



IMMEDIATE EFFECT OF DORN THERAPY ON LOW BACK PAIN AND LUMBAR ROM IN HOUSEWIVES - AN EXPERIMENTAL STUDY

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ABSTRACT **Background:** The lower part of back holds the most of the weight. Even minor affection of muscles, bones, ligament can cause when a person stands, bends or moves around. Low back pain (LBP) is usually defined as pain, muscle tension, or stiffness localized below the costal margin and above the inferior gluteal folds, with or without leg pain (sciatica). Approximately 83% of all non-working women experience low back pain at some point in their lifetime. **Objective:** To see the immediate effectiveness of DORN therapy on reducing LBP and increasing lumbar ROM. **Method:** Subjects were selected according to the inclusion criteria. The study was explained to the subjects individually and written consent was taken from them. Pre and post protocol data was collected and data analysis was done. **Results:** There was significant reduction in LBP and improvement in lumbar ROM in housewives. **Conclusion:** The study can be concluded that DORN therapy is effective in reducing LBP and improving lumbar ROM in housewives.

KEYWORDS : DORN therapy, LBP, Lumbar ROM, Housewives.

INTRODUCTION

The human spine is made up of bones called vertebrae. The vertebrae are stacked on top of each other to form a column. Between each vertebrae is cushion known as a intervertebral disc. The vertebrae are held together by ligaments and muscles attached to vertebrae.^[1]

The lower part of back holds the most of the weight. Even minor affection of muscles, bones, ligament can cause when a person stands, bends or moves around.^[1]

INTRODUCTION TO BACK PAIN

Low back pain (LBP) is usually defined as pain, muscle tension, or stiffness localized below the costal margin and above the inferior gluteal folds, with or without leg pain (sciatica).^[4]

The lifetime incidence of LBP has been reported between 60-80 %, and out of these incidents in about 80-90% cases pain subsides within first 2-3 months and rest of the patients (around 10-20%) develop chronic pain syndromes.^[5,6,7]

A common finding of previous studies was that the prevalence of pain was higher in women than in men (prevalence of back pain of 24.3% in women and 20.9% in men)^[3]

Approximately 83% of all non-working women experience low back pain at some point in their lifetime^[3]

Low back pain prevalence increases linearly from the third decade of life, till 60 years of age, then gradually declines and more prevalent in women.^[2]

INTRODUCTION TO DORN THERAPY

The DORN method is an effective, safe and non-manipulative therapy used to correct misalignments in spine.

Misalignments in spine may cause nerve compression which can cause various disorders. The DORN method relaxes the muscles of back so that skeletal structure is able to reposition and balance itself.

This method involves application of gentle pressure and correction in dynamic motion. Dorn therapy practitioners believe that movement is a fundamental element in the treatment, all corrections happen in dynamics, this movement stretch the muscles so they can't offer any resistance to the correction thus muscle tension is released as well as muscles length is maintained.^[9] Active participation of the client provides muscle flexibility, and this form of correction is usually readily accepted by the body.^[9]

NEED OF STUDY

The homemakers perform various tasks that cause ergonomic stress

and exhaustion of muscle groups that result in MS pain.^[8]

Research is needed to explore selection of DORN therapy and its effectiveness could be studied in long term to provide a better understanding of treatment.^[10]

There is less study available about effect of Dorn therapy in low back pain and lumbar ROM.

Hence this study is an effort to determine the effect of DORN therapy in low back pain and lumbar ROM in housewives.

INCLUSION AND EXCLUSION CRITERIA:

Inclusion Criteria:

- Age: 30-50 years
- Housewives
- Acute low back pain
- Pain on NPRS: >5/10 and <8/10

Exclusion Criteria:

- Previous abdominal or spine surgery.
- Neurological conditions.
- Spine Deformities.
- Obese: BMI >29.9

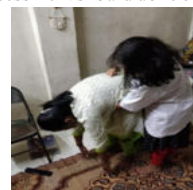
OUTCOME MEASURES:

FOR PAIN: NUMERIC RATING SCALE

FOR LUMBAR ROM: MODIFIED-MODIFIED SHOBER'S TEST.

Procedure Of Dorn Therapy

- **PATIENT POSITION:** Standing with arms along the sides and neck in neutral position.^[10]
- **PROCEDURE:** Prior to the treatment, patient's co-operation should be requested for and patient is asked to perform lumbar flexion and extension alternately and rhythmically. The therapist stands lateral to the patient stabilizing the anterior aspect of the pelvis with the left hand and makes a fist of the right hand. With the knuckles of the right hand therapist applies a slight pressure over the spinous process of the lower lumbar vertebrae (L4/L5) and maintaining the pressure, patient is asked her to perform lumbar flexion and extension alternately 10 times each. After a period of relaxation, the second set of 10 repetitions each, is given while applying the pressure to the vertebrae. Again followed by the third set. A brief re-assessment should done between each set.^[10]

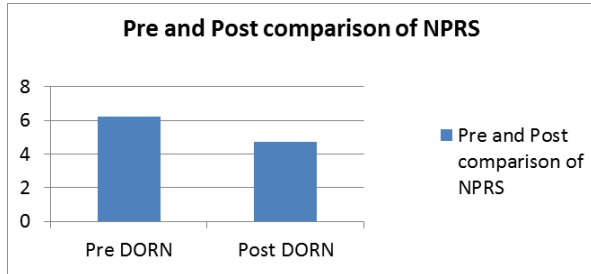


Data Collection And Analysis

NRS

Comparison of pre and post treatment values of NRS scores shows a significant difference .

| | Pre treatment | Post treatment |
|--------------------|-----------------------|----------------|
| Mean | 6.27 | 4.77 |
| Standard Deviation | 1.08 | 1.19 |
| T value | 11.2379 | |
| P value | <0.0001 | |
| Significance | Extremely Significant | |

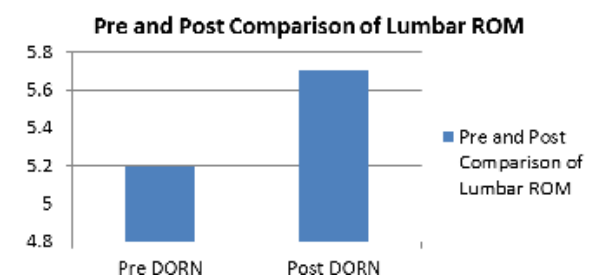


Data Collection And Analysis

Lumbar ROM

Comparison of pre and post treatment values of Lumbar ROM scores shows significant difference.

| | Pre treatment | Post treatment |
|--------------------|-----------------------|----------------|
| Mean | 5.223 | 5.753 |
| Standard Deviation | 1.229 | 1.138 |
| T value | 5.3360 | |
| P value | <0.0001 | |
| Significance | Extremely Significant | |



RESULT

- The comparison of NRS values Pre and Post DORN treatment P value was <0.001 which considered extremely significant. The pre-treatment mean was 6.27 with SD of 1.08 while post-treatment mean was 4.77 with SD of 1.19. The t value was 11.23.
- The comparison of Lumbar ROM values Pre and Post DORN treatment P value was <0.001 which considered extremely significant. The pre-treatment mean was 5.22 with SD of 1.22 while post-treatment mean was 5.75 with SD of 1.13. The t value was 5.33.

DISCUSSION

This study was intended to see the effectiveness of DORN therapy on low back pain and lumbar ROM in housewives. The results show that DORN therapy is beneficial in terms of pain relief and spinal mobility. A study was conducted on low back pain and lumbar ROM in housewives. 30 subjects were assessed for low back pain and lumbar ROM. In this study pain was assessed by NRS and lumbar ROM was assessed by modified-modified schobers test.

Low back pain (LBP) is usually defined as pain, muscle tension, or stiffness localized below the costal margin and above the inferior gluteal folds, with or without leg pain (sciatica).

The life time incidence of LBP has been reported up to 60-80%, and out of these about 80-90% of cases become chronic if not treated immediately.

Movement is the core element in the treatment. Dynamic movement is used. This movement stretches and corrects muscle function. As muscle tension is released muscles are unable to offer the resistance to the movement. As muscle tension is released, muscle length is also maintained. Stabilization of anatomical structures may prevent

abnormal muscle action. Principals of leverage forces and counter-pressure in combination with the active participation of the patient provides muscle flexibility. This way of correction of muscle action is usually readily accepted by the body.

Analysis of pre-treatment and post-treatment results revealed that there was decrease in pain and lumbar ROM was increased after treatment.

The comparison of NRS values Pre and Post DORN treatment P value was <0.001 which considered extremely significant. The pre-treatment mean was 6.27 with SD of 1.08 while post-treatment mean was 4.77 with SD of 1.19. The t value was 11.23.

The comparison of Lumbar ROM values Pre and Post DORN treatment P value was <0.001 which considered extremely significant. The pre-treatment mean was 5.22 with SD of 1.22 while post-treatment mean was 5.75 with SD of 1.13. The t value was 5.33.

This study was done to see the effectiveness of DORN therapy on low back pain and lumbar ROM in housewives.

In this study DORN therapy shows significant effect on reducing low back pain and improving lumbar ROM in housewives.

CONCLUSION

In this study DORN therapy shows significant effect on reducing low back pain and improving lumbar ROM in housewives.

LIMITATIONS

- Small sample size.
- Only female subjects are included in study.

Future Scope Of Study

- It can be further studied on larger population.
- There can be comparison between DORN therapy and other treatment protocols.
- It can include other age groups.
- It can include other occupation.
- The study can be done with comparison of results of males and females.
- Long term effect can be studied.

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