

# A Study to Assess the Effectiveness of Planned Teaching Programme on Knowledge Regarding Foot Reflexology among Post-Menopausal Women

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## ABSTRACT

**Background:** Post-menopausal women experience many physical, emotional, and mental symptoms during the post-menopausal period, and reflexology has grown into a complex therapeutic modality and has a range of effects. Reflexology will help put hormones back into a normal state and act like a process of emotional cleansing, relieving stress and restoring harmony to the body and soul. Hence, foot reflexology seems to be effective in treating post-menopausal symptoms.

**Methods:** In the present study, pre-experimental i.e. one group pretest-posttest design, was adopted. The study was conducted on 30 post-menopausal women to assess their knowledge regarding foot reflexology. Samples were selected by using a convenient sampling technique. Data was collected using a structured knowledge questionnaire and analyzed using descriptive and inferential statistics.

**Results:** The mean percentage of the pre-test score was 28%, and the post-test score was 76.65%. The mean and the standard deviation of the pre-test score were  $5.60 \pm 1.71$ , and the mean and the standard deviation of the post-test score were  $15.33 \pm 1.15$ . The total mean and standard deviation are  $9.73 \pm 2.07$  by comparing the pre-test and post-test scores. Hence, it was found that there is a significant difference between pre-test and post-test knowledge scores of post-menopausal women regarding foot reflexology. No significant association was found between post-test knowledge scores and socio-demographic variables on foot reflexology.

**Conclusion:** The study concluded that a planned teaching program on knowledge regarding foot reflexology for post-menopausal women was a scientific, logical, and cost-effective strategy to reduce post-menopausal symptoms.

**Key-words:** Effectiveness, Foot reflexology, Post-menopausal women, Planned teaching program, Socio-demographic variables

## INTRODUCTION

The reflexology was developed from 'Zone therapy'. Foot reflexology is a massage therapy that involves applying pressure to specific pressure points<sup>[1]</sup>. The sensors of the feet will be stimulated when pressure is applied using the reflexology technique. It also helps improve energy and blood circulation, maintains homeostasis and gives the body a sense of relaxation<sup>[2]</sup>. Foot reflexology has many benefits. It includes deep relaxation, improved cardiovascular and lymphatic circulation, pain management, and enhanced well-being<sup>[3]</sup>. The critical

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pressure points to relieve the pain are just a bit under an inner ankle bone, press gently and massage in a circular motion for around 5 minutes <sup>[4]</sup>.

The foot reflexology session can be done weekly or monthly. Foot reflexology lasts approximately 30 minutes but can last up to an hour <sup>[5]</sup>. Reflexology helps replace the hormones to normal <sup>[6]</sup>. Foot reflexology has many benefits for post-menopausal women, such as relaxation, releasing tension, improving the body and mind connections, increasing the range of motion and relieving headaches <sup>[7]</sup>.

## MATERIALS AND METHODS

For the present study, pre-experimental i.e. one group pre-test post-test design, was used. This study assessed the knowledge regarding foot reflexology among post-menopausal women in selected hospitals at Bagalkot.

**Study participants-** The study participants were post-menopausal women of Bagalkot. The samples were selected from 45 and above age group. The sampling criteria included the post-menopausal women of selected hospitals at Bagalkot willing to participate in the research study.

**Sample size-** The research study was conducted on 30 post-menopausal women in selected hospitals at Bagalkot. The pre-test and post-test studies were performed on these 30 samples.

**Setting of the study-** The researcher conducted the study at selected hospitals at Bagalkot; the researcher has chosen this setting for the following reasons: Availability of samples and the Economic feasibility of conducting the survey.

**Data collection instruments-** The use of self-reported structured closed-ended knowledge questionnaires in the present study collected the data.

**Validity and Reliability-** The content validity tool was established by obtaining the experts' suggestions. 5 experts validated this tool. The minor modifications were made based on the recommendations and suggestions of experts. The final tool was reframed after consulting a guide and statistician.

To check the instrument's reliability, the tool was administered to five post-menopausal women of Kuntoji

multi-specialty hospital, Bagalkot. The test's reliability was found using Karl Pearson's coefficient formula. The reliability coefficient obtained was 0.78, which indicates that the tool is reliable.

**Statistical Analysis-** The data was analyzed using descriptive and inferential statistics to achieve the study's objectives. Data was organized in the master sheet. The frequency and percentage distribution table were formed to analyze the socio-demographic characteristics. After this, the mean and standard deviation were calculated. A paired 't' test was applied to ascertain the significant difference between post-menopausal women's pre-test and post-test knowledge scores. The chi-square test was used to determine the association between the socio-demographic variables in Post-Menopausal Women.

**Ethical Approval-** The institutional ethical committee of B.V.V.S. Sajjalashree Institute of Nursing Sciences, Bagalkot accepted the present research study. The ethical clearance certificate was submitted with the synopsis of the present study to Rajiv Gandhi University of Health Sciences, Bagalkot.

## RESULTS

Descriptive and inferential statistics were used to analyze the data. The numerical data obtained from the sample was organized and summarized with the help of descriptive statistics like percentages, mean, median and standard deviation. Karl Pearson's coefficient correlation formula was used to determine post-menopausal women's significance. The chi-square test is used to find out the association.

Table 1 reveals that most subjects, 30%, were in the age group of 45 years and 46-47 years. 86.66% of subjects belonged to Hindu religion. 63.66% of subjects had belonged to other education. 40% of subjects belong to agriculture. 50% of subjects had a monthly family income of Rs. 5001-10000. 96.66% were married. 60% of subjects belonged to nuclear. 86.66% of subjects were residing in rural areas. 36.66% of subjects took the information from social media and 100% of subjects have not attended any health education campaign.

**Table 1:** Frequency and percentage distribution of socio-demographic characteristics of a sample

Variables	Frequency	Percentage (%)
<b>Age</b>		
45 Years	9	30
46-47 Years	9	30
48 – 49 Years	4	13.33
50 years and above	8	26.66
<b>Religion</b>		
Hindu	26	86.66
Muslim	4	13.33
Christian	0	0
Others	0	0
<b>Education</b>		
SSLC	10	33.33
PUC	0	0
Degree	1	3.33
Above degree	19	63.66
<b>Occupation</b>		
Housewife	6	20
Employee	1	3.33
Coolie	11	36.66
Agriculture	12	40
<b>Family monthly Income</b>		
Below Rs.5000	2	6.66
Rs.5001-10000	15	50
Rs.10000-15000	12	40
Rs.15001 and above	1	3.33
<b>Marital Status</b>		
Married	29	96.66
Unmarried	0	0
Widow	1	3.33
Diverse	0	0
<b>Type of family</b>		
Nuclear	18	60
Joint	12	40
<b>Area of residence</b>		
Urban	4	13.33
Rural	26	86.66
<b>Source of information</b>		
Peer group	10	33.33
social media	11	36.66
Newspaper	5	16.66
Health professionals	4	13.33
<b>Attended any continuing education on menopause</b>		
If Yes, Specify	0	0

No	100	100
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Table 2 reveals that the study's total number of samples (N) was 30. The total mean value and the standard deviation of the pre-test knowledge score was  $5.60 \pm 1.71$ . The post-test knowledge score's mean value and standard deviation were  $15.33 \pm 1.15$ . The total mean percentage of pre-test was 28% and the total mean rate of the post-test was 76.65. The results reveal that the knowledge was improved from the pre-test to the post-test.

**Table 2:** Mean, SD and mean percentage of the knowledge scores in pre-test and post-test of post-menopausal women

Test	N	Mean	SD	Mean percentage (%)
Pre-test	30	5.60	1.71	28
Post-test	30	15.33	1.15	76.65

## DISCUSSION

The pre-experimental i.e. one group pre-test post-test design was used in this study. The same design was also used in many other studies related to foot reflexology [8]. The prevalence rate of post-menopausal symptoms was determined during the investigation [9]. Many other studies have determined the prevalence rate of post-menopausal symptoms [10,11]. The knowledge of post-menopausal women regarding foot reflexology was assessed in the present study. A similar analysis shows the effect of foot reflexology on vasomotor complaints and the quality of life [12]. Also, a study shows the impact of foot reflexology on anxiety, fatigue and sleep [13].

The samples in the present study were selected using the convenient sampling technique. Many other studies have also used the same method to choose the samples [14,15]. The present study used a structured questionnaire to assess the knowledge. Similarly, a study used a structured questionnaire to determine the level of depression [16]. Also, a study used a structured questionnaire to assess the effect of foot reflexology in reducing symptoms [17].

The tool i.e. structured knowledge questionnaire, was provided and the knowledge was assessed before the planned teaching program. A similar study was conducted to evaluate the knowledge and attitude of

students on foot reflexology [18]. Then, the scheduled teaching program was born on the selected samples, and the tool was again given. The comparison was done between the pre-test and post-test scores. A similar study compared the pre-test and post-test scores [18-22].

In the study, the mean percentage of pre-test is 28% and the mean percentage of post-test is 76.65%, which shows that the mean percentage of the post-test scores is higher. Hence, the knowledge of the post-menopausal women has been improved. A similar study shows two groups' pretest-posttest scores and mean percentages [20,21].

Hence, it is clear that there is a statistically significant difference between pre-test and post-test knowledge scores of post-menopausal women, indicating the effectiveness of PTP in the enhancement of knowledge of post-menopausal women regarding foot reflexology. Hence, the PTP proved to be effective. Similar studies also show that planned teaching programs effectively improve knowledge [23-25].

## CONCLUSIONS

Hence, this study concludes that the planned teaching programme effectively enhances knowledge. Assessment of post-menopausal women's knowledge in pre-test reveals that out of 30 post-menopausal women, highest percentage (73.33%) of post-menopausal women had poor knowledge, (23.33%) of post-menopausal women had very poor knowledge and the lowest percentage of (3.33%) of post-menopausal women had average knowledge. No post-menopausal women had excellent and good knowledge regarding foot reflexology. However, after PTP, the post-test highest percentage 90% of post-menopausal women, had good knowledge and the lowest rate 10% of post-menopausal women, had excellent knowledge. No post-menopausal women had average, poor, or very poor foot reflexology knowledge. By finding the effectiveness of pre-test and post-test knowledge, post-menopausal women's total mean percentage of knowledge score was 9.73% and the total SD was 2.07%.

The knowledge of foot reflexology among post-menopausal women has improved after the teaching program session. It is also found that this foot reflexology helped them to reduce post-menopausal symptoms.

## CONTRIBUTION OF AUTHORS

**Research concept-** Dr Dileep Natekar, Dr. Jayashree Awarsang

**Research design-** Dr. Jayashree Awarsang

**Supervision-** Dr. Jayashree Awarsang

**Materials-** Jayashree Awarsang, Deelip Natekar, Ravindra AK, Nischitha Bai, Muttavva, Bharati, Mounesh

**Data collection-** Jayashree Awarsang, Deelip Natekar, Ravindra AK, Nischitha Bai, Muttavva, Bharati, Mounesh

**Data analysis and interpretation-** Jayashree Awarsang, Deelip Natekar, Ravindra AK, Nischitha Bai, Muttavva, Bharati, Mounesh

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