



A study to assess the effectiveness of soya milk powder on menopausal symptoms in post menopausal women at SMCH

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Abstract

The present study aim was to assess the effectiveness of soya milk powder on menopausal symptoms in post-menopausal women at SMCH. A quantitative research approach and one group pretest and posttest experimental research design have used in the present study. The sample comprised 30 menopausal women selected by simple random sampling. Structured questionnaire was used to collect the demographic variable, green climacteric scale, scoring and interpretation to assess the calcium level of post-menopausal women, among 30 post-menopausal women participated the pretest mean score was 28.86 ± 10.37 and the posttest mean score was 17.13 ± 5.68 . The mean score was 11.73. The calculated paired 't' test value of $t = 5.757$ was found to be statistically significant at $p < 0.001$ level. This clearly infers that the administration of soya milk powder among post-menopausal women was found to be effective in reducing the level of menopausal symptoms in the post test.

Keywords: Soya milk powder, menopausal symptoms, postmenopausal women, calcium level

Introduction

The menopause is the end of ovarian function permanently. The term was initially authored to depict this regenerative age in human females, where there is an end for ripeness, customarily demonstrated by long-lasting halting of month to month period or "menses"¹. The regular age scope of menopause is between ages of 40 and 60 and the normal for last period is 51 years in western nations. In some developing countries, the median age for natural menopause is at 44 years (Tinu Theresa Jose¹, Divya Raghavan, 2018)^[8]. Life is named as "satisfaction" is the component which adds to joy called great wellbeing. Women play a vital role in contributing and preparing responsible citizens for the nation. The health of the women is an important component not only during reproductive years but also throughout the course of her life. Normal women focus on the physical, psychological and social well being. Women has role of replenishing the earth but her reproductive capacity is not permanent it ceases. The cessation of reproductive capacity is coined as "menopause". End of the monthly cycle is termed as menopause. It is the permanent cessation of menses associated with degeneration of ovarian function. A woman's ovaries have two hormones estrogen and progesterone, when these hormones are out of balance, hormone related illness can emerge, due to ovulatory cycles, progesterone levels typically decline before menopause starts which in turn is followed by decline in estrogen. Progesterone creation will in general tumble to very nearly zero where estrogen declines to around 40-half. The data of a multi-centric study conducted by the Indian Menopause Society across the country shows that the menopausal age among women is now between 47 and 52 years as against the previous 40-45 years. Way of life changes, improvement in nourishment and expanding stoutness are the reasons, say specialists. According to Indian menopausal society the number of menopausal women comes in around 43 million

and would include women between the ages of 40 to 60 in India. Soya has many medicinal purposes, it is used to treat the premenstrual symptoms, reduce the risk of osteoporosis, and lower the blood pressure. The women need to have awareness of menopausal symptoms and its causes, prevention and its management in order to improve the quality of their life. Notwithstanding the mending force of isoflavones, soya is likewise high in cancer prevention agents, omega-3's, and protein. Soya is a superior source of protein. It is one among two known plant food sources which contain every one of the fundamental amino acids. The worldwide situation is presently changing towards the utilization of non-poisonous plant items having conventional restorative use. Throughout the previous few years there has been a rising pattern and mindfulness in to utilize supplementation food sources. isoflavone is significant dynamic compound of soya it has restorative properties that will treat the menopausal side effects.

Methods and materials

The study was quantitative research approach and one group pretest and posttest true experimental research design with sample size of 30 post-menopausal women who are selected by simple sampling technique and who fulfilled the inclusion criteria. The inclusion criteria where who attained surgical and natural menopause between the age group of 40- 60 years, who will speak, understand Tamil, who are willing to participate. The exclusion criteria were who are using hormonal replacement therapy, The patients who are not willing to participate in the study. The study was conducted in SMCH. Structured questionnaire was used to collect the demographic variables, green climacteric scale, scoring and interpretation to assess the calcium level and estrogen level of post-menopausal women. On day 1 pretest was conducted among the samples and on the same day soya milk powder was given to the samples and the post test

was conducted after 12 days. The data was collected in a period of 2 weeks and the collected data were analyzed using descriptive and inferential statistics.

Result and discussion

Comparison of pretest and posttest menopausal symptoms scores among post-menopausal women.

Section A

Demographic characteristics Among 30 study participants, most of the menopausal women, 26(86.7%) were aged above 50 years, 25(83.33%) were Hindus, 22(73.4%) were illiterates, 24(80%) were unemployed, 20(66.7%) were married, 27(90%) were both vegetarian or non-vegetarian, 24(80%) had limited activity, 18(60%) had hypertension as co-morbid disease, 24(80%) had above 1 children, 24(80%) had not practiced physical exercise, 25(83.3%) belonged to middle class, 17(56.7%) belonged to joint family and 23(76.7%) had an income of above 2 lakhs per annum.

Clinical variable post-menopausal women, 21(70%) were occasionally used calcium tablets, 16(53.4%) had menopausal duration of 40 to 50, 22(73.4%) had a serum calcium level of below 8.5 mg/dl, 23(76.7%) had not exercised in a day and 25(83.3%) had a body weight in the range of 60 – 80 kg.

Section B

Frequency and percentage distribution of pretest and posttest level of menopausal symptoms among post-menopausal women. in the pretest, 19(63.3%) had moderate level of menopausal symptoms and 11(36.67%) had mild level of menopausal symptoms whereas in the post test after the administration of soya milk powder among the post-menopausal women 27(90%) had mild level of menopausal symptoms and 3(10%) had moderate level of menopausal symptoms.

Frequency and percentage distribution of pretest and posttest level of menopausal symptoms among post-menopausal women.

Table 1

Level of Menopausal Symptoms	Pretest		Post Test	
	Frequency (F)	Percentage (%)	Frequency (F)	Percentage (%)
Mild (≤50%)	11	36.67	27	90.0
Moderate (51 – 75%)	19	63.33	3	10.0
Severe (>75%)	0	0	0	0

Section C

Comparison of pretest and posttest menopausal symptoms scores among post-menopausal women. the pretest mean score was 28.86±10.37 and the posttest mean score was 17.13±5.68. The mean difference score was 11.73. The calculated paired ‘t’ test value of t = 5.757 was found to be statistically significant at p<0.001 level. This clearly infers that the administration of soya milk powder among post-menopausal women was found to be effective in reducing the level of menopausal symptoms in the post test.

Comparison of pretest and posttest menopausal symptoms scores among post-menopausal women

Table 1

Test	Mean	S.D	Mean Difference	Paired ‘t’ test Value
Pretest	28.86	10.37	11.73	t = 5.757 p=0.0001, S***
Posttest	17.13	5.68		

The present study finding is supported by Mrs., Mani Megalai (2012) [17], conducted a study to assess the effectiveness of soya bean on post-menopausal symptoms in post-menopausal women at selected rural area. The study reveals that in pretest 35(58%) postmenopausal women had moderate symptoms and 25(42%) had severe symptoms whereas during posttest majority 58(97%) had moderate symptoms and only 2(3%) had mild symptoms none of them have severe menopausal symptoms.

A present study finding is supported by Mrs., iniyaval.r, Mrs. lavanya.s , Mrs., Renuka (2019) conducted a study on soyabean and chickpea on menopausal symptom among women in selected rural area, the finding implicates that soya bean and chick pea are effective in reduction of menopausal symptoms.

Finding is supported by Mrs., g.lourds bemi (2012) [16] conducted a study on effectiveness of soya milk upon menopausal symptoms, most of the women have moderate symptoms in experimental group before administration of soya and have mild symptoms after administration of soya milk.

Comparing to this study soya is effective in reducing the menopausal symptoms in post-menopausal women

Section D: Association of level of menopausal symptoms with selected demographic and clinical variables.

Association of posttest level of menopausal symptoms among post-menopausal symptoms with selected demographic variables. the demographic variables practice of physical exercise ((2=8.726, p=0.003) and income ((2=7.425, p=0.024) had shown statistically significant association with posttest level of menopausal symptoms among post-menopausal women at p<0.05 level and the other demographic variables had not shown statistically significant association with posttest level of menopausal symptoms among post-menopausal women.

Association of posttest level of menopausal symptoms among post-menopausal symptoms with selected clinical variables it shows that none of the clinical variable had shown statistically significant association with posttest level of menopausal symptoms among post-menopausal women

Conclusion

Hence this clearly infers that the administration of soya milk powder among post-menopausal women was found to be effective in reducing the level of menopausal symptoms in the post test.

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Authors Contribution

All the authors actively participated in the work of the study. All authors read and approved the final manuscript.

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