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A Study to Assess The Effectiveness of Self Instructional Discharge Module on Knowledge Regarding Lifestyle Modification and Prevention of Complications Among Patients With First Line Cardiac Problems At E.S Hospital, Vilupuram.

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Abstract

To assess the effectiveness of self instructional discharge module on knowledge regarding lifestyle modification and prevention of complications among patients with first line cardiac problems. To assess the Pre and Post-test level of knowledge regarding lifestyle modification and prevention of complications among patients with first line cardiac problems. To determine the effectiveness of self instructional discharge module on knowledge regarding lifestyle modification and prevention of complications among patients with first line cardiac problems. To associate Pre-test level of knowledge regarding lifestyle modification and prevention of complications among patients with first line cardiac problems with their selected socio demographic variables. A Pre-experimental one group pre-test and post- test research design was adopted for this study. 50 samples were selected by using Non probability purposive sampling techniques. The pre-test and post-test level of knowledge was assessed by self structured knowledge questionnaires. The findings shows that Pre-test Mean score was 9.06 with a standard deviation of 4.27 and the Post-test mean score was 29.76 with a Standard deviation of 3.02, Mean difference is 20.7 with a standard error of 0.62 and t-test value was 33.38 shows high significance. The study concluded that the self instructional discharge module was effective in upgrading the knowledge of patients with first line cardiac problems regarding lifestyle modification and prevention of complications.

Key Words: Patients with first line cardiac problems, Lifestyle modification and Prevention of complications.

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Introduction

Non communicable diseases has the four important metabolic level instability such as high blood pressure, overweight or obesity, increased blood glucose level and increased fat level in blood which is caused by the modifiable risk factors such as ageing, globalization, unhealthy lifestyle, use of tobacco, unhealthy diet, physical inactivity, alcohol consumption. These factors are the major reason for cardiovascular diseases and it is one of the prime non-communicable disease by causing early death. **(WHO 2021)** Cardiovascular disease is the main cause of death globally, which brings about 18.6 million deaths per year. Currently 520 million people are living with cardiovascular diseases. **(News Medical Life Sciences 2021).**

Cardiovascular system comprises of the heart, blood vessels and blood which transports the oxygenated blood and nutrients to all vital organs of our body and carry deoxygenated blood back from all body parts to lungs for purification.

Every year 18.6 million peoples are dying due to cardiovascular diseases, one out of three cardiovascular death occurs prematurely in people under 70 years of age, 85% of cardiovascular death are caused by heart attack and stroke and 23.6 million people will die due to cardiovascular diseases by 2030.**(World Heart Federation 2022)**

The American College of Cardiology (ACC) and the American Heart Association (AHA) (2019) has recently presented the guidelines describing about lifestyle and behavioural instructions to

curtail the chance of cardiovascular disease (CVD) in those who do not have it till now.

In the guidelines it is mentioned about the diet and nutrition, exercise and physical activity, body weight, and tobacco use. If the people withdraw from their unhealthy modifiable risk factors, they will reduce the risk of early death and disability results from heart disease.

Their guidelines encompasses the specific dietary recommendations such as eating a diet high in vegetables, fruit, legumes, nuts, whole grains, and sea fish. It also suggests to curb sodium, saturated fats, refined carbohydrates, sweetened beverages, and processed meats, and by ignoring trans fats.

Life style modifications will slow the advancement of diseases once it has occurred they can also reduce the consequences of the disease on daily life. A healthy lifestyle necessitate healthy attitudes. Acronym of ABCDES life style modifications must be followed by everyone to decrease the risk of first line cardiac problems. They are

- Alcohol-Avoid alcohol consumption
- Blood pressure-Stabilize blood pressure

- Cholesterol- Lower the cholesterol level
- Diabetes-Regulate the blood glucose level
- Exercise-Do regular exercises
- Smoking-cessation of smoking

World Health Organization has done the agreement with global mechanics and made global action plan to lower the uncertain non-communicable diseases between (2013-2020).It aims to decrease the rate of early age death from non-communicable diseases through 9 global targets by 25% at 2025. There is two targets which mainly focusing about to preventing and controlling the cardiovascular diseases,

Target 6: To reduce global prevalence of raised blood pressure by 25% between 2010 to 2025.

Target 8: At least 50% of eligible people should receive drug therapy and counselling (including glycemic control) to prevent heart attacks and strokes by 2025.(**World Health Organization 2021**).

2. METHODOLOGY

A Pre - experimental one group pre-test and post -test research design was adopted for this study. 50 samples were selected by using Non-probability purposive sampling technique. The pre test level of knowledge assessed through Structured Knowledge questionnaires regarding lifestyle modification and prevention of complications among patients with first line cardiac problems. After that the self-instructional discharge module on lifestyle modification and prevention of complications among patients with first

line cardiac problems was issued and explained in detail and also reinforced the samples for six consecutive days to read the module. The post-test was conducted on 7th day by using same self structured knowledge questionnaire.

3. RESULTS

TABLE - 1 Frequency and percentage distribution of Pre-test level of knowledge regarding lifestyle modification and prevention of complications among patients with first line cardiac problem

n=50

| LEVEL OF KNOWLEDGE | PRE-TEST | |
|-------------------------------|---------------|----------------|
| | FREQUENCY (N) | PERCENTAGE (%) |
| Inadequate Knowledge | 46 | 92% |
| Moderately Adequate Knowledge | 3 | 6% |
| Adequate Knowledge | 1 | 2% |

Table -1 shows the Frequency and Percentage wise Distribution of pre-test level of knowledge regarding lifestyle modification and prevention of complications among patients with first

line cardiac problems. In the pre-test 46(92%) of them had inadequate knowledge and 3(6%) of them had moderately adequate knowledge and 1(2%) had adequate knowledge.

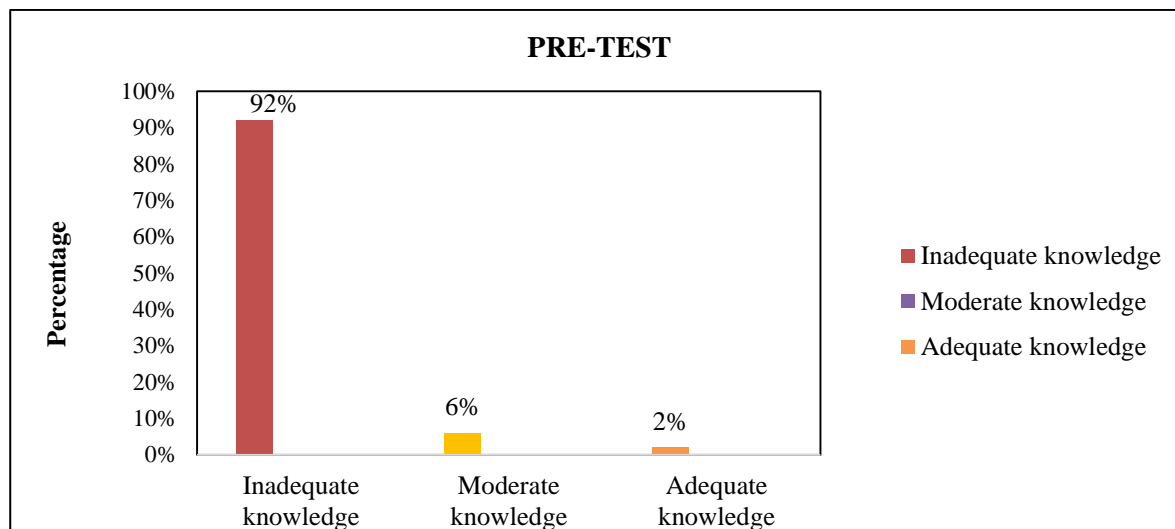


Figure -1 Shows the Frequency and Percentage Distribution of pre-test level of knowledge regarding lifestyle modification and prevention of complications among patients with first line cardiac problems.

Percentage Distribution of Post-test level of Knowledge regarding lifestyle modification and prevention of complications among patients with first line cardiac problems.

Table -2 Shows the Frequency and

N=50

| LEVEL OF KNOWLEDGE | POST-TEST | |
|-------------------------------|---------------|----------------|
| | FREQUENCY (N) | PERCENTAGE (%) |
| Inadequate Knowledge | 0 | 0% |
| Moderately Adequate Knowledge | 2 | 4% |
| Adequate Knowledge | 48 | 96% |

Table-2 shows the Frequency and Percentage Distribution of Post-test level of Knowledge regarding lifestyle modification and prevention of complications among patients

with first line cardiac problems. In the post-test 48(96%) had adequate knowledge,2(4%) had moderate knowledge and none of them 0(0%) had inadequate knowledge .

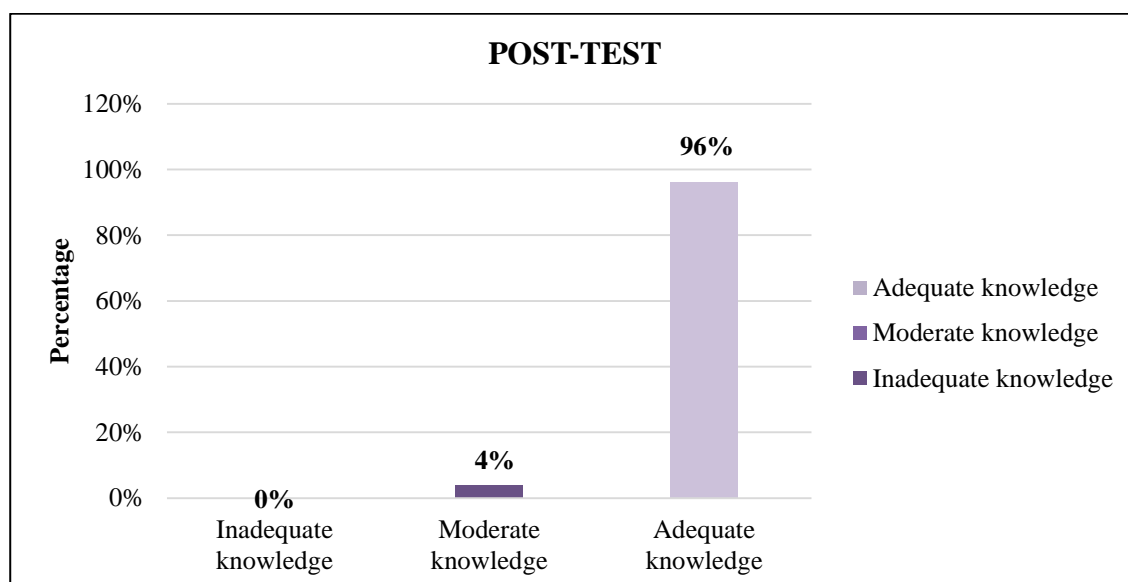


Figure - 2 Shows the Frequency and Percentage Distribution of post-test level of knowledge regarding lifestyle modification and prevention of complications among patients with first line cardiac problems.

Error and t value for the level of knowledge of patients with first line cardiac problems.

Table-3 Pre and Post-test Mean, Standard Deviation, Mean Difference, Standard

n

=50

| KNOWLEDGE | Pre-test | | Post-test | | Mean Difference | Standard Error | T value |
|-----------|----------|--------------------|-----------|--------------------|-----------------|----------------|------------|
| | Mean | Standard deviation | Mean | Standard deviation | | | |
| | 9.06 | 4.27 | 29.76 | 3.02 | 20.7 | 0.62 | 33.38 * HS |

*Significant at p<0.05

Table-3 Shows that, the Pre-test mean score was 9.06 with the standard deviation of 4.27 and the Post-test mean score was 29.76 with the standard deviation of 3.02. The Mean difference was 20.7 with a standard error of 0.62. The t value 33.38 shows highly

significance.

Table- - 4 Association between pre-test levels of knowledge regarding lifestyle modification and prevention of complications among patients with first line cardiac problems with their selected socio demographic variables.

n=50

| S.No | Demographic Variables | Adequate Knowledge | Moderate Knowledge | Inadequate Knowledge | Chi-square | P-value |
|------|------------------------|--------------------|--------------------|----------------------|------------|-------------|
| 1 | Age | | | | | |
| | a) 20-40 years | 0 | 1 | 4 | 3.276 | 0.773 |
| | b) 40-60 years | 1 | 1 | 20 | | |
| | c) 60-80 years | 0 | 1 | 20 | | |
| | d) above 80 years | 0 | 0 | 2 | | |
| 2 | Gender | | | | | |
| | a) Male | 1 | 2 | 29 | 0.59 | 0.744 |
| | b) Female | 0 | 1 | 17 | | |
| 3 | Marital Status | | | | | |
| | a) Married | 1 | 3 | 46 | 0 | 1 |
| | b) Unmarried | 0 | 0 | 0 | | |
| 4 | Education | | | | | |
| | a) No formal Education | 0 | 0 | 9 | 20.59 | 0.024* S |
| | b) Primary Education | 0 | 0 | 6 | | |
| | c) Secondary | 0 | 0 | 8 | | |

| | | | | | | |
|-----------|---|---|---|----|-------|-------------|
| | Education | | | | | |
| | d)Higher Secondary Education | 0 | 1 | 13 | | |
| | e)Under graduate | 1 | 1 | 10 | | |
| | f)Post graduate | 0 | 1 | 0 | | |
| 5 | Occupation | | | | | |
| | a)Unemployed | 1 | 1 | 7 | 6.2 | 0.624 |
| | b)Government job | 0 | 1 | 14 | | |
| | c)Private job | 0 | 1 | 11 | | |
| | d)Home maker | 0 | 0 | 9 | | |
| | e)Retired | 0 | 0 | 5 | | |
| 6 | Residence | | | | | |
| | a)Rural | 0 | 0 | 32 | 12.25 | 0.015* S |
| | b)Urban | 0 | 2 | 9 | | |
| | c)Semi urban | 1 | 1 | 5 | | |
| 7 | Diet | | | | | |
| | a)Vegetarian | 0 | 0 | 7 | 0.707 | 0.702 |
| | b)Non vegetarian | 1 | 3 | 39 | | |
| 8 | Previous history of Cardiac diseases | | | | | |
| | a)Yes | 1 | 0 | 11 | 4.11 | 0.128 |
| | b)No | 0 | 3 | 35 | | |
| 9 | Co-morbidity | | | | | |
| | a)Diabetic Mellitus | 1 | 1 | 7 | 6.63 | 0.158 |
| | b)Hypertension | 0 | 2 | 21 | | |
| | c)Both Diabetic Mellitus and Hypertension | 0 | 0 | 18 | | |
| 10 | Personal habits | | | | | |
| | a)Smoking | 1 | 1 | 4 | | |

| | | | | | | |
|-----------|---|---|---|----|-------|-------|
| | b)Alcoholism | 0 | 0 | 3 | 10.02 | 0.438 |
| | c)Tobacco chewing | 0 | 0 | 3 | | |
| | d)Smoking and alcoholism | 0 | 0 | 10 | | |
| | e)Smoking, alcoholism and tobacco chewing | 0 | 0 | 0 | | |
| 11 | Family history of cardiac diseases | | | | | |
| | a)Yes | 1 | 2 | 13 | 4.07 | 0.13 |
| | b)No | 0 | 1 | 33 | | |
| 12 | Life style modification practices | | | | | |
| | a)Dietary changes | 0 | 0 | 10 | 7.11 | 0.31 |
| | b)Exercise | 1 | 1 | 13 | | |
| | c)Both Dietary changes and Exercise | 0 | 1 | 2 | | |
| | d)No such practices | 0 | 1 | 21 | | |

Table 4. Shows that there is a significant association between the level of knowledge with the education and residence at $p < 0.05$ and there is no significant association between the level of knowledge with the age, gender, marital status, occupation, diet, previous history of Cardiac diseases, co-morbidity, personal habits, family history of cardiac diseases and life style modification practices.

4. DISCUSSION

The first objective of the study is to find out the Pre and Post-test level of knowledge regarding lifestyle modification and prevention of complications among patients with first line cardiac problems.

- ❖ In the pre-test 46(92%) of them had inadequate knowledge and 3(6%) had moderate knowledge and 1(2%) had adequate knowledge.
- ❖ In the post-test 48(96%) of them had adequate knowledge and 2(4%) had moderate knowledge and none of them 0(0%) had inadequate knowledge.

The second objective of the study is to check the effectiveness of self

instructional discharge module on knowledge regarding lifestyle modification and prevention of complications among patients with first line cardiac problems.

- ❖ The Pre-test mean score was 9.06 with the standard deviation of 4.27 and the Post-test mean score was 29.76 with the standard deviation of 3.02.
- ❖ The Mean difference was 20.7 with a standard error of 0.62.

The 't' test value 33.38 shows high significance. Hence Hypothesis H1 is accepted.

The third objective of the study is to find out the association between Pre-test level of knowledge regarding lifestyle modification and prevention of complications among patients with first line cardiac problems with their selected socio demographic variables.

- ❖ There is a significant association between the level of knowledge with the education and residence at $p < 0.05$ and there is no significant association between the level of knowledge with the age, gender, marital status, occupation, diet, previous history of cardiac diseases, co-morbidity, personal habits,

family history of cardiac diseases and life style modification practices.Hence Hypothesis H2 is accepted.

CONCLUSION

The finding of the study shows that there is a significant difference between pre and post-test level of knowledge with a 't' test value of 33.38 hence the study concluded that the self instructional discharge module was effective in upgrading the knowledge of patients with first line cardiac problems regarding lifestyle modification and prevention of complication.

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