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Musculoskeletal Disorder in Esports Players: A Scoping Review of Prevalence, Risk Factors and Interventions

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ABSTRACT

Esports is a rapidly growing sport that has made gaming a physically demanding task that requires prolonged sitting, repetitive hand movements and static posture. These aspects put players at risk of Musculoskeletal Disorders (MSDs) like overuse injuries in occupational and athletic groups. Despite this growth, musculoskeletal health awareness is still low.

The purpose of this scoping review is to examine the prevalence, risk factors, and intervention of musculoskeletal disorders in Esports players.

Following the Population, Concept, Context (PCC) framework, this review targets Esports players in the age group of 16-30 years that indulge in competitive, semi-competitive and recreational gaming conditions with prolonged sessions with sustained postures and repetitive hand use on platforms like PC, console and mobile gaming duration between 4 and 12 hours per day. It deals with MSDs such as neck and shoulder pain, low back strain, carpal tunnel syndrome and De Quervain's tenosynovitis. Most of the studies were cross-sectional surveys taken from PubMed, Scopus, Science Direct, PEDro and Cochrane (CENTRAL) using the keywords: Esports, Musculoskeletal disorders, Repetitive Strain injuries and Physiotherapy interventions, starting from December 2020 to December 2025.

The prevalence rates of MSDs were between 55% and 75%, with the neck, shoulders, wrist and lower back being the most affected. Risk factors that were reported were repetitive movements, poor ergonomics and low physical fitness.

The MSDs are very common in Esports. Preventative steps like posture correction, periodic breaks and strengthening programmes appear promising but are not empirically proven.

Keywords: Ergonomic risk factors, Esports athletes, Musculoskeletal disorders, Physiotherapy interventions, Repetitive strain injuries

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