



Soya On Menopausal Symptom

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ABSTRACT

Menopausal symptoms may become more dominant concerns for some women requiring interventions, hormone replacement therapy have revealed an increased risk of heart disease, stroke and invasive breast cancer. So there is need for natural approaches to relieve menopausal discomfort and soya is considered as “super food “for relieving menopausal symptoms. This study aims to evaluate the effectiveness of soya in reducing menopausal symptoms among women in selected rural areas at Coimbatore **Method.** Permission to conduct the study was obtained from the Deputy Director of Health Services and Medical officer in primary health center. After obtaining written informed consent, a quasi-experimental research design used, Survey done for 2 days, a non-randomized purposive sampling was used to select women with menopausal symptoms who fulfill the inclusion criteria. 60 samples were selected study subjects were randomly assigned to experimental group (n=30) and control group (n=30).Pre-test level of menopausal symptoms was checked using standardized menopausal rating scale for both groups. Intervention on administration of 25gms of Soya Powder mixed with 100ml of warm water given along with breakfast, for 30 subjects in experimental group for 30 days, subjects in control group given routine care. The post-test level of menopausal symptoms assessment was done on 31st day after intervention by using same standardized menopausal rating scale for subjects in both groups. **Results** .From the study findings it can be concluded that soya reduces the level of menopausal symptoms among women with menopausal symptoms.

Key words: Menopausal symptoms, Soya, Women, Effectiveness.

Introduction

The word "menopause" literally means the "end of monthly cycles" from the Greek words pausis (cessation) and the word men (month)

Menopause is a natural step in aging process, represents the end of menstruation after the last menstrual periods in the previous 12 months. It occurs gradually in women and indicates the transition from the reproductive to the post reproductive era of a women's life. It is the condition that every woman faces, in later life and can have many associates' effects, which might disrupt the quality of life. Leguminous plants contain good amount of isoflavone. Soybean is commonly called wonder bean. Among the legumes soya bean is the richest source of Isoflavones. Soya bean is rich both in isoflavones and other important nutrients and is found to be useful in reducing the hormone related complaints connected to menopause.

Need for the Study

Menopause is a normal milestone experienced annually by 2 million American women each year. Although menopause is natural process, almost all women during and after the menopause suffer from typical symptoms with approximately 40% seeking a medical help for various symptoms like vasomotor, psychological, urogenital, musculoskeletal symptoms. Most menopausal women go untreated or use unproven alternatives.

According to Indian menopause society research there are about 65 million Indian women over the age of 45 and estimated that in the year 2026, the population in India will be 1.4 billion, people over 60 years will be 173 million and the menopausal population will be 103 million. The average age of Indian menopausal women is 47.5 years

Gynaecologist Anuja Joshi said, "Soy isoflavones have been the focus of research over the past 10 years because of their potential roles in women's health. Isoflavones are secondary vegetable substances, which can act as estrogens in the body and have protective functions."

Scientific Reason

During menopause, women suffer from low body estrogen levels. The soybean is rich in isoflavones, the most widely studied class of phytonutrients. Soy isoflavones are capable of binding to estrogen receptors (ER) to downgrade the effects of excess estrogen when levels are high, or to exert a weakly pro-estrogenic effect when levels are low.

Statement of the problem

A study to evaluate the effectiveness of soya in reducing menopausal symptoms among women in selected rural areas at Coimbatore.

Objectives of the study

- ✓ To assess the level of menopausal symptoms among women in experimental and control group
- ✓ To evaluate the effectiveness of soya in reducing menopausal symptoms among women in experimental group
- ✓ To find out the association between the menopausal symptoms among women with their selected demographic variables in experimental and control group

Hypothesis

H1: There is a significant difference between the mean pre and post-test level of menopausal symptoms among women in experimental group

H2: There is a significant difference between the mean pre and posttest level of menopausal symptoms among women in control group

H3: There is a significant difference between the mean posttest level of menopausal symptoms among women in experimental and control group

H4: There is a significant association between menopausal symptoms among women with their selected demographic variables in experimental and control groups

Assumptions

- Women may experience a varying level of menopausal symptoms.
- Soya may have a positive effect on menopausal symptoms among women.

Delimitations

- The study was delimited to the women stopped menstruating for past 12 months.
- The data collection was delimited to a period of 6 weeks

Projected Outcomes

- ✓ The study will help the nurses to assess the changes in the level of menopausal symptoms among women.
- ✓ The study will help the nurses to identify the effectiveness of soya in reducing menopausal symptoms among women.
- ✓ The study findings will help the nurses to create awareness about the home remedy with soya in reducing menopausal symptoms among women.

REVIEW OF LITERATURE

Review of literature was organized as follows

- Studies related to prevalence of menopausal symptoms.
- Studies related to alternate therapies for menopausal symptoms.

- Studies related to effectiveness of soya in reducing the menopausal symptoms.

Research Approach

A quantitative evaluative approach was used.

Research Design

A quasi experimental design (pre-test and post-test design)

Independent variable

Soya Powder.

Dependent variable

Level of menopausal symptoms among women.

Demographic variable

In this present study age, marital status, type of family, educational status, occupational status, dietary pattern, habit of drinking coffee, age at menarche, history of dysmenorrhea, menstrual cycle, period of cycle, menstrual bleeding, number of child birth, duration of breast feeding, history of contraception, type of contraception are the extraneous variables.

Setting of the Study

The study was conducted in selected rural areas of Coimbatore district. The rural areas selected under Arisipalayam primary health centre, namely Arisipalayam and Vazhukkuparai.

Population of the Study

Target Population

Target population for this study was Menopausal Women.

Accessible population

The accessible population of the study was Menopausal Women residing in Arisipalayam and Vazhukuparai village.

Sample

The subjects were selected, present study was 30 clients with menopausal symptoms in Arisipalayam and 30 in Vazhukuparai at Coimbatore. A total of 60 subjects were selected for study group which was divided into 30 experimental and 30 control group.

Sampling Technique

In this present study, the sampling technique adopted was non-probability purposive sampling method. The investigator has done survey for 2 days, screened for women with

menopausal symptoms and identified the subjects in Arisipalayam and Vazhukuparai village. 60 subjects were selected based on sampling criteria.

Criteria for sample selection

Inclusion criteria

- Women those ,who had attained menopause before 6-12months
- Women those who can understand Tamil.
- Women those who were in the age group of 40-60years.
- Women those who were willing to participate in the study.

Exclusion criteria

- Women who were on treatment for chronic illness like gastrointestinal such as gastric ulcer, peptic ulcer, diarrhea, neural tube defect and renal disease.
- Women who undergone hysterectomy, removal of ovaries.
- Women who have legume related food allergies.

Description of the Tool

The tool consisted of 2 parts.

Part I: It consists of demographic variables that includes 2 sections

- Family profile: It consists of age, marital status, educational status, occupational status, dietary pattern, habit of drinking coffee.
- Obstretic variables: age at menarche, history of dysmenorrhoea, menstrual cycle, period of cycle, menstrual bleeding, number of child birth, duration of breast feeding, contraception and type of contraception.

Part II: standard menopausal rating scale was used, it is a questionnaire of 11 item with questions regarding psychological symptoms, somato-vegetative symptom, uro-genital symptoms which was developed by Berlin institute of epidemiology.

Scoring Procedure

The scoring scheme of the MRS scale is simple: The questionnaire has for each of the 11 item an option to check one of 5 degrees of severity of symptoms (severity 0 [none]...4 [very severe] points at the questionnaire).

The total score of the MRS ranges between 0 (asymptomatic) and 44 (highest degree of complaints).

0	None
1-11	Mild
12-22	Moderate
23-33	Severe
34-44	Very severe

Intervention

Intervention of the present study was soya powder with jaggery. Before administering soya Powder the investigator got the consent sign from the subjects and informed regarding soya Powder and its benefits on menopausal symptoms. After that the clients were informed to sit in a comfortable place and administered 25g of soya Powder with jaggery mixed with 100ml of warm water given after breakfast under the supervision of investigator.

Validity and Reliability

Content Validity

The contents of the structured interview questionnaire, standard tool and interventions was evaluated by 9 experts including six nursing experts, one experts in medicine and two dietician who validated the tool regarding adequacy of the content and the sequence in framing of questions. Based on their valid suggestions the instrument was reframed by adding the obstetric variables like contraception and type of contraception

Reliability

The stability of an instrument is the extent to which similar results are obtained on two separate administrations. In this present study the reliability of standard tool was assessed by test - retest method. $r=0.09$ level indicate highly reliable.

Pilot Study

A pilot study was conducted in Kannamanayakanoor village among 10 women with menopausal symptoms. The data collection of the pilot study was done for 15 days. Pre-test assessment of menopausal symptoms was done on 1st day using standardized menopausal rating scale. On 2nd day administered 25gms of Soya Powder with jaggery mixed with 100ml of warm water given along with breakfast. Post-test assessment of level of menopausal symptoms done by using same standard menopausal rating scale on 17th day.

The purpose of the pilot study was to find out the feasibility of conducting the study. The result of the pilot study showed that the mean pre-test level of menopausal symptoms was 23.4 and that of post-test was 18.2 and the mean difference was 5.2. The obtained 't' value was 9.991 significant at 0.05 level. The pilot study results showed that the setting, samples and tool was feasible enough to conduct the main study.

Data Collection Procedure

The data collection procedure was done for a period of 30 days in Vazhukkupaarai village, Coimbatore. Permission to conduct the study was obtained from the Deputy Director of Health Services and Medical officer in Arisipalayam Primary Health Centre. The subjects were informed by the researcher about the nature and purpose of the study. Survey was done for 2 days during which screening for menopausal symptoms was done. On 3rd and 4th day pre-test level of menopausal symptoms was checked by using standard menopausal rating scale and also written consent obtained from the subjects. 5th day intervention on administration of 25gms of Soya Powder with jaggery was mixed with 100ml of warm water given along with breakfast, it continued for 30 days. 35th and 36th day the post-test level of menopausal symptoms was assessed using the same standardized menopausal rating scale.

Schedule of the data collection as follows:

Survey (screening for menopausal symptoms) and pretest 4 days

(1st & 2nd day- survey)

(3rd & 4th day -pretest)

Intervention 30 days (5th -34th day)

Post-test 2 day (35th -36th day)

Data Analysis

The data were analyzed by using both descriptive and inferential statistics. The data related to demographic variables are analyzed by using descriptive statistics (frequency, percentage). The level of menopausal symptoms was assessed by using descriptive measures (mean, standard deviation). The effectiveness of Soya Powder in reducing menopausal symptoms level was analyzed by using 't' test.

Protection of Human Rights

The study was conducted after the approval of research committee of the college. The nature and purpose of this study was explained to the medical officer. Informed written consent was obtained from the study participants. Anonymity and confidentiality was maintained throughout the study.

Major Study Findings

Regarding the demographic variables among women with menopausal symptoms, majority of them 33 (55%) belonged to 46-50 years. Regarding marital status majority of them 47(78.3%) were married. Regarding educational status, majority of them 34(56.7%) had primary education. Regarding occupational status, majority of them 43(71.6%) were coolie worker. Regarding dietary pattern, majority of them 51(85%) were non-vegetarians. Regarding habit of drinking coffee majority of them 33(55%) had the habit of drinking coffee.

In obstetric variables of women with menopausal symptoms, regarding age at menarche majority of them 21(35%) attained menarche at 14 years. Regarding history of dysmenorrhea

majority of them 57(95%) not having history of dysmenorrhea. Regarding menstrual regularity all women in both experimental and control group had regular menstrual history. Regarding period of cycle majority of them 32(53.33%) had 30days cycle. Regarding number of days of menstrual bleeding majority of them 30(50%) had menstrual bleeding up to 5 days. Regarding number of child birth majority of them 36(60%) had 2 child. Regarding duration of breast feeding majority of them 39(65%) breast fed approximately for more than 1 year. Regarding use of contraception majority of them 38(63%) practiced contraceptive measures. Regarding type of contraception majority of them 19(86.4%) practiced oral contraceptive measures.

With regard to the level of menopausal symptoms among women in experimental and control group. During pre-test in experimental group and control group, majority had severe menopausal symptoms. After administration of Soya majority of them had moderate menopausal symptoms. Meanwhile control group, in comparison with experimental group, has shown less reduction in the level of menopausal symptoms

With regard to effectiveness of Soya in reducing level of menopausal symptoms among women, mean post test score of experimental group was lesser than the mean post test score of control group. The calculated mean difference was 3.8. Obtained 't' value, 5.448 (1.960) which was significant at $p < 0.05$ level

With regard to the association between the level of menopausal symptoms among women with their selected demographic variables, there were no significant association between level of menopausal symptoms of women in experimental group with their selected demographic variables such as age, marital status, educational status, employment, dietary pattern, habit of drinking coffee, age at menarche, history of dysmenorrhea, menstrual regularity, period of cycle, number of days of menstrual bleeding, number of child birth, duration of breast feeding, contraception and type of contraception. Whereas in the control group there was a significant association between age, education, duration of breast feeding and level of menopausal symptoms

Conclusion

The main conclusion drawn from this present study was that majority of the menopausal women had severe level of menopausal symptoms. After administration of soya, their menopausal symptoms reduced significantly. This ensured that administration of soya were effective in reducing the level of menopausal symptoms.

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