

# School of Health Information Science Seminar Series:

## Co-Designing Implementation Strategies for a Suicide Prevention App with Clinicians, Patient and Care Partners



Speakers:

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**Mar 6 on Zoom**

**12:00pm PT**

### Co-Designing Implementation Strategies for a Suicide Prevention App with Clinicians, Patient and Care Partners

#### **Purpose**

To date, research on mental health apps lacks a rigorous implementation science foundation and theoretical basis. Implementation strategies are often developed in a non-systematic manner and fail to address key determinants of implementation. In response, this research aims to leverage collaborative approaches and implementation science frameworks, with a focus on behaviour change (e.g., Capability, Opportunity, Motivation – Behaviour [COM-B]), to design implementation strategies for an app to support suicide safety planning intervention (SPI) in a psychiatric emergency department (ED).

#### **Research objectives**

(1) Understand ED clinicians' experiences and perceptions of implementing an app into routine practice and to identify barriers and facilitators to implementation (Phase 1); (2) Use findings from Phase 1 and engage multiple partners to co-design implementation strategies (Phase 2).

#### **Methods**

Phase 1 involved a qualitative study to understand ED clinicians' experiences and perceptions of implementing the app into routine practice, identifying barriers and facilitators. In Phase 2, the co-design team (n=11) consisted of ED clinicians (e.g., nurses, psychiatrists), ED service users (i.e., patients), and families/caregivers. The team held four design sessions to collaboratively select the types and contents of implementation strategies, such as behaviour change techniques (BCTs) (i.e., the active ingredients of implementation strategies) that could mitigate the barriers and leverage facilitators identified in Phase 1. We engaged in open discussions and polling activities to reach a consensus, guided by the Affordability, Practicality, Effectiveness, Acceptability, Side effects, and Equity (APEASE) framework.

#### **Results**

In Phase 1, 29 ED clinicians were interviewed, and several barriers and facilitators were identified and mapped onto the COM-B. Key barriers included limited awareness of the app, the busy nature of the ED, which accompanied frequent shifts in priorities, and the lack of standardized communication and workflows around SPI. Key facilitators included strong leadership support and a team-oriented culture. Potential implementation strategies were then identified using the Behaviour Change Wheel, which connects the COM-B to specific strategies. In Phase 2, the co-design team was presented with pre-matched implementation strategies and BCTs. Through application of the APEASE in the design sessions, pre-matched BCTs were either approved or revised by the team. The co-design sessions were iterative, with each session building on the findings of the previous one. In the end, we had developed 11 implementation strategies, each comprising different combinations of behaviour change functions (e.g., Education + Training + Persuasion) and BCTs.

#### **Conclusions**

This research highlights the value of combining behaviour change theories and collaborative design to create effective implementation strategies for mental health apps, particularly in high-demand settings like EDs.

[Link to speaker bios](#)

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