App Design Opportunities and Challenges in Clinical Psychology

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Abstract

Mental health focused apps are prevalent, although most lack evidence-based design and evaluation (Kumar et al., 2013). The use of mental health apps as a treatment modality is increasing, although there are limited opportunities for professional training in app design and evaluation. This talk will present 1) Feedback and lessons learned from an app design workshop at the Stanford School of Medicine, Department of Psychiatry, 2) challenges and opportunities involving subject matter experts in both design thinking and app design, and 3) next steps in creating a culture of clinician involvement in health focused technology, and 4) Experience with App Inventor 2 in a clinical training setting.

1. Background and Learning Objectives

Background
mHealth interventions are a promising source of clinically valuable data, and extend traditional mental health treatment modalities (Donker et al., 2013, Free et al., 2013). Apps are an exciting tool in mental health given barriers to treatment such as logistical issues, privacy and stigma concerns, and limited availability of real-time data acquisition and crisis management (Hoge et al., 2004).

Despite the prevalence of health focused apps, providers are typically not formally trained in design thinking. Additionally, given the complexity of technology creation, providers are more often finding themselves in multi-disciplinary teams that rely on communication between programmers, designers, hospital operations staff, and legal teams to create meaningful tools that both meet patient needs while navigating the complex landscape of clinical technology implementation. The importance of evidence based app creation, coupled with the challenges of design and implementation suggest a need for providers to gain some knowledge of both general design principles and more specifically software design in order to create meaningful tools for both patients and clinicians.

Design thinking can be taught (e.g. Institute of Design at Stanford), and unique challenges and opportunities merit attention in mental health. This talk will describe the first design workshop focused on mental health apps at Stanford Department of Psychiatry. Specifically, the use of MIT's App Inventor will be highlighted as a recommended starting point for providers interested in app design and introductory coding.

Learning Objectives
1) Attendees will learn about unique challenges to app design and usage in mental health settings.
2) Unique aspects of teaching healthcare providers design thinking will be discussed.
3) Attendees will understand how App Inventor 2 was used as an exemplary starting point for providers interested in coding while avoiding some of the traditional barriers to learning programming.
4) Recommendations will be shared regarding how much a healthcare provider needs to know to be useful within an interdisciplinary team focused on technology creation.

2. Figure/Captions
Figures and captions to come.

3. References

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