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"A PRE-EXPERIMENTAL STUDY ON EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE OF CARDIOVASCULARDISEASES AND ITS RISK FACTORS AMONG MENOPAUSAL WOMEN IN SELECTED RURAL COMMUNITY, OF JALANDHAR, PUNJAB. 2021

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#### **CHAPTER 1**

#### BACKGROUND OF THE STUDY

#### 1.1Introduction

Despite recent improvements in sex and gender research in cardiovascular disease (CVD), disparities still exist. Ischemic heart disease (IHD) in particular remains a leading cause of death in women. 1 The reasons for this are multifactorial and include biological, social, environmental, and economic factors.<sup>2</sup> While men and women share many traditional risk factors for CVD, these alone do not explain the sex-specific increased risk of CVD in women. Additional female-specific risk factors, most notably menopause, contribute significantly. Menopause has been associated with an increased CVD risk in women aged ≥55 years.<sup>2</sup> The transition to menopause has shown to be associated with negative alterations in the lipid profile, increased susceptibility to weight gain and metabolic syndrome, and both epicardial and pericardial fat deposition.<sup>3-6</sup> It represents a vulnerable time for women and an opportunity for consideration of menopause hormone therapy (MHT).<sup>4</sup>

Earlier age at menopause has been associated with increased risk of coronary heart disease (CHD), but the shape of association and role of established cardiovascular risk factors remain unclear. Therefore, we examined the associations between post menopausal characteristics and CHD risk; the shape of the association between age at menopause and CHD risk; and the extent to which these associations are explained by established cardiovascular risk factors

#### 1.2 Need of the study

Cardiovascular disease (CVD) is the leading cause of death in women. According to the 2012 American Heart Association (AHA) survey of female awareness, knowledge, and perceptions related to CVD<sup>2</sup> and more recent data from 1011 US women (25–60 years of age) from the Women's Heart Alliance survey published in 2017, only 56% of women are aware of this fact.

Women are disproportionately affected by DM: mortality for diabetic women is an estimated 2.1 million versus 1.8 million in diabetic men, and a majority of these deaths are CV in nature. In women with DM, there is a 1.81-fold increased risk of death from IHD compared with women without DM, and in men there is a 1.48-fold increased risk when compared with non-diabetic men. Additionally, risk of heart failure is 5-fold higher in diabetic women as compared with non-diabetic women, which is higher than the 2-fold increase in heart failure seen in diabetic men as compared with non-diabetic men. The risk differences in DM on CVD by gender appear multifactorial. Women have higher rates of coronary microvascular dysfunction (CMD), hypercoagulability, and increased expression of concurrent metabolic syndromes.<sup>8-</sup> <sup>10</sup> Further compounding these disparities, diabetic women are also less frequently prescribed evidence-based therapies by their healthcare providers.<sup>7,8</sup>

#### 1.3 Statement of the Problem

A pre-experimental study on effectiveness of structured teaching programme on knowledge of cardiovascular risk factors among Post- menopausal women in selected rural community, of district-Jalandhar.Punjab.2021

#### 1.4 Aim of the Study

The aim of the study is to improve the knowledge of Post- menopausal women regarding cardiovascular Diseases in rural community of district-Jalandhar.

#### 1.5 Objectives

- 1. To assess the pre test knowledge of Post-menopausal women regarding Cardiovascular risk factors.
- 2. To plan and implement STP through lecture cum discussion regarding cardiovascular diseases risk factors.
- 3. To assess the post test knowledge of women regarding Cardiovascular diseases risk factors.
- 4. To compare pre test & post test knowledge.
- To find out association between knowledge score with their selected demographic variables.

## 1.6 Operational definitions

- o Structured teaching programme:- It refers to systematically planned and developed instructional programme to provide information on cardiovascular diseases and its risk factors.
- o **Knowledge**:- it refers to information, understanding that is gained through education of
- o Cardio vascular diseases and its risk factors amongPost- menopausal women.
- o Cardiovascular Diseases:-Diseases related to heart..
- o **Post- menopausal women:** women who are in the post stage of cessation of menstrual cycle.

## 1.7 Hypothesis

H<sub>1</sub>:- There will be a significant difference between pre test and post test mean knowledge score regarding cardiovascular diseases and its risk factors among Post- menopausal women.

H<sub>0</sub>:- There will not be significant difference between pre test and post test mean knowledge score regarding cardiovascular diseases and its risk factors among Post-menopausal women.

#### 1.8 Delimitations

- 1- The study was delimited to Post- menopausal women only.
- 2- This study was delimited to the selected rural community of District Jalandhar only.

#### 1.9 Conceptual framework based on Becker's Health Belief Model

The framework used for this study was modified health belief model, this model addresses the relationship between a person's belief and behavior. It provides a way of understanding predicting how clients will behave in relation to their health and how will comply with health care measures.

A framework that describes a person's health behavior as an expression of health beliefs. The model was designed to predict a person's health behavior, including the use of health services, and to justify intervention to alter maladaptive health behavior. Components of the model include the person's own perception of susceptibility to a disease or condition, the perceived likelihood of contracting that disease or condition, the perceived severity of the consequences of contracting the condition or the disease, the perceived benefits of care and barriers to preventive behavior, and the internal or external stimuli that result in appropriate health behavior by the person.

The main concepts of health belief model are:-

- 1- Perceived susceptibility
- 2- Perceived Severity
- 3- Perceived benefits
- 4- Perceived barriers
- 5- Cues of action

6- Likelihood of behavioral change

#### **Component-1 individual perception**

In this study individual perception refers to the post menopausal women who need to recognize risk factors of cardiovascular diseases and its risk factors.

- Perceived susceptibility predisposing factors like ageing, post menopausal stage, family history of disease and inproper dietary pattern. So, inadequate knowledge of cardiovascular Diseases among Post- menopausal women in rural community increase the risk of developing cardiovascular diseases.
- Perceived seriousness high risk age group 50-60 years. Worldwide 1 in 3 women over age of 50 having cardiovascular diseases at starting of Post- menopausal period.

## **Component -2:- Modifying factors**

In present study the modifying factors are education, occupation, dietary pattern, source of information and monthly family income.

The perceived threats in present study perceived threats of getting cardiovascular diseases due to risk factors of cardiovascular diseases due to advance age, education and occupation. and lack of awareness about cardiovascular diseases and its risk factors.

Cues of action refer to influence of Mass media- T.V, newspapers, health camps, Health care personnel, peer group friends and relatives.

## Component -3 likelihood of action

In present study perceived benefits through awareness of cardiovascular diseases regarding Postmenopausal women and Provide appropriate preventive strategies to prevent cardiovascular diseases by using home remedies during Post- menopausal stage. As nursing investigator, educate the public regarding prevention of cardiovascular diseases among post menopausal women, and identifying risk factors of cardiovascular diseases through adequacy of knowledge was checked through pre test and structured teaching programme was implemented. The barriers may be unwillingness, non availability during STP, wrong attitude toward health care, lack of time, religion and cultural factors.

#### Likelihood of behavioral change

Post- menopausal women of selected rural community of Jalandhar gained the knowledge regarding the cardiovascular diseases and its risk factors. In future they may use the information provided to them.

# Chapter 2

#### REVIEW OF LITERATURE

The review of literature is a broad comprehensive in-depth, systematic and critical review of scholarly publication, unpublished scholar prints material, audio visual materials and personal communications. This helps the researcher to carry out the research successfully. It is further intended to serve as a means of exchanging information with the hope that it could prevent further duplication, of respondents to determine what is already known from similar research<sup>10</sup>.

Review of literature plays an important role in the development of research. The related literature serves as a foundation stone for the new study and also helps to develop a deeper insight into the problem area. The literature helps to gain insight into various aspects of the problem selected for the study. The review of literature reveals existing knowledge of subject, taken by the investigator. The purpose of review of literature is to discover what is already known, what others have attempted to find out and to gain insight into the problem.

The review of literature was organized under the following headings:-

- 2.1-Meaning and definition of cardiovascular Diseases
- 2.2-Review of literature related to Incidence/prevalence and risk factors of cardiovascular diseases amongpost-menopausal women.

Health is a state of complete physical, mental, and social wellbeing, not merely the absence of disease or infirmity (WHO, 1947). Individual view of health varies among different age groups, genders, races, and cultures. Health is manner in which people think about health and how they manage their lives in ways there are healthy or promote health<sup>11</sup> (Potter and Perry, 2009).

Heart is a muscular vital organ which pumps the blood from "womb to tomb of our lives". Cardiovascular risk factors are habits or conditions that increase the chance of developing the heart disease. The non-modifiable risk factors of cardiovascular diseases cannot be controlled such as age, sex, family medical history and race. The modifiable cardiovascular risk factors are controlled by healthy heart behaviour <sup>4</sup>(Sybil L, 2007).

A number of factors contribute to increase risk of cardiovascular disease among postmenopausal women. High risk of cardiovascular disease is due to the abrupt interruption of estrogens which has indirect protective effects on lipids, glucose metabolism and direct effects on vessel function. Changes in lipid profile, obesity, hypertension, diabetes mellitus, sedentary lifestyle and smoking may intervene as severe risk factors<sup>3</sup> (Rossi R, 2009).

Changes in lipid, lipoprotein, and other cardiovascular risk factors associated with occurrence of menopause have been examined in a cross sectional study of 435 healthy white women aged 45 to 55 years. The analysis showed that total cholesterol, low density lipoprotein (LDL) cholesterol, triglycerides, systolic blood pressure and fibrinogen were significantly higher in postmenopausal women than in premenopausal women. High density lipoprotein (HDL) cholesterol, diastolic blood pressure and blood glucose did not change with menopausal status<sup>12</sup> (Bonithon, 2008).

It is learned from the study conducted by Chang CJ. et al, (2000) on relationship of age, menopause, and central obesity on cardiovascular risk factors in Chinese women that through the aging and menopausal effects, women will increase will total body fat content, favouring the central body fat distribution. Age, menopause, and central obesity were all independent and significant factors of the cardiovascular risk factors in Chinese women<sup>13</sup>.

Hypertension affects more men than women until 55 years of age, but after age 55, the percentage of women is higher. Estrogens deficiency has been linked to the rapid increase in cardiovascular disease in postmenopausal women. Experimental evidence suggests that estrogens increases the biological actions of nitric oxide and decreases the actions of angiotensin after menopause, loss of the vascular protective effects of estrogens may unmask a population of women particularly prone to hypertension who would be at higher risk of cardiovascular disease<sup>14</sup>(Harrison, 2010).

Veerle Dam, Yvonne et al conducted a research to evaluate Association of menopausal characteristics and risk of coronary heart disease has shown that Earlier and surgical menopause were associated with higher CHD risk. These associations could partially be explained by differences in conventional cardiovascular risk factors. These women might benefit from close monitoring of cardiovascular risk factors and disease.( International Journal of Epidemiology, Volume 48, Issue 4, August 2019)

Gretchen L.Gierach MPH et al evaluated whether the relationship between hypertension, other cardiac risk factors, and coronary artery disease (CAD) is modulated by menopausal status and/or age. There were similar relationships with regard to traditional coronary risk factors and angiographic CAD in premenopausal versus postmenopausal women, with few exceptions...

Among women undergoing **angiography** for suspected ischemia, elevated SBP and PP are potent risk factors in premenopausal women. The results suggest that identification of hypertension in premenopausal women dictates additional CAD risk factor assessment and management

## **CHAPTER-3**

# **Research Methodology**

The methodology is most important part of research as it is the framework for conducting a study. It indicates the general pattern for organizing the procedures together valid and reliable data for an investigation.

This chapter deals with the methodology adopted to assess the knowledge of cardiovascular diseases and its risk factors amongpost menopausal women in selected rural community of district Jalandhar.

## This chapter includes:-

- 3.1 Research design
- 3.2 Research setting
- 3.3 Target population
- 3.4 Sample and sampling technique
- 3.5 Inclusion and exclusion criteria
- 3.6 variables
- 3.7 Selection and development of tool
- 3.8 Description of tool
- 3.9 Reliability of tool
- 3.10 Validity of tool
- 3.11 Pilot study
- 3.12 Data collection procedure
- 3.13 Ethical consideration
- 3.14 Plan of data analysis



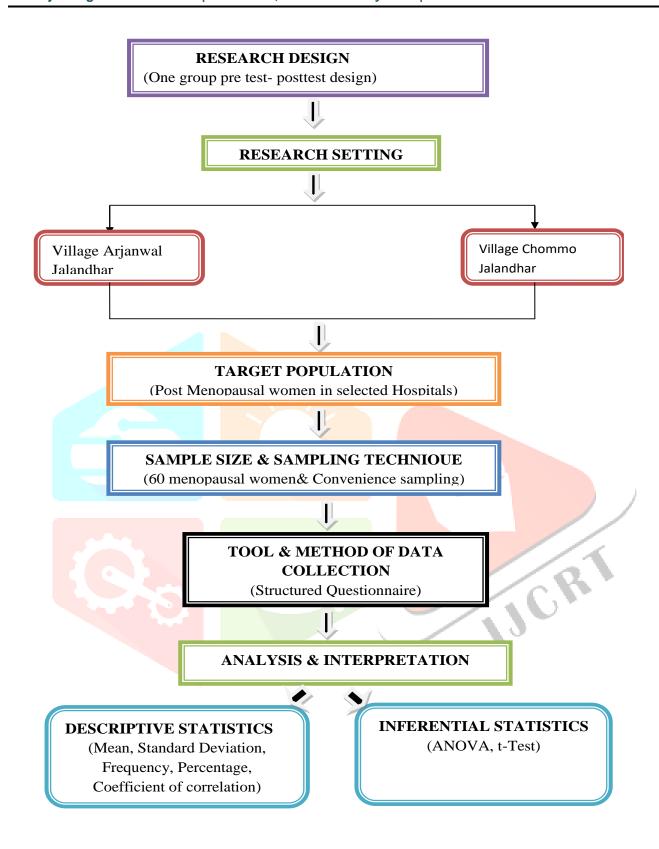


Figure 2: Schematic diagram of Research Design

#### 3.1 Research Design:-

One group pre test and post test research design was used. Which was type of pre-experimental research design?

## 3.2 Research Setting

The Study was conducted in Month of May (2021) in selected villages of District-Jalandhar, Punjab.

## 3.3 Target Population

The Target population includes Post menopausal women who were residing in community of district Jalandhar.

## 3.4 Sample / Sampling Technique

Total 60 post menopausal women were selected from rural community. Convenience sampling technique wasemployed to collect data.

#### 3.5 Inclusion & Exclusion Criteria

#### **Inclusion criteria**

- 1. All Post- menopausal women of rural community...
- 2. Women who are willing to participate in the study.

#### **Exclusion criteria**

- 1. Those who were not present at the time of data collection.
- 2. Mentally retarded and cognitive impairment women.

#### 3.6 Variables

## Independent variables

Structured teaching programme on knowledge of cardiovascular Risk factors among Post- menopausal women.

#### Socio -demographic variables of study

Age, education, occupation, marital status, dietary pattern, monthly family income, source of information.

#### **Dependent variables**

Dependent variables of the study wasknowledge ofpost menopausal women regarding cardiovascular diseases and its risk factors.

## 3.7 Selection and Development of Research Tool

The tool was developed by referring books, journals, articles, newspapers websites and guidance of experts. Structured questionnaire was selected to conduct the study.

## 3.8 Description of Tool:-

The tool was constructed to assess the knowledge of cardiovascular diseases and its risk factors among Postmenopausal women. The tool was divided into three sections:-

**Section A:-** Socio- demographic variables: This section includes variables- age, education, occupation, marital status, dietary pattern, monthly family income, source of information.

**Section B:- development of Teaching tool:-** Teaching tool was prepared regarding cardiovascular diseases by referring books, journals, articles, magazines, newspapers. which helps the Post- menopausal women's who had knowledge of cardiovascular Diseases

**Section C:-**This section comprises knowledge questionnaire in which 32 question were prepared. The number of questions regarding introduction and general questions 4 items(1-4), Meaning, causes, risk factors and signs and symptoms 11 items(5-17), Diagnostic test and prevention 5 items (18-23), Treatment and adverse effect 4 items(24-29), Management of responsibility 6 items(30-32).

Table 1.Criterion measure for knowledge:-

Level of knowledge	Score	%
Good	26-30	>83.33
Average	16-25	>50-83.33
Poor	≤15	≤50

## 3.9 Validity of the Tool

Content validity was established by obtaining valuable opinion and suggestions from Principal Mata Gujri Institute of Nursing, village Adampur Jalandhar, guide and experts in the field of research, medical –surgical nursing, cardio medicine and obstetrical and gynecology. The investigator to know about adequacy, appropriateness and completeness of the content of instrument and to correct the mistakes before conducting research study and to get better results.

## 3.10 Pilot Study

pilot study was conducted at Village Dhanowali, rural community of district, Jalandhar in the month of January (2021). It was conducted on 10 samples of total population. Permission was sought from Sarpanch of the village to conduct the research study. The research approach to target population and Informed written consent was taken from them that those were willing to participate and their confidentiality and anonymity was maintained. Pre test knowledge questionnaire was given to them immediately structured teaching programme was implemented to improve the knowledge of post menopausal women. Post test was conducted after 1 week.

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#### 3.11 Reliability of Tool

The reliability of tool was obtained by split half method on samples participating in the pilot study and correlation was done by Karl's Pearson Coefficient of correlation. The reliability of tool was 0.98

## 3.12 Data collection procedure

The data collection procedure of the study was carried in month of May 2021. Written permission was taken from principal Principal of DeshBhagat University School Of Nursing, MandiGobindgarh, Fatehgarh Sahibwritten permission was taken fromsarpanch of the villages Arjanwal and Village Chommo before staring data collection. The researcher had taken permission from post menopausal women before data collection. The researcher introduced themselves to the respondent and explained the purpose of gathering the information. They were assumed that their responses would be kept confidential and used for research purpose. The investigator collected data from post menopausal women by going home to home, pre test was assessed through knowledge questionnaire immediately a well designed structured teaching programme was given to the samples with proper explanations. After 1 week a post test was conducted by using the same questionnaire.

## 3.13 Ethical considerations

- Written permission was taken from Principal of DeshBhagat University School Of Nursing, MandiGobindgarh, Fatehgarh Sahib.
- Written Permission was taken from ethical clearance committee DeshBhagat University School Of Nursing, MandiGobindgarh, Fatehgarh Sahib.
- Prior information and explanation was given to concerned higher authority and samples.
- Written informed consent was taken from samples. and assured them their responses& anonymity will be kept confidential.
- Routine work of women was not disturbed.

#### 3.14 Plan of data Analysis:-

Data analysis and interpretation was the most important phase of the research process. It involves compilation, editing, coding, classification and presentation of data. Data was analyzed by Discriptive statistics (mean, standard deviation frequency, percentage, correlation coefficient, split half method )and Inferential statistics was done by using 't'-test, and ANOVA.

#### **CHAPTER-4**

#### ANALYSIS AND INTERPRETATION OF DATA

This chapter deals with the analysis and interpretation of data collected from post menopausalwomen of selected rural community to assess the effectiveness of Structured Teaching programme regarding cardiovascular diseases and its risk factors...

The analysis and interpretation of data of this study are based on data collected through structured questionnaire from post menopausalwomen (N=60) regarding cardiovascular diseases and its risk factors. The analysis and interpretation was done according to the objectives laid down for the study. The data had been analyzed by using descriptive and inferential statistics. In descriptive statistics mean, mean percentage and standard deviation were used for analyzing the distribution of subjects according to their demographic variables i.e. age, education, occupation, marital status, source of information, and monthly family income. In Inferential statistics, karl'spearson coefficient correlation, ANOVA (F) and 't' test to know the difference between pre test and post test knowledge scores.

## **Objectives:-**

- 1. To assess the pre test knowledge of post regarding cardiovascular diseases and its risk factors.
- 2. To plan and implement STP through lecture cum discussion regarding cardiovascular diseases and its risk factors
- 3. To assess the post test knowledge of women regarding cardiovascular diseases and its risk factors.
- To compare pre & post test knowledge.
- To find out association between knowledge scores with their selected demographic variables. 5.

#### **HYPOTHESIS**

H<sub>1</sub>:-There will be a significant difference between pre test and post testmean knowledge score regarding cardiovascular diseases and its risk factors among post menopausal women.

H<sub>0</sub>:- There will not be significant difference between pre test and post testmean knowledge score regarding cardiovascular diseases and its risk factors among post menopausalwomen.

#### ORGANIZATION AND PRESENTATION OF DATA:

The data was entered in Master sheet for – tabulation and statistical processing. The analysis of data is organized and presented under the following section.

**Section I:** Frequency and percentage distribution of Socio-demographic variables.

**SectionII:-** Findings related to pre test knowledge of post menopausal women regarding cardiovascular diseases and its risk factors

**SectionIII:-**Findings related to post test knowledge of post menopausalwomen regarding cardiovascular diseases and its risk factors

**Section IV:** Findings related to comparison of pre test and post test mean knowledge score.

**Section V:**Findings on association between pre test and post test knowledge score with their selected sociodemographic variables.

# Section I

## FREQUENCY AND PERCENTAGE DISTRIBUTION OF SOCIO-DEMOGRAPHIC VARIABLES

TABLE 2 frequency and percentage distribution of socio-demographic variables. N=60

Socio-	demographic Variables	n		%age
1-	Age(in years)	₹		
	40-50		31	51.67
	51-60		16	26.67
	61 and above	13		21.66
2-	Educational qualification			
	Illiterate		07	11.67
	Literate		53	88.33
3-	Occupation			
	Housewife		42	70.00
	Working		18	30.00
4-	Marital status			
	Married		51	85.00
	Widow		09	15.00
	Unmarried		-	-
	Divorced		-	-
5-	Diet			
	Vegetarian		50	83.33
	Non-vegetarian		07	11.67
	Eggeterian		03	5.00
6-	Source of information			
	Mass media		23	38.33
	Health professional		18	30.00
	Not know		19	31.67

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7- Monthly family income(Rs)		
Upto5000	23	38.34
5001-10000	16	26.66
10001-15000	10	16.66
15001 and above	11	18.34

Table 2 depicts that post menopausal women was distributed into various categories according to their age, education, occupation, marital status, dietary pattern, source of information and family income.

According to age, majority of post menopausal women from the sample 31 (51.67%) were between age group 40-50 years followed by 16(26.67%) from age group 51-60 years and only 13(21.66%) were 61 and above age group according to education, majority of post menopausal women were literate 53(88.33%) followed by 7(11.67%) were illiterate. For their occupation majority of post menopausal women were housewife 42(70%) followed by 18(30%) were working. According to marital status majority of post menopausalwomen were married 51 (85%) followed by 9(15%) post menopausal women were widow and non of women unmarried divorced. According dietary pattern, majority of or postmenopausalwomenwerevegetarian 50(83.33%) followed by 7 (11.67%) post menopausal women were non vegetarian and very less 5.0% were eggeterian. For their source of information, majority of post menopausalwomen had information through mass media 23 (38.83) followed by 19 (30%) of through health professional and 19(31.07%) had no information about cardiovascular diseases and its risk factors. For their monthly family income, majority of post menopausal women23(38.34) were in the income upto5000 followed by 23 (26.67) were income 5000-10000 and 10 (16.66) post menopausal women were income 10001-15000 and 11(18.34) subjects had family income 15001& above.

#### **Section II:-**

Objective:-To assess the pre test knowledge of post menopausal women regarding cardiovascular diseases and its risk factors

Table 3 Frequency and percentage of pre test knowledge score.

Pre test knowledge score		
Level of knowledge	n	%
- C - I	0	00/
Good	0	0%
Average	35	58.33%
Poor	25	41.67%

Table3. Shows the pre test mean knowledge score of post menopausal women regarding cardiovascular diseases and its risk factors.which were categorised into three levels i.e Good, Average and Poor .The table depicts that Out of total sample 35 (58.33%) subjects were average knowledge followed by 25 (41.67%) were poor knowledge and no subject was good knowledge.

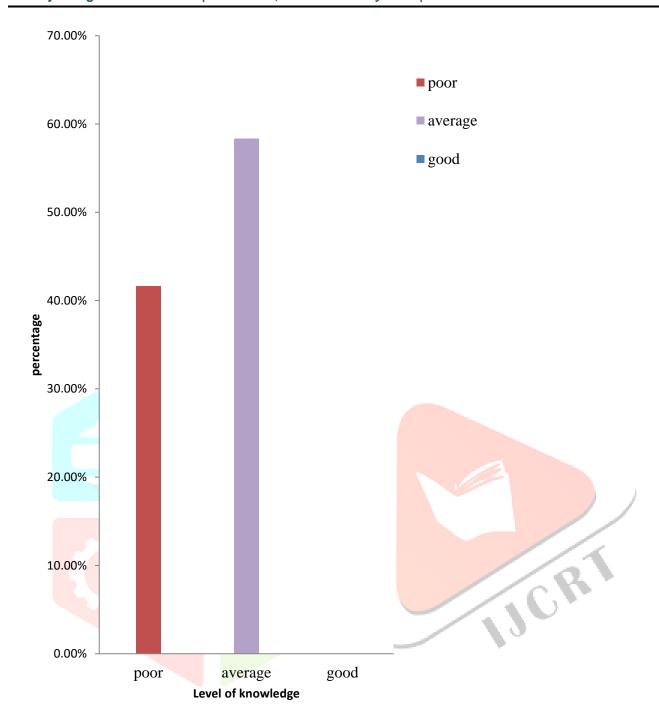


Figure 3 Bar diagram shows the % age distribution of Pre test knowledge score.

#### **Section III**

Objective:-To assess the post test knowledge of women regarding cardiovascular diseases and its risk factors

Table 4 Frequency and percentage of post test knowledge score.

N=60

	Post test knowledge score		
Level of knowledge	n	%	
Good	6	10.00%	
average	52	86.67%	
Poor	2	3.33%	

**Table 4.**Shows the post test mean knowledge score of post menopausal women regarding cardiovascular diseases and its risk factors.which were categorised into three levels i.e Good, Average and Poor .The table depicts that Out of total sample52 (87%) samples had average knowledge in post test followed by 6(10.00%) had good knowledge and only 2 (3.33%) had poor knowledge. 1JCR1

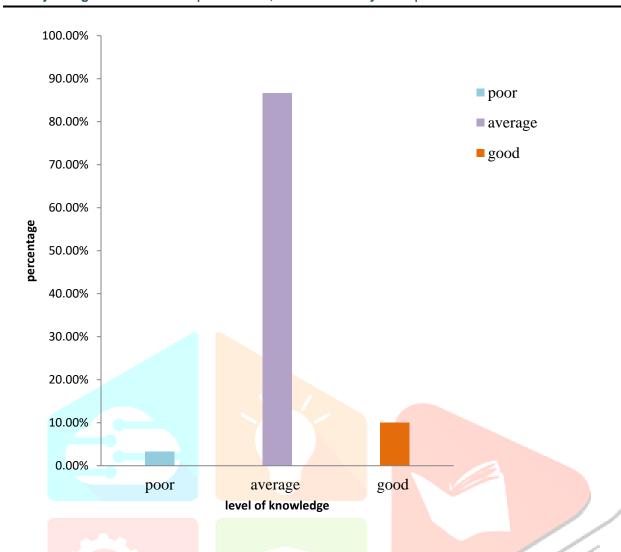


Figure 4 Bar diagram showingthe % age distribution of post test knowledge score.

## **Major Findings:-**

Majority of post menopausal women from the sample 31 (51.67%) were between age group 40-50 years followed by16(26.67%) from age group 51-60years and only 13(21.66%)were 61 and above age group.

Majority of post menopausal women were literate 53(88.33%) followed by 7(11.67%) were illiterate.

For their occupation majority of post menopausal women were housewife 42(70%) followed by 18(30%) were working.

Majority of post menopausalwomen were married 51 (85%) followed by 9(15%) post menopausal women were widow and non of women unmarried or divorced.

Majority of post menopausalwomenwerevegetarian 50(83.33%)followed by 7 (11.67%)post menopausal women were non vegetarian and very less 5.0% wereeggeterian.

For their source of information, majority of post menopausalwomen had information through mass media 23 (38.83) followed by 19 (30%) of through health professional and 19(31.07%) had no information about cardiovascular diseases and its risk factors.

For their monthly family income, majority of post menopausal women 23(38.34) were in the income upto 5000 followed by 23 (26.67) were income 5000-10000 and 10 (16.66)post menopausal women were income 10001-15000 and 11(18.34) subjects had family income 15001& above.

In pre test knowledge score, from the total sample out of 60 Subjects 35 (58.33%) subjects had average knowledge followed by 25 (41.67%) had poor knowledge and no subject had good knowledge. The overall mean of pre test was 16.3 with the standard deviation of 4.01.

In post test knowledge score, from the total sample out of 60 subjects 52(87%) subjects had average knowledge in post test followed by (6)10,00% had good knowledge and only (2) 3.33% had poor knowledge. The overall mean of post test was 21.23 with the standard deviation of 3.127.

The mean post test knowledge score 21.23 was comparatively higher than the mean pre test knowledge score 16.3. this shows that structured teaching programme regarding knowledge of cardiovascular diseases and its risk factors among post menopausal womenwas effective in increasing the mean score of knowledge from pre test to post -test. Paired t-test was used to find out effectiveness of STP among post menopausal women. Result of t-test shows that there was significance change in knowledge due to structured teaching programme.

Therewas statistical relation between Education, occupation and marital status with the knowledge about cardiovascular diseases and its risk factors among post menopausalwomen. There was no significant relation between Age, dietary pattern, monthly family income and source of information with the knowledge of cardiovascular diseases and its risk factors among post menopausal women.

# **Chapter 5**

## **Discussion**

The present research study is "A pre-experimental study on effectiveness of structured teaching programme on knowledge of Cardiovascular Diseases and Risk factors amongPost- menopausal women in selected rural community, of district-Jalandhar.Punjab.2021".

A structured questionnaire was used to collect the data. A pre-experimental one group pre test and post test design was used to assess the knowledge of Cardiovascular Diseases and Risk factors amongPostmenopausal women in selected rural community. And this chapter relates the findings of the present study to the findings according to objectives of previous studies and findings were discussed.

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The first objective of the present study was to assess the pre-test knowledge of Post-menopausal women regarding Cardiovascular Diseases and Risk factors. Out of 60 Subjects 35 (58.33%) subjects had average knowledge followed by 25 (41.67%) had poor knowledge and no subject had good knowledge. The overall mean of pre test was 16.3 with the standard deviation of 4.01.

The Third objective was to assess the post test knowledge of women regarding Cardiovascular Diseases and Risk factors. Out of 60 subjects 52(87%) subjects had average knowledge in post test followed by (6)10,00% had good knowledge and only (2) 3.33% had poor knowledge. The overall mean of post test was 21.23 with the standard deviation of 3.127.

The fourth objective was to compare the pre test and post test knowledge. The mean post test knowledge score 21.23 was comparatively higher than the mean pre test knowledge score 16.3. this shows that structured teaching programme regarding knowledge of Cardiovascular Diseases and Risk factors among Post- menopausal women was effective in increasing the mean score of knowledge from pre test to post -test. Paired t-test was used to find out effectiveness of STP among Post- menopausal women. Result of t-test shows that there was significance change in knowledge due to structured teaching programme.

The fifth objectivewas to find out association between knowledge score with their selected sociodemographic variables. The difference of pre test as well as post test mean knowledge score between and within the age was statistically non significant. Hence, it was inferred that there was no influence of age on knowledge of Cardiovascular Diseases and Risk factors amongPost- menopausal women.

#### CHAPTER - 6

# SUMMARY AND CONCLUSION AND RECOMMENDATIONS

#### **SUMMARY**

This chapter deals with summary of the study, nursing implications and explanations are based on objectives and findings presented in brief followed by recommendations. The present study was concerned to assess the effectiveness of structured teaching programme on knowledge of Cardiovascular Diseases and Risk factors amongPost- menopausal women in selected rural community of District, Jalandhar.

#### STATEMENT OF THE PROBLEM

A pre-experimental study on effectiveness of structured teaching programme on knowledge of Cardiovascular Diseases and Risk factors amongPost- menopausal women in selected rural community, of district- Jalandhar, Punjab. 2021

#### AIM OF THE STUDY

The aim of the study is to improve the knowledge of Post- menopausal women regarding Cardiovascular Diseases and Risk factors in rural community of district, Jalandhar.

#### **OBJECTIVES**

- 1. To assess the pre test knowledge of Post- menopausal women regarding Cardiovascular Diseases and Risk factors.
- 2. To plan and implement STP through lecture cum discussion regarding Cardiovascular Diseases and Risk factors.
- 3. To assess the post test knowledge of women regarding Cardiovascular Diseases and Risk factors.
- 4. To compare pre & post test knowledge.
- To find out association between knowledge scores with their selected demographic variables. 5.

The study was attempted to examined the following hypothesis:

H<sub>1</sub>:- There will be a significant difference between pre test and post test mean knowledge score regarding Cardiovascular Diseases and Risk factors amongPost-menopausal women.

H<sub>0</sub>:- There will not be significant difference between pre test and post test mean knowledge score regarding Cardiovascular Diseases and Risk factors among Post-menopausal women.

The conceptual framework was based on Becker's "Health Belief Model" A framework that describes a person's health behavior as an expression of health beliefs. The model was designed to predict a person's health behavior, including the use of health services, and to justify intervention to alter maladaptive health behavior, which was designed to include the overall aspects of the present research study.

Review of literature and related studies helped the investigator to collect the appropriate and relevant intervention to support the study research design, conceptual framework, development of the tools, development of the structured teaching programme and analysis of data.

Research design adopted for the present study was pre experimental design, one group pre test and post test. The study was conducted in selected rural community of Jalandhar. The sample consists of 60 Postmenopausal women. The non-probability convenience sampling technique was used to select the sample. The tool developed and used for data collection was Structured knowledgequestionnaire which consists of two parts.

Part-I consists of items related to socio-demographic variables.

Part II consists of 30 items regarding knowledge of Cardiovascular Diseases and Risk factors amongPostmenopausal women.

Eight experts established content validity of the tool and Structured Teaching Programme. The tool was found to be reliable and valid. The reliability of the tool was established by Karl's Pearson method formula. The computed value of reliability found to be 0.98 for knowledge, which was found to be high.

The Pilot study was conducted in the month of December to find out the feasibility of the tool and study. The purpose of the Pilot study wasto find out the feasibilities of conducting final study. And to evaluate the establishment of structured teaching programme. and to determine the method of statistical analysis.

10 Post- menopausal women who were residing in village semi were selected, who were excluded in the actual study and strategy was tested for effectiveness. The final study was conducted in the month of January using structured knowledge questionnaire followed by Structured Teaching Programme after a gap of 1 week, post test was conducted by using the same structured knowledge questionnaire. The data collected was coded, grouped and interpreted according to the objectives of the study. Descriptive and inferential statistics were used for data analysis.

The major findings of the study are summarized as follows:-

1. Findings related to socio-demographic characteristics.

The High percentage(51.67%) of Post- menopausal women belonging to age group 40-50 years.88.33% of Post- menopausal women were literate.70% Post- menopausal women were housewife. majority of Post- menopausal women 83.33% were vegetarian. 85% Post- menopausal women were married. 38.33% Post- menopausal women were getting information through mass media and 38.34% Post-menopausal women had monthly family income upto 5000.

2. Findings related to existing knowledge of Cardiovascular Diseases and Risk factors amongPostmenopausal women in selected rural community of district, Jalandhar.

Assess the pre test knowledge of Cardiovascular Diseases and Risk factors amongPost- menopausal women by structured questionnaire. Structured teaching programme was implemented to improve the knowledge of Post- menopausal women. Post test was conducted after 1 week.

The pre test knowledge of the samples were assessed by using descriptive statistics. On pre test out of 60 samples 35 (58.33%) subjects were averageknowledge followed by 25 (41.67%) were poor knowledge and no subject was good knowledge. Overall pre test mean knowledge score was 16.3

After implement structured teaching programme. Post test was conducted after 1 week .among 60 subjects 52 (87%) subjects had average knowledge in post test followed by 6(10.00%) had good knowledge and only 2 (3.33%) had poor knowledge. Overall post test mean knowledge score was 21.23

Mean post-test knowledge score 21.23 was comparatively higher than the mean pre-test knowledge score 16.3. this shows that structured teaching programme regarding knowledge of Cardiovascular Diseases and Risk factors among Post- menopausal women were effective in increasing the mean score of knowledge

from pre test to post -test. Paired t-test was used to find out effectiveness of STP among Post- menopausal women. Result of t-test shows that there is significance change in knowledge due to structured teaching programme.  $H_1$ was accepted as t=7.51>1.96 at 5% level of significance.  $H_0$  was rejected. It means there was improvement in knowledge after STP.

There was statistical relation between Education, occupation and marital status with the knowledge about Cardiovascular Diseases and Risk factors amongPost- menopausal women. There was no significant relation between Age, dietary pattern, monthly family income and source of information with the knowledge of Cardiovascular Diseases and Risk factors amongPost- menopausal women. The mean post-test scores was higher than mean pre-test scores. Mean knowledge score of post-test was (21.23) which were higher than mean knowledge score of pre-test (16.3). The difference in mean pre-test and post-test score is found statistically significant.

#### **CONCLUSION**

The study was undertaken to assess the effectiveness of Structured Teaching Programme on knowledge of Cardiovascular Diseases and Risk factors amongPost- menopausal women in selected rural community of district, Jalandhar. 60 samples were assessed by using structured questionnaire by following inclusion and exclusion criteria. Pre test was conducted followed by Structured Teaching Programme after 7 days post test was given by using same structured questionnaire. The study involved single group pre-test and post test, using pre-experimental design, in which non-probability convenience sampling technique was used. The results were described by using descriptive and inferential statistics.

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#### RECOMMENDATIONS

Based on the findings of the study the investigator proposed the following recommendations

- 1. The study can be done in large sample
- 2. A comparative study to assess the knowledge of Cardiovascular Diseases and Risk factors amongPost-menopausal women in rural and urban community of district, Jalandhar.
- 3. A quasi experimental study on effectiveness of structured teaching programme on knowledge of Cardiovascular Diseases and Risk factors amongPost- menopausal women in selected rural community.
- 4. Multicentric larger study should be conducted to assess the knowledge of Cardiovascular Diseases and Risk factors among Post- menopausal women in rural community.
- 5. A pre-experimental study on effectiveness of structured instructional module on knowledge of prevention of Cardiovascular Diseases and Risk factors amongPost- menopausal women in selected rural community.

#### NURSING IMPLICATION

Cardiovascular Diseases and Risk factors is a disease characterized by altered heart functions and subsequent changes in cardiac functions deposition of cholesterol in arteries, with a consequent increase in Blood pressure and susceptible to myocardial infarction. Prevention and reduction of Cardiovascular Diseases and Risk factors amongPost- menopausal is the prompt way to overcome its effects.

- 1. Present study can help investigator to enrich knowledge of Cardiovascular Diseases and Risk factors in community setting.
- 2. Present study would help to understand the level of knowledge among Post- menopausal women regarding Cardiovascular Diseases and Risk factors .so, increase awareness program about importance of prevention of Cardiovascular Diseases and Risk factors can be organized for the general public and other health professionals.