EFFECT OF BENSON’S RELAXATION THERAPY ON STRESS AMONG POSTMENOPAUSAL WOMEN AT AVARAMPALAYAM, COIMBATORE

REG. No. 301220053

A Dissertation Submitted to
The Tamilnadu Dr. M. G. R. Medical University,
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In Partial Fulfillment of the Requirement for the
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2014
EFFECT OF BENSON’S RELAXATION THERAPY ON STRESS AMONG POSTMENOPAUSAL WOMEN AT AVARAMPALAYAM, COIMBATORE

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2014
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## CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>TITLE</th>
<th>PAGE NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>INTRODUCTION</td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Need for the Study</td>
<td>5</td>
</tr>
<tr>
<td>1.2</td>
<td>Statement of the Problem</td>
<td>8</td>
</tr>
<tr>
<td>1.3</td>
<td>Objectives</td>
<td>8</td>
</tr>
<tr>
<td>1.4</td>
<td>Operational Definitions</td>
<td>8</td>
</tr>
<tr>
<td>1.5</td>
<td>Conceptual Frame Work</td>
<td>9</td>
</tr>
<tr>
<td>1.6</td>
<td>Projected Outcome</td>
<td>12</td>
</tr>
<tr>
<td>II</td>
<td>LITERATURE REVIEW</td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Literature related to Stress among Postmenopausal Women</td>
<td>13</td>
</tr>
<tr>
<td>2.2</td>
<td>Literature related to Benson’s Relaxation Therapy</td>
<td>16</td>
</tr>
<tr>
<td>2.3</td>
<td>Literature related to Effect of Benson’s Relaxation Therapy on Stress among Postmenopausal Women</td>
<td>19</td>
</tr>
<tr>
<td>III</td>
<td>METHODOLOGY</td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Research Approach</td>
<td>22</td>
</tr>
<tr>
<td>3.2</td>
<td>Research Design</td>
<td>22</td>
</tr>
<tr>
<td>3.3</td>
<td>Setting</td>
<td>24</td>
</tr>
<tr>
<td>3.4</td>
<td>Population</td>
<td>24</td>
</tr>
<tr>
<td>3.5</td>
<td>Criteria for Sample Selection</td>
<td>24</td>
</tr>
<tr>
<td>3.6</td>
<td>Sampling</td>
<td>24</td>
</tr>
<tr>
<td>3.7</td>
<td>Variables of the Study</td>
<td>25</td>
</tr>
<tr>
<td>3.8</td>
<td>Materials</td>
<td>25</td>
</tr>
<tr>
<td>3.9</td>
<td>Procedure</td>
<td>26</td>
</tr>
<tr>
<td>CHAPTER</td>
<td>TITLE</td>
<td>PAGE NO</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>3.10</td>
<td>Hypothesis</td>
<td>28</td>
</tr>
<tr>
<td>3.11</td>
<td>Pilot Study</td>
<td>29</td>
</tr>
<tr>
<td>3.12</td>
<td>Main Study</td>
<td>29</td>
</tr>
<tr>
<td>3.13</td>
<td>Data Analysis and Interpretation</td>
<td>30</td>
</tr>
<tr>
<td>IV</td>
<td>DATA ANALYSIS AND INTERPRETATION</td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>Presentation of Demographic Variables</td>
<td>31</td>
</tr>
<tr>
<td>4.2</td>
<td>Assessment on Level of Stress among Postmenopausal Women Before and After Benson’s Relaxation Therapy</td>
<td>35</td>
</tr>
<tr>
<td>4.3.</td>
<td>Analysis on Level of Stress among Postmenopausal Women Before and After Benson’s Relaxation Therapy</td>
<td>37</td>
</tr>
<tr>
<td>4.4</td>
<td>Association between Level of Stress among Post Menopausal Women and selected Demographic Variables</td>
<td>39</td>
</tr>
<tr>
<td>V</td>
<td>RESULTS AND DISCUSSION</td>
<td></td>
</tr>
<tr>
<td>5.1</td>
<td>Findings related to Baseline Data</td>
<td>40</td>
</tr>
<tr>
<td>5.2</td>
<td>Assessment on Level of Stress among Postmenopausal Women Before Benson’s Relaxation Therapy</td>
<td>42</td>
</tr>
<tr>
<td>5.3</td>
<td>Administration of Benson’s Relaxation Therapy among Postmenopausal Women with Mild to Severe Level of Stress</td>
<td>43</td>
</tr>
<tr>
<td>5.4</td>
<td>Assessment on Level of Stress among Postmenopausal Women after imparting Benson’s Relaxation Therapy</td>
<td>43</td>
</tr>
<tr>
<td>5.5</td>
<td>Testing Hypothesis</td>
<td>44</td>
</tr>
<tr>
<td>CHAPTER</td>
<td>TITLE</td>
<td>PAGE NO</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>VI</td>
<td>SUMMARY AND CONCLUSION</td>
<td></td>
</tr>
<tr>
<td>6.1</td>
<td>Major Findings of the Study</td>
<td>45</td>
</tr>
<tr>
<td>6.2</td>
<td>Recommendations</td>
<td>46</td>
</tr>
<tr>
<td>6.3</td>
<td>Nursing Implications</td>
<td>47</td>
</tr>
<tr>
<td>6.4</td>
<td>Conclusion</td>
<td>48</td>
</tr>
</tbody>
</table>

REFERENCES

APPENDICES

ANNEXURES
<table>
<thead>
<tr>
<th>TABLE</th>
<th>TITLE</th>
<th>PAGE NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Distribution on Demographic Variables among Postmenopausal Women</td>
<td>32</td>
</tr>
<tr>
<td>4.2</td>
<td>Assessment on Level of Stress among Postmenopausal Women Before and After Benson’s Relaxation Therapy</td>
<td>35</td>
</tr>
<tr>
<td>4.3</td>
<td>Analysis on Level of Stress among Postmenopausal Women Before and After Benson’s Relaxation Therapy</td>
<td>37</td>
</tr>
<tr>
<td>4.4</td>
<td>Influence of selected Demographic Variables on the Level of Stress among Post Menopausal Women</td>
<td>39</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>TITLE</th>
<th>PAGE NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Conceptual Frame Work</td>
<td>11</td>
</tr>
<tr>
<td>3.1</td>
<td>Schematic Representation of Research Design</td>
<td>23</td>
</tr>
<tr>
<td>4.2</td>
<td>Assessment on Level of Stress among Postmenopausal Women Before and After Benson’s Relaxation Therapy</td>
<td>36</td>
</tr>
<tr>
<td>4.3</td>
<td>Mean Percentage of Stress among Post Menopausal Women Before and After the Benson's Relaxation Therapy</td>
<td>38</td>
</tr>
</tbody>
</table>
### LIST OF ANNEXURES

<table>
<thead>
<tr>
<th>ANNEXURE</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>t’ test for Dependent Variables</td>
</tr>
<tr>
<td>II</td>
<td>Karl Pearson’s Coefficient of Correlation</td>
</tr>
</tbody>
</table>
## LIST OF APPENDICES

<table>
<thead>
<tr>
<th>APPENDICES</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Permission Letter for Conducting Study</td>
</tr>
<tr>
<td>II</td>
<td>Letter Requesting to Validate the Research Tool and Content</td>
</tr>
<tr>
<td>III</td>
<td>Materials for Data Collection</td>
</tr>
<tr>
<td>IV</td>
<td>Certificate of Tamil Editing</td>
</tr>
<tr>
<td>V</td>
<td>Certificate of English Editing</td>
</tr>
</tbody>
</table>
LEVEL OF STRESS

EFFECT OF BENSON’S RELAXATION THERAPY ON STRESS AMONG POSTMENOPAUSAL WOMEN AT AVARAMPALAYAM, COIMBATORE

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Effect of Benson’s Relaxation Therapy on Stress Among Postmenopausal Women at Avarampilayam, Coimbatore

A female child born into the world take over many roles in her life, as a daughter, a young woman, a partner, child bearer and child rearer and finally old age, where an array of physiological and psychological experiences add the value to one’s life. The “mysteries” of a woman’s body – puberty, menstruation, pregnancy, lactation and menopause – are seen as times of power and growth. The change of life, the end of fertility, the beginning of freedom, whatever people call it, menopause is a unique and personal experience for every woman. The joy of menopause is the world’s best-kept secret and in order to have the joy the women should have the positive factor in her life to pass beyond the monsters that guard its gate.

Natural menopause is a normal event in a woman's life. It occurs when the ovaries naturally decrease their production of sex hormones, oestrogen / progesterone and no menstrual period. In this process it combines physical, psychological and emotional transitions. The occurrence of menopause is different for each woman. In normal women, menopause occurs somewhere between 45 to 50 years of age. During menopausal period women experience both physiological as well as psychological changes. Physiological changes include hot flushes, joint pain, irritable bowel movements, weight gain and hair loss. Psychological changes include anxiety, depression and stress. Women experiences stress in many ways and can be external and internal. It can cause changes in body images, attitude towards ageing and also leads to mood changes.

Yoga, meditation, progressive muscle relaxation, physical exercises are the methods used to reduce menopausal stress. According to World Health Organization
all the women should practice yoga, relaxation techniques in order to maintain their health and to reduce stress. Most of the women experiences menopausal symptoms during the midlife with psychological, vasomotor, and somatic symptoms. Beneficial effects of exercises will reduce the anxiety, stress, and depression that women may experience (Serrano, Sternlicht, 2007).

Yoga, breath-based and certain mind body therapies are beneficial in alleviating the specific menopausal symptoms and thereby the stress (Innes, Selfe, 2010). Both basic and clinical research indicate that cultivating a more mindful way of being is associated with less emotional distress, more positive states of mind, and better quality of life. In addition, mindfulness practice can influence the brain, the autonomic nervous system, stress hormones, the immune system, and health behaviours, including eating, sleeping and substance use, in salutary ways (Greeson, 2008). Benson relaxation technique, introduced by Dr. Herbert Benson, is a form of meditation that is mainly carried out by muscle relaxation followed by focused breathing and there by reduces stress. A wide variety of diverse diseases seems to be amenable to the therapeutic effect of Benson’s relaxation therapy (Lehrer et al., 2007).

Nurses play a vital role in maintaining women's health and to make them aware about menopause and stress related to it. Menopausal stress is usually mild to moderate levels. Some women may go through severe level of stress. The nurse should identify the needs of the postmenopausal women, demonstrate and advise them to practice some sort of relaxation techniques, yoga or exercise to practice in daily life in order to promote physical and psychological wellbeing.
Having a massage is no better at beating stress than home relaxation techniques (Nursing times, 2010). Deep and brief methods exist in which brief methods include self-control relaxation, paced respiration, and deep breathing. Simple relaxation therapies such as deep breathing, paced breathing, and many other techniques carried out by the nurses showed significant reduction of stress.

1.1. NEED FOR THE STUDY

Menopause is a universal and irreversible part of the overall ageing process involving a women's reproductive system, after which she no longer menstruates. Hormonal changes can produce feelings of stress in women of menopausal age. While most menopausal women do not necessarily develop a serious clinical stress disorder, these conditions are not uncommon. Women should have a clear knowledge about menopause and psychological as well as physical changes. Understanding these aspects of menopause can help women to determine the best way to manage and treat changes during menopause.

According to National health survey conducted in India, 75 percent of women experiences stress during menopausal period. In the survey it reports that natural menopause may occur at 45–55 years in 83 percent of women. Late menopause occurs after the age of 55 in 5 percent of women. Early menopause between 40 and 45 years occurs in 5 percent of women. In a survey conducted in India 77 percent of menopausal women under stress says anxiety or disorders such as insomnia or depression hamper their marital relationships. It also reports that the incidence of early and natural menopause is increasing than surgical menopause.
A study was conducted to identify the prevalence of stress associated with post-menopausal period. Samples are selected between the age group of 45-55 years. One-hundred-sixteen women aged 45 – 55 years were recruited through women’s health centers and community organizations. They completed a short questionnaire asking about stress, psychological distress (i.e. anxiety, depression), Emotional Intelligence (EI), attitude to menopause, menopause symptoms and physical health. Fifty-six percent reported post-menopausal stress. Women with high Emotional Intelligence hold more positive attitudes to menopause and experience less severe stress, psychological distress and menopause symptoms and had better physical health. These results suggest that women who expect menopause to be negative or were highly stressed or distressed are more likely to have a negative menopause experience (Bauld, Brown, 2009).

The Indian Menopause Society (IMS) Consensus Statement says Indian women living in rural areas (72% of the population) and urban areas both cite having urogenital symptoms and general body aches and pains. Interestingly, women in urban areas complain more about hot flashes, mood swings, psychological problems, and intercourse challenges. According to IMS, the average age of menopause in India is 47.5 years and premature menopause is on rise due to combination of environmental and genetic factors. The study conducted among working menopausal women evaluated for psychological, somatic, and urogenital symptoms. The average age at which menopause set in, in the cohort was found to be 48.7 ± 2.3 years (46.4–51 years). The study indicates that age, level of education and working or non-working status may also contribute to significant variations in menopausal symptoms (Kakkar et.al., 2007).
Menopause concludes a woman’s ability to reproduce, and some women find advancing age, altered roles, and these physiologic changes to be overwhelming events that may precipitate depression and anxiety (Kessenich, 2007). There is a significant association between the physiological and psychological changes and despite of the discomforts experienced from those symptoms by majority of the women, only 10% had apparently sought the medical treatment. The study specifies the necessity of a multidisciplinary approach to the problems of menopause (Vinod, Saxena, 1981). Menopause affects the health of the women not only physically, psychologically and socially. They are likely to suffer more from the stigmatization and attitudes of ageing after the reproductive phase. In addition, when they enter into this menopause phase they experience low social status and decreasing sexual desire due to the advancing age. Moreover, women’s physical and mental condition during this stage of life will have a significant influence on her later years of life (David & Norman, 2000).

Benson’s relaxation techniques by Dr. Herbert Benson, Harvard professor and cardiologist, have a positive effect on reducing the level of stress. The technique involves relaxation of the muscles and paced breathing for 10-20 minutes. The technique can be mastered with just few weeks of practice and comprises of seven easy steps. It suggested that Benson relaxation technique is a powerful technique that can help post-menopausal women in reducing stress. Dr. Herbert Benson, author of “Wellness Book” describes how relaxation response has reduced the menopausal symptoms and stress. The term “relaxation response”, in the early 1970s to describe the physiologic reaction that is the opposite of the stress response. The relaxation response is proposed to involve decreased arousal of the autonomic nervous system
and central nervous system as well as increased parasympathetic activity characterized by lowered musculoskeletal and cardiovascular tone and altered neuroendocrine function.

With the support of above literatures and by understanding the benefits of Benson’s relaxation therapy in reducing the stress among postmenopausal women, the researcher is interested to teach this relaxation technique to the postmenopausal women which is beneficial in alleviating the specific menopausal symptoms and thereby the stress.

1.2. STATEMENT OF THE PROBLEM

EFFECT OF BENSON’S RELAXATION THERAPY ON STRESS AMONG POSTMENOPAUSAL WOMEN AT AVARAMPALAYAM, COIMBATORE.

1.3. OBJECTIVES

1.3.1. Assess the level of stress among postmenopausal women.

1.3.2. Assess the level of stress after the implementation of Benson’s relaxation therapy among postmenopausal women.

1.4. OPERATIONAL DEFINITION

1.4.1. Effect

It refers to the significant change in the level of stress through the administration of Benson’s relaxation therapy among postmenopausal women.

1.4.2. Benson’s relaxation therapy
Benson’s Relaxation Therapy

It refers to a form of meditation which focuses on complete relaxation of muscles followed by paced breathing. It is done for 20 minutes once daily for 10 days.

1.4.3. Stress

It refers to the quantitative level of symptoms or discomforts experienced by the postmenopausal woman which is obtained by using the modified perceived stress scale.

1.4.4. Postmenopausal women

It refers to the women whose menstruation has ceased either naturally or surgically and residing at Avarampalayam, Coimbatore.

1.5. CONCEPTUAL FRAMEWORK

Conceptual framework of this study is adopted from Helping Art in Clinical Nursing Theory by Ernestine Wiedenbach in 1964. The theory focuses on three main concepts such as identification, ministration and validation. According to Wiedenbach, nursing practice consist of identifying a client’s need for help, ministering the needed help, and validating that the need was met.

1.5.1. Identification

Identification involves viewing a client as an individual with unique experiences and understanding the client’s perception of the condition. In this study, the symptoms or the discomfort experienced by the postmenopausal women and their perception of stress is identified using modified perceived stress scale.
1.5.2. Ministration

Ministration refers to the provision of needed help. The discomforts or incapabilities are identified and resolved. In this study, the ministration refers to implementation of Benson’s relaxation therapy by which stress experienced by the postmenopausal women gets reduced.

1.5.3. Validation

Validation refers to the collection of evidence that shows the client’s need have been met and the functional ability has been restored as a result of ministration. Here the validation refers to the assessment of the stress experienced by the postmenopausal women after the administration of Benson’s relaxation therapy.
Fig 1.1. CONCEPTUAL FRAMEWORK BASED ON WIEDENBACH'S HELPING ART IN CLINICAL NURSING THEORY BY ERNESTINE WIEDENBACH (1964)

**IDENTIFICATION**
- Selection of postmenopausal women based on inclusion criteria.
- Collection of demographic data.
- Assessment of stress among postmenopausal women using modified perceived stress scale.

**MINISTRATION**
- Administration of Benson’s relaxation therapy for 20 minutes once daily for ten days. It includes complete relaxation of muscles followed by paced breathing.

**VALIDATION**
- Assessment of stress among the postmenopausal women after the implementation of Benson’s relaxation therapy using modified perceived stress scale.

Source: Westly (1964)
1.6. PROJECTED OUTCOME

Benson’s relaxation therapy will have a positive effect on post-menopausal stress.
REVIEW OF LITERATURE

Literature review, which serves as an essential component in the research, helps for the understanding of the research problem and its aspects in depth in various ways. It provides the researcher with an opportunity to evaluate many different approaches to the problem.

2.1. Literature related to stress among postmenopausal women.

2.2. Literature related to Benson’s relaxation therapy.

2.3. Literature related to effect of Benson’s relaxation therapy on stress among postmenopausal women.

2.1. LITERATURE RELATED TO STRESS AMONG POSTMENOPAUSAL WOMEN

Menopause which really marks the end of a woman’s period of natural fertility, affects the health of the women not only physically, also psychologically, and socially. The somatic, psychological and urogenital symptoms commonly associated with menopause contribute to a greater amount of stress in the women. Their health will be influenced by many factors such as career, changes in the home life, dietary pattern, physical activity, economic status, her society and the environment. The normal process of ageing and these changes together with hormonal changes in the reproductive system affect the welfare of women.

Punyahotra et al., (1997) conducted a cross-sectional survey of 286 women aged between 40 and 59 years to describe their experience of symptoms and attitudes to menopause and to examine the relationship between symptoms, attitudes to menopause, socio-demographic variables and menopausal status. Mean age at
menopause was 50.13 (SD 4.67) years. Fifty one per cent of women were pre-menopausal, 9 per cent were peri-menopausal and 40 per cent were post-menopausal. The symptoms which showed strongest association (P < 0.001) with menopausal status were joint aches, hot flushes, depression, stress and insomnia. Women most likely to experience symptoms were older than 50 years of age, had more children, peri-or post-menopausal, of little education, house wives and reported their health was not so good and required treatment (P < 0.001).

Kamala et al., (2005) made an attempt to determine median age at menopause and frequency of various related clinical symptoms among educated women (n = 539, age: 40-50 years). Among 539 women, 256 (47.50%) were classified as post-menopausal and 283 women (52.50%) were perimenopausal. Median age at menopause was 47.54 ± 2.31 years. The most common clinical symptoms associated with menopause were hot flushes and night sweats (55.08%), insomnia (53.12%), headache and body aches (38.28%), fatigue (42.18%), irritability (35.15%), perspiration (34.76%), palpitation (22.26%), short breath (20.31%), nervous tension (10.56%) and depression (8.20%).

Obermeyer (2002) conducted a study with a representative sample of 300 women aged 45-55 living in the capital city of Rabat were interviewed about their current menopausal symptoms. Women complained most frequently about fatigue (61%), hot flushes (61%), headaches (57%), joint pain (54%), anxiety (44%) and irritability (42%). Peri and post-menopausal women were significantly more likely than pre-menopausal women to report five or more symptoms. Menopausal status was associated with hot flushes, stress, dizziness, fatigue and nervousness.
Manisha and Girish (2007) conducted a study to compare the mental health status during menopause and post-menopause among middle-aged (45-55 years) working women. The number of subjects selected for study was 50. An interview schedule with General Health Questionnaire and Psycho Social Stress Scale questionnaire was simultaneously administered to the selected subjects. The observed mean scores of post-menopausal group were comparatively higher than those in menopausal group. The study observed low to moderate level of anxiety, depression, social dysfunction and somatic symptoms as well as psycho-social stress in middle-aged working women.

Rahman et al., (2010) conducted a study to assess the menopausal symptoms using modified Menopause Rating Scale among middle aged women (40-65 years). A number of 356 women were interviewed to document somatic, psychological and urogenital symptoms commonly associated with menopause. The mean age of menopause was 51.3 years (range 47 - 56 years). The most prevalent symptoms reported were joint and muscular discomfort (80.1%); physical and mental exhaustion (67.1%); and sleeping problems (52.2%).

Priya et al., (2008) conducted a study to establish the age at onset of natural menopause and the prevalence of symptoms and to identify any socio demographic, physical, or other factors that may influence the onset of menopause among women in the Haridwar district of Uttarakhand, a state in Northern India. Women in the age group of 30 to 65 years were interviewed using a questionnaire that has a four-point scale. Participants (N = 129) were divided into three categories: pre-menopause, early post-menopause (1-5 years after last menstrual cycle), and late post-menopause (>5 years after last menstrual cycle). Mean +/- SD age at menopause was 45.02 +/- 4.35
years, and age at menopause computed by probit analysis was 46.82 years. An increase in the percentage of occurrence and severity of symptoms with transition to menopause was observed. The most prevalent symptom was muscle and joint pain (55.81%), followed by feeling tired or lack of energy (51.19%), eye problems (49.61%), headache (43.41%), and feeling unhappy or stressed out or depressed (36.43%).

2.2. LITERATURE RELATED TO BENSON’S RELAXATION THERAPY

The Benson’s relaxation therapy, also termed as the “relaxation response”, provide the physiologic reaction that is the opposite of the stress response. Studies suggest that relaxation techniques may be beneficial in patients with anxiety, stress, depression, pain and other symptoms. The psychotherapeutic effects of the relaxation response have been hypothesized to be derived from a sense of “mental calmness” states the effectiveness of the therapy in beating the stress (Rachman, 1968).

Stein and Smith (1989) conducted a study on short term stress management programe with seven acutely depressed in-patients. Various techniques in muscle relaxation and biofeedback were used in a six session programe designed to decrease anxiety and to cope more effectively with stress which also include the Benson’s relaxation therapy. The State - Anxiety Scale was administered before and after the intervention to assess the anxiety level. Results showed that there was a significant reduction in anxiety at the 0.05 level using a correlated t-test. All the seven patients (100%) identified the Benson’s relaxation therapy as the most helpful stress management technique.
Deborah et al., (2007) conducted a study on trial of relaxation training to reduce hot flashes in women with primary breast cancer. A randomized controlled trial of 150 women with primary breast cancer was assessed and all experienced hot flashes. The intervention group received a single relaxation training session and was instructed to use practice tapes on a daily basis at home for one month; the control group received no intervention. The incidence and severity of hot flashes, as recorded by diaries, each significantly declined over one month ($P < 0.001$ and $P = 0.01$, respectively), compared with the control group. Distress caused by flashes also significantly declined in the treatment group over one month ($P = 0.01$), compared with the control group. There were no significant differences between the treatment group and the control group at three months and no changes in anxiety or quality-of-life measures.

Kiyani et al., (2002) conducted a study on the effect of Benson’s Relaxation Technique on hemodynamic parameters and stress at the time of discharge in acute myocardial infarction patients in Tehran. The research was a semi-experimental study with the aim to study the effect of Benson’s Relaxation Technique on hemodynamic parameters and discharge time stress in acute myocardial infarction patients hospitalized in the CCU ward, Shahid Rajaei Heart Hospital, Tehran. A sample volume of 60 patients with acute myocardial infarction were studied in two groups; case and control groups. After providing for necessary readiness on the first day, Benson’s relaxation tape was recorded with the researcher’s voice. On the second day, it was given to the patients with a headphone for relaxation at due hours and their vital signs were assessed four times a day for a period of nine days. Results reflected that in the two groups of case and control, hemodynamic parameters (radial pulse, apical
pulse, blood pressure, mean arterial pressure, pain intensity, and ventricular extra systole, premature ventricular contractions in a minute) showed meaningful difference from statistical point of view (p<0.05). But, in general, mean decrease in the aforesaid parameters was more in the case group as compared to the control group. Also, the amount of stress mark for discharge time of patients with acute myocardial infarction showed a decrease in case group in comparison with the control group, (p<0.001). It is therefore suggested that Benson’s Relaxation Technique should be considered in the care plan of patients for betterment of hemodynamic parameters, decrease stress attenuation for the patients with acute myocardial infarction who are hospitalized in the cardiac care unit.

Nesami et al., (2006) conducted a study on the effect of Benson’s Relaxation Technique on rheumatoid arthritis patients. A sample of 50 consecutive matched patients were selected and allocated into two groups, either an experimental or a control group. Patients in the experimental group received Benson’s Relaxation Technique (BRT) combined with medication and patients in the control group were given only medication. Clinical symptoms, laboratory findings, anxiety, depression and feeling of well-being were measured before and after 8 weeks of intervention to evaluate the effect of Benson’s Relaxation Technique. There was a significant difference between the two groups in anxiety, depression and feeling of well-being and also indicated decline in disease progress.
2.3. LITERATURE RELATED TO THE EFFECT OF BENSON’S RELAXATION THERAPY ON STRESS AMONG POSTMENOPAUSAL WOMEN

Shaver (1994) conducted a study on the complementary therapies beyond hormonal therapies in menopause. The study briefly outlines salient interaction between neurohormonal mechanism of stress responses and reproduction known to be affected by exercise, dietary intake and cognitive strategies, as a basis for advocating research that tests these therapies as alternatives or complements to drug therapies for menopausal symptoms. Reduction in hot flashes and positive mood and sleep changes are evident with such therapies and behavioral therapies are needed for stress reduction in menopausal women.

Raven (2012) conducted a study on reduction of hot flashes with sixty women and out of sixty, thirty three of the therapy group practiced relaxation response 15 minutes twice a day for a week and then gradually by decreasing the time. At the beginning, all the participants experienced ten hot flashes a day. Towards the end of the study, there was a significant decrease in the number of hot flashes as four per day.

Irvin (1996) conducted a randomized, controlled, prospective study on the efficacy of elicitation of the relaxation response for the treatment of menopausal hot flashes and concurrent psychological symptoms. The volunteer sample consisted of 33 women, between the ages of 44 and 66 years. The first 3 weeks of baseline measurement of frequency and intensity of hot flash symptoms, and the pre intervention psychological scores were compared with the final 3 weeks measurement
of frequency and intensity and the post intervention psychological scores for symptomatic improvement. The relaxation response group demonstrated significant reductions in hot flash intensity (p<0.05), tension-anxiety (p<0.05) and depression (p<0.05). The reading group demonstrated significant reductions in trait-anxiety (p<0.05) and confusion (p < 0.05). There were no significant changes for the control group. Daily elicitations of the relaxation response lead to significant reduction in hot flash intensity and the concurrent psychological symptoms of tension-anxiety and depression.

Melin et al., (1997) conducted a study on treatment of menopausal symptoms with variety of relaxation therapies including Benson’s relaxation therapy. Out of eighteen clinical trials, 13 were non-randomized controlled trials (n=777) and 5 were uncontrolled trials (n=105). The results suggested that the mind-body therapies may be beneficial for alleviating the menopausal symptoms including stress that the women experiences.

Lotta et al., (1994) conducted a study on effect of group therapy with applied relaxation which includes Benson’s relaxation, on vasomotor symptoms and health-related quality of life in postmenopausal women. A sample of 60 healthy postmenopausal women were selected and randomized to experimental and control groups. Salivary cortisol was measured three times during a 6-month period. Hot flashes were recorded in self-registered diaries and health-related quality of life was assessed with the Women’s Health Questionnaire. Health-related quality of life for vasomotor symptoms, sleep, stress, anxiety and memory improved significantly on the 12th week measurement in the applied relaxation group compared with the control group. Salivary cortisol concentration was lowered markedly in the applied relaxation
group on a single measurement but was otherwise mainly stable in both groups. Applied relaxation can be used to treat vasomotor symptoms in healthy postmenopausal women.
METHODOLOGY

The present study was designed to evaluate the effect of Benson’s Relaxation Therapy on stress among postmenopausal women at Avarampalyam, Coimbatore. The present chapter enumerates the overall plan of research process and deals with the description of the research approach, design, setting, population, criteria for sample selection, sampling technique, development and description of tools, procedure for data collection and plan for data analysis.

3.1. RESEARCH APPROACH

The research approach adopted for the study was quantitative, quasi experimental approach.

3.2. RESEARCH DESIGN

Quasi experimental one group pretest and posttest design was adopted for the present study to evaluate the effect of Benson’s Relaxation Therapy on stress among postmenopausal women at Avarampalyam, Coimbatore.
Fig. 3.1.

Schematic Representation of Research Design

1. Quantitative approach
2. Setting: Avarampalayam area, Coimbatore.
3. Target population: Postmenopausal women
4. Accessible population: Postmenopausal women with stress
5. Purposive sampling technique
6. 30 samples of postmenopausal women with mild to severe level of stress
7. Pretest with modified perceived stress scale
8. Benson’s relaxation therapy
9. Post test
3.3. SETTING

The study was conducted at Avarampalayam, an urban area in Coimbatore.

3.4. POPULATION

The population of the present study was the postmenopausal women at Avarampalayam, Coimbatore. The total population of the area is 26,916, of which 13,563 are males and 13,353 are females.

3.5. CRITERIA FOR SAMPLE SELECTION

The samples were selected based on the following inclusion criteria.

Inclusion Criteria

1. Women who are within the age group of 40 - 60 years.

Exclusion Criteria

1. Women who are having respiratory diseases.
2. Women who are under hormonal replacement therapy.

3.6. SAMPLING

The total population of the area is 26,916, of which 13,563 are males and 13,353 are females. The surveyed population of postmenopausal women in three streets of Avarampalayam was 47, who are within the age group of 40-60 years. The level of stress was obtained using the Modified Perceived Stress Scale. Out of 47 postmenopausal women, 30 samples were having mild to severe level of stress and were selected for the intervention.
3.7. VARIABLES OF THE STUDY

The independent variable of the study is Benson’s relaxation therapy and the dependent variable is level of stress.

3.8. MATERIALS

The tool consists of three sections

Section 1: Demographic data

Section 2: Modified perceived stress scale

Section 3: Benson’s Relaxation Therapy

3.8.1. Demographic data: This includes age, education, occupation, income, religion, marital status, age at menopause, nature of menopause and general health status.

3.8.2. The Modified Perceived Stress Scale: The Perceived Stress Scale developed in 1988, was modified to form an appropriate tool to assess the stress among postmenopausal women. The tool consists of 15 items which includes the symptoms that the women may experience during the postmenopausal period.

**Scoring:** The Perceived Stress scale is a 4 point scale with a total score of 60. The modified scale is a five point scale with a total score of 75. The points will be allocated according to the level of stress experienced, and it ranges from 1-5 in each item. Item 12, 13, and 14 will be given reverse scoring. The total score is calculated by adding the scores of each item.
Score interpretation

<table>
<thead>
<tr>
<th>Stress Level</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>No stress</td>
<td>0</td>
</tr>
<tr>
<td>Mild</td>
<td>1-25</td>
</tr>
<tr>
<td>Moderate</td>
<td>26-50</td>
</tr>
<tr>
<td>Severe</td>
<td>51-75</td>
</tr>
</tbody>
</table>

3.8.3. Benson’s Relaxation Therapy: Benson’s Relaxation Therapy [BRT] is a relaxation technique introduced by Dr. Herbert Benson, is a form of meditation that is mainly carried out by muscle relaxation from head to toe followed by focused breathing. The therapy is done for 20 minutes once daily for 10 days.

PROCEDURE

The women are instructed to perform as stated below.

1. Sit comfortably.
2. Do not open your eyes until being told to open.
3. Do not shake your arms or legs.
4. Breathe easily and naturally.
5. Concentrate on your breathing.
6. Do not deviate your concentration to anywhere else.
7. While breathing out, say ‘peace’.

Step I. Now, your concentration is on your head.

The muscles of the head have no pain or tension.
You are aware of it.

**Step II.** Now, your concentration is on your face.

The muscles of the forehead have no pain or tension.

You are aware of it.

The muscles of the eyes have no pain or tension.

You are aware of it.

The muscles of the cheeks, lips and jaws have no pain or tension.

You are aware of it.

**Step III.** Now, your concentration is on your neck.

The muscles of the neck have no pain or tension.

You are aware of it.

**Step IV.** Now, your concentration is on your shoulders.

The muscles of the shoulders have no pain or tension.

You are aware of it.

**Step V.** Now, your concentration is on your hands.

The muscles of the hands have no pain or tension.
You are aware of it.

**Step VI.** Now, your concentration is on your chest.

The muscles of the chest have no pain or tension.

You are aware of it.

**Step VII.** Now, your concentration is on your abdominal muscles.

The muscles of the abdomen have no pain or tension.

You are aware of it.

**Step VIII.** Now, your concentration is on your legs.

The muscles of the legs have no pain or tension.

You are aware of it.

A. Your mind is free.

B. Your mind is not tensed.

C. You are able to feel the freedom of your mind. (3 times repeated)

D. Slowly open your eyes and relax for 5 minutes.

**3.9. HYPOTHESIS**

**H₁:** There is a significant difference between the stress scores before and after administering Benson’s relaxation therapy among post-menopausal women.
3.10. PILOT STUDY

The pilot study was conducted to check the feasibility and practicability of the tool. The study was conducted at Avarampalayam, Coimbatore. The duration of data collection was for a period of 10 days. Purposive sample of 8 postmenopausal women with mild to severe level of stress were selected for the study. The Modified Perceived Stress Scale was administered to assess the level of stress. Benson’s relaxation therapy was administered 20 minutes once daily for each individual. On the tenth day, effect of Benson’s relaxation therapy on stress level was reassessed using the same scale. Paired ‘t’ test was used to find the effect of Benson’s relaxation therapy on stress among post menopausal women. The calculated ‘t’ value was greater than the table value. The original tool is a 4 point scale with total score of 60. The tool was modified as 5 point scale with a total score of 75 since all the postmenopausal women including widows were not able to indicate the scoring for the fifteenth item of the tool, which states about sexual activity of the postmenopausal women.

3.11. MAIN STUDY

The main study was conducted for a period of 30 days. During the period of data collection, 30 samples were drawn purposively. The researcher developed rapport with the postmenopausal women and explained the benefits of the intervention. Followed by this, verbal consent was obtained. The pretest was done on the first day of the therapy. Using Modified Perceived Stress scale the stress level of each woman was identified. Benson’s Relaxation Therapy was administered for the postmenopausal women with mild to severe level of stress. The therapy was
administered for 20 minutes duration daily for 10 sessions. After the intervention, the level of stress was reassessed with same scale on the tenth day for the selected samples.

3.12. DATA ANALYSIS AND INTERPRETATION

Descriptive and inferential statistical techniques were employed to analyze the data. A frequency table was formulated for all significant information. Paired ‘t’ test was used to find the significance of intervention.
DATA ANALYSIS AND INTERPRETATION

The participants of the study were postmenopausal women who are residing at Avarampalayam, an urban area in Coimbatore. A total number of thirty postmenopausal women were selected for the study. The intervention selected for the study was the Benson’s Relaxation Therapy. The level of stress among the postmenopausal women was assessed before and after the intervention.

SECTION I

4.1. PRESENTATION OF DEMOGRAPHIC VARIABLES

The following baseline data are distributed and presented in the form of tables and graphs. The demographic variables are age, education, occupation, income, religion, marital status, age at menopause, nature of menopause and general health status.
Table 4. 1
Distribution of Demographic variables among Postmenopausal women

<table>
<thead>
<tr>
<th>Demographic data</th>
<th>No. of Participants</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age in years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40- 50</td>
<td>7</td>
<td>23</td>
</tr>
<tr>
<td>51- 60</td>
<td>23</td>
<td>77</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Primary</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>Secondary</td>
<td>16</td>
<td>53</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>28</td>
<td>93</td>
</tr>
<tr>
<td>Employed</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Income (in Rs.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 10,000</td>
<td>24</td>
<td>80</td>
</tr>
<tr>
<td>10,000-20,000</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Above 20,000</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hindu</td>
<td>28</td>
<td>93</td>
</tr>
<tr>
<td>Christian</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>22</td>
<td>73</td>
</tr>
<tr>
<td>Widow</td>
<td>8</td>
<td>27</td>
</tr>
</tbody>
</table>
### Demographic data

<table>
<thead>
<tr>
<th>Demographic data</th>
<th>No. of Participants</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age at menopause (in years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40-50</td>
<td>29</td>
<td>97</td>
</tr>
<tr>
<td>51-60</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Nature of menopause</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural</td>
<td>19</td>
<td>63</td>
</tr>
<tr>
<td>Surgical</td>
<td>11</td>
<td>37</td>
</tr>
<tr>
<td><strong>General health status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint pain</td>
<td>11</td>
<td>37</td>
</tr>
<tr>
<td>Hypertension</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Joint pain with hypertension</td>
<td>7</td>
<td>24</td>
</tr>
<tr>
<td>Joint pain with diabetes mellitus</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Joint pain, hypertension and diabetes mellitus</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Hypertension with diabetes mellitus</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
<td>13</td>
</tr>
</tbody>
</table>

Table 4.1. denotes the distribution of demographic variables. The age distribution reveals that 77% of postmenopausal women were between 51-60 years and 23% between 40-50 years. 53% of postmenopausal women had secondary level education, 40% had primary level education and remaining 7% were illiterate. 93% of women were unemployed and 7% were employed. The distribution on income earned by the post menopausal women shows that, majority (80%) were earning below Rs. 10,000, 13% were earning between Rs. 10,000 to Rs. 20,000 and 7% had
more than Rs. 20,000 as their income. Distribution on religion depicts that majority (93%) were Hindus and 7% were Christians. Among 30 married women, 27% were widows.

The age at menopause reveals that 97% attained menopause between 40-50 years and 3% attained menopause between 51-60 years. The nature of menopause reveals that 63% attained natural menopause and 37% attained surgical menopause. The general health status reveals that 37% had joint pain, 3% had hypertension, 7% had diabetes mellitus, 24% had joint pain with hypertension, 10% had joint pain with diabetes mellitus, 3% had joint pain, hypertension and diabetes mellitus, 3% had hypertension with diabetes mellitus and 13% had other complaints such as fatigue, muscle cramps and hyperthyroidism.
SECTION II

4.2. ASSESSMENT ON LEVEL OF STRESS AMONG POSTMENOPAUSAL WOMEN BEFORE AND AFTER BENSON’S RELAXATION THERAPY

This section includes the level of stress among the postmenopausal women before and after the Benson’s Relaxation Therapy using Modified Perceived Stress Scale.

Table 4.2
Assessment on Level of Stress among Postmenopausal Women Before and After Benson’s Relaxation Therapy (N=30)

<table>
<thead>
<tr>
<th>Level of stress</th>
<th>Before therapy</th>
<th>After therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of Participants</td>
<td>Percentage (%)</td>
</tr>
<tr>
<td>Mild (1 – 25)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Moderate (26 – 50)</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

On assessment it shows that all the participants had moderate level of stress, before Benson’s relaxation therapy. After the intervention it was pointed that, 13% of the women had mild level of stress while 87% had moderate level of stress, with a change in the stress scores.
Fig. 4.2

Assessment on Level of Stress among Postmenopausal Women Before and After Benson’s Relaxation Therapy
SECTION III

4.3. ANALYSIS ON LEVEL OF STRESS AMONG POSTMENOPAUSAL WOMEN BEFORE AND AFTER BENSON’S RELAXATION THERAPY

Paired ‘t’ test is a statistical hypothesis test, used in the present study to compare the level of stress among the postmenopausal women before and after the Benson’s relaxation therapy.

Table 4.3.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Mean %</th>
<th>Standard deviation</th>
<th>Mean difference</th>
<th>‘t’ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>40.63</td>
<td>54.17</td>
<td>4.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posttest</td>
<td>30.56</td>
<td>40.74</td>
<td>4.835</td>
<td>10.06</td>
<td>13.819**</td>
</tr>
</tbody>
</table>

**Significant at 0.01 level

The above table reveals that the mean difference between the scores of level of stress before and after the intervention among the postmenopausal women was 10.06 which depict a change in the stress scores. The calculated ‘t’ value, 13.819 is found to be significant at 0.01 level. Hence the hypothesis “there is a significant difference between the stress scores before and after administering Benson’s relaxation therapy among postmenopausal women” is accepted. Benson’s relaxation therapy is found to be effective in reducing the stress among the postmenopausal women.
Mean percentage of Stress among Postmenopausal Women Before and After Benson's Relaxation Therapy

Fig. 4.3
SECTION – IV

4.4. ASSOCIATION BETWEEN LEVEL OF STRESS AMONG POST MENOPAUSAL WOMEN AND SELECTED DEMOGRAPHIC VARIABLES

Correlation is the measure of relationship between two or more variables. Karl Pearson’s co-efficient of correlation was used in the present study to identify the influence of selected demographic variables on the level of stress among postmenopausal women.

Table 4.4

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>‘r’ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age in years</td>
<td>0.196</td>
</tr>
<tr>
<td>Education</td>
<td>-0.094</td>
</tr>
<tr>
<td>Income</td>
<td>0.135</td>
</tr>
<tr>
<td>Age at menopause</td>
<td>0.285</td>
</tr>
</tbody>
</table>

The above table shows the influence of selected demographic variables on the level of stress among the postmenopausal women. There exists a positive correlation between age in years, income, age at menopause and level of stress. There is a negative correlation between education and level of stress among the postmenopausal women.
RESULTS AND DISCUSSION

This chapter deals with the interpretation of the results and discussion of findings in the study. The study was conducted at Avarampalayam, an urban area in Coimbatore. The main focus of the study was to assess the effect of Benson’s relaxation therapy on stress among postmenopausal women.

A sample of 30 postmenopausal women was selected and demographic variables were recorded. One group pre test post test design was adopted in this study. The samples were selected using the purposive sampling technique. The modified perceived stress scale was administered to assess the level of stress. Benson’s relaxation therapy was imparted to the postmenopausal women, for 20 minutes once daily for 10 days. After intervention the level of stress was reassessed using the same scale. The findings of the present study was obtained after an in depth analysis of the data gathered. Descriptive and inferential statistical methods were employed to analyse the data and test the hypothesis.

5.1. FINDINGS RELATED TO BASELINE DATA

Baseline data of the postmenopausal women was collected and statistically distributed. The age distribution reveals that 77% of postmenopausal women were between 51-60 years and 23% were between 40-50 years. The present study correlates with the theoretical explanation that the average age at menopause is 51.4 years with an age range of 35 to 60 years (Lowdermilk, Perry, Cashion, Alden, 2012).

Considering the education of postmenopausal women, 53% were with secondary education, 40% were with primary education and remaining 7% were
illiterate. 93% of women were unemployed and 7% were employed. The income shows that 80% were having below Rs. 10,000, 13% were between Rs. 10,000 to 20,000 and 7% were above Rs. 20,000. Among 30 samples, 93% were Hindus and 7% were Christians. The marital status reveals that among all married women, 27% were widows. Studies reveal that lower educational attainment, being separated/widowed/divorced, non employment, and histories of heart disease were all independently associated with earlier natural menopause (Gold et al., 2000).

The age at menopause reveals that 97% attained menopause between 40-50 years and 3% attained menopause between 51-60 years. The third consensus meeting of Indian Menopause Society (2008) states that the average age of menopause is 47.5 years in Indian women with an average life expectancy of 71 years.

The nature of menopause reveals that 63% attained natural menopause and 37% attained surgical menopause. Women who had experienced natural menopause had a strongly raised risk of vasomotor symptoms (hot flushes or night sweats), sexual difficulties (vaginal dryness or difficulties with intercourse) and trouble sleeping. However, there was little or no excess risk of other somatic or psychological symptoms. In contrast, all types of symptoms were more common among women who had a hysterectomy or were users of hormone replacement therapy (Rebecca et al., 2005). The present study reveals that the women who attained natural menopause has higher stress scores compared to women who attained surgical menopause.

The general health status reveals that 37% were having joint pain, 3% were having hypertension, 7% were having diabetes mellitus, 24% were having joint pain with hypertension, 10% were having joint pain with diabetes mellitus, 3% were
having joint pain, hypertension and diabetes mellitus, 3% were having hypertension with diabetes mellitus and 13% were having other complaints such as fatigue, muscle cramps and hyperthyroidism. A study was conducted in seven south-east Asian countries with a total sample of approximately 400 women. The findings revealed that the severity of climacteric complaints increases with the women’s perception about their health status (Boulet et al., 1994). Women with stressful lives, or a previous history of poor physical and psychological health also reported more climacteric symptoms when compared with other women (Diana et al., 2005). The present study depicts that the pre test scores increases with the general health complaints along with the climacteric symptoms.

Regarding the influence of selected demographic variables on the level of stress among the postmenopausal women, there exist a positive correlation between age in years, income, age at menopause and level of stress. There is a negative correlation between education and level of stress among the postmenopausal women. A community-based survey was conducted on factors related to menopause and other symptoms in a multi-racial/ethnic sample of 16,065 women aged 40–55 years suggests that lifestyle, menstrual status, race or ethnicity, and socioeconomic status affect symptoms in this age group (Sternfeld et al., 1999).

5.2. ASSESSMENT ON LEVEL OF STRESS AMONG POSTMENOPAUSAL WOMEN BEFORE BENSON’S RELAXATION THERAPY

The level of stress among the postmenopausal women was assessed by using modified perceived stress scale which consists of 15 items with a total score of 75.
The total mean percentage of level of stress among the postmenopausal women before the intervention was 54.17 and standard deviation was 4.006.

5.3. ADMINISTRATION OF BENSON’S RELAXATION THERAPY AMONG POSTMENOPAUSAL WOMEN WITH MILD TO SEVERE LEVEL OF STRESS

After assessing the level of stress, Benson’s relaxation therapy was imparted to postmenopausal women with mild to severe level of stress. The therapy focuses on complete relaxation of muscles followed by paced breathing. It was given for 20 minutes once daily for 10 days.

All the participants before the intervention were having moderate level of stress and after the intervention of Benson’s relaxation therapy, 13 % of postmenopausal women moved to mild level of stress and 87 % were having moderate level of stress with a change in the level of stress scores. The present study correlates with the study conducted by Lotta et al., (1994) on the effect of the efficacy of group therapy with Benson’s relaxation therapy showed a significant improvement on the vasomotor symptoms, sleep, anxiety, memory loss and stress among the post menopausal women.

5.4. ASSESSMENT ON LEVEL OF STRESS AMONG POSTMENOPAUSAL WOMEN AFTER IMPARTING BENSON’S RELAXATION THERAPY

After imparting the Benson’s relaxation therapy, level of stress was assessed using the same tool. The present study shows the level of stress after the intervention with a mean percentage of 40.74 and standard deviation of 4.835. The calculated ‘t’
value is 13.819 which is higher than the table value of 2.462 at 0.01 level of significance. Hence there is a significant difference between the level of stress among post menopausal women before and after the intervention.

5.5. TESTING HYPOTHESIS

The calculated ‘t’ value 13.819 was found to be significant at 0.01 level. Hence the hypothesis “There is a significant difference between the stress scores before and after administering Benson’s relaxation therapy among postmenopausal women” is accepted. This proves that Benson’s relaxation therapy is effective in reducing the level of stress among postmenopausal women.
SUMMARY AND CONCLUSION

The study was undertaken to evaluate the effectiveness of Benson’s relaxation therapy on stress among postmenopausal women. The postmenopausal period remains to be a different experience for every woman and the symptoms along with other risk factors may contribute much stress. The Benson’s relaxation therapy is one of the kinds of relaxation therapy which helps in significant reduction of stress.

The conceptual framework of the study was based upon the Helping Art in Clinical Nursing Theory by Ernestine Wiedenbach in 1964. The present study was conducted at Avarampalayam, an urban area in Coimbatore. A quasi experimental one group pre test post test design was adopted and purposive sampling technique was used to select the postmenopausal women. Total number of postmenopausal women selected for the study was 30. A pre test was administered using the modified perceived stress scale to assess the level of stress among postmenopausal women. The Benson’s relaxation therapy was imparted to the postmenopausal women for 20 minutes once daily for 10 days. The post test was carried out using the same scale. The data obtained were analysed using descriptive and inferential statistics. The results revealed that there was a significant reduction in the level of stress. Hence, it was concluded that Benson’s relaxation therapy was effective in reducing the level of stress among the postmenopausal women.

6.1. MAJOR FINDINGS OF THE STUDY

1. The pre test score shows that all the women were with moderate level of stress with a mean percentage of 54.17 and standard deviation was 4.006.
2. The study shows that 87% of women were with moderate level of stress with a reduction in the stress scores and 13% moved from moderate to mild level of stress after the intervention.

3. The study shows that Benson’s relaxation therapy was effective in reducing the level of stress among postmenopausal women from the mean percentage of 54.17 to 40.74.

4. The study reveals the existence of positive correlation between demographic variables such as age, income, age at menopause and the level of stress.

5. There is a negative correlation between education and level of stress among the postmenopausal women.

6. The study shows that the women who attained natural menopause has higher stress scores compared to women who attained surgical menopause.

6.2. RECOMMENDATIONS

1. Benson’s relaxation therapy can be taught as a routine to all the women who are within the menopausal age group.

2. A longitudinal study can be conducted to determine the long term effect of Benson’s relaxation therapy on stress among postmenopausal women.

3. Benson’s relaxation therapy can be taught for clients with hypertension, chronic insomnia, anxiety, migraine and for cardiac rehabilitation.
6.3. NURSING IMPLICATIONS

6.3.1. Nursing Education

The postmenopausal period is the time in which the women experience symptoms together with emotional and mental changes. The practice of therapies like Benson’s relaxation therapy will help the women to feel better about the symptoms as well as the stress experienced during the post menopausal period. Benson’s relaxation therapy is one of the effective non pharmacological interventions which play a role in reducing the stress and hence this can be included in the nursing curriculum.

6.3.2. Nursing Practice

Nurses as health educators who care for the health of the women should identify and teach the postmenopausal women about Benson’s relaxation therapy as a part of their routine nursing intervention which is found to be very effective in reducing the level of stress among women who are in the post menopausal period.

6.3.3. Nursing Administration

The nursing administrator can motivate the nurses to teach Benson’s relaxation therapy to reduce the level of stress among the women who are within the menopausal age group. There by the nurses can update the knowledge about various complementary therapies which are useful for clinical practice.

6.3.4. Nursing Research

The study has tested the effect of Benson’s relaxation therapy on stress among postmenopausal women. Longitudinal studies could be undertaken to assess the long
term effect of therapy on the level of stress among women who are in the post menopausal period. The intervention can be undertaken for clients with hypertension, chronic insomnia, anxiety, migraine and for cardiac rehabilitation.

6.4. CONCLUSION

Menopause is a time of great change. The transition to menopause can be a time of reflection and inspiration. Transitions of any kind can be inherently difficult and those difficulties will ultimately lead to stress. The present study depicts that the mean percentage had a change from 54.17 to 40.74 and hence the Benson’s relaxation therapy was effective in reducing the level of stress among the postmenopausal women.
REFERENCES


Lowdermilk, Perry, Cashion, Alden, (2012), Maternity and women’s health care, 3251 Riverport Lane, St. Louis, Missuori, Elsevier Mosby Publishers.


APPENDIX – I

PERMISSION LETTER FOR CONDUCTING THE STUDY

From,
Lidiya k Davis,
M.Sc. Nursing 1st year,
College of Nursing,
Sri Ramakrishna Institute of Paramedical Science,
Coimbatore.

To,
Mrs. Mallika,
The Counsellor,
Avarampalayam area,
Coimbatore.

Through
The Principal,
College of Nursing,
Sri Ramakrishna Institute of Paramedical Science,
Coimbatore.

Respected Madam,

Sub: Requesting permission to conduct study in AVARAMPALAYAM AREA-Reg

I am Lidiya k Davis, doing my 1st year M.Sc Nursing in Sri Ramakrishna Institute of paramedical science and as a part of my M.Sc Nursing programme I have undertaken the following study for my research “EFFECT OF BENSON’S RELAXATION THERAPY ON STRESS AMONG POST MENOPAUSAL WOMEN”. I would like to do the above said study in Avarampalayam area, Coimbatore. I humbly request you to grant me the permission to conduct the study in the community area. Herewith I am attaching a brief copy of the research proposal.

Thanking you,

Your’s Sincerely,

(Lidiya k Davis)
CERTIFICATE

This is to certify that Ms LIDIYA K DAVIS, II Year M.Sc., (Nursing), studying at College of Nursing, Sri Ramakrishna Institute of Paramedical Sciences, Coimbatore, has undergone five days intensive training program on “Relaxation therapy” under my supervision, at Psychosocial Rehabilitation Centre, Coimbatore, on 13-17th May 2013.

She is a Good Behaviour Therapist, managing the anxiety and stress among individuals effectively.

She is an intelligent and industrious student. She bears Good Character and conduct. I wish success in all her endeavours.

(Dr V Chandramohan)

Dr. V. Chandramohan, M.A, M.Phil, Ph.D.,
Clinical Psychologist
Department of Psychiatry
Command Hospital Air Force
Agram (P.O.), Bangalore - 560 007.

Dr. V. CHANDRAMOHAN
CLINICAL PSYCHOLOGIST
REHABILITATION PSYCHOLOGIST
RCI Reg No. A19963
APPENDIX - II

VALIDITY LETTERS FOR THE RESEARCH TOOL AND CONTENT

From,

Lidiya k Davis,
M.Sc (Nursing) I year,
College Of Nursing, SRIPMS,
Coimbatore.

To,

DR. LALITHA,
CONSULTANT OBSTETRICIAN & GYNAECOLOGIST,
SRI RAMAKRISHNA HOSPITAL,
COIMBATORE

Through,

The Principal,
College Of Nursing,
SRIPMS,
Coimbatore.

Respected Sir/Madam,

Subject: Requisition for tool and content validation:-Reg

I am Lidiya k Davis, doing my 1st year M.Sc Nursing in Sri Ramakrishna Institute of Paramedical Sciences and as a part of my M.Sc Nursing Program, I have undertaken the following study for my research “Effect of Benson’s relaxation therapy on stress among post menopausal women”. The following tool is tend to be used, hence I request you to kindly give me a valuable suggestion and necessary modification for the same.

Thanking you,

Coimbatore.

Yours Sincerely,

(Lidiya k Davis)
CONTENT VALIDITY FORMAT

Name of the Expert: Dr. R. Lalitha, M.B.B.S, D.G.O
Address: Consultant Obstetrician & Gynaecologist
         Sri Ramakrishna Hospital,
         Coimbatore

Kindly validate each section in the tool and mark wherever applicable.

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Total content of the tool: Adequate/Inadequate

Date: 13.5.2013

Signature of the Expert
Dr. R. Lalitha, M.B.B.S, D.G.O.
Consultant Obstetrician & Gynaecologist
Sri Ramakrishna Hospital,
Coimbatore
From,

Lidiya k Davis,
M.Sc (Nursing) I year,
College Of Nursing, SRIPMS,
Coimbatore.

To,

PROF. SHEeba,
HOD, DEPT. OF OBGY NURSING,
K.G COLLEGE OF NURSING,
COIMBATORE

Through,

The Principal,
College Of Nursing,
SRIPMS,
Coimbatore.

Respected Sir/Madam,

Subject: Requisition for tool and content validation:-Reg

I am Lidiya k Davis, doing my 1st year M.Sc Nursing in Sri Ramakrishna Institute of Paramedical Sciences and as a part of my M.Sc Nursing Program, I have undertaken the following study for my research “Effect of Benson’s relaxation therapy on stress among post menopausal women”. The following tool is tend to be used, hence I request you to kindly give me a valuable suggestion and necessary modification for the same.

Thanking you,

Coimbatore.

Yours Sincerely,

(Lidiya k Davis)
CONTENT VALIDITY FORMAT

Name of the Expert : Mrs. R. Sheeba  
Address : Professor  
K.G. College of Nursing, Coimbatore.

Kindly validate each section in the tool and mark wherever applicable.

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Total content of the tool : Adequate/Inadequate

Date: 17 MAY 2013

Signature of the Expert
From,

Lidiya k Davis,
M.Sc (Nursing) I year,
College Of Nursing, SRIPMS,
Coimbatore.

To,

PROF. LATHA,
PRINCIPAL,
RVS COLLEGE OF NURSING,
KANNAPOALAYAM.

Through,

The Principal,
College Of Nursing,
SRIPMS,
Coimbatore.

Respected Sir/Madam,

Subject: Requisition for tool and content validation:-Reg

I am Lidiya k Davis, doing my 1st year M.Sc Nursing in Sri Ramakrishna Institute of Paramedical Sciences and as a part of my M.Sc Nursing Program, I have undertaken the following study for my research “Effect of Benson’s relaxation therapy on stress among post menopausal women”. The following tool is tend to be used, hence I request you to kindly give me a valuable suggestion and necessary modification for the same.

Thanking you,

Coimbatore.
9.5.2013

(Lidiya k Davis)
CONTENT VALIDITY FORMAT

Name of the Expert: PROF(MRS) S. P. LATHA
Address: PRINCIPAL, RVS COLLEGE OF NURSING,
KUMARAN KOTTAM CAMPUS, TRICHY ROAD,
KANNAMPALAYAM, COIMBATORE- 641 402.

Kindly validate each section in the tool and mark wherever applicable.

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Total content of the tool: Adequate/Inadequate

Date: 14.05.2013

Signature of the Expert: [Signature]
PRINCIPAL
RVS COLLEGE OF NURSING
KANNAMPALAYAM
TRICHY ROAD, SULUR
COIMBATORE - 641 402
From,

Lidiya k Davis,
M.Sc (Nursing) 1 year,
College Of Nursing, SRIPMS,
Coimbatore.

To,

DR. V. CHANDRAMOHAN,
CLINICAL PSYCHOLOGIST,
COMMAND HOSPITAL AIRFORCE.

Through,

The Principal,
College Of Nursing,
SRIPMS,
Coimbatore.

Respected Sir/Madam,

Subject: Requisition for tool and content validation:-Reg

I am Lidiya k Davis, doing my 1st year M.Sc Nursing in Sri Ramakrishna Institute of Paramedical Sciences and as a part of my M.Sc Nursing Program, I have undertaken the following study for my research “Effect of Benson’s relaxation therapy on stress among post menopausal women”. The following tool is tend to be used, hence I request you to kindly give me a valuable suggestion and necessary modification for the same.

Thanking you,

Coimbatore.

Yours Sincerely,

(Lidiya k Davis)
CONTENT VALIDITY FORMAT

Name of the Expert: **Dr. V. Chandramohan**
Associate Professor of Psychology

Address:
Dr. V. Chandramohan, M.A., M.Phil., Ph.D.,
Clinical Psychologist
Department of Psychiatry
Command Hospital Air Force
Agram (P.O.), Bangalore - 560 007.

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Total content of the tool: Adequate/Inadequate

Date: 15 May 2013

Signature of the Expert

**Dr. V. Chandramohan, M.A., M.Phil., Ph.D.,**
Clinical Psychologist
Department of Psychiatry
Command Hospital Air Force
Agram (P.O.), Bangalore - 560 007.

**Dr. V. CHANDRAMOHAN**
CLINICAL PSYCHOLOGIST
REHABILITATION PSYCHOLOGIST
RCI Reg No. A19063
APPENDIX – III

EFFECT OF BENSON’S RELAXATION THERAPY ON STRESS AMONG POSTMENOPAUSAL WOMEN AT AVARAMPALAYAM, COIMBATORE

TOOL- ENGLISH

SECTION A

DEMOGRAPHIC DATA

Sample Number : 

Age : 

Education : 

Occupation : 

Income : 

Religion : 

Marital status : Single\married\divorced\widow

Age at menopause : 

Nature of menopause : Natural\Surgical

General health status : 

SECTION B

MODIFIED PERCEIVED STRESS SCALE

Choose the appropriate response by circling the score given in it.

Score: 1 = Never, 2 = Almost Never, 3 = Sometimes, 4 = Fairly Often, 5 = Very Often

1. How often have you felt difficulty in concentrating?  
   1 2 3 4 5

2. How often have you felt like you are loosing energy?  
   1 2 3 4 5

3. How often have you felt anxious and stressed?  
   1 2 3 4 5

4. How often have you felt loss of interest in doing anything or felt unhappy?  
   1 2 3 4 5

5. Have you felt like attack of any kind of pain in the body?  
   1 2 3 4 5

6. Have you had any headache or dizziness?  
   1 2 3 4 5

7. How often have you felt tightness of the head or body and breathing difficulty?  
   1 2 3 4 5

8. How often have you had any muscle and joint pains and numbness or tingling sensation?  
   1 2 3 4 5

9. How often have you felt sudden sensation of warmth with or without sweating?  
   1 2 3 4 5

10. How often have you felt sweating during night and difficulty to sleep?  
    1 2 3 4 5

11. How often have you felt stressed due to your occupation or work?  
    1 2 3 4 5

12. How often have you felt you are able to cope up with your bodily changes?  
    1 2 3 4 5

13. How often have you felt you were able to cope up with any stressful situations?  
    1 2 3 4 5
14. How often have you felt you were able to maintain good level of relationship with others?  
1 2 3 4 5

15. Have you felt the loss of interest in sex?  
1 2 3 4 5

INTERPRETATION

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<td>Mild</td>
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<td>Moderate</td>
<td>26 to 50</td>
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<tr>
<td>Severe</td>
<td>51 to 75</td>
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Item 12, 13, and 14 will be given reverse scoring.
SECTION C

PROCEDURE

A convenient sample of postmenopausal women with stress will be taken into the study. The level of stress will be assessed by the Modified Perceived Stress Scale. After pre-test, the Benson’s relaxation therapy will be implemented to the postmenopausal women who have mild to severe level of stress.

STEP 1

The researcher first introduces herself to the sample and explains about the intervention and gets verbal consent.

STEP 2

Pretest will be conducted to assess the level of stress.

STEP 3

Implementation of Benson’s relaxation therapy by the following steps:

- Sit in a comfortable position.
- Close the eyes.
- Relax all the muscles from head to toe.
- Focus on breathing.
- Breathe through the nose.
- While breathing out, say ‘peace’.
- Breathe easily and naturally.
- Continue this up to 20 minutes once daily.

STEP 4

After 10 sessions of the therapy, post test will be conducted and level of stress will be assessed.
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<td>பிரான்மிகக் குறுக்குத்தாக வலதுப்புறம் சிற்பாக பினைய சுருக்குத்தாக கல்லாலைகளைக் கையான. எனவே வலதுப்புறம் சிற்பாக பினைய கல்லாலைகளை என்ன கையான?</td>
<td>1 2 3 4 5</td>
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<td>2.</td>
<td>பிரான்மிகக் குறுக்குத்தாக வலதுப்புறம் சிற்பாக பினைய கல்லாலைகளை என்ன கையான?</td>
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<td>7.</td>
<td>பிரான்மிகக் குறுக்குத்தாக வலதுப்புறம் சிற்பாக பினைய கல்லாலைகளை என்ன கையான?</td>
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<td>8.</td>
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<td>பொருள்சொல்லும் சிற்றகு நிறைவு துறவு பட்டியல் பல்லாது மிகுந்த முதலடக்கிப் பொருட்களுக்கு எப்படி?</td>
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<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
APPENDIX IV

CERTIFICATE OF TAMIL EDITING

TO WHOMEVER IT MAY CONCERN

This is to certify that the MODIFIED PERCEIVED STRESS SCALE was translated to Tamil, for the dissertation “EFFECT OF BENSON’S RELAXATION THERAPY ON STRESS AMONG POST MENOPAUSAL WOMEN IN SELECTED AREA, COIMBATORE” done by LIDIYA K. DAVIS, has been edited for Tamil language for appropriateness.

Name : Dr. K. Bagyam

Designation : HOD, Associate Professor in Tamil

Name of the institution : Sri Ramakrishna College of Arts and Science for Women

Signature : 

[Signature]
APPENDIX V

CERTIFICATE OF ENGLISH EDITING

TO WHOMEVER IT MAY CONCERN

This is to certify that the dissertation “EFFECT OF BENSON’S RELAXATION THERAPY ON STRESS AMONG POSTMENOPAUSAL WOMEN AT AVARAMPALAYAM, COIMBATORE” done by Lidiya.K.Davis, II year M.Sc. Nursing, College of Nursing, Sri Ramakrishna Institute of Paramedical Sciences, Coimbatore has been edited for English language appropriateness.

Name: JESSY C.P.

Designation: HSST English

Name of the Institution: GMHSS CHALAKUDY

Signature

28/12/13

JESSY C.P.
HSST English
GMHSS Chalakudy
Thrissur – 680 307
ANNEXURE - I

‘t’ test for Dependent variables

To test the hypothesis, ‘t’ test was applied to find out the significant difference between the same group before and after the Benson’s relaxation therapy.

\[
t = \frac{\bar{d}}{\frac{SD}{\sqrt{n}}}\]

\[
SD = \sqrt{\frac{\sum (d - \bar{d})^2}{n}}
\]

\[
\bar{d} = \text{Mean of difference between pre-test and post- test score}
\]

\[
SD = \text{Standard deviation of the pre-test and post- test score}
\]

\[
n = \text{Number of samples}
\]
ANNEXURE – II

KARL PEARSON’S COEFFICIENT OF CORRELATION

This was calculated to find out the influence of independent variable on dependent variable. Influence of demographic variables on level of stress among postmenopausal women as assessed through Karl Pearson’s Co-efficient of correlation in order to find the significance of relationship between the two variables.

\[
    r = \frac{\sum xy - \bar{x} \bar{y}}{n \cdot SD_x \cdot SD_y}
\]

- \( \bar{x} \) = Mean of independent variable score

- \( \bar{y} \) = Mean of dependent variable score

\( \sum xy \) = Average of independent variable and dependent variable score

\( SD_x \) = Standard deviation of independent score

\( SD_y \) = Standard deviation of dependent score