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INPLASY

Role of Gait Retraining on Functional Outcomes And Walking Speed in Knee Osteoarthritis -A Narrative Review

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ADMINISTRATIVE INFORMATION

Support - Did not receive any support or specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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

Conflicts of interest - None declared.

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

INTRODUCTION

Review question / Objective To determine the Role of Gait Retraining on Functional Outcomes in Knee Osteoarthritis. To determine the Role of Gait Retraining on Walking Speed in Knee Osteoarthritis.

Rationale Th effect of gait retraining functional outcomes in knee osteoarthritis patients. One Popular therapy strategy that can change walking patterns and lower knee loads in patients With osteoarthritis in the knee is gait retraining.

Condition being studied Gait retraining in knee osteoarthritis (OA) is an approach used to modify abnormal walking patterns that can arise as a result of joint degeneration, pain, or dysfunction. The goal of gait retraining is to reduce pain, improve function, and slow disease progression by altering the way a person walks, thereby minimizing the mechanical load on the knee joint.

METHODS

Search strategy An electronic search on different database → Google scholar, Scientific Electronic Library Online (SciELO), Medical Literature Analysis and Retrieval Systems online (MEDLINE), Scopus, Physiotherapy Evidence Database (PEDro), Cumulative Index to Nursing and Allied Health Literature (CINAHL), will be conducted for research published during time period (2019-2024) , using Medical Subject Headings (MeSH) for “Gait Retraining ”AND “ Knee Osteoarthritis” AND “ Functional Outcomes” AND “Walking Speed” .The ‘OR’ search terms used for (MeSH) keywords and were combined with AND’ and searched in ‘All Fields’.

Participant or population Knee Osteoarthritis.

Intervention Gait Retraining on Functional Outcomes And Walking Speed.

Comparator Standard Physiotherapy care in knee osteoarthritis including Manual therapy, stretching and strengthening exercises.

Study designs to be included RCTs and Non-RCTs.

Eligibility criteria Published in English.
Randomized Control trial (RCT)and Non-randomized control trial evaluation Functional outcome Walking speed, Gait retraining and knee OA are considered.[15] Types of Intervention – interventions based on the following types of exercise: Neuromuscular Exercise (NM), Balance training, Proprioception training (PT), Aquatic Exercise(AE) And aerobic Exercise (AE) performed. Interventions that included more than one exercise typology were included.

Information sources Research-Gate, Web of Knowledge, Google Scholar, Scopus, SciELO, PEDro, PubMed, MEDLINE, CINHAL.

Main outcome(s) Functional outcomes and walking speed.

Additional outcome(s) Nil.

Data management Articles post screening and selection; the selected articles important information will be extracted by the second author. The information about the type of the study, study participant population, the kind and length of the intervention, the outcomes will be assessed. The accuracy and consistency of the data will be examined.

Quality assessment / Risk of bias analysis PedRo scoring will be done for included articles after identification, screening, and fulfilment of eligibility criteria.

Strategy of data synthesis Reviewers will screen the titles and abstract records. Full-text articles will be obtained for potentially eligible records.

Subgroup analysis It will be done by group analysis to explore heterogenicity.

Sensitivity analysis It will be done to assess the stability of the results and not by chance.

Language restriction English.

Country(ies) involved India.

Other relevant information Not Applicable.

Keywords " Knee Osteoarthritis" ," Gait-retraining" , "Gait modification" , "knee pain" , "Walking Speed" ," Functional outcome".

Dissemination plans The findings of this narrative review will be disseminated through multiple channels to reach a broad audience of researchers, clinicians, and policymakers. The review will be submitted for publication in a peer reviewed journal focused on rehabilitation or physiotherapy. Additionally, results will be presented at relevant national and international conferences to engage with the professional community. To enhance accessibility, summaries and key findings will be shared through institutional platforms, social media, and open-access repositories, ensuring wide reach and impact across healthcare and academic sectors.

Contributions of each author

Author 1 - Tanya Mishra - Conception, Methodology, Data extraction and writing initial draft.
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Author 2 - Sachin Gupta - Supervision, Development of the selection criteria, Revision of the draft, Approval of the final manuscript.
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