Digital Physiotherapy: Tele-rehabilitation for Accessible Public Health

Abstract

The COVID-19 pandemic sped up the use of digital tools in healthcare, bringing tele-rehabilitation into focus. This paper reviews how tele-rehabilitation can make physiotherapy more accessible, cost-effective, and equitable. Using studies from 2018–2024 and WHO's Rehabilitation 2030 and UN Sustainable Development Goals frameworks, the research found that digital physiotherapy gives results similar to traditional methods while reaching more people. However, challenges like poor internet access, low digital literacy, and lack of policies limit its full potential. Better policies, professional training, and strong data protection are needed to make tele-rehabilitation a lasting part of public health systems.

Keywords: Tele-rehabilitation, Digital Physiotherapy, Accessibility, Health Equity, Public Health Policy

Introduction

Rehabilitation is vital for good health but often overlooked. Tele-rehabilitation, which includes video-based physiotherapy and mobile health platforms, helps continue care remotely. Studies show that online physiotherapy can be just as effective as in-person sessions for conditions like joint pain, stroke, and post-surgery recovery. WHO's Rehabilitation 2030 initiative supports such digital approaches to improve access and health equity worldwide.

Objectives

• Explore tele-rehabilitation's role in fair access to physiotherapy. • Review its clinical effectiveness and cost benefits. • Identify barriers to its adoption globally.

Results and Discussion

Tele-rehabilitation helps people in rural and remote areas get treatment without travel. Research shows improved patient engagement and satisfaction. It offers similar recovery outcomes as face-to-face therapy while saving 25–35% in costs. However, digital inequality, lack of clear policies, and privacy risks remain issues. Governments should invest in internet access, train healthcare workers in digital tools, and set rules for patient data safety.

Public Health Impact

Tele-rehabilitation supports preventive care, independence, and chronic disease management. When added to national health systems, it can reduce healthcare costs and improve quality of life, especially for people with disabilities or chronic conditions.

Conclusion

Tele-rehabilitation is no longer just an emergency solution—it's a sustainable public health strategy. With proper training, infrastructure, and policy support, it can ensure equitable access to

physiotherapy for all.

References (Simplified)

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