Original Research Article

A study to assess the effectiveness of soya bean consumption on menopausal symptoms among women in selected area, Coimbatore.

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Abstract

Many women would like to avoid pharmacological method for managing menopausal symptoms and this may contribute towards the popularity of complementary therapies of menopausal symptoms management. This review examined currently available evidence supporting the use of complementary therapies of menopausal symptoms management. Hence the quantitative was done to assess the consumption on menopausal symptoms among women by using experimental design, Muthu nagar village, Coimbatore district. Fifty menopausal women fulfilling the inclusion criteria were selected by simple random sampling technique. About 25 menopausal women were in control group and 25 menopausal women were in experimental group. Only the experimental group women received soyabean. and post test assessment done with Modified Menopaual Rating Scale to assess the menopausal symptoms for both groups. Statistical value proved that there was significant reduction in menopausal symptoms among women after administration of soya beans in experimental group.

Introduction

Every living thing in nature is susceptible to changes. The flower that blooms today will fall off tomorrow, the leaf that looks green today will get dried off, so with the humans. Human beings experience various turning points in their life cycle which may be developmental or transitional. Women have been intimately connected with the natural ebb and flow of human life and that of the natural world around them since primordial times. Women individual biophysiological and the developmental changes occurs simultaneously to that of the life cycle of the community. Whether women have been conscious or not of their individual biological processes, there were and there are natural changes constantly occurring within their body throughout their lifetime.

About 25 million women worldwide reached menopause. This number is expected to double by the late 2020s. About 130 million of Indian women are expected to live beyond menopause by 2015.

With increasing longevity nearly 85% of women are spending more than one third of their lives in the menopausal period and bear the consequence of this endocrine deficiency state. More than 12% of our population will be 60 or more by 2025.By the year 2020, 45.9 million women will be experiencing menopause. Prevalence of menopausal problems in Tamilnadu is calculated as 88.1% with one or more menopausal symptoms.

Objectives of the study

> To assess the level of menopausal symptoms among women in both experimental and control group.
> To assess the effectiveness of soya bean consumption among women in experimental group.
> To compare the level of menopausal symptoms among women in both experimental and control group.
> To find out the association between the level of menopausal symptoms among women and their selected demographic variables and reproductive variables in both experimental and control group.

Methodology

The Research Approach adopted was an quantitative approach with experimental Research Design .Research Setting was Muthunagar, Coimbatore (District). Influencing variables are age, educational status, occupational status, dietary pattern, practice of regular exercise 3 days/week, age at menarche, age at marriage, duration of breast feeding, number of children. Population in the Muthunagar has got total number of 288 menopausal women in the age group of 45 - 56 years. In this population, about 58 menopausal women are the target population. Simple random sampling technique (Lottery method) used. The tool consists of following two sections are demographic variables, reproductive variables. Modified Heineman's Menopausal Rating scale to assess the level of menopausal symptoms by structured interview. It consists of 11 items of menopausal symptoms.

Each item has 4 options such as Rare (1), Sometimes (2), Frequent (3) and Always (4). The maximum score is 44 and the minimum score is 11. The total raw scores of each response from samples were added to assess the level of menopausal symptoms.

Method of data collection

A written permission was obtained from the Block Medical Officer. Data collection was done for a period of four weeks. Before the pre-test, the researcher introduced self, explained the purpose of the study and assured the confidentiality of the Menopausal women and then oral consent was obtained from them individually.

By using simple random sampling technique (Lottery method), 50 samples were selected from Muthunagar, Coimbatore . The study was conducted in Muthunagar for a period of four weeks. Demographic variables and reproductive variables were collected from each sample by using structured interview method. Pre test was conducted by using Modified Menopausal Rating Scale from Muthunagar. The Menopausal women were selected and equally divided into experimental and control group. The researcher administered 50 gms of soya bean to the women with menopausal symptoms in the morning for 14 days in experimental group . Control group received no intervention. Post test was conducted on the 14th day after soya bean administration by using the same Modified Menopausal Rating Scale for both groups to find out the effectiveness of soya bean consumption on level of menopausal symptoms among women.

Findings

In the demographic and Reproductive variables in experimental group, majority of the women 14(56%) are aged between 45-48 years, 20(80%) of them are Hindus,9(36%)are having primary education,12(48%) are semiskilled worker ,15(60%) of menopausal women receiving less than and equal to ₹ 5000, 13 (52%) belongs to nuclear family ,19 (76%) of them are non-vegetarian,13(52%) are following walking,

Regarding the age at menarche 21 (84%) are aged between 11-15 years, Regarding the age at marriage 13 (52%) are aged between 16-18 years, Regarding the age at first delivery 17 (68%) are aged between 20-24 years, Regarding the duration of breast feeding of menopausal women 17 (68%) have given 0-1 year, Regarding the number of children of menopausal women, 10(40%) of them are having two children, Regarding the use of contraception of menopausal women, 21(84%) of them followed tubectomy.

In control group, majority of the women were equally distributed in the age group of 45 -48 years, 49 – 52 years 10 (40%) ; 21(84%) of them are Hindus, 8 (32%) of them are having secondary education, 12 (48%) are semiskilled worker ,15(60%) of menopausal women receiving less than and equal to 5000, 12 (48%) of them belongs to joint family, 20 (80%)of them are non-vegetarian, 14(56%) are following walking, Regarding the age at menarche 21 (84%) are aged between 11-15 years, Regarding the age at marriage 21 (84%) are aged between 16-18 years, Regarding the age at first delivery 23 (92%) are aged between 20-24 years, Regarding the duration of breast feeding of menopausal women 13 (52%) have given 0-1 year, Regarding the number of children of menopausal women, 8(32%) of them are having four children. Regarding the use of contraception of menopausal women, 19 (76%) of them followed tubectomy.

Table-1.Comparison of pre test and post test scores on level of menopausal symptoms among women in experimental group

n = 25

S.No	Level of menopausal symptoms score	Mean	SD	Calculated 't' value	Tabulated ' t' value at 5% level or p = 0.05
1.	Pretest	32.96	6.52	10.25	2.064
2.	Post test	24.92	7.74		

From the above table, the calculated value of 't' is greater than the tabulated value of t at 5% level of significance. The null hypothesis is rejected. There is a significant difference between pre test and post test score on level of menopausal symptoms among women in experimental group. This implies that the soya bean consumption is effective on the level of menopausal symptoms among women.

Table - 2.Comparison of post test score on level of menopausal symptoms among women in experimental group and control group

n =50

S.No	Group	Mean	SD	Calculated 't' value	Tabulated 't' value at 5% level or p = 0.05
1	Experimental Group	24.92	7.74	6.579	1.96
2	Control group	36.92	4.55		

From the above table, the calculated value of t is greater than the tabulated value of t at 5% level of significance. The null hypothesis is rejected. There is a significant difference between post test score on level of menopausal symptoms among women in experimental and control group. This implies that the soya bean consumption is effective on the level of menopausal symptoms among women.

Implications

1. Soya bean is cost effective method to minimize menopausal symptoms among menopausal women.
2. It helps the women to overcome their symptoms after menopause.
3. An education about inclusion of soya bean in the diet as a routine to reduce the menopausal symptoms can be given to menopausal women.

Conclusion

The menopausal women had a reduction in the menopausal symptoms as evidenced by the results shown in Modified menopausal Rating Scale.

Soya beans were independently effective to reduce the menopausal symptoms among women. Community health nurses are encouraged to educate regarding inclusion of soya beans in the diet among menopausal women.

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