

People, Process, & Technology

Understanding the Contextual Factors Impacting the Implementation of an App to Support Patients with Schizophrenia Spectrum Disorders

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INTRODUCTION

- Effective clinical services and treatments for schizophrenia spectrum populations are commonly hindered by illness complexity.¹ Considering this, digital health holds promise in the effort to support individuals with schizophrenia spectrum disorders (SSD).
- While some research has demonstrated the efficacy of digital health technologies in supporting mental health treatment, the integration of these technologies into clinical care remains largely unexplored.
- Given this, a multi-site implementation of an empirically validated digital health platform, **App4Independence (A4i)**,² was conducted to support individuals with SSD. The contextual factors which impacted the implementation of and engagement with A4i across the three different clinical implementation sites are described.³

METHODS

A descriptive approach, guided by the socio-technical framework, was employed to describe contextual factors related to **People, Culture, Process, and Technology** which impacted the implementation of the A4i app in the three clinical implementation sites, herein referred to as *contexts*.

Descriptive stats were used to present A4i app user engagement data across each site implementation. Additionally, the lessons learned from each context are described narratively.



Context 1: Remote, 2-year, randomized controlled trial located at CAMH. Patients diagnosed with SSD, over the age of 18, living in the GTA, were eligible to participate.



Context 2: 2-year feasibility pilot within an outpatient clinic at CAMH. Patients with SSD, over the age of 18, were eligible to participate with their clinician.



Context 3: 6-month peer support worker (PSW) lead pilot program at RUHS Community Health Clinics. Patients with SSD, over the age of 18 were eligible to participate with their clinician.

FINDINGS: App User Engagement

Implementation Context	Context 1		Context 2		Context 3	
	30 days	90 days	30 days	90 days	30 days	90 days
Period of Use	30 days	90 days	30 days	90 days	30 days	90 days
# of Patient Participants Enrolled	58	58	9	9	116	101
Retention Rate*	93%	96%	100%	100%	94%	93%

***Retention** is engagement with the A4i app over a 30- or 90-day period. An 'engaged' user is one who has interacted with the app at least once over the specified period.

FINDINGS: Socio-Technical Factors Impacting Implementation

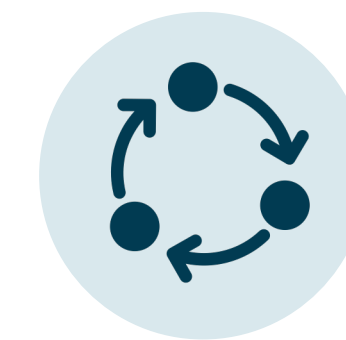
The adoption and implementation of the A4i platform varied across each context and were affected by factors within the sociotechnical domains of people, culture, process, and technology.

People/Culture



- Team structure and roles varied. Specifically, the app support provided, and team nature differed.
- In each context, healthcare innovation was a large part of the organizations strategic plan and *culture*.

Process

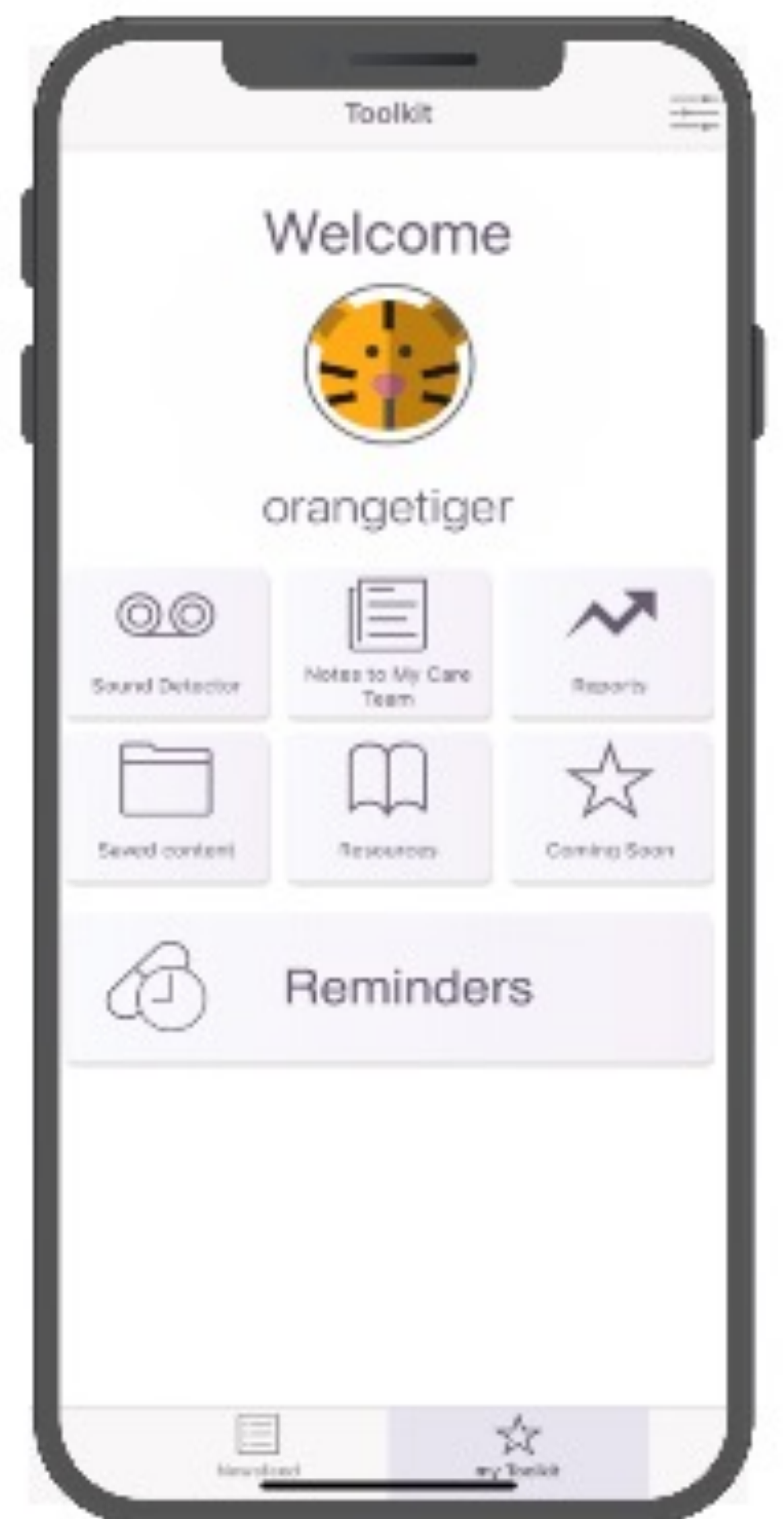


- A similar *process* and workflow was adopted in each context to introduce and implement the app.
- Education/onboarding materials and training approaches were tailored to the context.

Technology



- Smartphone devices and data plans were provided to patient participants in contexts 2 and 3.
- Tech support was provided in the form of a 'digital navigator'. This role was assumed by different people in each context.



CONCLUSION

Although differences in implementation and approach existed across the domains of people, culture, process, and technology, engagement with the A4i platform remained consistently high over the initial period. Customized educational materials, digital navigators, and ongoing technical support were facilitators in ensuring the successful adoption of the A4i intervention

REFERENCES

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3. Kidd, S., et al. Examining a digital health approach for advancing schizophrenia illness self-management and provider engagement: protocol for a feasibility trial. *JMIR* 2021; 10: e24736