

*Original Research Article*

# Effectiveness of Self-instructional Module on knowledge regarding Life Style Modification for Prevention of Myocardial Infarction among Elderly Clients at Kalyanpur, Kanpur , U.P.

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**Abstract**

Life style practices and behaviors can have positive or negative effects on health. The life style risk factors have gained increased attention because it is known that many of the leading cause of death are related to life style patterns or habits. A pre experimental one group pre test post test design was used for this study. A Non probability purposive sampling technique was used. Sample size was 60. Structured questionnaire was used to collect the data. The study results shows that overall mean, SD and mean percentage of pre test knowledge score of elderly clients shows that highest mean of knowledge score was  $6.71 \pm 1.62$  which is 22.38% for poor knowledge and the lowest mean of knowledge score was  $0.35 \pm 2.6$  which is 1.16% for good knowledge. However in post test knowledge score of elderly clients shows that highest mean of knowledge score was  $14.48 \pm 67$ . Which is 48.27% for good knowledge and the lowest mean score was  $0.11 \pm 0.8$  which is 0.38% for poor knowledge. It seems that SIM was effective.

**Key word:** Self-instructional Module, Life Style Modification, Myocardial Infarction

**1 Introduction**

Life style modification for prevention of Myocardial Infarction among elderly clients are the major problems developing country like India faces today. [1] Life style modification also represents huge impact on the economics of health care system. Therefore it is important to understand the impact of lifestyle behaviours on health status. [2] The most common cause of death is cardiovascular diseases. Some of the risk factors for heart disease are smoking, high blood pressure, high cholesterol, diabetes and obesity. Additional heart disease risk factors include lack of exercise, an unhealthy diet and stress. The major form of cardiovascular disease is coronary artery disease, manifested by myocardial disease, angina pectoris and sudden cardiac death [3]. The technical name for a heart attack is myocardial infarction. A heart attack occurs when an artery leading to the heart becomes blocked and the heart does not get enough blood or oxygen. Without oxygen, cells in that area of the heart die called an infarct [4]. India have a different kinds of food habits and very less percentage of the population performing daily exercises, we need to stress more on the preventive aspect of cardiac ailments, In addition to the stressful life, obesity, diabetes and smoking add to the risk [5].

Lifestyle modifications help to minimize the risk of sudden death, stabilize or reverse the atherosclerotic process and enhance the psychosocial aspects of human life. Successful recovery after a myocardial infarction is based on lifestyle modifications, positive support of a partner of family and patient's own coping resources. Adaptation aims at secondary prevention of reinfection as well as helping patients to return to an active and productive life. The benefits of adaptation include improved quality of life, enhanced return to work and reduced cost for subsequent hospital treatment. Adaptation can help patients with MI face their life with hope, knowledge, skills and confidence [5]. The self instruction defined as a self contained instructional activity that allows learners to progress themselves at their own pace. Hence the investigator felt that the need to develop Self Instructional Module to facilitate education to Heart disease patient on life style modification. This will be helping them to have better quality of life [6].

**2 Objectives**

- To assess pre-test knowledge regarding lifestyle modification for the prevention of myocardial infarction among elderly clients at Kalyanpur, Kanpur, U.P.
- To assess the effectiveness of self-instructional

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module by comparing pre and post test score.

- To determine the association between knowledge and selected demographic variables.

### 3 Hypothesis

**H1:** The mean post test knowledge regarding life style modifications for prevention of myocardial infarction will be significantly more than that of the mean pre-test knowledge among elderly clients.

**H2:** There is a significant association between knowledge regarding lifestyle modification for prevention of myocardial infarction and selected demographic variables.

### 4 Material and Methods

**Research approach:** Quantitative research approach was adopted for the present study

**Research Design:** A Pre-experimental (one –group) pre-test and post-test design was used for the present study.

**Setting of the study:** The study was conducted in C.H.C Kalyanpur, Kanpur

**Population:** In this study the population comprises of elderly clients.

**Sample:** All elderly clients, from C.H.C Kalyanpur, Kanpur who fulfilled the inclusion criteria will be the sample for the present study.

**Sampling technique:** Non probability purposive sampling technique was adopted to select the sample.

#### Variables

##### Independent variable:

- The independent variable of the present study is Self instructional module regarding lifestyle modification on myocardial infarction.

##### Dependant variable:

- In this present study dependant variable refers to the knowledge of the elderly clients regarding lifestyle modification on myocardial infarction.

#### Sampling criteria

##### Inclusion criteria

- Elderly clients who are willing to participate in this study
- Elderly clients who know how to read and write Hindi and English
- Elderly clients who are available during the period of data collection

##### Exclusion criteria

- Physically and psychologically ill elderly clients
- Elderly clients who belong to health profession

### Development and description of tools used in the study

Structured knowledge questionnaire was used for data collection. The tool consists of two sections:

**Section A:** Demographic data, consisted of items seeking information about background data of elderly clients such as age, sex , education , occupational status, area of living, type of family , type of diet, monthly income, habitual history, source of information.

**Section B:** It consists of 30 closed ended questions in the aspects related lifestyle modification on myocardial infarction (introduction, myocardial infarction, dietary pattern, habit, physical exercise.

#### Scoring of the items

To find out the effectiveness of self instruction module on knowledge scores respondents were categorized into three groups.

TABLE 1 Grading of knowledge score

Knowledge range score	Categories
0 – 10	Poor
11 – 20	Average
21- 30	good

### Data Collection Procedure

The data collection was done in C.H.C. Kalyanpur. Formal approval was obtained from the medical officer in charge of C.H.C. Kalyanpur and data collection was done for a month. The data were collected from the elderly clients by using closed ended questionnaire. Based on the selected criteria, the samples were selected by non probability purposive sampling technique. The investigator selected the sample from the C.H.C. Kalyanpur, Kanpur. The first day researcher went to the selected setting. Here researcher got 17 samples who were in the ward. The researcher conducted the pre-test for the selected sample. After that the researcher gave the self instructional module regarding lifestyle modification on myocardial infarction and instructed them to use it in their daily life. Daily the researcher goes to the selected setting (C.H.C. Kalyanpur, Kanpur) for the sample collection. After the pre test and the intervention the investigator went for the post test on 7<sup>th</sup> day the researcher conducted the post test for the same group. Samples were in community area of CHC Kalyanpur, Kanpur. The investigator conducted the post test for the same group.

**Plan for Data Analysis**

The collected data was transferred to the master sheet. The data obtained is analyzed in terms of the objectives of the study using descriptive and inferential statistics. Descriptive statistics include mean, percentage distribution, standard deviation.

Inferential statistics include mean, mean percentage. Standard deviation is used to find the level of knowledge. Paired “t” test is used to measure the effectiveness of self instructional module. Chi-square to analyze the association of pre-test knowledge with their demographic variables.

**Data Analysis**

**Section A:** Frequency and percentage distribution of elderly clients regarding lifestyle modification on myocardial infarction according to selected demographic variables.

**Section B:** Pre-test knowledge score of elderly clients regarding lifestyle modification on myocardial infarction before implementation of self instructional module.

**Section C:** Post-test knowledge score of the elderly clients regarding lifestyle modification on myocardial infarction after implementation of self instructional module. Distribution of overall mean and SD of pre test and post test knowledge score of elderly clients.

**Section D:** Effectiveness knowledge SIM of lifestyle modification on myocardial infarction.

**Section E:** Association of post test knowledge score of lifestyle modification on myocardial infarction between pre test and selected socio demographic variables.

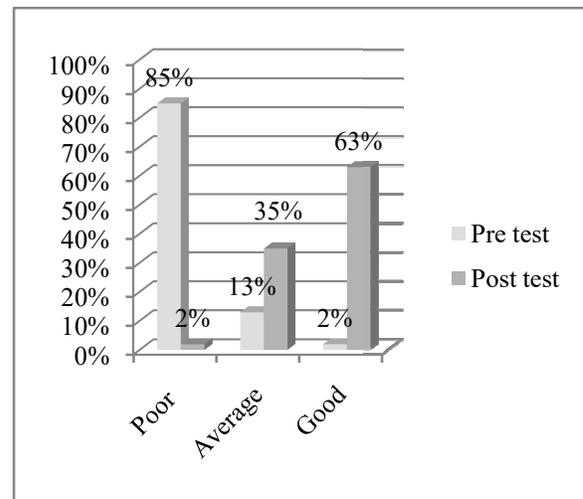
**Major Findings**

1. 73 % of elderly clients belong to the age group of 66-70 Years, majority of the elderly clients were male (90%)
2. According to their educational status, 42 % of elderly client were primary educated
3. 30% of elderly clients were unemployed.
4. According to area of living, 87% of them are from urban area.
5. According to their type of family 62% were from joint family
6. 70% were in monthly income between 5000/- 10000/-

7. Majority of the elderly clients were habitual of alcohol consumption 36 (60%).
8. Most of the elderly client’s source of information was mass media 30 (50%).
9. Most of the elderly client’s source of information was mass media 30 (50%).

**Assessment of knowledge of the elderly clients regarding the lifestyle modification on myocardial infarction before and after implementation of self instructional module:**

Data collected prior to implementation of Self Instruction Module shows that majority 51(85%) had poor knowledge, 8(13%) elderly clients had average knowledge and 1 (2%) elderly client had good knowledge the lifestyle modification on myocardial infarction.



**Figure 1.** Bar diagram showing comparison between pre and post test level of knowledge

**TABLE 2:** Distribution of Overall Mean, SD and Of Pre-test and Post-test Knowledge

Respondents of knowledge level	Mean	SD
Pre-test	8.7	2.51
Post-test	11.36	3.36

Distribution of overall mean, SD and of pre test and post test knowledge score of elderly clients shows that highest mean of knowledge mean of knowledge score was 11.36 for the post test and 8.7 for the pre-test which shows SIM was effective

**Effectiveness Knowledge Sim on Selected Lifestyle Modification on Myocardial Infarction:**

**TABLE 3:** Paired ‘t’ value of pre and post test knowledge score of elderly clients regarding selected myocardial infarction problems. [ N=60]

Area	‘t’ value	Remark
Regarding lifestyle modification for the prevention of myocardial infarction	23.78	Highly significant

(df = 59), (table value = 2.000), (P < highly significant)

**5 Recommendations**

On the basis of findings, it is recommended that:

- The similar study may be replicated on large scale.
- The similar study can be conducted in urban area.
- A comparative study can be conducted between elderly clients and high risk adults.

**6 Conclusion**

Prior to the implementation of the SIM the elderly clients had highest mean percentage 22.38%which reveal poor knowledge, whereas after the implementation of the SIM elderly clients had highest mean

percentage 48.27%which reveals the effectiveness of SIM

From the findings of the present study it can be concluded that SIM regarding life style modification on myocardial infarction was effective to improve the elderly clients’ knowledge

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