

Influence of Sleep Hygiene Education on Rehabilitation Progress in Patients with Non-specific Low Back Pain

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ABSTRACT

Introduction: Sleep plays a crucial role in musculoskeletal recovery by influencing pain modulation, tissue healing, and functional restoration. Non-specific low back pain is commonly associated with poor sleep quality, which may negatively affect rehabilitation outcomes. Despite this, sleep is often overlooked in routine physiotherapy practice.

Aim: To evaluate the effect of Sleep Hygiene Education (SHE) on rehabilitation outcomes in patients with non-specific low back pain.

Materials and Methods: A randomised controlled trial was conducted on 100 participants aged 40-59 years with non-specific low back pain (>3 months) and poor sleep quality (PSQI >5). Participants were randomly allocated into two groups: Control Group (standard rehabilitation) and Intervention Group (standard rehabilitation and SHE). Outcome measures included the Numeric Pain Rating Scale (NPRS), the Pittsburgh Sleep Quality Index (PSQI),

the Oswestry Disability Index (ODI) and the Manual Muscle Testing (MMT). Data were analysed using paired and independent t-tests with significance set at $p < 0.05$.

Results: Both groups showed significant improvement in pain, sleep quality, functional disability, and muscle strength after intervention ($p < 0.001$). However, the Intervention Group demonstrated significantly greater improvement compared to the Control Group across all outcome measures, including NPRS, PSQI, ODI, and MMT.

Conclusion: The addition of SHE to standard rehabilitation significantly enhances rehabilitation outcomes in patients with non-specific low back pain. It is a simple, cost-effective, and non-invasive intervention that can decrease pain and improve sleep quality, functional ability and muscle strength.

Keywords: Musculoskeletal diseases, Non-specific low back pain, Physical therapy, Rehabilitation, Sleep, Sleep hygiene.

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