RESEARCH ARTICLE

EFFECTIVENESS OF SENOBI BREATHING EXERCISE ON PERIMENOPAUSAL SYMPTOMS AMONG WOMEN – A PILOT REPORT.

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Manuscript Info

Abstract

Pilot study was conducted to assess the effectiveness of Senobi breathing exercise on perimenopausal symptoms among women in selected villages at Cuddalore, Tamilnadu. 30 samples were selected randomly. Consent obtained from each sample before the data collection. After collection of demographic variables, Senobi breathing exercises were thought to the samples. The pretest and post test was conducted with the Sheldon Perceived Stress Scale, Modified Greene Climatic Scale and the WHO BMI Scale. The tool reliability assessed by test–re test and inter rater method. The ‘r’ value obtained for the Sheldon Perceived Stress Scale was 0.9, Modified Greene Climatic Scale was 1.0, and the WHO BMI Scale was 0.9.

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Objectives:-
To test the reliability - feasibility of the tool (Sheldon perceived stress scale, Modified Greene Climatic Scale and the WHO BMI Scale).

To assess the effectiveness of senobi breathing exercise on reduction of perimenopausal symptoms

Methodology:-

Research Approach:-
Quantitative research approach was used to evaluate the Senobi breathing exercise.

Research Design:-
Experimental study with pre-test and post-test design.

| Group          | Design    |
|----------------|-----------|
| Experimental group | Pretest  | X | Post test |
| Control group   | Pretest   | - | Post test |

Research Setting:-
The study was conducted at S.Pudur, Thondamanatham Panchayath, Cuddalore district, Tamilnadu. It is 15 km away from the centre town of Cuddalore district. It has nearly all basic necessities such as health care, education and transport. The total population of the selected villages is about 1711. The total women population of the village is about 647. The average population of the women in the age group of 45 to 60 years is about 294.

Population:-
The target population of the present study includes peri menopausal women with menopausal symptoms. The accessible population was peri menopausal women with menopausal symptoms, who are present in the selected villages Cuddalore, Tamilnadu

Sample:-
Samples include peri menopausal women affected with peri menopausal symptoms and who were fulfilling the inclusion criteria.

Sample size:-
The sample size is 30. In that total samples, 15 samples selected for Study group and 15 samples selected for control group.

Sampling techniques:-
Samples were selected by Simple random sampling technique by computer generated random numbers.

Variables
Dependent Variable:-
Peri menopausal symptoms like Stress. Psychological symptoms includes Anxiety and Depression, Somatic symptoms, vasomotor symptoms, sexual symptom and weight gain.

Independent Variable:-
Senobi breathing exercises on reduction of peri menopausal symptoms among women.

Sampling Criteria
Inclusion Criteria:-
1. who are in 45 - 60 years
2. who are in perimenopausal period
3. who have peri menopausal symptoms
4. who are present during data collection period
5. who can able to read and write Tamil
Exclusion Criteria:
1. Who have breast cancer, hypotension, and thyroid disease.
2. Who have psychiatric disorders
3. Who underwent recent surgical interventions
4. Who are disabled persons
5. Who are undergoing home treatment for perimenopausal symptoms.
6. Who were doing regular exercises.

Development and Description of the Tool
Part I: Demographic Variables
The demographic variables consists of the following items: age, education, occupation, family income per month, family status, dietary pattern, marital status and the clinical variables comprised of the following items: Past history of menstruation, Recent changes in menstruation, age at menarche, Type of recent changes in menstruation, how often do menstruate, how long periods last, Underwent any medical treatment for menopausal problems, Sexual activity, Methods of contraception, Number of conception, Age at menarche and Weight gain.

Part – 2: Sheldon Cohen Perceived Stress Scale
This scale consists of 10 items includes positive and negative statements. Scoring of the items starts from 0 – 4, score 0 – Never, 1 - Almost Never, 2 – Sometimes, 3 - Fairly Often, and 4 - Very Often. Maximum score is 40. Reverse scores for questions 4, 5, 7, and 8.

Part – 3: Modified Greene Climatic Scale
This scale is consists of 21 items, and it also subdivided in to 4 areas like psychological symptoms (1 – 11), somatic symptoms (12 – 18), vasomotor symptoms (19 – 20) and sexual related symptom (21) of the perimenopausal women. Each item scores 0 – 3, 0 indicate not at all, 1 indicate A little, 2 quite a bit, 3 indicate extremely. The total score is about 63.

Part – 4: WHO BMI (Body Mass Index) Scale
This scale used to assess the body mass index of the perimenopausal women.

Results and Discussion:
The tool reliability assessed by test – re test and inter rater method. The ‘r’ value obtained for the Sheldon Perceived Stress Scale was 0.9, Modified Greene Climatic Scale was1.0, and the WHO BMI Scale was 0.9. The Data were analyzed using descriptive statistics mean and standard deviation, inferential statistics unpaired t test to test the effectiveness of effectiveness of Senobi breathing exercise on reduction of peri menopausal symptoms among women.

Table 1:
Frequency and percentage distributions of samples in experimental and control group based on demographic variables. Homogeneity was maintained between the experimental and control group.

| S.NO | VARIABLES | EXPERIMENTAL GROUP | CONTROL GROUP |
|------|-----------|--------------------|---------------|
| 1    | DEMOGRAPHIC VARIABLES | N = 15 | % | N = 15 | % |
| 1    | Age      |                   |               |
| a.   | 45 – 48 years | 7 | 46.6 | 7 | 46.6 |
| b.   | 49 – 52 years | 4 | 26.6 | 2 | 13  |
| c.   | 53 – 56 years | 3 | 20  | 5 | 33  |
| d.   | 57 – 60 years | 1 | 6.6 | 2 | 13  |
| 2    | Education |                   |               |
| a.   | Non formal education | 3 | 20  | 2 | 13  |
| b.   | Primary school education | 4 | 26.6 | 7 | 46.6 |
| c.   | Secondary school education | 5 | 33  | 4 | 26.6 |
| d.   | Higher secondary school education / Diploma | 1 | 6.6 | 2 | 13  |
| e.   | Graduate | 2 | 13  | 1 | 6.6 |
|   | Occupation                                      |   |   |   |
|---|------------------------------------------------|---|---|---|
| 3 | a. Government employee                          | 1 | 6.6| 1 | 6.6 |
|   | b. Private employee                             | 0 | 0 | 1 | 6.6 |
|   | c. Self employee                                | 4 | 26.6| 3 | 20 |
|   | d. Daily wages                                  | 3 | 20| 3 | 20 |
|   | e. Home maker                                   | 7 | 46.6| 7 | 46.6 |

|   | Income per month (Family)                       |   |   |   |
|---|------------------------------------------------|---|---|---|
| 4 | a. <2000/month                                  | 0 | 0 | 0 | 0 |
|   | b. 2000 – 6000 / month                          | 2 | 13| 1 | 6.6 |
|   | c. 6001 – 10000 / month                         | 1 | 6.6| 6 | 40 |
|   | d. 10001 - 15000 / month                        | 6 | 40| 4 | 26.6 |
|   | e. 15001 – 20000 / month                        | 5 | 33| 1 | 6.6 |
|   | f. 20001 – 40000 / month                        | 1 | 6.6| 2 | 13 |
|   | g. >40000 / month                               | 0 | 0 | 1 | 6.6 |

|   | Family status                                   |   |   |   |
|---|------------------------------------------------|---|---|---|
| 5 | a. Nuclear family                               | 12| 80| 11 | 73 |
|   | b. Joint family                                 | 3 | 20| 3 | 20 |
|   | c. Extended family                              | 0 | 0 | 2 | 13 |

|   | Dietary pattern                                 |   |   |   |
|---|------------------------------------------------|---|---|---|
| 6 | a. Vegetarian                                   | 0 | 0 | 3 | 20 |
|   | b. Mixed diet                                   | 15| 100| 12 | 80 |

|   | Marital status                                  |   |   |   |
|---|------------------------------------------------|---|---|---|
| 7 | a. Unmarried                                    | 0 | 0 | 1 | 6.6 |
|   | b. Married                                      | 10| 66.6| 10 | 66.6 |
|   | c. Divorced                                     | 0 | 0 | 0 | 0 |
|   | d. Widowed                                      | 5 | 33 | 4 | 26.6 |

### II CLINICAL VARIABLES:

|   | Past history of menstruation                    |   |   |   |
|---|------------------------------------------------|---|---|---|
| 8 | a. Regular                                      | 12| 80| 13 | 86.6 |
|   | b. Irregular                                    | 3 | 20| 2 | 13.3 |

|   | Recent changes in menstruation                  |   |   |   |
|---|------------------------------------------------|---|---|---|
| 9 | a. Yes                                          | 11| 73| 12 | 80 |
|   | b. No                                           | 4 | 26.6| 3 | 20 |

|   | Type of recent changes in menstruation          |   |   |   |
|---|------------------------------------------------|---|---|---|
| 10| a. Irregular bleeding                           | 6 | 40| 9 | 60 |
|   | b. Excessive bleeding                            | 2 | 13| 1 | 6.6 |
|   | c. Scanty bleeding                               | 3 | 20| 1 | 6.6 |
|   | d. Painful bleeding                              | 3 | 20| 2 | 13 |
|   | e. Regular bleeding                              | 1 | 6.6| 2 | 13 |

|   | How often do menstruate                         |   |   |   |
|---|------------------------------------------------|---|---|---|
| 11| a. Every month                                  | 7 | 46.6| 4 | 26.6 |
|   | b. Every two months                             | 3 | 20| 7 | 46.6 |
|   | c. Every three months                           | 3 | 20| 2 | 13 |
|   | d. Occasional                                   | 3 | 20| 2 | 13 |

|   | How long periods last                           |   |   |   |
|---|------------------------------------------------|---|---|---|
| 12| a. One day                                      | 2 | 13| 1 | 6.6 |
|   | b. Two days                                     | 5 | 33| 4 | 26.6 |
|   | c. Three days                                   | 5 | 33| 6 | 40 |
|   | d. > Three days                                 | 4 | 26.6| 4 | 26.6 |

|   | Underwent any medical treatment for menopausal problems |   |   |   |
|---|--------------------------------------------------------|---|---|---|
| 13| a. Yes                                                  | 1 | 6.6| 4 | 26.6 |
|   | b. No                                                   | 14| 93.3| 11 | 73 |
Sexual activity

|   |   | Yes | % | No | % |
|---|---|-----|---|----|---|
| a. |   | 8   | 53.3 | 7  | 46.6 |
| b. |   | 9   | 60   | 6  | 40   |

Methods of contraception

|   |   | IUD | % | Oral pills | % | Physical contraceptive methods | % | Tubectomy | % | Vasectomy | % | Natural methods | % |
|---|---|-----|---|-------------|---|--------------------------------|---|-----------|---|-----------|---|----------------|---|
| a. |   | 1   | 6.6 | 0           | 0 | 1                              | 6.6 | 7         | 46.6 | 1         | 6.6 | 5               | 33 |
| b. |   | 2   | 13  | 1           | 6.6 | 0                               | 0   | 4         | 26.6 | 1         | 6.6 | 2               | 6.6 |
| c. |   | 6   | 53.3| 8           | 53.3| 1                              | 6.6 | 3         | 20   | 1         | 6.6 | 7               | 46.6 |
| d. |   | 7   | 46.6| 1           | 6.6 | 0                               | 0   | 1         | 6.6   | 0         | 0   | 1               | 6.6 |

Number of conception

|   |   | 1 - 2 | % | 3 - 4 | % | 5 - 6 | % | >6 | % |
|---|---|-------|---|-------|---|-------|---|----|---|
| a. |   | 6     | 40 | 8     | 53.3| 1     | 6.6| 0  | 0  |
| b. |   | 4     | 26.6| 7     | 66.6| 3     | 20 | 1  | 6.6 |
| c. |   | 11    | 73.3| 10    | 66.6| 0     | 0  | 1  | 6.6 |
| d. |   | 0     | 0  | 0     | 0   | 0     | 0  | 0  | 0  |

Age at menarche

|   |   | 10 - 12 years | % | 13 - 15 years | % | 16 - 18 years | % |
|---|---|---------------|---|--------------|---|--------------|---|
| a. |   | 3              | 20 | 10            | 66.6| 2             | 13.33 |
| b. |   | 10             | 66.6| 7             | 46.6| 1             | 6.6 |
| c. |   | 2              | 13.33| 1             | 6.6| 0             | 0  |

Weight gain

|   |   | Yes | % | No | % |
|---|---|-----|---|----|---|
| a. |   | 7   | 46.6| 9  | 60 |
| b. |   | 8   | 53.3| 6  | 40 |

|   | LEVEL OF MENOPAUSAL SYMPTOMS | Pre test | Post test |
|---|-----------------------------|----------|-----------|
|   |                             | n | % | n | % |
| <22 | 0 | 0 | 10 | 66.6 |
| 22 – 44 | 13 | 86.66 | 05 | 33.33 |
| >44 | 02 | 13.33 | 0 | 0 |

|   | LEVEL OF MENOPAUSAL SYMPTOMS | Pre test | Post test |
|---|-----------------------------|----------|-----------|
|   |                             | n | % | n | % |
| <22 | 04 | 26.66 | 5 | 33.33 |
| 22 – 44 | 11 | 73.33 | 10 | 66.6 |
| >44 | 0 | 0 | 0 | 0 |

|   | LEVEL OF MENOPAUSAL SYMPTOMS | Experimental Group | Control Group |
|---|-----------------------------|-----------------|--------------|
|   |                             | n | % | n | % |
| <22 | 10 | 66.66 | 5 | 33.33 |
| 22 – 44 | 05 | 33.33 | 10 | 66.6 |
| >44 | 0 | 0 | 0 | 0 |
Table 5: Shows that reliability of tool

| Checklist                        | r value |
|----------------------------------|---------|
| Sheldon perceived stress scale   | 0.9     |
| Modified Greene Climatic Scale   | 1.0     |
| WHO BMI Scale                    | 0.9     |

Table No 6: Comparison of post-test level of Perception between the experimental and control group

| Post test     | Mean | SD  | Unpaired t test |
|---------------|------|-----|-----------------|
| Experimental Group | 20.4 | 6.2 | t = 2.66        |
| Control Group  | 27.3 | 7.9 | P<0.001         |

This table showed that the senobi breathing exercise was comparatively reduce the menopaysal symptoms.

Discussion: -
The main focus of this study was to test the reliability and feasibility of the data collection tools and intervention and its acceptability and effectiveness in reducing the menopausal symptoms among women. The results indicated that tools used were highly reliable.

The pilot study also showed that the sampling technique, set inclusion and exclusion criteria were appropriate for sample selection. The comparison between the groups showed that there was a statistical significance. The overall plan was effective, feasible and practicable to be applied in the main study.

Conclusion: -
The pilot study on the effectiveness of senobi breathing exercise on reduction menopausal symptoms among women. The tool constructed for this study revealed that more reliable, feasible and appropriate to use for the samples in the main study.

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