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### A study to assess the knowledge regarding early signs of myocardial infarction among the adults in selected urban areas of Pune city

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#### Abstract

**Introduction:** Myocardial infarction is recognized as one of the leading causes of death worldwide. Depending on the extent of the heart muscle damages, the patient may experience significant disability or die as a result of myocardial infarction. Identifying early signs of myocardial infarction may aid in the early diagnosis of myocardial infarction.

**Purpose:** To assess the knowledge regarding early signs of myocardial infarction. To associate findings with selected demographic variables.

**Methods:** This was a Non experimental, exploratory research design and quantitative research approach. 100 adults were selected from urban areas of Pune City by non-probability purposive sampling technique. A self - structured questionnaire was used to assess knowledge with the observational checklist.

**Results:** Mean score of knowledge regarding early signs of myocardial infarction was 8.28 with 5.061401 standard deviation that show average knowledge and the 'p' value was more than the level of significance 0.05 so There is an association between age, income, occupation, dietary pattern, habits, exercise with knowledge. There is no any association between genders, weight, previous history of myocardial infarction, Family history of myocardial infarction with knowledge.

**Conclusion:** knowledge regarding early signs of myocardial infarction was average.

**Keywords:** substituted Li ferrite, magnetostatic and spin waves, microstrip array antenna, X-band frequency range

#### 1. Introduction

Myocardial infarction, commonly known as a heart attack is the irreversible necrosis of heart muscle secondary to prolonged ischemia. This usually results from an imbalance in oxygen supply and demand of the myocardium. Myocardial infarction is a serious result of coronary artery diseases. Myocardial infarction occurs when a coronary artery is so severely blocked that there is a significant reduction or break in the blood supply, causing damage or death of a portion of the myocardium. Complications of myocardial infarction include arrhythmic, mechanical and inflammatory squeal, as well as left ventricular mural thrombus. In addition to these broad categories right ventricular infarction and cardiogenic shock are another possible complication of myocardial infarction. To avoid the complication and recurrent attack it is necessary to know the early signs of myocardial infarction.

#### 2. Methodology

Quantitative research approach with non-experimental research design was adopted the study was conducted on 100 adults in selected urban areas of Pune city by using non

probability purposive sampling technique. The data were collected by using self-administered questionnaire and checklist. Content validity of the tool was established by suggestion of five experts. The tool was found reliable, which is calculated by test re-test method. (R=0.98)

**Ethical consideration:** Formal administrative approval was obtained from Bharati Vidyapeeth college of nursing and obtained written informed consent from the participants.

#### 3. Findings

**Section I:** Analysis of data related to demographic variables. Below table shows that in the age group majority 34% were 35- 40 years of age. In Gender majority 56% were female. In Family income majority 45% was 5000 – 15000 Rs per month. In weight majority 35% was 50-59 Kg. In occupation majority 36% doing the job. In majority 82% had no previous history of myocardial infarction. In majority 74% had no family history of myocardial infarction. In majority dietary pattern 80% were vegetarian. In majority 43% adults had no habits. In majority 71% adults did exercise sometimes.

**Table 1:** Frequency and percentage distribution of the adults, according to the demographic variables.

Sr. no	Demographic variables	Frequency	Percentage%
1	Age:		
	18-23	22	22%
	24-28	25	25

	29-34	19	19%
	35-40	34	34%
2	Sex		
	Male	44	44%
	Female	56	56%
3	Income		
	Less than 500	09	09%
	5001- 15000	45	45%
	15001-25000	26	26%
	25001-35000	13	13%
	35001 and above	07	07%
4	Weight		
	30-39	09	09%
	40-49	24	24%
	50-59	35	35%
	60-69	24	24%
	70-79	06	06%
	80-89	02	02%
	Occupation		
	Government service	06	06%
	Private service	19	19%
	Housewife	23	23%
	Job	36	36%
	Labor work	16	16%
	Previous history of myocardial infarction		
	Yes	18	18%
	No	82	82%
	Family history of myocardial infarction		
	Yes	26	26%
	No	74	26%
	Dietary pattern		
	Vegetarian	80	80%
	Non-vegetarian	20	20%
	Habits		
	Tobacco	13	13%
	Smoking	07	07%
	Misery	24	24%
	Alcohol	10	10%
	Other	03	03%
	No habits	43%	43%
10	Exercise		
	Regular	29	29%
	Sometime	71	71%

**Section II A**

Analysis of the data related to the level of knowledge of early signs of myocardial infarction according to their score.

**Table 2:** Frequency percentage of knowledge score. n=100

Sr. no.	Knowledge score	Frequency	Percentage
1.	Good knowledge	26	26%
2.	Average knowledge	30	30%
3.	Poor knowledge	44	44%

Table No.2- Majority of adults 26% had good knowledge regarding early signs of myocardial infarction, 30% had average knowledge regarding early signs of myocardial

infarction and 44% had a poor knowledge regarding early signs of myocardial infarction.

**Section II B**

**Table 3:** Mean and standard deviation of knowledge assessed.

Sr. no.	Mean	Standard deviation
1	8.28	5.061401

Table No. 3- Mean is 8.28 and the standard deviation is 5.061401.

**Section III**

**Table 4:** Association of the research findings with selected demographic variables.

Sr. no.	Demographic	X <sup>2</sup>	P value	Result
1	Age	13.65	0.05	Association
2	Gender	1.93	0.50	Not association
3	Income	32.40	0.01	Association
4	Weight	9.50	0.50	Not association
5	Occupation	18.08	0.01	Association

6	Previous history of myocardial infarction	2.28	0.25	Not association
7	Family history of myocardial infarction	1.12	0.50	Not association
8	Dietary pattern	6.38	0.05	Association
9	Habits	21.59	0.01	Association
10	Exercise	6.40	0.05	Association

Table No. 4- The p value was more than the level of significance 0.05 so There is an association between age, income, occupation, dietary pattern, habits, and exercise with knowledge. There is no any association between genders, weight, previous history of myocardial infarction, Family history of myocardial infarction with knowledge.

**4. Discussion of the research findings**

In one of the study, the researcher wishes to assess knowledge regarding early signs of myocardial infarction Similarly, in our study too we observe the knowledge regarding early signs of myocardial infarction among adults was average.

**5. Conclusion**

On the basis of the findings of the present study, it can be concluded that adults are having average knowledge regarding early signs of myocardial infarction so we can improve their knowledge by providing more information.

**6. Recommendation**

Keeping in view the finding of the present study the following recommendation made.

1. A study can be done on large samples
2. The same study can be done with a quantitative research approach having a major group.
3. A similar study can be replicated in a different setting to strengthen the finding.

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