POSTER ABSTRACT

Assessing Factors that Influence the Implementation of Technologies Enabling Integrated Care Delivery for Older Adults with Complex Needs: A Systematic Review

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Introduction: There are currently multiple integrated care IC models and pilots developed to enhance collaborative care delivery for older adults living with complex health and social needs. Technology innovations are increasingly embedded in the delivery of IC for this population. These include, electronically-delivered: information communication, shared-care planning, early risk identification, decision support, self-management support and remote monitoring. However, at various stages of implementation, there are common setbacks that influence the adoption and spread of these technologies and overall IC delivery.

The objective of this systematic review is to examine the following questions: 1) Across different implementation stages of IC for older adults with complex needs, what are the key enablers of technology adoption; 2) how do these factors interact to influence successful technology adoption across various levels of IC including at the: individual, provider, team, organizational and across care settings.

Theory/Methods: A detailed search strategy was developed, and conducted in following databases: Medline/PubMed, EMBASE, PsychINFO, CINAHL and Scopus. When articles described barriers or challenges that emerged from the implementation of technology in IC, they were systematically recorded. Following a multilevel thematic analysis, these statements were mapped against a combination of two frameworks:

1- the Consolidating Framework for Research Implementation CFIR;
2- the Fit between Individuals Task and Technology framework FITT

Results: Preliminary results of this systematic review found that technologies were predominantly implemented to enhance integration at the provider-teams level, followed by at the organizational level. The most frequently reported influencers of adoption were related to the providers’ knowledge and perceptions of the technology, and how it impacted their ability to perform their responsibilities. This was followed by the technology characteristics; particularly its seamlessness or disruptiveness to the existing systems of work. As well as how adaptive and responsive the technology was to the goals and needs of the: older adults,
providers, organization and the system. Factors such as organizational and system leadership, environmental culture and the ability to engage key players in the co-design and implementation of technologies were also key influencers.

**Conclusions key findings:** These early findings highlight the need to tailor technological innovations to the IC setting, as well as the importance of considering change management strategies to enhance the system readiness and responsiveness to change. Supporting stakeholders before and during the processes of implementing IC technologies will increase their effectiveness in being flexible and adaptive to system changes.

**Limitations:** The results presented are based on preliminary findings, however, an extensive systematic review is underway. A significant limitation is that the review did not deeply examine older adult and caregiver factors that could influence the implementation of technology in IC. A comprehensive systematic review and qualitative analysis will further examine this necessary dimension of technology implementation.

**Suggestions for future research:** Results of the review will be used to inform the development of a tool that assesses the cross-sectoral capability of adopting technologies that support IC for older adults living with complex needs.

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**Keywords:** integrated care; technologies; implementation science; older adults; adoption