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RESEARCH ARTICLE

EPIDEMIOLOGICAL PROFILE OF MENOPAUSAL SYMPTOMS AMONG WOMEN IN CHENNAI AGED 40-60 YEARS -A CROSS SECTIONAL STUDY

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Abstract

Background: Menopause is physiological process as it signifies the permanent cessation of menstruation and end to reproductive potential. Menopause is a significant stage marking the end of a woman's reproductive life. Although this process is physiological, it is plagued by wide range of discomforting features which affects their quality of life. It is time where psycho-social functioning of women due to decrease in the ovarian activity and oestrogen hormone levels. Mean average age of menopause in India is 48years. Hence, to assess the menopausal symptoms among women in the age of 40-60 years and the study the relation of Epidemiological profile and psychological symptoms during menopausal period.

Methods: A cross-sectional survey was conducted among women aged between 40—60years during the period of march 2019 to may 2019(period of 3months) to know the epidemiological profile of menopausal symptoms. The study information of women was collected by personal interview technique by community survey.

Results: The average age of menopause was 45years. The most common symptoms faced by women were psychological problems, when compared to physical symptoms and vasomotor symptoms. Most of respondents answered tiredness and irritability and depression which is 37.3%, 58% and 49% respectively. The significant association found between age, economic status, occupational status and menopausal symptoms. There was no significant association between parity, education. This study found that there is some significant association with Diabetes after menopause.

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Conclusion: During menopausal period, women experience menopausal symptoms due to lot of fluctuations of hormone levels. Most of the respondents, even literate women lack in knowledge about breast self examination, the awareness should be created to every women in this world. Many of them responded that they had extreme mood fluctuations and joint pains. The significant association between diabetes and hypertension during menopausal time to be identified in large sample in future. The program and public awareness to be focused during upcoming years.

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Introduction:-

Menopause is the part of women's life which plays a major role in the second half of the women's life where women face the transition phase from reproductive to the non-reproductive phase of their lives. Menopause is a significant stage marking the end of a woman's reproductive life. Although this process is physiological, it is plagued by a wide range of discomforting features which affects their quality of life¹. Changes of the hormonal internal environment, loss of reproductive potential and transition into later life occur along with several life events, which links mainly with socio-cultural factors^{1,2}. There is an increase in the rate of association between depression and anxiety during this menopausal period, where no studies could not clearly define the increased rates with them². Menopause is tshe permanent cessation of the menses.

The term natural menopause is defined as the permanent cessation of menstruation resulting from the loss of ovarian follicular activity. Natural menopause is recognized to have occurred after 12 consecutive months of amenorrhea, for which there is no other obvious pathological or physiological cause(WHO). Menopause is most likely leading to a risk factor for cardiovascular diseases and osteoporosis. Epidemiological studies have found that age-adjusted mortality is reduced by 2% while uterine and ovarian cancer about 5% with increasing age of menopause³. Lower age of menopause in

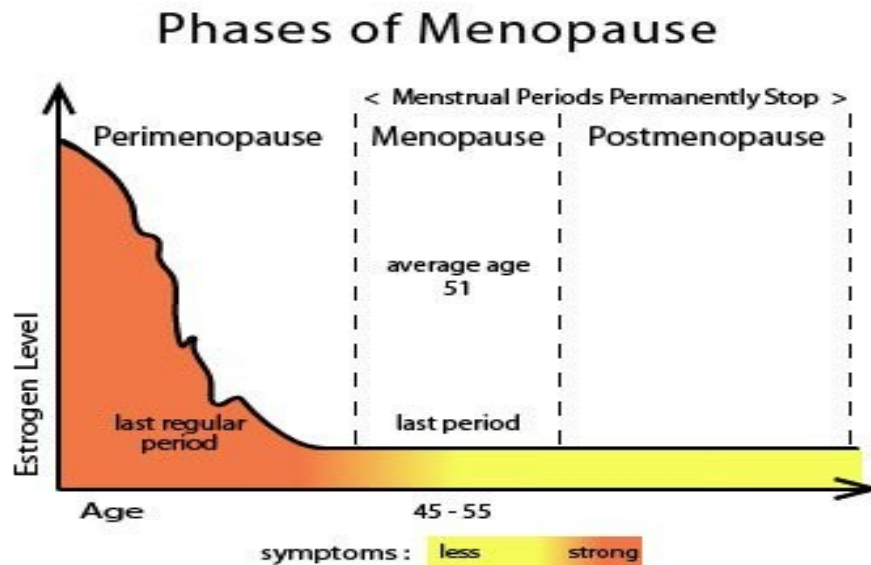


Figure 1:- Phases of Menopause.

Source: Medicine net.

India compared to western countries, women spending almost a third of her life in menopause with more distressing clinical problems⁴. The common menopausal symptoms include hot flushes, joint pains, disturbed sleep, anxiousness, irritability, palpitations, depression, headaches, loss of interest in sex, out of these very few articles described psychological disturbance association with menopause. Due to the change in their hormones, there will be some depressive and cognitive impairment. As a post-menopausal are already at risk of osteoporosis and

cardiovascular disease and it is also important to address potentially changeable psychiatric problems which the lead medical issues are more difficult to treat^{5,6}.

To avoid these medical issues, some women take hormone replacement therapies, which is 2002, WHI showed that HRT could increase the rate of breast cancer, heart attack and stroke. While in 2004 WHI showed, not only women taking oestrogen will have these increase in the rate of cancer and strokes⁷. Some associations also found parity, socioeconomic status, age. Studies have shown that the frequency of symptoms and their stability varies. Some occur frequently during menopause, while others increase progressively from peri-menopause to post-menopause. Hence, the issues related to menopause are very complicated in terms of experience, severity, and dynamics of the symptoms¹. Studies have shown that the frequency of the symptoms varies over time. Some happen frequently in the peri-menopause and decrease over time, while others increase progressively from peri menopause to post menopause and become more severe towards the end of life. During the menopausal transition, there are a lot of fluctuations in the hormone levels (especially oestrogen) and thus women experience many symptoms and conditions. However, the influence of this fluctuation varies from one woman to another. Apart from the symptoms of menopause, it acts as a risk factor for various chronic diseases like coronary artery diseases, stroke, obesity and hypertension. With this background, this study was undertaken. The main aim of the study is to identify the knowledge of menopause symptoms among women and to compare with epidemiological profile and to find the association of psychological symptoms during the menopausal period.

Methods:-

A cross-sectional study was carried out among women aged between 40-60years in a community of central Chennai from March 2019-May 2019. Broad age group was chosen to get a clear picture of menopause symptoms. Women who are under hormone replacement therapy and women who had a hysterectomy are excluded from the study. This study was conducted in community women aged 40-60 years was collected by home visits and by some public places. An estimated sample of the study 50% of women between the age of 40-60years with an accepted error of 6% confidence interval was 95% the sample size was about 161. A semi-structured questionnaire was the tool used to assess the menopausal symptoms. The study information technique was collected by direct personal interview. The interview was conducted only after taking oral consent from women. Institutional ethical committee permission was obtained. Confidentiality was assured to women who participated in the study. The study was conducted in local language and confidentiality was of study assured to women throughout the study. The scale used here to access the menopausal symptoms was Greene scale. The modified questionnaire was from American Menopausal society. Descriptive statistics and chi-square was used for analysing using SPSS ver-24.

Results:-

A total of 161 samples were sampled for this study. The mean age of the menopause was 45 years (51-60 years). The below table 1 shows the basic demographic status of the participants. among 161 participants are included in the study, among them 55.3% women are from above 50 years of age and 44.7% are from 40-49years, though the study included participants are from 40years- 60 years. In 161 participants, about 81% of women attained menopause naturally(spontaneously). Among the participants, 20% of women are at the perimenopausal state, while 54% of women attained menopause and 26.1% of women are at premenopausal state(no changes in the menstrual cycle). From table 2, most of the symptoms faced by respondents are psychological and somatic symptoms, among which most of them were tiredness(37.3%), difficulty in the concentration of the things(24.2%), Heart beating quickly(33.5%), depressed or Unhappiness(30.4%, joint pain and numbness(29.2%).Also anxiousness, sleep disturbances(47.8%) also common, irritability(36.0%,headaches(34.2%), nervousness(45%).Also, most of the respondents hesitated to answer their interest in sex, but amongst most of the women lost their interest in sex(69.5%). About (82%) of women do not have any idea of the diet chart that could help them to overcome this weakness during this time, about (9.9%) of women have little awareness about the calcium of the food-rich foods, iron-rich foods could help to improve their stamina, about only(7.5%) women have good knowledge like, regular exercises, milk, soya, green vegetables, eggs, Omega-3 fatty acids, protein foods are essential in their regular food dietetics. women do not regularly check their breasts or do the mammogram check-ups regularly, about (65.8%) do not do the regular examination of their breasts, 34.2% do the regular check-ups of their breast. There was a lack of awareness about the importance of self-examination of breasts. Most respondents with multiparity(46.6%) and more than 2 was (26.7%). From the present study, it was also found that there was no much change in their menstrual bleeding.

Table 1:- Demographic Variables.

S.No.	DEMOGRAPHIC	VARIABLES	FREQUENCY	PERCENTAGE
1.	Age	1.40-50	72	44.7
		2.51-60	89	55.3
2.	Education Level	1.Illiterate	18	11.2
		2.Primary	16	9.9
		3.Secondary	21	13.0
		4.Higher secondary	45	28.0
		5.Graduate and above	61	37.9
3.	Occupation Status	1.House wife	57	35.4
		2.Labourer	24	14.9
		3.Own business	18	11.2
		4.Government	51	31.7
		5.Private	11	6.8
4.	Marital Status	1.Married	125	77.6
		2.Unmarried	4	2.5
		3.Divorced	7	4.3
		4.Widow	25	15.5
5.	Income Group	1.Upper class	69	42.9
		2.Upper middle class	52	32.3
		3.Lower middle class	15	9.3
		4.Upper lower class	13	8.1
		5.Lower class	12	7.5

Table 2:- Distribution of menopausal symptoms among study population: Age and menopausal Symptoms.

	VARIABLES	AGE	1-Not at all	2-A little	3-Quite a bit	4-Extremely	p-value
PSYCHOLOGICAL SYMPTOMS	Do you feel tense or nervous often?	40-50	30	25	11	6	0.047
		51-60	30	20	29	10	
	Do you feel difficulty in sleeping or disturbed sleep?	40-50	30	23	16	3	0.005
		51-60	29	21	17	22	
	Can you able to concentrate on things?	40-50	28	31	10	3	0.000
		51-60	39	16	12	22	
	Do you often feel tired?	40-50	39	16	12	22	0.018
		51-60	11	34	14	13	

PHYSICAL SYMPTOMS	Do you feel dizzy or faint?	40-50	47	21	4	0	0.040
		51-60	75	10	1	3	
	Do you feel pressure or tightness in the head?	40-50	36	30	5	1	0.026
		51-60	62	18	6	3	
	Do you feel numbness of the body?	40-50	37	25	8	2	0.005
		51-60	48	13	17	11	
	Do you feel numbness or Joint pains?	40-50	30	13	20	9	0.001
		51-60	33	11	10	35	

Table 3:- Occupational status and menopause.

	VARIABLES	Occupational status	1- Not at all	2-A little	3- Quite a bit	4- Extremely	Total	p-value
PSYCHOLOGICAL SYMPTOMS	Do you think heart beat quickly ?		21	26	9	1	57	0.001
			12	7	3	2	24	
			5	8	5	0	18	
			33	11	6	1	51	
			6	2	0	3	11	
	Do you feel difficulty in sleeping or disturbed sleep?		14	20	16	7	57	0.044
			14	2	4	4	24	
			4	4	5	5	18	
			22	17	5	7	51	
			5	1	3	2	11	
	Do you often feel tired?		4	19	13	21	57	0.001
			7	3	4	10	24	
			1	5	5	7	18	
			13	26	5	7	51	
			1	7	0	3	11	
	Do you feel depressed or unhappy?		26	18	10	3	57	0.021
			10	3	6	5	24	
			6	10	2	0	18	
			29	15	6	1	51	
			5	3	3	0	11	
Do you often feel like crying?		26	18	12	1	57	0.006	
		10	3	6	5	24		
		9	5	3	1	18		
		35	8	8	0	51		
		7	2	2	0	11		
PHYSICAL SYMPTOMS	Do you have breathing difficulties?		38	16	3	0	57	0.000
			21	2	1	0	24	
			7	11	0	0	18	

			44	4	2	1	51 11		
			8	1	0	2			
	Do you feel numbness of the body?			22	18	13	4	57	0.001
				11	6	3	4	24	
				6	7	3	2	18	
				39	7	5	0	51	
				7	0	1	3	11	
	Do you feel numbness or Joint pains?			24	12	5	16	57	0.002
				4	1	6	13	24	
				5	2	4	7	18	
			28	7	12	4	51		
			2	2	3	4	11		
VASOMOTOR SYMPTOMS	Do you feel sudden intense heat coming from body with flushed face and redness?		23	16	9	9	57	0.001	
			16	3	1	4	24		
			4	3	9	2	18		
			36	6	6	3	51		
			7	0	3	1	11		
	Do you feel sweating in the night?		24	11	7	38	57	0.000	
			11	2	2	9	24		
			7	6	5	0	18		
			38	7	4	2	51		
			6	3	2	0	11		

Table-4:- Socio economic status and menopause.

VARIABLES	AGE	1-Not at all	2-A little	3-Quite a bit	4-Extremely	p-value
Do you feel numbness or Joint pains?	31	23	12	3	69	0.001
	27	20	5	0	52	
	8	4	2	1	15	
	8	0	4	1	13	
	2	2	4	4	12	
Do you feel Numbness or Joint pains?	31	11	8	19	69	0.000
	22	11	12	7	52	
	7	1	5	2	15	
			5	7	13	

	1	0			
	2	1	0	9	12

Table 5:- Knowledge gained about Menopausal symptoms.

VARIABLES	KNOWLEDGE	FREQUENCY	PERCENTAGE
Information about menopause?	1.Books and magazines	23	14.2
	2.Internet	10	6.1
	3.Friends	52	32.2
	4.TV	10	6.2
	5.Health care providers	30	18.6
	6.All of the above.	7	4.3
	7.Dont know	40	24.8
Do You know what diet to be followed during menopause?	1.Yes	12	7.5
	2.No	132	82.0
	3.A little	16	9.9
Do you examine your breasts?	1.Yes	55	34.2
	2.No	106	65.8

The table 5 and figure 2 describes about the knowledge gained during the survey about menopausal symptoms. The above are the frequency percentage obtained for the respective questions. The knowledge about examination of breasts is very low among the respondents.when the age and chronic illness during menopause compared, most of the respondents from second group reported that they have major illness like Diabetes, hypertension after attaining menopause.

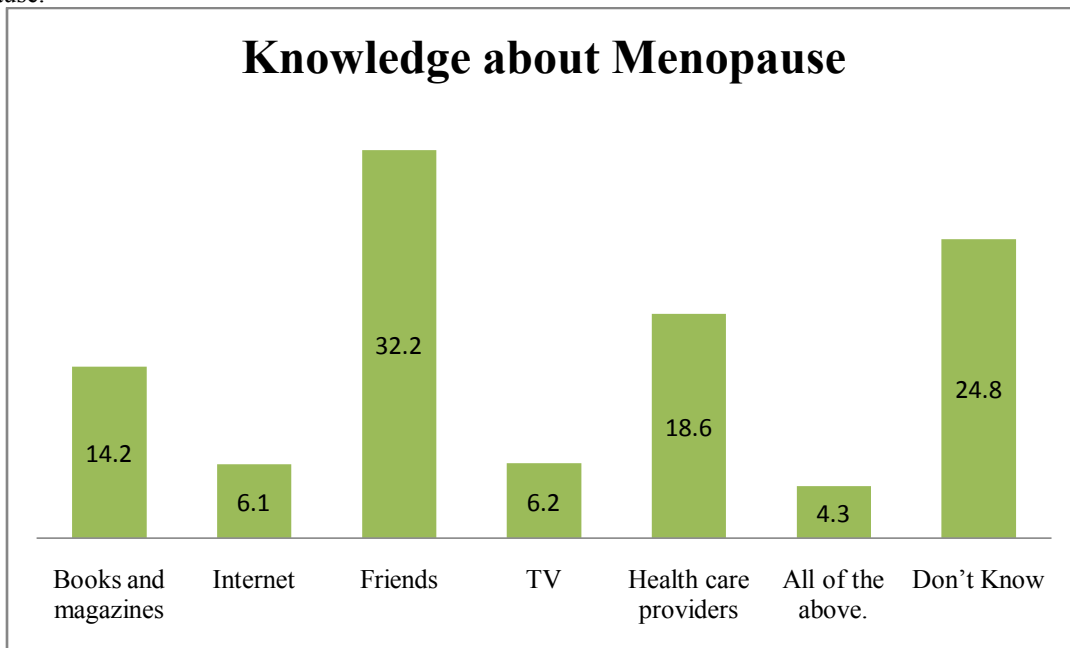


Fig 2:- Percentage of Knowledge about menopause.

Figure 3:-

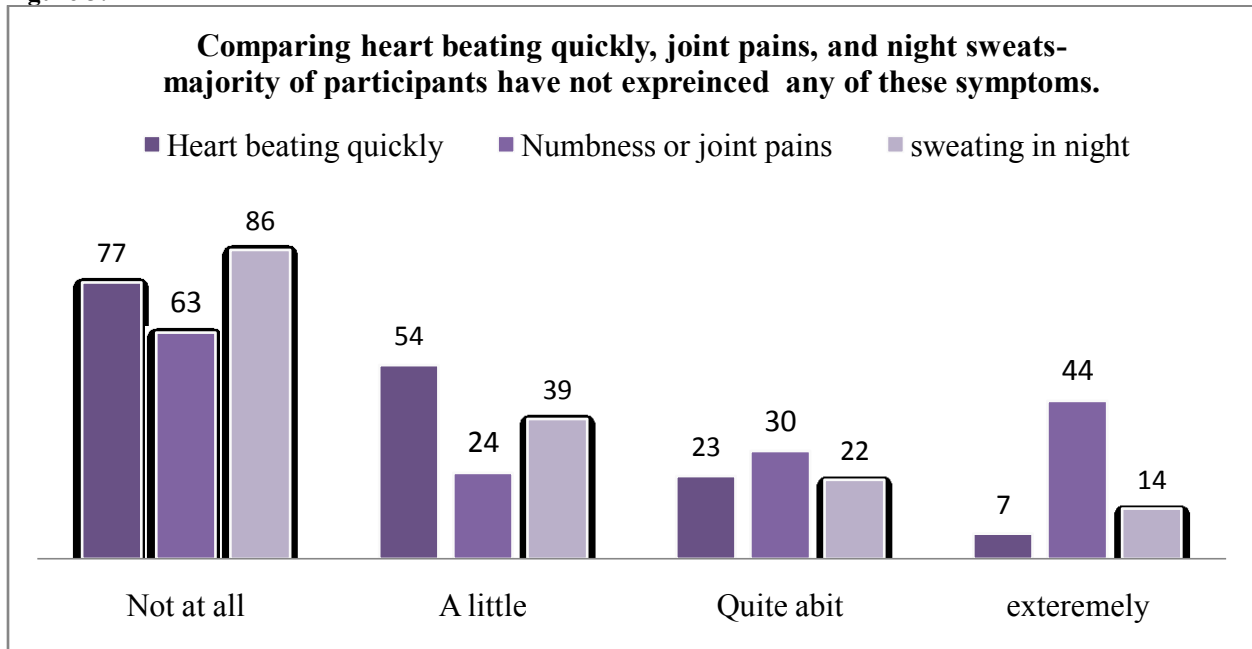


Figure 4:

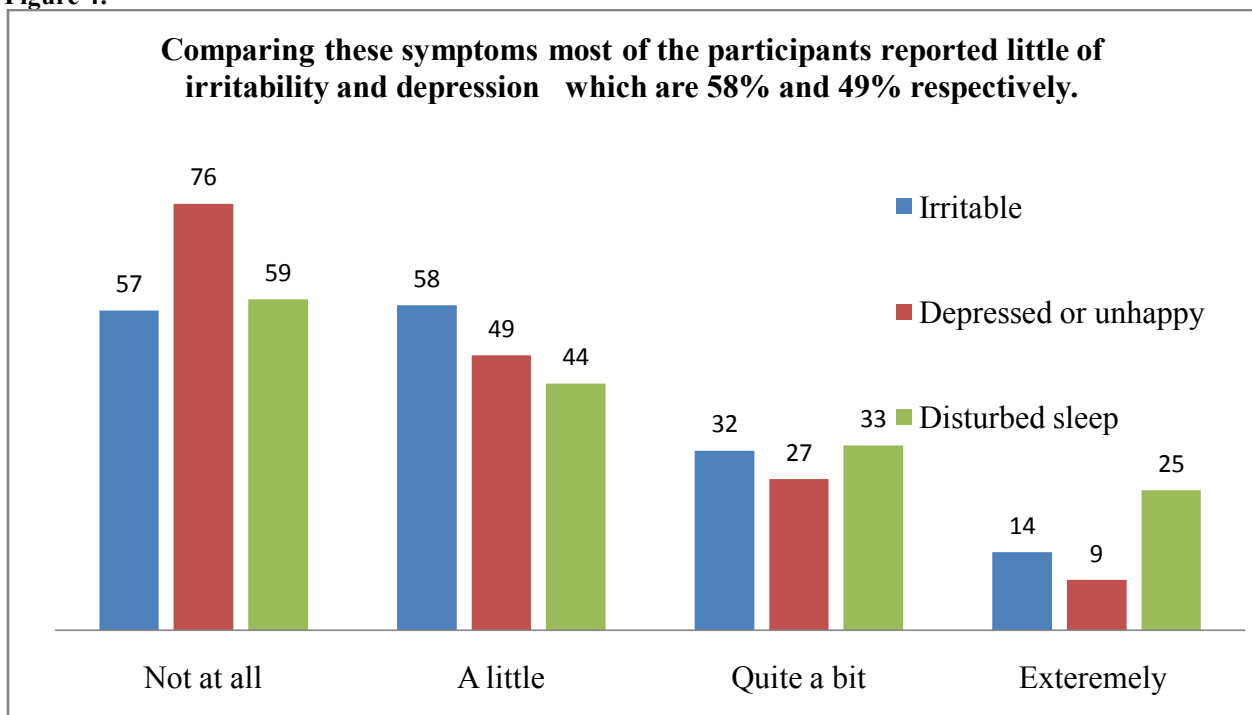


Figure 3,4:- shows the intensity of menopausal symptoms among participants.

Discussion:-

In the present study, the average age of menopause was found to be 45years. The psychological symptoms and occupation status of respondents are more significant(P<0.05), Mostly working women have more tiredness, depression comparing to housewife. The somatic symptoms of numbness and body pain are more in the income group of the upper and upper-middle class which is significant(P<0.05). Most of the respondents from the lower class and lower middle class complained of joint pains due to their occupational work. Most of the women are asked

about the chronic illnesses and routine body check-ups, most of the respondents answered that the budding of diabetic symptoms during menopause time that is after complete cessation of the menstrual cycle. It was also found that some also have symptoms of raise in blood pressure during menopause. From all the tables it is evident that psychological symptoms and somatic symptoms like joint pains and loss of interest in the sex have high significant relation. The study conducted on women residing in chawl(Ashwin Jadhav et al), where the average menopause found to be 45.2years. Also found psychological symptoms among the population found to be difficulty in sleeping 42.9%, difficulty in concentration 34.7% followed by nervousness which is about 33.7%, irritability about in 33.4% in respondents. In present study sleep disturbances was (47.8%) also, irritability(36.0%) difficulty in concentration of the things(24.2%).Most of the respondents have a significant association with psychological symptoms. The study on the prevalence of climacteric symptoms (Achala Sahai Sharma et al;) among women in urban and rural areas of Maharashtra. In this study, the most prevalent symptom was found to be muscle and joint pain (81.5%), followed by headache (50%). The least frequent symptom was tense and nervousness, difficulty in concentration(1.0%) others were infrequent. In the present study somatic symptoms also found to be some significant association but, psychological symptoms plays a major role. The joint pain and numbness found in this study is about 39.1% and Numbness is 29.2% respectively. Especially psychological symptoms, most women in the present study reported the conflicts and conflicts with their spouses, also conflicts with their son or daughter. The menopausal symptoms (Ashan et al;) in the tertiary hospital area, in this study author, found that perimenopausal women age which is to be 43.5 years and post menopause to be 48.5byears. In the present study, the average age of menopause was found to be 45 years. During the menopausal transition, there are a lot of fluctuations at hormone levels where this varies from woman to another woman. Most common symptoms of severs are fatigue, depression, anxiety, hot flashes, sexual disturbances were common. Here in this study loss of interest in sex and psychological symptoms found to be significant.

Conclusion:-

During the menopausal period, women experience menopausal symptoms due to a lot of fluctuations in hormone levels. From the study, it is concluded that there was high burden of menopausal symptoms in a study population that is most of the respondents had high frequency in psychological symptoms especially tiredness, anxiousness, lack of concentration and irritability. However, the influence of this fluctuation varies from one woman to another. During this period, most of the women complained that they have high conflicts with family. Study of psychological, physical and vasomotor symptoms more common symptoms observed in the present study was fatigue, depression, irritability, joint pains, the sexual disturbance was commonly observed. The epidemiological profile(demographic) showed some significant association was found in economic status and somatic symptoms and also was found in occupation status and menopausal symptoms. Some women are not aware of menopausal symptoms and these conflicts with their partners lead to depression. Most of the women also feel some insecurity and loneliness and fear of death during this period. In the present study, most of the respondents said that they get to diagnosed with diabetes and hypertension after attaining menopause. The significant association between diabetes and hypertension during the menopausal time to be identified in a large sample by researches in the upcoming years. Most of the respondents, even literate women lack knowledge about breast self-examination, the awareness should be taught to every woman in this world. Most of the upper and upper-middle-class society people show a high burden in somatic symptoms and also psychological symptoms. About 1/3rd of women lack in diet pattern during menopause. The program and public awareness to be focused during the upcoming years. Also, many camps to be conducted to spread during menopause.

Conflict Of Interest:

There is no conflict of interest.

Ethical Considerations:

IRB clearance obtained from the TamilNadu Dr.M.G.R Medical university.

Acknowledgement:-

“Gratitude is the fairest blossom which springs from the soul”

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