

**Original research article**

## **A study of low back pain in women before and after menopause**

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### **Abstract**

Pain in the lower back is a widespread issue in today's population, making it a significant social and economic burden. It affects a significant proportion of females, particularly those between the ages of 45 and 60. Pain in the lower back is one of the many symptoms that are linked to entering the perimenopausal stage of a woman's life.

**Keywords:** Menopause, low back pain

### **Introduction**

Because modern women live longer than previous generations, menopause now accounts for one-third of their total lifespan <sup>[1]</sup>. Women are more likely than males to suffer from chronic pain, and the likelihood of experiencing it rises with age <sup>[2-4]</sup>. According to Whelan *et al.*, even eighty percent of women have various symptoms (including pain) throughout the perimenopausal phase <sup>[5]</sup>, which is typically described as the age range of 45-55. The transition from a premenopausal phase to a postmenopausal one occurs because the ovaries produce less oestrogen and other female hormones at a slower rate. The progression of this process is slow and steady throughout the course of one's lifetime and it is a normal aspect of the ageing process. There are several different symptoms that have been recognised as being connected to the perimenopausal phase. Psychological symptoms can include irritability and anxiety, mood swings, sadness, and sleep difficulties. Physical symptoms can include back and joint pain, night sweats, hot flashes, and chronic weariness. The studies that were analysed showed an association between the menopausal period and depression, hot flashes, and sleep disorders; however, little attention was paid to pain (in spine and peripheral joints) as an equally prevalent symptom associated with this period of life <sup>[6]</sup>. The connection between perimenopausal and postmenopausal stages of life and low back pain is the primary subject of this review (LBP). In addition to that, it discusses the physiotherapeutic techniques that are employed in the treatment of low back pain. In today's world, one of the most serious problems facing people's health is back discomfort, particularly in the lumbar region. Between 36.4% and 58% of persons in the United States and European countries will suffer from low back pain at some point in their lives <sup>[7, 8]</sup>. This presents a significant difficulty in both the medical and socioeconomic spheres, to the extent that some academics classify it as an illness related to lifestyle choices. It is the leading reason for employees to miss time from work, and it is the second most common reason for people to see their primary care providers. Because it makes it difficult for a person to go about their everyday life, back discomfort can have a detrimental impact on their mental health. It also creates a significant socioeconomic issue, as it is expensive for businesses when employees must miss work due to illness or disability <sup>[9]</sup>.

### **Aims and Objectives**

To understand the Low back pain in women before and after menopause.

### **Materials and Methods**

This study was done in the Department of OBG along with the help of Department of Orthopedics, Kamineni Institute of Medical Sciences, Andhra Pradesh. The study was done from Oct 2014 to Oct 2016.

## Exclusion

Women with spine problem.

The study divided women into five groups:

1. Premenopausal women who had had a regular period in the past three months.
2. Early perimenopausal women who had an irregular period in the past three months.
3. Late perimenopausal women who had menstruated irregularly in the last 12 months but not in the last 3 months.
4. Postmenopausal women who had not menstruated in the last 12 months.
5. A separate group of women who have hormone replacement therapy.

From each group 200 women formed the sample size.

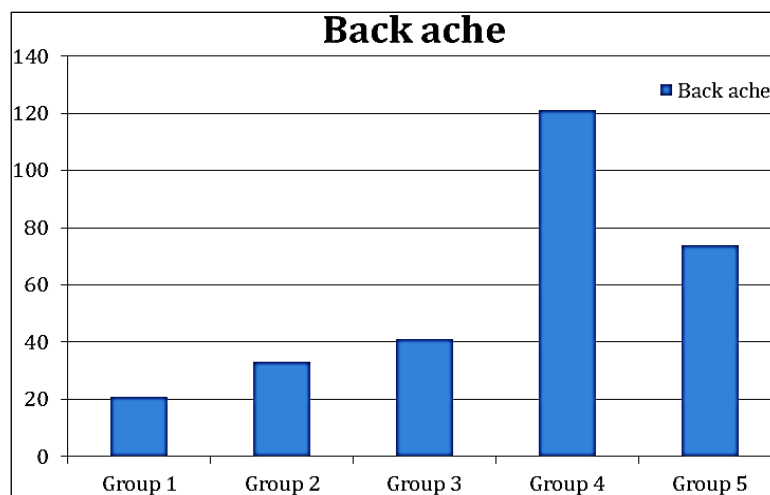
## Results

**Table 1:** Age Distribution

Premenopausal women	Early perimenopausal	Late perimenopausal	Postmenopausal (for >12 m)	Postmenopausal on hormone replacement therapy
39.65 ± 2.17 years	44.18 ± 1.02 years	46 ± 0.98 years	51 ± 3.28 years	59 ± 0.17 years

**Table 2:** Back ache distribution

Group 1	21
Group 2	33
Group 3	41
Group 4	121
Group 5	74



**Graph 1:** Back ache distribution

**Table 3:** Association with BMI

	Normal BMI	BMI >30	p-value (<0.001)
Total	641	359	
With Back ache	48	242	Highly Significant
Without Backache	593	117	

## Discussion

Exercise, manual therapy, massage, and other forms of physical therapy are some of the physiotherapeutic methods that can be used to treat low back pain. There is also the application of pharmacology, such as with non-steroidal anti-inflammatory medicines<sup>[10, 11]</sup>. According to Mishra *et al.*<sup>[12]</sup>. Findings, a postmenopausal woman's exercise routine should consist of endurance (aerobic) exercises, strength exercises and balance exercises. Aerobics, weight-bearing exercises, and resistance training are the three types of workouts that are most helpful for boosting bone mineral density in the spine in postmenopausal women<sup>[13]</sup>. This is a very desirable result to have, especially taking into consideration the fact that a woman's bone mineral density often starts to decrease around this time in her life<sup>[14]</sup>. The evidence on exercise treatment for low back pain that was available was analysed in a meta-analysis by Hayden *et al.*<sup>[15]</sup> and the researchers came to the conclusion that the therapy is helpful at slightly reducing discomfort. However, it is important to note that the therapy was defined as "a series of

specific movements with the aim of training or developing the body by a routine practise or as physical training to promote good physical health" <sup>[15]</sup>. This is something that should be taken into consideration. This points to the fact that activities for the treatment of lumbar spine pain are not targeted in any particular way. Nevertheless, advising perimenopausal women to engage in general physical activities is helpful because these exercises unquestionably lead to weight loss. This is an essential factor because perimenopausal women have a tendency to be less physically active <sup>[24]</sup>. In addition, Hayden *et al.* came to the conclusion that the most beneficial exercise therapy technique for chronic LBP was high-dose stretching and muscle strengthening exercise programmes that were supervised and individually designed, and that included home practise <sup>[15]</sup>.

### Conclusion

There is a correlation between the perimenopausal stage of life and an increased risk of experiencing low back pain. One of the elements that contributes to an increased occurrence of pain is a body mass index (BMI) that is greater than 30.

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