Abstract

This research explores the role of digital health technologies in chronic disease management through a mixed-methods approach. As chronic diseases become increasingly prevalent, digital tools such as mobile health apps, wearable devices, and telemedicine platforms offer promising solutions to improve disease monitoring, patient engagement, and treatment adherence. The study aims to assess how these technologies impact the management of chronic conditions, focusing on both patient outcomes and healthcare delivery.

The quantitative component of the study involves analyzing patient data collected from digital health technologies, such as changes in health metrics (e.g., blood pressure, glucose levels) and adherence to prescribed treatment plans. The research examines whether the use of these technologies leads to improved health outcomes, reduced hospitalizations, and enhanced self-management for patients with chronic diseases. Statistical analysis helps identify trends in effectiveness across different conditions and patient demographics.

In addition, the qualitative aspect includes interviews with healthcare providers and patients to understand their experiences and perceptions of digital health technologies in chronic disease management. These insights offer a deeper understanding of the barriers to adoption, such as technological literacy and privacy concerns, as well as the enablers, such as improved communication and personalized care. The findings aim to inform strategies for integrating digital health technologies into chronic disease management to enhance patient care and healthcare system efficiency.