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Exploring Visuospatial Skills in Physiotherapists: A Scoping Review

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ABSTRACT

Introduction: Visuospatial skills, the ability to perceive, process, and manipulate spatial information, are essential in various clinical settings, particularly in physiotherapy. These cognitive abilities play a crucial role in movement analysis, rehabilitation planning, and patient education. Despite their significance, there is limited research on how visuospatial skills are developed, assessed, and utilised within the field of physiotherapy.

Aim: This scoping review aims to explore the role of visuospatial skills in physiotherapists, identify the gaps in skill development, and examine methods of assessment and strategies for improvement. The review seeks to evaluate the existing literature on visuospatial competencies and their impact on physiotherapy practice, with a focus on educational and clinical implications.

Materials and Methods: A comprehensive search of relevant databases was conducted to identify studies that examined the role of visuospatial skills in physiotherapy. The inclusion criteria focused on studies that addressed the application, assessment, and training of visuospatial skills among physiotherapists. A thematic analysis was performed to synthesise the findings and identify key trends in the literature.

Results: The review found that while expert physiotherapists demonstrate superior visuospatial skills compared to novices, systematic training in this area is underexplored. Studies highlighted the significant role of visuospatial competencies in movement analysis, treatment design, and patient communication. However, gaps in physiotherapy curricula, limited exposure to practical training, and the lack of structured assessments were identified as barriers to skill development. Furthermore, the integration of technological tools, such as Virtual Reality (VR) and Augmented Reality (AR), were shown to enhance visuospatial training.

Conclusion: This scoping review highlights the essential role of visuospatial skills in physiotherapy, particularly in movement analysis, treatment planning, and patient communication. While expert physiotherapists demonstrate superior visuospatial abilities, there is a notable gap in systematic training and assessment. The review underscores the need for structured skill development to enhance clinical efficiency and decision-making.

Keywords: Augmented reality, Clinical decision-making, Curriculum reform, Education, Movement analysis, Physiotherapy, Skill development, Technology, Virtual reality

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