INF 232 - Health Discussion

Colin LeFevre & Ziqi Yang @ Jan 23, 2024

Agenda

- **Lecture:** Overview of Paper 1

- **Discussion:** Takeaways of Paper 1

- **Lecture:** Overview of Paper 2

- **Discussion:** Takeaways of Paper 2

Paper 1

"This app said I had severe depression, and now I don't know what to do": the unintentional harms of mental health applications

🏆Best Paper Award at CHI'24

Overview

- Interested in the "unknown risks" of using depression self-management apps
- Conducts a qualitative analysis of 6,253 reviews left on 36 apps
- Finds four themes of harms and contextualizes them in an ethical framework
- Contributes recommendations and resources for HCI, Psychological Science, and consumers
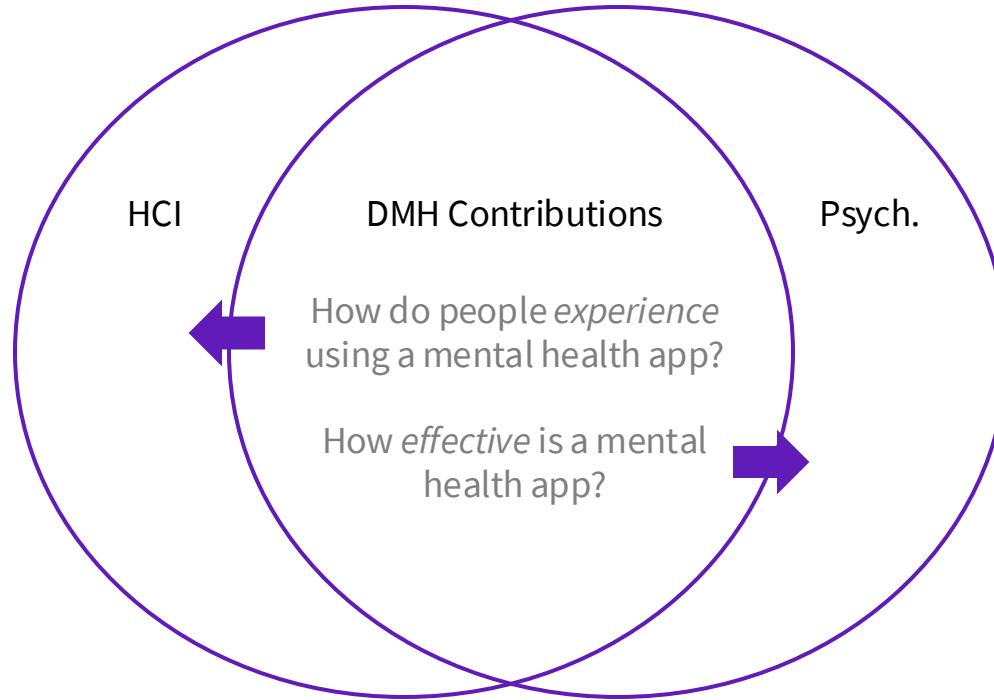
Digital Mental Health (simplified)
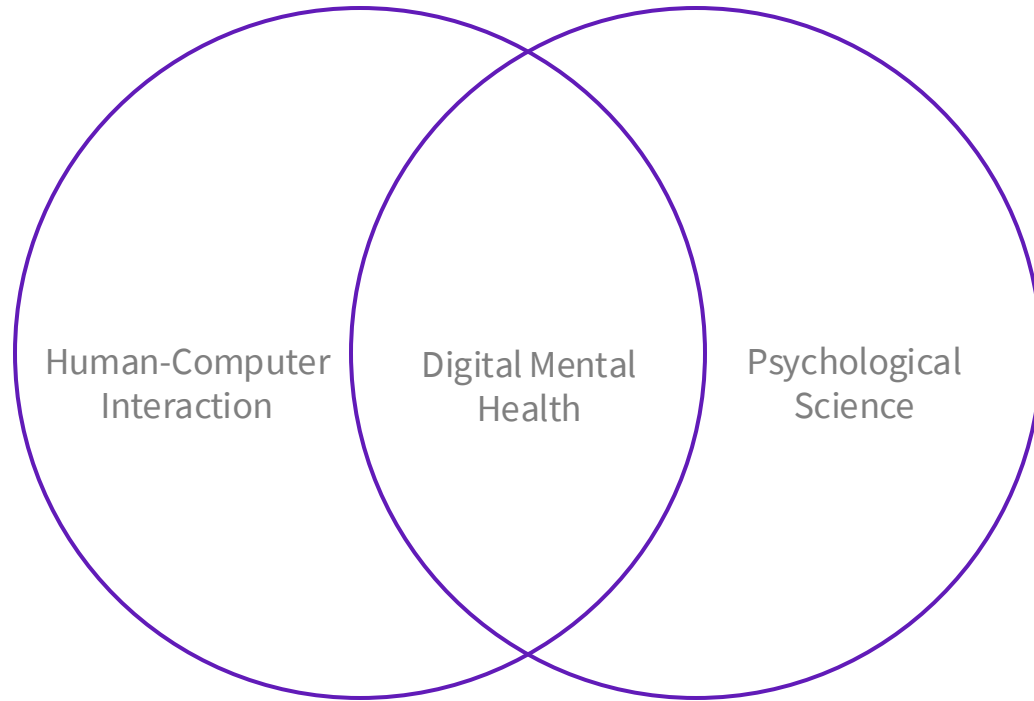
Other fields have been excluded for the sake of time

Digital Mental Health (simplified)

HCI   DMH Contributions   Psych.

How do people *experience* using a mental health app?

How *effective* is a mental health app?

How Paper 1 builds on DMH literature

1. Establishes the importance and utility of mental health apps using both HCI and Psychological Science research
2. Surfaces the lack of attention to ethics in the design and development of mental health apps using HCI research
3. Evaluates ethical issues in mental health apps using Psychological Science standards (i.e., APA ethical principles)
4. Analyzes those ethical issues from an experience-focused, HCI perspective

What and to whom Paper 1 is contributing

The authors list three contributions:

- Recommendations to developers for creating ethical mental health apps (specifically depression self-management apps)
- Resources for mental health practitioners to screen mental health apps
- Resources for consumers to to screen mental health apps

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The contributions are directed towards digital mental health researchers / professionals *and* consumers.

What are the main takeaways of this paper for the HCI research community? Are there takeaways for other research communities?

Nobody has responded yet.

Hang tight! Responses are coming in.

Some of Colin's Takeaways

1. Ethics is an important dimension of mental health app design which ought to be attended to but seems to have been understudied
2. HCI may work to create evidence-based mental health apps, but unethical apps are still available to and used by consumers
3. Harms arising from poor user experience are yet another reason to consider *experience* along with *effectiveness* in the design of digital mental health tools

Paper 2

MigraineTracker: Examining Patient Experiences with Goal-Directed Self-Tracking for a Chronic Health Condition
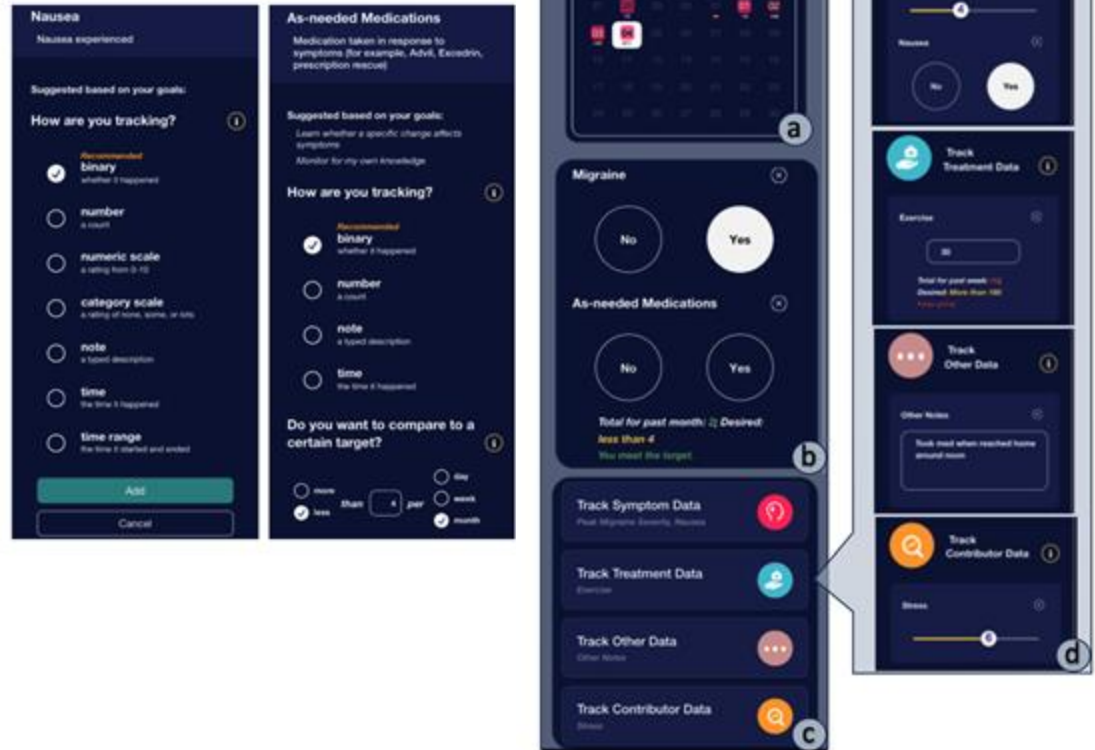
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Refresher

Motivation:

- Personal health tracking tools
- Complexity of health conditions and tracking goals

Design of MigraineTracker:

- Tracking configuration
- Data entry
- Data review
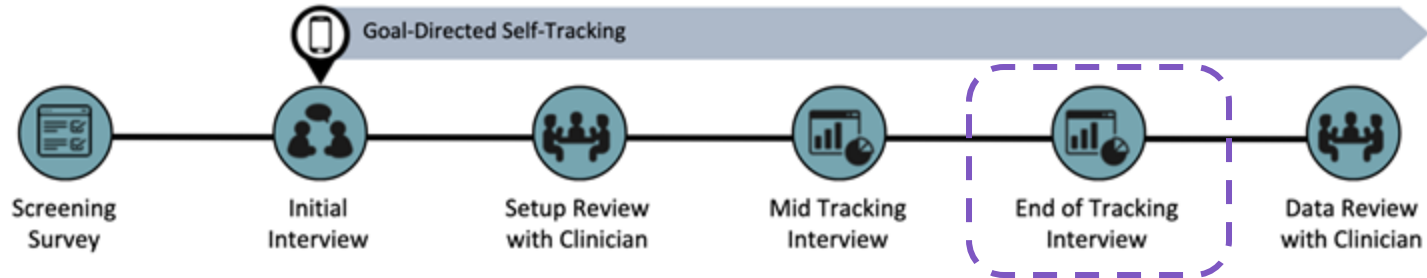- **"Goal** is the center**"**

Refresher

Deployment study:

- Patients + clinicians, mostly pairs
- Average 2.5 months of tracking, with interview and surveys

Analysis:

- Focus on end of tracking interview
- Inductive and deductive coding + other data analysis

Areas of Inquiry

Areas:

- Within HCI: self-tracking, personal health informatics
- Outside HCI: chronic condition management (using migraine as an example)

Expansion to the areas:

- Understanding the use of self-tracking tools for chronic condition management
- Ways to improve personal health informatics models
- Design of technology to support chronic condition management

Contribution

- Mainly to HCI + health researchers
- Some system/artifact contribution
- Empirical contribution (by studying the use of the MigraineTracker app)
  - How goal-directed data collection and reflection supports patients in their personal health tracking
  - Understanding of goals, their evolution, and the benefits of goal expression for patients
  - Challenges and design implications to personal informatics and design of self-tracking tools

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Ziqi Debrief on Takeaways

For HCI researchers…

- Learning from the methods: from design to deployment
- On goal-oriented self-tracking, e.g. classes of goals, the evolution of tracking goals in long-term chronic condition management

For other research communities…

- Potentially on how to leverage self-tracking tools for chronic condition management

Thank You 🙂