"EFFECTIVENESS OF LIFESTYLE EDUCATIONAL PROGRAM (LEP) IN MANAGING MENOPAUSAL SYMPTOMS IN ELDERLY WOMEN AT SELECTED RURAL AREAS OF BELAGAVI, KARNATAKA. -A RANDOMIZED CONTROLLED STUDY"

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Abstract

Spontaneous menopause, the permanent cessation of menstruation caused by loss of ovarian function, occurs at a mean age of 51–52 years. As life expectancy increases, women are living far longer after menopause onset than in the past. By 2020, it is projected that more than 50 million U.S. women will be older than 51 years.[1]The study was conducted among 328 women to assess the effectiveness of Lifestyle Educational Program in managing Menopausal Symptoms in elderly women experiencing physiological menopause residing at Vantamuri and Kinaye villages of Belagavi, Karnataka. Experimental study with pretest posttest control group design was used. Samples were selected by using Simple Random Sampling technique. Data was collected through structured interview schedule by using demographic questionnaire and Menopause Rating Scale. Pre-test was administered to assess the Menopausal Symptoms in both experimental and control group. Lifestyle education programme was administered followed by the pre test in the experimental group. Post test was conducted after 3 months of lifestyle education programme in both the groups. The study results demonstrated the positive impact of lifestyle education programme in managing Menopausal Symptoms significantly in Elderly Women. Lifestyle educational programme can be used largely in managing Menopausal Symptoms in menopausal women.

Keywords: Menopause, Menopausal Symptoms, Elderly Women, Lifestyle Educational Program,

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Introduction

The menopause transition is experienced by 1.5 million women each year and often involves troublesome symptoms, including vasomotor symptoms, vaginal dryness, decreased libido, insomnia, fatigue, and joint pain[2].Menopausal symptoms and their severity vary from person to person due to the effects of confounding factor such as lifestyle, social status, body composition, and psychological status. Menopausal symptoms, especially the vasomotor and sexual symptoms, are associated with impaired QOL in women. An individual's view of their place in life in relation to their objectives, aspirations, standards, and worries is referred to as their quality of life (QOL). It is an imperative outcome measure of overall health. Therefore, understanding the impact of menopause on the QOL in middle-aged women is critically important in the contemporary health care system[3].

In India, there is a tradition of quiet surrounding menopause, especially among rural women. The purpose of this study was to determine the prevalence of menopausal symptoms, risk factors for their severity, and attitudes of menopause among rural perimenopausal women.[4]

Studies on menopausal issues and health demand priority in Indian scenario due to the growing population of menopausal women as a result of their increased life expectancy[5].In India, though various studies have been carried out to study menopausal symptoms, majority of them are either hospital based or with not much work done on rural women. Therefore, this study proposes to assess the effectiveness of Lifestyle Educational Program in managing Menopausal Symptoms among rural women in Belagavi city of Karnataka state in South India.

Objectives of the Study

- To compare the results of the control and experimental groups' pre-test scores of Menopause Rating Scale among elderly women.
- To ascertain if the Lifestyle Educational Programme (LEP) in selected rural districts of Belagavi was beneficial in managing menopausal symptoms.
- To compare the pre and post-test results of Menopause Rating Scale in the experimental and control groups.
- To find an association between selected demographic variables with Menopausal symptoms.

Methodology

Research Design: Experimental study with pretest posttest control group design.

Research Setting: Vantamuri and Kinaye villages of Belagavi, Karnataka

Population: Elderly women residing in selected rural areas of Belagavi, Karnataka

Data collection Instrument: The study data was collected using a demographic questionnaire, and Menopause Rating Scale.

Method of data collection: structured interview schedule.

Variables

Independent variables: Sociodemographic variables

Dependent variables: Menopausal symptoms

Sample size: 328 Elderly women

Sampling technique: Simple Random Sampling technique.

Inclusion Criteria

The study's inclusion criteria included being between the ages of 45 and 60, going through physiological menopause, having gone at least one year and up to ten years without a menstrual period, being in good physical and mental health, and being willing to take part in the study.

Exclusion Criteria

The exclusion criteria were having a history of hormone therapy within the past 6 months and having a history of hysterectomy, radiation therapy, use of drugs that reduce menopause symptoms, and failure to participate in training session.

Assumptions:

- Most of the elderly women may have some or the other menopausal symptoms
- Lifestyle Education Program (LEP) can be an effective tool for management of menopausal symptoms.

Results:

The findings of the study were presented under the following headings.

Frequency and percentage distribution of the demographic variables of elderly women in Experimental and control Group

According to their age in experimental group, majority 72(43.9%) were 51-55 years of age, and in control group maximum 76(46.3%) were in 46-50 years of age. Regarding religion of elderly women in experimental and control group, maximum were belongs to Hindu religion 145(88.4%),136(83%) respectively. With regard to education level of elderly women in experimental group, majority 62(37.8%) were illiterates. In control group majority of them 59(36%) had primary education. According to average family income of elderly women majority of them had income of Rs 10,000-20,000,i.e 87(53%) , 76(46.3%) respectively in experimental group and control group .with regard to source of information of elderly women majority of them had information from TV and social media, both in experimental and control group, 94(57.3%) , 110(67.1%) respectively.

Distribution of pre-test and post-test menopausal symptoms among elderly women in experimental group and control group N=328

Menopausal symptoms	Experimental Group (n=164)				Control Group (n=164)			
	Pre-test		Post-test		Pre-test		Post-test	
	f	%	f	%	f	%	f	%
Mild	105	64	148	90.2	102	62.2	110	67.1
Moderate	59	36	16	9.8	62	37.8	54	32.9
Severe	0	0	0	0	0	0	0	0

In experimental group majority 105(64%) had mild menopausal symptoms and 59(36%) had moderate menopausal symptoms while in posttest majority 148(90.2%) had mild menopausal symptoms and 16(9.8%) had moderate menopausal symptoms.

In control group maximum 102(62.2%) had mild menopausal symptoms and 62(37.8%) had moderate menopausal symptoms where as in posttest majority 110(67.1%) had mild menopausal symptoms and 54(32.9%) had moderate menopausal symptoms.

Comparison of pre-test and post-test scores of menopausal symptoms among elderly women in experimental group and control group N=164

Comparison	Pre-test		Post-test		Mean Diff.	t value	df	p value
	Mean	SD	Mean	SD				
Experimental group	10.66	7.11	5.27	3.99	5.39	14.86	163	**0.0001***
Control group	10.23	7.08	9.21	6.66	1.01	5.131	163	**0.001***

*P<0.05 level of significance NS-Non significance

Paired t test was performed to compare the pre-test and post-test scores of menopausal symptoms among elderly women in experimental group and control group.

Results in experimental group showed that mean pretest score was 10.66± 7.11 and in posttest was 5.27±3.99 with mean difference of 5.39 with obtained (t=14.86, df=163, p=0.001) was found statistically highly significant.

In control group results showed that showed that mean pretest score was 10.23± 7.08 and in posttest was 9.21±6.66 with mean difference of 1.01 with obtained (t=5.131, df=163, p=0.001) was found statistically significant.

Effectiveness of lifestyle educational program (LEP) on menopause symptoms in elderly women of experimental group as compared to control group N=328

Comparison	Experimental group		Control group		Mean Diff.	t value	df	p value
	Mean	SD	Mean	SD				
Menopause symptoms								
Pre-test	10.66	7.11	10.23	7.08	0.43	0.552	327	**0.581[NS]**
Post-test	5.27	3.99	9.21	6.66	3.94	6.501	326	**0.001***

*P<0.05 level of significance NS-Non significance

The above table illustrates the effectiveness of lifestyle educational program (LEP) on menopause symptoms in elderly women of experimental group as compared to control group which was tested by using unpaired t test/Independent t test.

Results regarding menopausal symptoms in pretest mean score in experimental group was 10.66±7.11 and in control group was 10.23±7.08 with mean difference of 0.43 with obtained (t=0.552, df=326, p=0.581) was found statistically non significant.

During posttest mean score in experimental group was 5.27±3.99 and in control group was 9.21±6.66 with mean difference of 3.94 with obtained (t=6.501, df=326, p=0.001) was found statistically highly significant.

Findings indicate that lifestyle educational program (LEP) was effective in reducing menopause symptoms in elderly women of experimental group as compared to control group.

Comparison of categories of pre-test and post-test scores of menopausal symptoms elderly women in experimental group and control group

Groups	Variables	Comparison	Mean	SD	Mean Diff.	t value	p value
Experimental Group	Somato-vegetative symptoms	**Pretest**	5.00	2.71	2.02	12.15	0.001*
		Posttest	2.98	1.93			
	Psychological symptoms	**Pretest**	3.59	3.46	2.09	11.17	0.001*
		Posttest	1.50	1.81			
	Urogenital symptoms	**Pretest**	2.07	2.18	1.28	10.61	0.001*
		Posttest	0.79	1.23			
Control Group	Somato-vegetative symptoms	**Pretest**	4.42	2.75	0.45	5.108	0.001*
		Posttest	3.97	2.70			
	Psychological symptoms	**Pretest**	3.63	2.91	0.27	2.605	0.010*
		Posttest	3.35	2.78			
	Urogenital symptoms	**Pretest**	2.18	2.46	0.29	3.170	0.002*
		Posttest	1.89	2.20			

Significant mean difference was found in the posttest scores in each component of Menopause rating scale which showcases the impact of lifestyle Educational program. All symptoms were significantly reduced after administration of lifestyle Educational program.

Association between pre-test menstrual symptoms among elderly women with their selected demographic variables in experimental group

Socio Demographic Variables	Menstrual symptoms		Chi-square value	df	P value
	Mild	**Moderate**			
Age at menopause					
40-45 years	10	11	5.322	3	0.150[NS]
46-50 years	38	26			
51-55 years	52	20			
56 years and above	5	2			
Religion					
Hindu	91	54	3.600	3	0.308[NS]
Muslim	7	2			
Christian	**3**	**3**			
Other	4	0			
Education level					
Illiterate	35	27	6.013	4	0.198[NS]
Primary education	35	22			
Secondary education	25	6			
Pre university education	6	3			
Graduation and above	4	1			
Occupation					
Working	16	26	16.48	1	0.001*
Non working	89	33			
Average family income					
Below Rs 10.000	24	30	13.67	2	0.001*
10000-20000	63	24			
20.000 and above	18	5			
Source of information					
Health workers	26	24	4.710	2	0.095[NS]
TV and social media	66	28			
Other	13	7			

The association between pretest menstrual symptoms among elderly women with their selected demographic variables in experimental group was performed using chi-square test.

Statistically significant association was found between occupation and average family income of elderly women with pretest menstrual symptoms.

Table 17: Association between pre-test menstrual symptoms among elderly women with their selected demographic variables in control group

Socio Demographic Variables	menstrual symptoms		Chi-square value	df	P value
	Mild	**Moderate**			
Age at menopause					
40-46 years	15	22	22.37	3	0.001*
46-51 years	43	33			
51-56 years	31	7			
56 years and above	13	09			
Religion					
Hindu	81	55	10.34	3	0.016*
Muslim	18	3			
Christian	**1**	**4**			
Other	2	0			
Education level					
Illiterate	31	10	15.48	4	0.004*
Primary education	42	17			
Secondary education	23	32			
Pre university education	5	3			
Graduation and above	1	0			
Occupation					
Working	18	28	14.46	1	0.002*
Non working	84	34			
Average family income					
Below Rs 10.000	32	25	4.035	2	0.133[NS]
10000-20000	46	30			
20.000 and above	24	7			
Source of information					
Health workers	16	7	0.763	2	0.683[NS]
TV and social media	68	42			
Other	18	13			

In control group statistically significant association was found between age at menopause, religion, educational level, and occupation of elderly women with pretest menstrual symptoms.

Discussion

The study was conducted for around a period of 2 years from November 2019- December 2021. 328 women experiencing physiological menopause residing at Vantamuri and Kinaye villages of Belagavi, Karnataka were assessed for menopausal symptoms. The samples were randomly allotted in the control and experimental group by simple random sampling technique. Pretest was taken for both control and experimental group. Lifestyle Educational program was administered for experimental group and post test was conducted 3 months after the administration of lifestyle

Educational program both control and experimental group. Significant mean difference was found in the posttest scores Menopausal rating scale which showcases the impact of lifestyle Educational program.

Al Dughaither A, Almutairy H, AlAteeq, (2015) conducted a cross sectional study on menopausal symptoms and quality of life in women. A total sample was 119 women aged 45to 60 years were randomly interviewed using a questionnaire. The result of symptoms reported to be more prevalent in joint and muscle pain (80.7%), physical and mental exhaustion (64.7%), and hot flushes and sweating (47. 7%), somatic and psychological symptoms was highly prevalent in peri-menopausal women. Their findings were congruent with our findings.

Another study conducted by Borker SA et all their findings were also congruent with our findings. They stated that all the ladies were suffering from one or more number of menopausal symptoms. Ladies should be made aware of these symptoms, their causes and treatment respectively.[6]

Conclusion

This study found high prevalence but low severity of menopausal symptoms. Our findings point to a need for mitigating symptoms of menopause through diet, physical activity, and counseling. Targeted interventions using community women's groups and village-level health workers are recommended to provide not only awareness regarding menopause but also an opportunity to screen for comorbidities with appropriate referrals. A better understanding of the nature of the risk for these common symptoms in menopausal women will aid in prevention, detection, and treatment2.

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Conflict of interest: Nil