

# The Efficacy of Telerehabilitation in Enhancing Motor Recovery and Quality of Life in Patients with Neurological Disorders: A Systematic Review

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## INTRODUCTION & AIM

The field of neurorehabilitation is currently witnessing a profound digital transformation, where telerehabilitation has emerged as a critical tool for ensuring the continuity of care beyond traditional clinical settings. This modality addresses the growing need for accessible therapy, particularly for patients facing long-term recovery processes. The primary aim of this systematic review is to evaluate the clinical efficacy of remote rehabilitation interventions in comparison to conventional in-clinic therapies. Specifically, the research focuses on determining how these digital methods impact the restoration of motor functions and the overall quality of life for individuals suffering from neurological conditions such as stroke and multiple sclerosis.

## METHOD

To ensure a rigorous academic standard, a systematic search was conducted across major scientific databases, including PubMed, Scopus, and Web of Science. The scope of the review was limited to randomized controlled trials (RCTs) published between 2020 and 2025 to capture the most recent technological advancements. The inclusion criteria targeted adult populations undergoing digital or remote neurorehabilitation protocols. Data synthesis relied on validated clinical outcomes such as the Fugl-Meyer Assessment (FMA) for motor recovery, the Berg Balance Scale (BBS) for postural control, and various standardized metrics for assessing Quality of Life (QoL), ensuring a robust quantitative basis for the findings.

## RESULTS & DISCUSSION

Preliminary analysis of the selected literature indicates that telerehabilitation is at least as effective as traditional face-to-face therapy in promoting neuroplasticity and functional motor recovery. A significant observation is that digital platforms tend to enhance patient adherence, primarily due to the increased convenience and reduced travel burden associated with home-based training. Furthermore, the data suggests that interventions incorporating biofeedback and synchronous monitoring by healthcare professionals yield significantly higher improvements in functional independence compared to unmonitored home exercises. However, the study also identifies the heterogeneity of digital platforms and the absence of standardized protocols as ongoing challenges that complicate the universal implementation of these technologies.

## CONCLUSION

Telerehabilitation represents a viable, evidence-based alternative to traditional rehabilitation methods, effectively addressing the geographical and mobility barriers that often hinder patient progress. By integrating telemedicine into routine clinical practice, healthcare systems can optimize functional outcomes and improve long-term disability management. While the potential for digital neurorehabilitation is vast, future efforts must focus on establishing standardized clinical guidelines to ensure consistency and quality in remote care delivery.

## REFERENCES

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