

## **Abstract**

The rapid adoption of telemedicine has transformed healthcare delivery, particularly in terms of patient access and the quality of care. This mixed-methods study seeks to assess the impact of telemedicine on patient care outcomes and healthcare access across diverse demographic groups. By combining quantitative surveys and qualitative interviews, the research investigates both objective metrics of patient health and the subjective experiences of patients and healthcare providers.

Quantitative data, collected through patient surveys and electronic health records, measures key indicators such as treatment outcomes, patient satisfaction, and frequency of visits. The findings reveal significant improvements in care delivery, particularly in rural and underserved areas, where telemedicine has reduced barriers related to travel and provider availability. However, variations in technological literacy and internet access remain challenges for certain populations, limiting the equity of care.

In addition to the quantitative analysis, qualitative interviews with patients and healthcare professionals offer valuable insights into the personal experiences and perceptions of telemedicine. The results underscore the importance of patient education, as well as the need for system enhancements to support seamless virtual consultations. This study concludes by discussing the potential for telemedicine to complement traditional healthcare models, recommending strategies for its broader integration to optimize patient care and accessibility.