will help the staff nurses to improve their knowledge and to adopt the safe practice.
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