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ROLE OF PHYSIOTHERAPY IN MANAGEMENT OF FLEXIBLE FLAT FOOT: A SYSTEMATIC REVIEW.

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Background: Flexible flat foot (FFF) is a common musculoskeletal condition characterized by collapse of the medial longitudinal arch during weight-bearing, often causing pain, altered biomechanics, reduced balance, and functional limitations. Untreated FFF may lead to overuse injuries, postural abnormalities, and decreased quality of life. Although surgical and orthotic options exist, conservative treatment remains the first-line, non-invasive, cost-effective intervention. This review systematically examines the evidence for physiotherapy in FFF.

Purpose: To systematically evaluate the effectiveness of physiotherapy interventions in the management of flexible flat foot, with a focus on improving arch height, reducing pain, enhancing muscle strength, and optimizing functional outcomes.

Methods and Materials: A literature search was conducted for studies published between 2010 and 2025 using PubMed, ScienceDirect, PEDro, and Google Scholar. Randomized controlled trials in English were included. Studies with fewer than 20 participants or involving individuals under 18 years were excluded. PRISMA guidelines were followed, and methodological quality was assessed using the PEDro scale. Data were extracted using the PICO framework.

Results: A total of 100 studies were identified, 14 studies met the inclusion criteria while 86 articles were excluded for reasons such as duplicates, articles not published in English language, and a sample size lesser than 20. Short foot exercises (SFE) were commonly used and effective intervention, applied individually (n = 2) and in combination (n= 5). Other effective physiotherapy interventions included NMES (n=2), Russian current stimulation (n=1), Faradic current stimulation (n=1), Kinesio-taping(n=1), sensorimotor training(n=1), use of orthoses(n=1), PNF(n=1) and MFR(n=1).

Conclusion: Exercise-based interventions, particularly SFE targeting intrinsic foot muscles, consistently improved arch height, pain, muscle strength, balance, and foot biomechanics. Adjunct modalities such as electrical stimulation, taping, and orthoses provided additional benefits. Physiotherapy is effective for FFF, supporting functional improvements, pain reduction, and prevention of long-term complications.

Keywords: Balance, Exercise Therapy, Flexible flat foot, Foot biomechanics,short foot exercises.