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Effect of Retro-Walking on Low Back Pain in Basketball Players: A Review

MOHIT KUMAR SINGH[1], ARCHANA KHANNA[2*]

ABSTRACT

Introduction: Basketball is a high-intensity, semi-contact sport characterised by rapid multidirectional movements that place significant strain on players' musculoskeletal system, particularly the lower back. Retro walking or backward walking has recently emerged as a new concept in rehabilitation that has different pattern of muscle activation. It improves balance, posture, and muscle activity simultaneously reducing stress on the joint.

Aim: To review the effect of retro walking on Low Back Pain (LBP) in basketball players.

Materials and Methods: Randomised controlled trials published from 2018 to 2024 that explored retro walking's impact on LBP and were openly accessible were included. A comprehensive literature review was conducted using various databases such as PubMed, Google Scholar, and Research Gate, using the following keywords: Retro Walking, Low Back Pain, Basketball Players, Performance Measures, Agility, Dynamic Balance, and Flexibility. After screening 10 free-full text articles were included in the review that fulfilled the requirements of inclusion criteria.

Results: Retro walking has a positive impact on both LBP and performance measures among basketball players. Participants who engaged in retro walking interventions experienced improved scores on pain assessment tools such as the numerical pain rating scale and Oswestry Disability Index. Additionally, retro walking contributed to enhanced dynamic balance, agility, and overall performance.

Conclusion: The findings from this review suggest that retro walking may offer a unique and effective intervention for managing low back pain and enhancing performance measures among basketball players. Further research is needed to validate these effects and establish retro walking as a standard part of rehabilitation and training regimens for athletes.

Keywords: Agility, Dynamic balance, Flexibility, Performance measures

PARTICULARS OF CONTRIBUTORS:
1. Postgraduate Student, Department of Physiotherapy, Sharda School of Allied Health Sciences, Sharda University, Greater Noida, India.
2. Associate Professor, Department of Physiotherapy, Sharda School of Allied Health Sciences, Sharda University, Greater Noida, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:
*Archana Khanna
Department of Physiotherapy, Sharda School of Allied Health Sciences, Sharda University, Greater Noida, India.
E-mail: archana.khanna@sharda.ac.in