INPLASY

Effect of Pillows on Pain, Disability and Sleep Quality in patients with Chronic Neck Pain: A Systematic Review Protocol

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - The review has not yet started.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202480094

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 20 August 2024 and was last updated on 20 August 2024.

INTRODUCTION

Review question / Objective What is the impact of pillows on pain, disability and sleep quality in patients with chronic neck pain?

Rationale Patients with chronic neck pain (CNP) frequently experience sleep disorders, with nearly 40% reporting less than four hours of sleep per day. Sleep quality is closely linked to posture, and inadequate cervical posture during sleep is believed to increase biomechanical stress on the cervical spine, contributing to pain and discomfort. A variety of pillows are marketed to provide cervical support, claiming to enhance alignment, reduce neck pain, and improve sleep quality. While research has shown positive outcomes for specific pillow types, there is no conclusive evidence endorsing any particular pillow as a definitive solution for managing neck pain, disability, and related sleep disturbances.

The current study aims to thoroughly assess and determine the efficacy of various pillows on different parameters, such as pain, disability, and sleep, in a population widely affected by chronic neck pain.

Condition being studied Chronic neck pain (CNP) which is defined as persisting discomfort lasting over 3 months, typically associated with a prolonged recovery period, making it one of the most prevalent and debilitating issues among individuals.

METHODS

Search strategy Four electronic databases (PubMed, Scopus, PEDro, and the Cochrane Library) were searched for studies published between 2014 and 2024 using MeSH key terms and Boolean operators.

Participant or population Participants including both males and females of age 18 years above suffering from chronic neck pain lasting more than 3 months.

Intervention Pillow supports.

Comparator Different types of pillows or patient's own regular pillows.

Study designs to be included Randomized controlled/clinical trials or pilot randomized trials.

Eligibility criteria RCTs published in English language only and adults above 18 years of age, including both males and females, suffering from chronic neck pain lasting more than 3 months.

Information sources Four electronic databases (PubMed, Scopus, PEDro and Cochrane Library).

Main outcome(s) Visual Analogue Scale (VAS) or Numerical Pain Rating Scale (NPRS), Neck Disability Index (NDI), Pittsburgh Sleep Quality Index (PSQI) or Sleep diary.

Additional outcome(s) Range of motion.

Data management The process of selecting studies will be conducted in two stages. First, two independent reviewers will examine the titles and abstracts of the records. For those records deemed potentially eligible, full-text articles will be retrieved. During the second phase, two independent reviewers will review the full-text articles. If a disagreement arises regarding the inclusion of a record at any point, a third reviewer will be brought in to resolve the issue.

Quality assessment / Risk of bias analysis PEDro scoring and Cochrane Collaboration's Risk of Bias tool will be done for included articles after identification, screening, and fulfilment of eligibility criteria.

Strategy of data synthesis Data will be qualitatively extracted and summarized, encompassing study setting, population characteristics, methodology, outcomes, results and assessment of bias risk, highlighting significant similarities and distinctions in study designs, interventions, and outcomes. If feasible, a meta-analysis will aggregate quantitative data from studies with comparable methodologies and outcomes.

Subgroup analysis Subgroup analysis will be conducted if there is adequate data to investigate how pillows affect pain, disability, and sleep quality in patients with chronic neck pain.

Sensitivity analysis Not applicable.

Language restriction English.

Country(ies) involved India.

Keywords "Pillow" , "Neck Pain" , "Range of Motion" , "Sleep Quality".

Dissemination plans Introduction and Review of Literature: 1 month, Result writing: 1 month, Discussion writing: 1 month.

Contributions of each author

Author 1 - SWARUP GHOSH - Author 1 will draft the manuscript and will contribute to the screening of eligibility criteria and data extraction.
Email: swarupghosh199648@gmail.com
Author 2 - MANU GOYAL - Author 2 will do the development of the selection criteria, the search strategy, the risk of bias assessment and help in PRISMA.
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Author 3 - KANU GOYAL - Author 3 will help in discussion writing, provide feedback and approve the final manuscript.
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