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The Impact of Otago Exercises on Improving Balance in Knee Osteoarthritis: A Literature Review

Shiwangi, Postgraduate Student, Department of Physiotherapy, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.
Amita Aggarwal, Professor, Department of Physiotherapy, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Amita Aggarwal,

Professor, Department of Physiotherapy, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation. Maharishi Markandeshwar (Deemed to be University, Mullana, Ambala, Haryana, India.

E-mail: shiwangigarg4@gmail.com

ABSTRACT

Osteoarthritis (OA), the most common kind of arthritis, is defined by the degeneration of the underlying bone and joint cartilage, which causes stiffness, pain, and physical incapacity. According to WHO as osteoarthritis is more prevalent in older people (about 70% are older than 55), global prevalence is expected to increase with the aging of populations. Common clinical signs include knee pain that begins slowly and increases with movement, knee stiffness and swelling, pain that worsens over time, and pain that worsens after prolonged sitting or rest. The aim of the study is to review the literature stating the role of Otago exercises on balance in knee osteoarthritis. The Otago exercise programme includes strength exercise including balance training. A literature search was conducted from PubMed, Scopus, and Embase Database from December 2015 to 2025 on 7 January 2025. The search utilised terms “Otago exercise,”“balance,”“Otago exercise programme,”“home-based balance exercises,” knee o steoarthritis,”“degenerative,”“arthritis,” cartilage, “tibiofemoral,” and “patellofemoral.” The Inclusion criteria for this study were randomised controlled trials and articles written in english language. Related review articles, systematic reviews, conference papers, and articles in languages other than English were excluded. A total of 423 articles were found out of which only five met the inclusion criteria. The result implied to evaluate the effectiveness of the Otago exercise programme in improving balance in individuals with knee OA. The Timed Up and Go OMIT test is used to assess the outcomes of balance improvement. Further research is needed to strengthen these finding by comparing the efficacy of Otago with other therapeutic technique.

Keywords: Arthritis, Joint diseases, Balance.