

## “A Study To Assess The Effectiveness Of IEC On Menopausal Symptoms And Perceptions Among Menopausal Women At Venkatachalam, Nellore”

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### Abstract

**Introduction :** Menopause is a crucial period in a woman's life. The quality of life declines during this period due to the various problems associated with estrogen deficiency and aging. With increasing life expectancy of women all over the world, 25%-30% of a woman's life is in the postmenopausal period. Coping with the pressures of modern life and the mood swings of menopause together can be overwhelming. Attention to the health and emotional needs of these women is important for the individual, family and community.

**Need for the study:** Menopause marks a time of dramatic hormonal and often social changes for women both risk factor and health needs are likely to change as women pass through menopause. The numbers of women involved are large. Using age 50 as a proxy for menopause about 25 million women met pass through menopause in 2022 and we estimate that in 1996 there were 467 million post-Menopausal women in the world with an average age of about 60 years. By 2030 the world population of menopausal and post-Menopausal women is projected to increase to 1-2 billion with 47 million new entrants each year. The Mortality implications of menopause are also substantial.

**Objectives:** Evaluate the effectiveness of IEC on menopausal symptoms and perceptions among menopause women.

**Materials and methods:** Pre experimental one group Pretest-posttest study design was adopted for this study. The sample size was 100 menopausal women at Venkatachalam, Nellore. Non probability convenience sampling technique was used to select the study participants. Structured questionnaire was used to assess the effectiveness of IEC on menopausal symptoms and perception among menopausal women. Pilot study was conducted for 1 week after obtained the permission from concerned authorities. The data collection was conducted for 1 week after obtaining the formal written permission from concerned authorities. 100 menopausal women was selected by using non probability convenience sampling technique. Each day 6-7 participants will be selected for the data collection. Make the participants to sit in a comfortable room. A brief introduction was given by the investigator. Confidentiality of responses was assured. The Structured questionnaire and checklist was administered to all participants. IEC was given to all the participants. It was taken 15-20 minutes for each participant. After that post test was conducted with same tool to all participants. The data was collected, coded, organized and analyzed by using descriptive and inferential statistics based on objectives.

**Result :** With context to knowledge on Menopausal symptoms and perceptions among menopausal women in Venkatachalam Nellore in on pre - test, 1%(1) had B+, 12%(12) had

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B, 18%(18) had C, 69%(69) had D. Post test menopausal symptoms among menopausal women, 12%(12) had A+, 27%(27) had A, 27%(27) had B+, 17%(17) had B, 9%(9) had C and 8%(8) had D. The results shows that the null hypothesis was rejected and research hypothesis was accepted.

The mean and standard deviation of pre-test and post-test knowledge on Menopausal symptoms among menopausal women that pre test mean of knowledge score was 9.27 with SD 4.77. The post test mean of knowledge scores was 18.64 with SD 3.76. The calculated value of 'Z' test was 2.805 and table value was 1.96. The calculated value was more than the table value; hence the null hypothesis was rejected and research hypothesis was accepted.

**Conclusion :** The study concluded that majority in pre test 69%(69) had D+ grade and post test 27%(27) had A and 27%(27) had B+ grade had knowledge on menopausal symptoms. There is a significant increase in the knowledge on menopausal symptom and perception among menopausal women. The IEC was found to be an effective strategy to increase the perception on menopausal symptoms among menopausal women .

**Keywords:** Effectiveness, IEC, Menopausal Symptoms And Perceptions, Menopausal women.

## INTRODUCTION

Menopause is a crucial period in a woman's life. The quality of life declines during this period due to the various problems associated with estrogen deficiency and aging. With increasing life expectancy of women all over the world, 25%-30% of a woman's life is in the postmenopausal period. Coping with the pressures of modern life and the mood swings of menopause together can be overwhelming. Attention to the health and emotional needs of these women is important for the individual, family and community.<sup>1</sup>

Menopause is defined as a cessation of menses for a period of 12 months or more without any physiological or pathological causes. It is a retrospective diagnosis that can be made with certainty only after 12 months of amenorrhea in the appropriate age group. It is an indication of ovarian follicular depletion and resultant estrogen deficiency. Cessation of menstrual periods in women aged <40 years was called premature menopause earlier, but currently, it is referred to as primary ovarian insufficiency (POI).<sup>1,2,3</sup>

Menopause is a natural biological process. But the physical symptoms, such as hot flashes, and emotional symptoms of menopause may disrupt the menopause women sleep, lower their energy or affect emotional health. Menopause women might experience some signs and symptoms, the signs and symptoms including irregular periods, vaginal dryness, hot flashes, chills, night sweats, sleep problems, mood changes, weight gain and slowed metabolism, thinning hair and dry skin, loss of breast fullness. Signs and symptoms, including changes in menstruation can vary among women. Most likely, menopause experience some irregularity in women's periods before they end. A perception of the menopause as a positive even varies in different countries between 60%-90% and menopausal are found to be less common in societies where menopause is viewed as positive rather than negative event.<sup>4,5</sup>

Various factor including menopausal status, educational and social background, culture and Physical and emotional health May influence women's perceptions of menopause. This study documents elements influencing attitudes towards Menopause among women.

## NEED FOR THE STUDY

Menopause marks a time of dramatic hormonal and often social changes for women both risk factor and health needs are likely to change as women pass through menopause. The numbers our women involved are large. Using age 50 as a proxy for menopause about as 25 million women met pass through menopause in 2022 and we estimate that in 1996 there were 467 million post-Menopausal women in the world with an average age of about 60 years. By 2030 the world population of menopausal and post-Menopausal women is

projected to increase to 1-2 billion with 47 million new entrants each year. The Mortality implications of menopause are also substantial

In India, a cross sectional study conducted on 2013 proved that the average age of attaining menopause was 48.26 years. Prevalence of symptoms among ladies were emotional problems (crying spells, depression, irritability) 90.7%, headache 72.9%, lethargy 65.4%, dysuria 58.9%, forgetfulness 57%, musculoskeletal problems (joint pain, muscle pain) 53.3%, sexual problems (decreased libido, dyspareunia) 31.8%, genital problems (itching, vaginal dryness) 9.3%, and changes in voice 8.4%. Only 22.4% of women knew the correct cause of menopause. According to literature, at least 60% of ladies suffer from mild symptoms and 20% suffer severe symptoms and 20% from no symptoms.

An average healthy 4% of Indian Women are menopausal between the age of 29-34 years it goes up to 8% in care of women between 35 and 39 years. Menopause is marginally lower in upper areas [16.1%] as against rural [18.3%] In Andhra Pradesh the menopausal symptoms in women are 31.4% and in The Nellore District the percentage of Menopausal women is 75%.

### OBJECTIVES

- To assess the level of knowledge regarding menopausal symptoms and perceptions among Menopausal women.
- To evaluate the effectiveness of IEC on menopausal symptoms and perceptions among menopause women.
- To find out the association between the effectiveness of IEC on menopausal symptoms and perceptions among menopause women with their selected socio demographic variables.

### RESEARCH HYPOTHESIS

H1: there is statistically difference on pre-test and post-test knowledge on Menopausal symptoms and perceptions among Menopause women.

H2: There is statistically significant association between the pre-test knowledge on Menopausal symptoms and perceptions among Menopause women with their selected socio demographic variables.

H3: There is statistically significant association between post-test knowledge on Menopausal symptoms and perceptions among Menopause women with their selected socio demographic variables.

### OPERATIONAL DEFINITION

**Effectiveness :-** The degree to which something is successful in producing a desired result. In the study the effectiveness indicates IEC on Menopausal symptoms and perceptions among Menopause women.

**Knowledge:-** Refers to level of understanding and information known regarding menopausal symptoms women and perceptions.

**Menopause :-**The end of possible sexual reproduction as evidenced Periods by normally between the ages of 45-55 years.

**Menopausal Women:-**It refers to the Female aged between 45-55 years

**Menopausal symptoms:-**It refers to physical and emotional symptoms experienced during menopause among Menopausal women.

**Perception :-**Most of menopausal women perceive menopause as natural condition and not aware about hormone replacement therapy and the mean age of menopause is comparable to that mean reported in other part of Iraq. Among menopause women tiredness was the most common complaint was followed by hot flushes and night sweats.

**ASSUMPTION:-**

Women who have some knowledge regarding Menopausal symptoms and perceptions among menopausal women in Venkatachalam Nellore.

### DELIMITATIONS:

The study is delimited to.

- Venkatachalam, Nellore
- A sample size of 100 women
- 4 weeks of data collection period only

### MATERIALS & METHODS:

#### Research approach

The quantitative Research approach.

#### Research design

Pre-experimental one group pre-test , post-test design was chosen.

Study Design	O1	X	O2
Pre-Experimental study	Pre-test	IEC on Menopausal symptoms and perceptions	Post-test

O1= pre-test

X=intervention= IEC on Menopausal symptoms and perceptions among Menopausal women.

O2= post-test

**Population:** All Menopausal women

**Target population:-** All Menopausal women.

**Accessible population:-** Menopausal Women are residing in Venkatachalam, Nellore district.

### SETTING OF THE STUDY

The study was conducted in Venkatachalam village, at Nellore district, A.P, it is located 15 KM towards north district, headquarters Nellore. The total population is 61,275 males are 30,784 and females are 30,491 living in 205 houses, Menopausal women are 100. The total area in detail of Venkatachalam in 200 hectors.

### SAMPLE

Menopausal women at Venkatachalam, who fulfill the inclusion criteria was considered as sample.

### SAMPLE SIZE

The sample size for the present study was 100 Menopausal women Yamen's formula

$$n = \frac{N}{1 + N(e)^2}$$

where n = sample size.

N = total strength = 100

e = desired level of precision = 0.05

$$n = \frac{N}{1 + N(e)^2}$$

$$= \frac{100}{1 + 100(0.05)^2}$$

By considering the 10% attrition, a sample of 10 is added to the estimated sample of 100 requesting a total of 110. So the sample size for the study is 110.

The estimated participants for the study was 110 menopausal women.

### SAMPLING TECHNIQUES

Non probability convenience sampling technique.

**CRITERIA FOR SAMPLE SELECTION**

**Inclusion criteria**

The women who are,

- In the group of 45 to 55 Years.
- Only menopause women.
- Residing in Venkatachalam only.
- Willing to participate in study.

**Exclusion criteria**

Women who are:

- The women who are below the age of 45.
- Not available during data collection.

**STUDY VARIABLES**

**Dependent Variable:-** Level of knowledge on menopausal symptoms and perceptions among Menopausal women.

**Independent variables:-** IEC on Menopausal Symptoms.

**TOOL**

It Consists of 3 parts

**Part I:-**Socio demographic data such as Age, age at menopause. Religion, marital status, occupation, education, type of family, number of children and sources of information.

**Part II:** Structured questionnaire consist of 25 items related to Menopausal symptoms.

**Part III:** Checklist to evaluate the menopausal perception among Menopausal women .

**SCORE INTERPRETATION**

The knowledge level was categorized as follows

<b>GRADE</b>	<b>PERCENTAGE</b>
A+	91-100
A	81-90
B+	71-80
B	61-70
C	51-60
D	<50

**SCORE KEY**

Correct answer is given a score of ‘1’

Wrong answer is given a score of ‘0’

**SCORING KEY FOR CHECKLIST**

Checklist consist of 10 questions of perceptions among Menopausal women.

<b>Response</b>	<b>Score</b>

Low Perception	0-3
Medium perception	4-7
High Perception	8-10

### CONTENT VALIDITY

Content validity was obtained from academic and research experts in field of Nursing. The suggestions and opinion of the experts was included and the tool was modified before conducting main study.

### Reliability

The reliability of the tool was tested by split half Method.

$$R = 2r / 1 + r$$

$$R = 0.9$$

### ETHICAL CONSIDERATIONS

Ethical clearance certificate was obtained from the Institutional Ethics Committee.

### DATA COLLECTOIN PROCEDURE

Prior formal permission from concerned authorities was taken to conduct the study. The data was collected from 3/10/2023 to 12/10/2023. Written informed consent was taken from Menopausal women, after explaining the purpose of study and establishes good rapport with the participants. A sample of 100 menopausal women was selected by using non probability convenience sampling technique. Each day 6-7 participants will be selected for the data collection. Make the participants to sit in a comfortable room. A brief introduction was given by the investigator. Confidentiality of responses was assured. The Structured questionnaire and checklist was administrated to all participants. IEC was given to all the participants. It was taken 15-20 minutes for each participant. After that post test was conducted with same tool to all participants. The data was collected, coded, organized and analyzed by using descriptive and inferential statistics based on objectives.

### PLAN FOR DATA ANALYSIS

SNo	Data Analysis	Method	Remarks
1.	Descriptive statistics	Frequency, percentage, distribution	Distribution of socio demographic variables
		Mean and standard deviation	To Assess the effectiveness of IEC on menopausal symptoms and perceptions among menopause women.

2.	Inferential statistics	Chi- square test	To Find out the association between the level of knowledge on menopause symptoms and perceptions among menopause women at Venkatachalam, Nellore.
		Z test	To evaluate the effectiveness of IEC on menopausal symptoms and perceptions among menopausal women at Venkatachalam, Nellore.

**RESULTS:**

**Presentation of the data.:**

The data were organized and presented under following headings.

**SECTION – I :**

Frequency and Percentage distribution based on their socio demographic variables among Menopausal women .

**SECTION – II :**

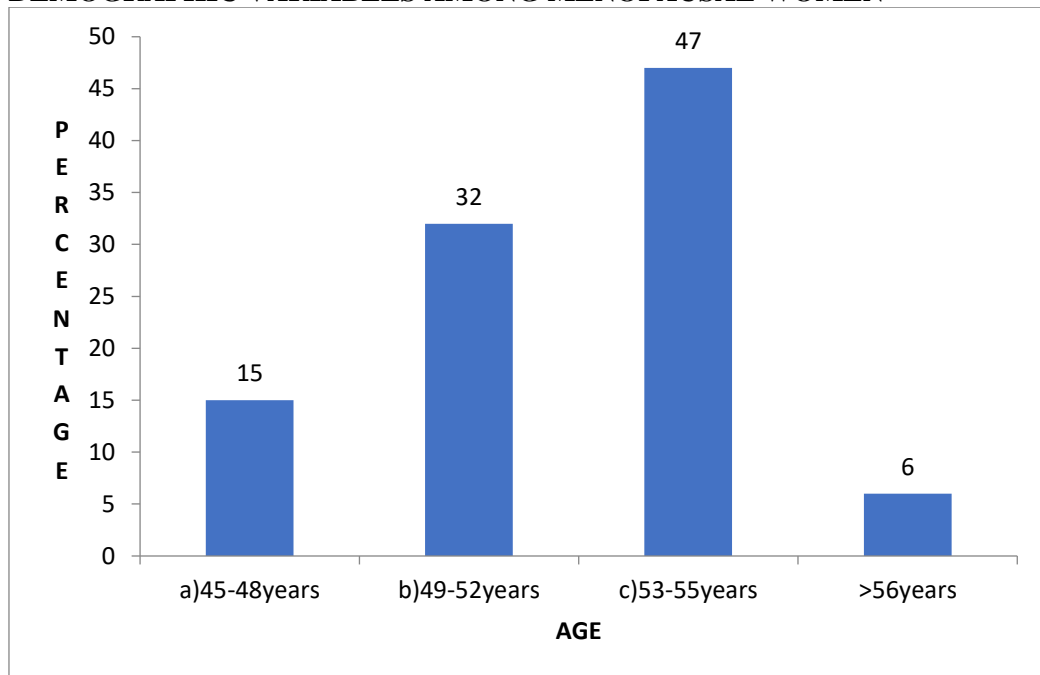
Frequency and Percentage distribution based on their knowledge of menopausal symptoms and perceptions among menopausal women .

**SECTION – III :**

Association between the effectiveness of IEC on Menopausal symptoms and perceptions among menopausal women with their selected Socio demographic variables.

**SECTION – I**

**FREQUENCY AND PERCENTAGE DISTRIBUTION BASED ON THEIR SOCIO DEMOGRAPHIC VARIABLES AMONG MENOPAUSAL WOMEN**



**Fig.No-1 Percentage distribution of menopausal women based on age in years.**

Figure No-1 shows the frequency and percentage distribution of age, were 15(15%) between to 45-48years, 32(32%) between to 49-52years, 47(47%)between to 53-55years. 6(6%) between to >56.

**Table –1: Frequency and Percentage distribution of adults based on religion ( n=100)**

Religion	Frequency (f)	Percentage (%)
a) Hindu	51	51
b) Muslim	10	10
d)Christian	39	39
TOTAL	100	100

Table–1 shows the frequency and percentage distribution of religion were 51(51%) are Hindu, ,10(10%) are muslims,30(39%) are Christians.

**Table –2: Frequency and Percentage distribution of adults based on number of children.**

Number of child	Frequency (f)	Percentage (%)
a) 1	12	12
b) 2	41	41
c) 3	34	34
d) More than 4	13	13
Total	100	100

Table –2 shows the frequency and percentage distribution of number of childwere 12 (12%) had 1child ,41(41%) had 2children 34(34%) had 3children, and 13(13%) had more than 4 children.

**Table –3: Frequency and Percentage distribution of adults based on marital status. (n=100)**

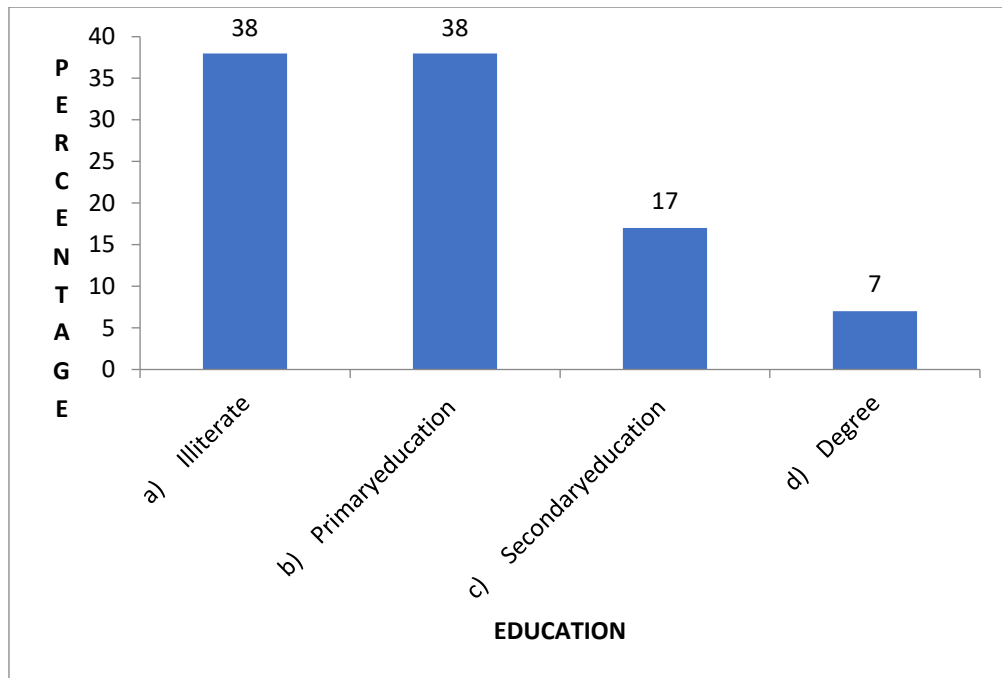
Marital status	Frequency (f)	Percentage (%)
a) Married	71	71
b) Divorced	5	5
c) Unmarried	6	6
d)Widow	8	8
TOTAL	100	100

Table –3 shows the frequency and percentage distribution of marital status were 71(71%)belongs to married and 5(5%) belongs to divorced,6(6%) belongs to unmarried,8(8%) belongs to widow.

**Figure No-3: Frequency and Percentage distribution of adults based on education**

Figure–3: shows the frequency and percentage distribution of education were 38(38%) belongs to illiterate,38(38%) belongs to Primary education,17(17%) belongs to secondary education and 7(7%) belongs to degree.





**Fig.No.3: Percentage distribution of adults based on education**

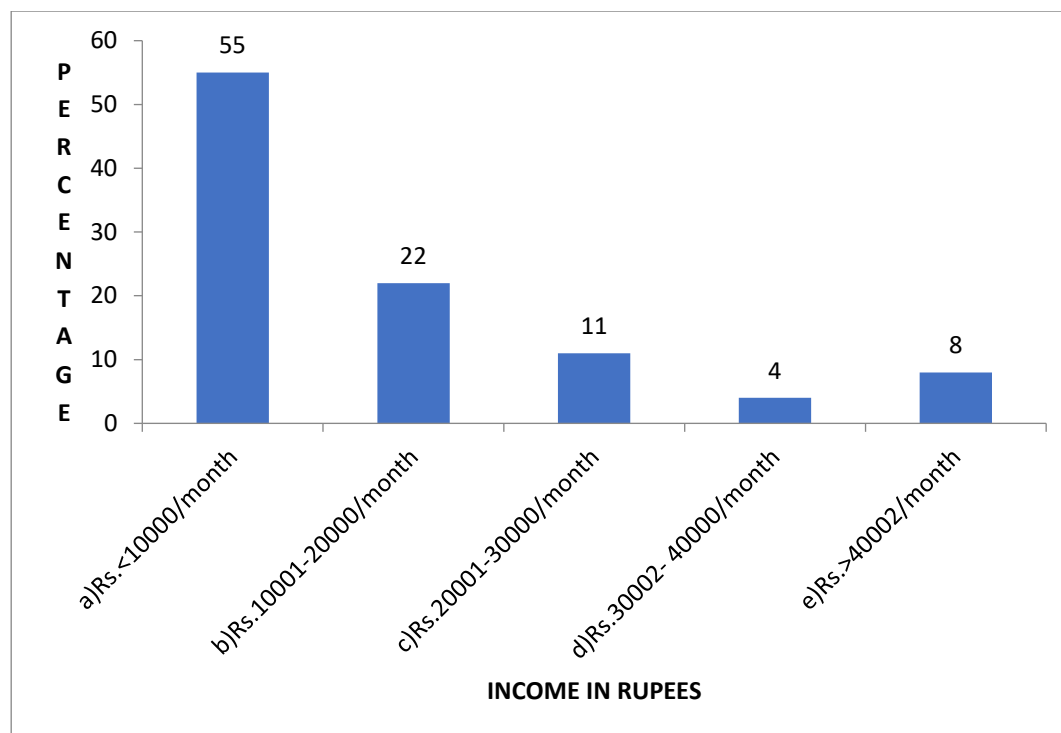
**Table –4: Frequency and Percentage distribution of adults based on occupation (n=100)**

Occupation	Frequency (f)	Percentage(%)
a) Home maker	55	55
b) Govt employee	8	8
c) Private employee	23	23
d) Business	14	14
Total	100	100

Table –4: shows the frequency and percentage distribution of occupation were 55(55%) belongs to homemaker,8(8%) belongs to govt.employee, 23(23%) belongs to private employee and 14(14%) belongs to business.

**Figure-4: Frequency and Percentage distribution of adults based on income/month**

Figure No-4- shows the frequency and percentage distribution of income in rupees were 55(55%) belongs to Rs<10000, 22(22%) belongs to Rs.10001-30000, 11(11%) belongs to Rs .20001-30000, 4(4%) belongs to Rs. 30002-40000,and 8(8%) belongs to Rs.>40000



**Fig.No.4: Percentage distribution of adults based on income/month.**

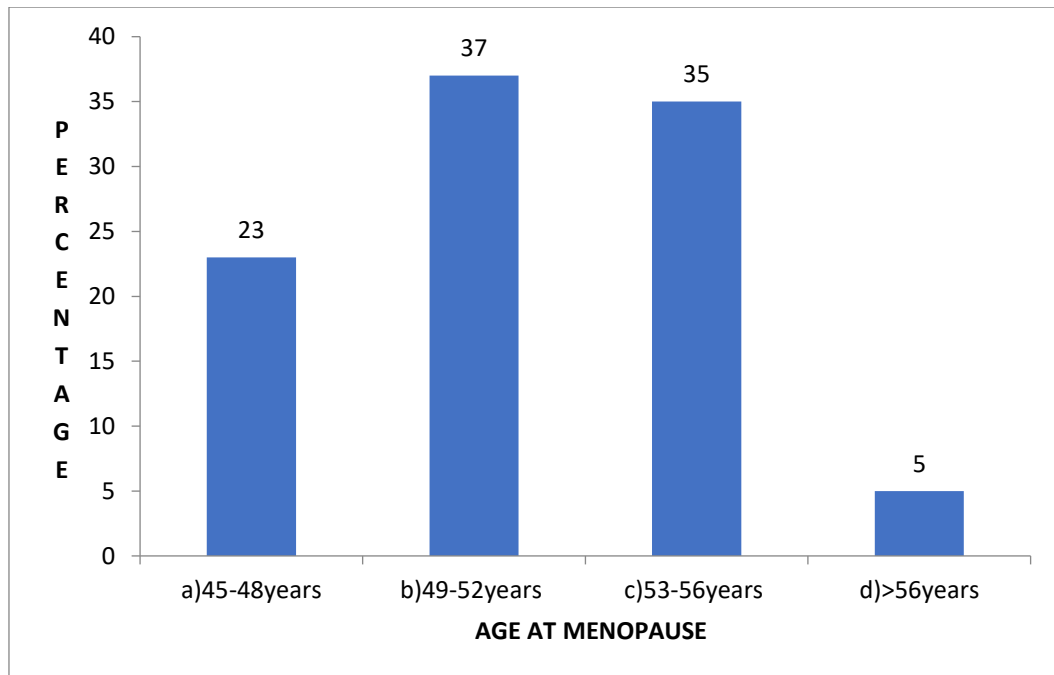
**Table –5: Frequency and Percentage distribution of adults based on Type of family. ( n=100)**

Family	Frequency (f)	Percentage (%)
a)Nuclear family	38	38
b)Joint family	38	38
c)Extend family	17	17
TOTAL	100	100

Table –5: shows the frequency and percentage distribution of type of family were 38(38%) belongs to nuclear family,38(38%) belongs to joint family and 17(17%) belongs to extended family.

**Figure–5: Frequency and Percentage distribution of adults based on age at menopause**

Figure-5: shows the frequency and percentage distribution of age at menopause were 23(23%) belongs to 45-48 years,37(37%) belongs to 49-52years,35(35%) belongs to 53-56 years,and5(5%) belongs to >56 years



**Fig.No.5: Percentage distribution of adults based on age at menopause**

**Table–6: Frequency and Percentage distribution of adults based on source of information**

(n=100)

Source of information	Frequency(f)	Percentage(%)
a)Health professional	42	42
b)Mass media	18	18
c)Books/journal	13	13
d)Friends/neighbours	27	27
Total	100	100

Table –6 shows the frequency and percentage distribution of source of information were 42(42%) belongs to health professional, 18(18%) belongs to mass media, 13-(13%) belongs to books/journals, and 27(27%) belongs to friends/neighbours.

**SECTION II**

**FREQUENCY AND PERCENTAGE DISTRIBUTION BASED ON THEIR LEVEL OF KNOWLEDGE ON MENOPAUSAL SYMPTOMS AND PERCEPTIONS AMONG MENOPAUSAL WOMEN .**

**Table –7 Frequency and Percentage distribution based on their level of knowledge on menopausal symptoms among menopausal women.**

(n=100)

Knowledge	PRE-TEST		POST-TEST	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
A+	-	-	12	12
A	-	-	27	27

B+	1	1	27	27
B	12	12	17	17
C	18	18	9	9
D	69	69	8	8
<b>Total</b>	<b>100</b>	<b>100%</b>	<b>100</b>	<b>100%</b>

Table -7: Discussed the effectiveness of menopausal symptoms among menopausal women on pre - test, 1%(1) had B+,12%(12)had B, 18%(18) had C, 69%(69) had D. Post test menopausal symptoms among menopausal women,12%(12)had A+, 27%(27)had A ,27%(27) had B+,17%(17)had B,9%(9) had C,and 8%(8) had D .

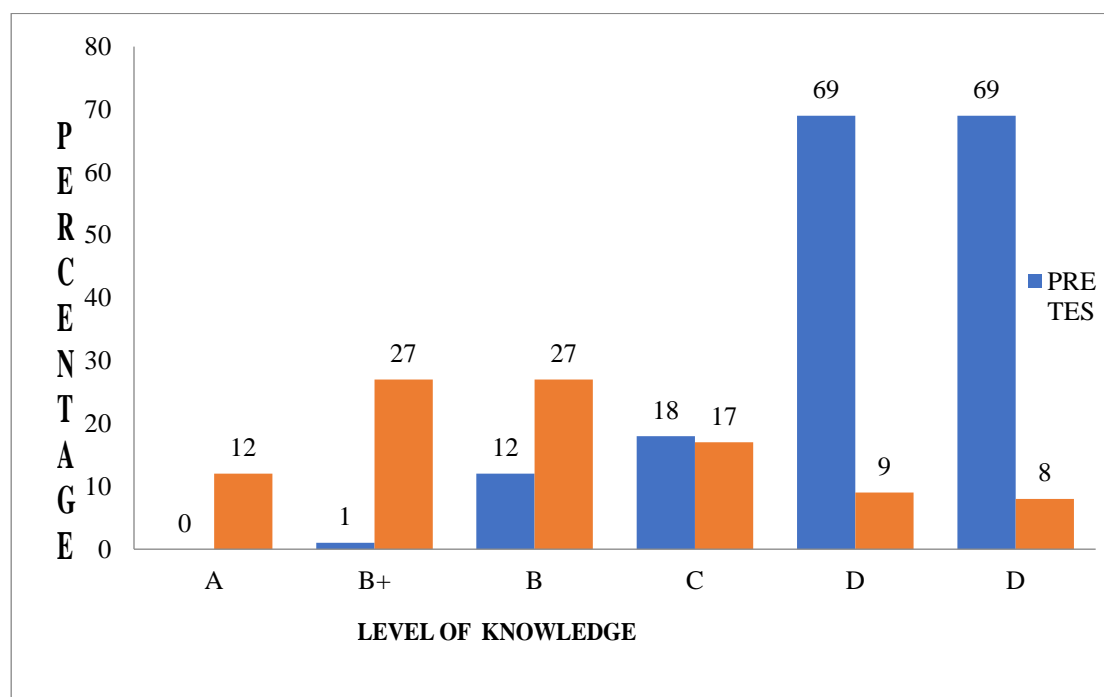


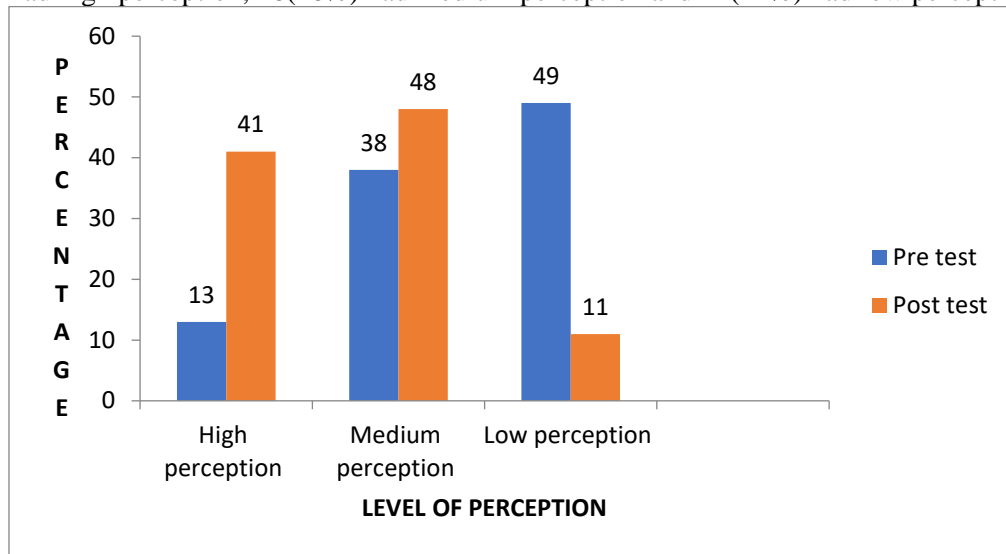
Fig.No.6: Percentage distribution of menopause women based on level of knowledge on pre and post test.

Table -8 :Frequency and Percentage distribution based on their effectiveness of IEC on menopausal perceptions among menopausal women

Perception on Menopausal women		Menopausal women			
		Pre test		Post test	
		F	(%)	F	(%)
Perception	High perception	13	13	41	41
	Medium perception	38	38	48	48
	Low perception	49	49	11	11
	Total	100	100	100	100

Table 8: Discusses the effectiveness of menopausal perception among menopausal women on pre - test, 13(13%) had high perception, 38(38%) had minimal perception, and 49(49%)

had low perception. Post test menopausal perception among menopausal women, 41(41%) had high perception, 48(48%) had medium perception and 11(11%) had low perception.



**Fig.No.7: Percentage distribution of menopause women based on level of perception.**

**SECTION –III**

**MEAN AND STANDARD DEVIATION OF EFFECTIVENESS OF IEC ON MENOPAUSAL SYMPTOMS AND PERCEPTIONS AMONG MENOPAUSAL WOMEN.**

**Table No -9: Mean and Standard Deviation of knowledge on menopausal symptoms amongmenopausal women.**

(n=100)

Criteria	Pre test		Post test	
	Mean	SD	Mean	SD
Menopausal symptoms	9.27	4.77	18.64	3.76

Table –9: Encloses the effectiveness of menopausal symptoms amongmenopausalwomenon pre- test knowledge among menopausal women,that mean value was 9.27 with standard deviation of 4.77. And post test knowledge among menopausal women ,that mean value was 18.64 with standard deviation of 3.76.

**Table No-10: effectiveness of menopausal symptoms among menopausal women.**

Criteria	mean	SD	Z value	Remark
Pretest	9.27	4.77	Cv=2.618 Tv=1.96 P=<0.05	S*
Post test	18.64	3.76		

**Table No-10** The calculated value of ‘Z’ test was 2.618 and the table value was 1.96. The calculated value is more than the table value; hence the null hypothesis was rejected and research hypothesis was accepted. There is significance of effectiveness of menopausal symptoms among menopausal women at Venkatachalam, Nellore.

**Table No -11: Mean and Standard Deviation of effectiveness of IEC on menopausal perceptions among menopausal women**

Criteria	Pre test		Post test	
	Mean	SD	Mean	SD
Menopausal perception	4.23	2.96	6.81	2.38

Table –11: Encloses the effectiveness of knowledge among menopausal women that mean value was 4.23 with standard deviation of 2.96. And post- test among menopausal women that mean value was 6.81 with standard deviation of 2.38.

**Table No-12: Effectiveness of menopausal symptoms among menopausal women.**

Criteria	mean	SD	Z value	Remark
Pretest	4.23	2.96	Cv=11.537 Tv=1.96 P=<0.05	S*
Post test	6.81	2.38		

**Table No-12:** The calculated value of 'Z' test was 11.537 and the table value was 1.96. The calculated value is more than the table value; hence the null hypothesis was rejected and research hypothesis was accepted. There is significance of effectiveness of menopausal symptoms among menopausal women at Venkatachalam, Nellore.

#### SECTION – IV

**It is post test association between the effectiveness of IEC on Menopausal symptoms and perceptions among menopausal women with their selected Socio demographic variables.**

S/ N O	Demographic Variables	A	A	B+	B	C	D	Chi Square
		+						
		f	f	f	f	f	f	
1	<b>Age</b>							CV=15.87 TV=24.99 Df =15 P=0.05 NS
	45-48 yrs	2	7	2	1	2	1	
	49-52 yrs	5	5	10	7	3	2	
	53-55yrs	4	14	15	8	2	4	
	>56yrs	1	1	0	1	2	1	
2	<b>Religion</b>							CV=14.72 TV=18.31 Df=10 P=0.05 NS
	Hindu	10	15	15	5	5	1	
	Muslim	1	2	2	2	1	2	
	Christian	1	10	10	10	3	5	
3.	<b>Number of child</b>							CV=16.17 TV=24.99 Df=15 P=0.05 NS
	1	1	3	3	1	2	2	
	2	4	15	15	4	2	1	
	3	5	6	6	10	3	4	
	More than 4	2	3	3	2	2	1	
4	<b>Marital status</b>							CV=26.67 TV=24.99 Df=15 P=0.05 S
	Married	5	21	22	14	5	4	
	Divorced	0	0	1	0	2	2	
	Unmarried	2	1	1	1	0	1	
	Widow	5	5	3	2	2	1	
5	<b>Education</b>							CV=11.15 TV=24.99 Df=15 P=0.05 NS
	No illiterate	4	11	12	7	2	2	
	Primary	3	11	11	7	4	2	
	Secondary	4	3	2	2	3	3	
	Degree	1	2	2	1	0	1	
6	<b>Occupation</b>							CV=50.99 TV=24.99 Df=15 P=0.05 S
	Homemaker	3	21	23	4	2	2	
	Govt employee	3	1	0	0	2	2	
	Private employee	3	2	2	11	3	2	

	<b>Business</b>	3	3	2	2	2	2	
7	<b>Income</b>							CV=24.68 TV=31.41 Df=20 P=0.05 NS
	<10000 Rs	4	18	21	7	3	2	
	10001-20000	4	4	2	7	3	2	
	20001-30000	3	2	2	1	1	2	
	30002-40000	0	1	1	1	1	0	
	>40000	1	2	1	1	1	2	
8	<b>Family</b>							CV=5.90 TV=18.31 Df=10 P=0.05 NS
	Nuclear family	4	12	16	10	3	3	
	Joint family	4	10	6	5	3	3	
	Extended family	4	5	5	2	3	2	
9	<b>Age at menopause</b>							CV=13.76 TV=24.99 Df=15 P=0.05 NS
	45-48 years	5	6	7	3	1	1	
	49-52 years	5	9	8	10	3	2	
	53-56 years	2	10	10	3	5	5	
	>56	0	2	2	1	0	0	
10	<b>Source of information</b>							CV=17.51 TV=24.99 Df=15 P=0.05 NS
	Health professional	8	7	8	10	4	5	
	Mass media	2	5	5	4	1	1	
	Books/journal	1	5	5	2	0	0	
	Friend/neighbour	1	10	9	1	4	2	

**Note :**

NS= Non Significant

TV= Table Value

CV= Calculated Value

S=Significant

Df=Degree of Freedom

P<0.05 level of significant

- In relation to age, calculated value is 15.87 and table value is 24.99 The calculated value is greater than table value, so there is no significant association.
- With context to religion, calculated value as 14.72 and table value is 18.31 The calculated value is less than table value, so there is no significant association.
- In association to number of child calculated value is 16.17 and table value is 24.99 The calculated value is less than table value, so there is no significant association
- with associated to marital status , calculated value is 26.67 and table value is 24.99. The calculated value is more than table value, so there is significant association.
- With reference to educational status, calculated value is 11.15 and table value is 24.99. The calculated value is less than table value, so there is no significant association.
- In accordance to occupation, calculated value is 50.99 and table value is 24.99 The calculated value is less than table value, so there is significant association.



- with show to income in rupees, calculated value as 24.68 and table value is 31.41. The calculated value is less than table value, so there is no significant association.
- Regarding type of family, calculated value is 5.90, and table value is 18.31 The calculated value is more than table value, so there is no significant association.
- In relation to age at menopause, calculated value is 13.76 and table value is 24.99 The calculated value is greater than table value, so there is no significant association.
- with references to source of information, calculated value as 17.51 and table value is 24.99 The calculated value is less than table value, so there is no significant association.

#### **CHECKLIST ON LEVEL OF PERCEPTION**

SN O	DEMOGRAPHIC VARIABLES	HIGH PERCEPT ION	MEDIUM PERCEPTI ON	LOW PERCEPTI ON	Chi Square
1	<b>Age</b>	f	f	f	CV=4.26 TV=12.59 Df=6 P=0.05 NS
	45-48 yrs	4	10	1	
	49-52 yrs	15	15	2	
	53-55yrs	20	20	7	
	>56yrs	2	3	1	
2	<b>Religion</b>				CV=10.48 TV=9.49 Df=4 P=0.05 NS
	Hindu	23	27	1	
	Muslim	5	4	1	
	Christian	13	17	9	
3.	<b>Number of child</b>				CV=12.63 TV=12.59 Df=6 P=0.05 S
	1	5	5	2	
	2	20	20	1	
	3	15	15	4	
	More than 4	1	8	4	
4	<b>Marital status</b>				CV=37.18 TV=12.59 Df=6 P=0.05 S
	Married	31	40	0	
	Divorced	1	3	1	
	Unmarried	4	0	2	
	Widow	5	5	8	
5	<b>Education</b>				CV=6.32 TV=12.59 Df=6 P=0.05 NS
	No illiterate	14	21	3	
	Primary	14	20	4	
	Secondary	10	5	2	
	Degree	3	2	2	
6	<b>Occupation</b>				CV=17.51 TV=12.59 Df=6 P=0.05 S
	Homemaker	22	30	3	
	Govt employee	2	2	4	
	Private employee	11	11	1	
	Business	6	5	3	
7	<b>Income</b>				CV=4.62 TV=15.51 Df=8 P=0.05
	<10000 Rs	22	29	4	
	10001-20000	10	10	2	

	20001-30000	4	5	2	NS
	30002-40000	2	1	1	
	>40000	3	3	2	
8	<b>Family</b>				CV=2.27 TV=9.49 Df=4 P=0.05 NS
	Nuclear family	18	25	5	
	Joint family	13	13	5	
	Extended family	10	10	1	
9	<b>Age at menopause</b>				CV=4.56 TV=12.59 Df=6 P=0.05 NS
	45-48 years	9	10	4	
	49-52 years	16	16	5	
	53-56 years	14	20	1	
	>56	2	2	1	
10	<b>Source of information</b>				CV=9.76 TV=12.59 Df=6 P=0.05 NS
	Health professional	18	18	6	
	Mass media	5	10	3	
	Books/journal	8	3	2	
	Friend/neighbour	10	17	0	

- In relation to age, calculated value is 4.26 and table value is 12.59 The calculated value is less than table value, so there is no significant association.
- With context to religion, calculated value as 10.48 and table value is 9.49 The calculated value is more than table value, so there is significant association.
- In association to number of child calculated value is 12.63 and table value is 12.59 The calculated value is more than table value, so there is significant association
- with associated to marital status , calculated value is 37.18 and table value is 12.59. The calculated value is more than table value, so there is significant association.
- With reference to educational status, calculated value is 6.32 and table value is 12.59. The calculated value is less than table value, so there is no significant association.
- In accordance to occupation, calculated value is 17.51 and table value is 12.59 The calculated value is more than table value, so there is significant association.
- with show to income in rupees, calculated value as 4.62 and table value is 15.57. The calculated value is less than table value, so there is no significant association.
- Regarding type of family, calculated value is 2.27, and table value is 9.49. The calculated value is less than table value, so there is no significant association.
- In relation to age at menopause, calculated value is 4.56 and table value is 12.59 The calculated value is less than table value, so there is no significant association.
- with references to source of information, calculated value as 9.76 and table value is 12.59 The calculated value is less than table value, so there is no significant association.

#### **NURSING IMPLICATIONS OF THE STUDY:**

The findings of the study have implications in various area such as Nursing practice, Nursing Education, Nursing administration and Nursing Research.

### **NURSING PRACTICE:**

- The role of midwife in counseling women who have experienced menopause more important and it will help them to manage symptoms and cope with the experience.

### **NURSING EDUCATION:**

- Educating the people about IEC on Menopausal symptoms would help them to change in their body functions.

### **NURSING ADMINISTRATION:**

- The nurse administrator should include IEC on menopausal symptoms and perceptions among menopausal women in their curriculum to help their self and their community whenever needed.

### **NURSING RESEARCH:**

- The essence of Nursing Research is to build up body of knowledge and practice in nursing as an evolving profession. The result of the study can be provided a shared knowledge base to formulate the protocol by which the menopausal symptoms and perceptions can be managed easily.

### **LIMITATIONS:**

The study limited with only 100 participants from a single setting. Also non probability convenience sampling was used as sampling technique to select study participants. Hence, the study results could not be generalized.

### **CONCLUSION:**

The study concluded that majority in pre test 69%(69) had D+ grade and post test 27%(27) had A and 27%(27) had B+ grade had knowledge on menopausal symptoms and perceptions. There is a significant increase in the knowledge on menopausal symptom and perception among menopausal women. The IEC was found to be an effective strategy to increase the knowledge on menopausal symptoms and perceptions among menopausal women .

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