DOI: 10.7860/JCDR/2025/80478.21838

Efficiacy of Virtual-based Physiotherapy for Chronic Pain Management in Marfan Syndrome: A Systematic Review

Nandani Dhiman, BPT Student, Department of Physiotherapy, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.
Urvashi Chauhan, Assistant 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:

Urvashi Chauhan,

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

E-mail: chauhanurvi17@gmail.com

ABSTRACT

Introduction: Marfan syndrome (MFS) is a genetic connective tissue disorder characterised by cardiovascular, musculoskeletal, and ocular complications, often leading to the chronic pain and reduced quality of life. Traditional physiotherapy plays a critical role in managing these symptoms, but virtual-based physiotherapy has emerged as a convenient and accessible alternative.

Aim: This review evaluates the efficacy of virtual physiotherapy in managing chronic pain and improving physical function in individuals with MFS.

Materials and Methods: A systematic review of studies from databases such as PubMed, and Google Scholar was conducted using keywords like this "Marfan syndrome," "Virtual physiotherapy," and "Chronic pain". Inclusion criteria comprised studies that examined virtual interventions for pain management in MFS, while non-virtual or non-MFS studies were excluded.

Results: Virtual physiotherapy interventions demonstrated significant improvements in quality of life, pain reduction, and physical function. Key outcomes included enhanced cardiorespiratory fitness, muscle strength, and flexibility. The programmes were safe, with no adverse effects reported, and facilitated better adherence due to their accessibility and personalisation.

Conclusion: Virtual physiotherapy is a promising approach for managing chronic pain in MFS patients, offering a safe, effective, and flexible alternative to traditional methods. Further large-scale research is necessary to validate its long-term benefits and establish standardised protocols.

Keywords: Quality of life, Tele-rehabilitation, Virtual physiotherapy.