
POSTER ABSTRACT

Information and Communication Technologies (ICTs) Enabling Integrated Primary Care for Complex Patients: A Scoping Review

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Introduction

Information and communication technologies (ICTs) are recognized as a critical enablers of integrated primary care to support patients living with multiple chronic conditions. Although ICT-enabled integrated primary care hold promises to support complex patients through team-based and continued care, critical implementation factors regarding what ICTs are available and how they enable the integrated model are yet to be mapped in the literature. This scoping review addresses this current knowledge gap in order to identify opportunities and gaps to help guide future implementation of the ICT-enabled integrated primary care model.

Aims Objectives Theory or Methods

Objective: This study systematically scoped the literature on ICT-enabled integrated healthcare delivery models for patients with complex care needs to identify which technologies have been used in integrated primary care settings. Method: The Arksey and O'Malley method was used to guide this scoping review. Four electronic medical databases were accessed: MEDLINE, EMBASE, CINAHL, PsycINFO, collecting studies published between January 2000 - December 2020. Identified peer-reviewed articles were screened in two stages: 1) title and abstract screening; and 2) full-text review. Relevant studies were charted and analyzed using the Rainbow Model of Integrated Care and the eHealth enhanced Chronic Care model.

Highlights or Results or Key Findings

A total of 46,736 articles were screened at the title and abstract level of which 37 met the eligibility criteria of the review. A large number of the studies originated from North America (62.5%) and used a quantitative method as a study design (51%). 70% of the studies used technology to enable professional and clinical level integration through clinical information sharing among a multidisciplinary team or across multiple organizations. There were fewer studies focused on the organization or system-level integration of care through technologies. A range of technologies was used in these models including web-based platforms, mobile applications, and telemonitoring being the most frequently used. Multiple implementation factors were identified that could enable or

hinder the successful implementation of technologies including patient health/digital literacy and training; provider workload, attitudes, and beliefs; usability and interoperability of technologies; and system factors such as incentives, technical and human resource support.

Conclusions

To maximize technological benefits in primary care, the literature suggests system-level support and favourable implementation climate are required. Future research is needed to explore how to integrate technologies at an organization and system level to create a health system that is well-prepared to optimize technologies to support patients.

Implications for applicability/transferability sustainability and limitations

The study findings benefit system leaders in showing the implementation factors and the types of technologies they need to consider when applying technology to optimize their integrated care models. Due to time constraints, gray literature was excluded in the review which may limit the findings of the study.