

# Factors Influencing Adherence to Telerehabilitation Programmes in Athletes with Sports Injuries: A Systematic Review

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## ABSTRACT

**Introduction:** Telerehabilitation has come out as a fulfilling solution for rehabilitation of sports injuries, particularly in the post-COVID era. However, complying with traditional methods of remote rehabilitation program is a significant challenge, posing recovery outcomes.

**Aim:** This systematic review aims to identify and synthesise factors influencing adherence to telerehabilitation programmes in athletes with sports injuries.

**Methods:** A comprehensive search was done in PubMed, SPORTDiscus, PEDro, and CINAHL databases for studies published between 2013 and 2023. Keywords included (“telerehabilitation” OR “telehealth”) AND (“sports injuries” OR “athletes”) AND (“adherence” OR “compliance” OR “dropout”). Studies were included if they focused on athletes, reported adherence metrics, and evaluated telerehabilitation programmes. Data were extracted and thematically analysed to identify key barriers and facilitators.

**Results:** Of the 1,235 studies screened, 22 studies were included. Four main themes emerged: (1) Athlete-Specific Factors (e.g., motivation,

time constraints, competition schedules), (2) Technology Factors (e.g., ease of app use, real-time feedback, wearable integration), (3) Therapist-Related Factors (e.g., frequency of communication, personalised feedback), and (4) Cultural/Socioeconomic Factors (e.g., access to technology, language barriers). Elite athletes demonstrated higher adherence rates due to structured team support, while amateur athletes faced challenges related to self-motivation and technology literacy.

**Conclusion:** Adherence to telerehabilitation in athletes is impacted by a complex interplay of personal, technological and environmental factors. Strategies such as gamification, hybrid models (combining remote and in-person sessions), and culturally tailored interventions may enhance adherence. Future research should focus on developing standardised adherence metrics and exploring the long-term impact of adherence on recovery outcomes.

**Keywords:** Telerehabilitation, Sports injuries, Athletes, Adherence, Compliance, Telehealth, Digital physiotherapy

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