

# A Qualitative Systematic Literature Review of Patient and Service Provider Barriers in Implementing Diagnostic Teledermatology: Implications for Policy

## Introduction

Both synchronous and 'store-and-forward' teledermatology has risen significantly in the COVID-19 pandemic, enabling clinicians to remotely triage and diagnose multiple conditions without hindrance. Its utilization has increased by over 700% during the first wave of the pandemic in the United States. In the United Kingdom, evidence of a nationwide triage model suggested modest cost savings and conservation of in-person appointment slots, while maintaining high diagnostic concordance and patient satisfaction. However, multiple roadblocks still exist in embracing teledermatology worldwide.

## Objective

To evaluate the barriers faced by patients and service providers in diagnostic teledermatology, while proposing policy recommendations to overcome these barriers.

## Method

Studies from 2020-2022 meeting the inclusion criteria were sourced from databases MEDLINE and EMBASE, generating 575 abstracts. COVidence was used to perform single-member abstract and full-text screening, generating 23 studies for data extraction, which were compiled onto a spreadsheet.

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Thematic analysis was undertaken following Braun & Clarke's model. Identified themes were evaluated and categorized into a framework of barriers faced by patients and service providers.

## Result

Based on the thematic analysis, our framework identified 2 main themes to the barriers which patients and service providers faced respectively. Patient themes include 1) incongruent patient beliefs and outcome expectancies, and 2) technological inaccessibility. Themes of barriers to service providers include 1) low confidence in clinicians' own capabilities; and 2) failure of administration, coordination and strategy.

## Conclusion

This qualitative analysis identified the most important barriers to patients and service providers. Universally, patients lack insight into the added value of a teledermatology service, preventing engagement. In developed countries, the most important concern was privacy, while in developing countries, the main issue was language barriers with technological interfaces. For service providers, the main concerns were legal regulation uncertainty and lack of training, preventing uptake of teledermatology. We proposed policy recommendations to mitigate and address these barriers.

## Keywords

*Barriers, Dermatology, Facilitators, Telemedicine, Teledermatology, Policy*

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