Plyometric Agility Training: Enhancing Basketball Skills and Performance: A Literature Review

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

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

Probhjot Singh Nalwa, Demonstrator, 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. Shweta Sharma.

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

E-mail: shweta.sharma@mmumullana.org

Introduction: Agility is the capacity to maintain body position and quickly change the direction during sequence of motions. It is an essential factor in determining performance in basketball as it requires speed and quick decision-making skills. Agility training plays a crucial role in enhancing athletic performance like power, improved footwork, increased speed and strength, faster response and injury prevention. Agility training includes plyometric training, lateral plyometric jumps, shuttle runs, jump box drills. Plyometric agility drill training is found to have a significant effect among basketball players. It is used widely in training protocols for overall performance enhancement in basketball athletes.

Aim: This study is intended to comprehensively explore the effects of plyometric agility training among basketball players.

Materials and Methods: Research literature published from 2011 to 2024 was searched in Google scholar, Web of science, Scopus, EBSCO, PubMed databases with agility training, basketball, plyometric training as keywords. A total of 1000 articles were

identified initially. On the basis of predefined inclusion and exclusion criteria, non English articles and duplicates were excluded. A total of 12 articles were included that met the specified criteria.

Results: Studies showed that plyometric agility training can be effective at change of direction ability. The studies also stated that plyometric agility training improves jumping and sprinting in basketball players. Other study showed effectiveness of plyometric training in coordination and enhancing power among basketball players. Other studies indicated plyometric training improves explosive strength by increasing volume of muscle in lower limb, reducing jumping time and the rate at which force develops.

Conclusion: This literature review concludes that plyometric agility training plays an important role in improving change of direction, jumping, sprinting, coordination, explosive strength and enhancing power among basketball players.

Keywords: Basketball players, Lateral plyometric jumps, Injury prevention.