Assessing Clinical Perspectives on Prescribed Smartphone Headache Applications Through Structured Interviews

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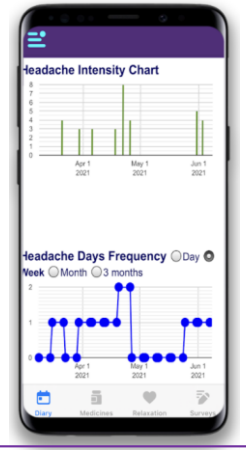
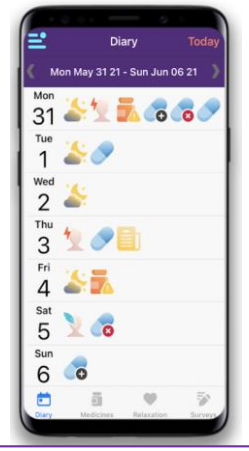
Background

In the growing age of technology, more patients are moving towards technology-based solutions; there is a large number of popular,(Minen et al. 2020, 1392-1401) commercially available headache and migraine tracking smartphone applications (apps) for android and iOS systems, however very few that have been developed with physician input.





The RELAXaHEAD app, was developed and beta-tested by both headache specialists and people with migraine, and has been tested over multiple clinical trials in a variety of populations with migraine (Minen et al. 2020, 1392-1401; Minen et al. 2018; Usmani et al. 2021, 94-101). In brief, the RELAXaHEAD app contains progressive muscle relaxation (PMR), a level A evidence-based treatment for migraine prevention, and has back-end analytics to capture time spent playing. The app also includes an electronic headache diary that has been well utilized by hundreds of patients participating in research (Minen et al. 2020, 1402).

Participants

- 20 Clinicians from various institutions across the NIH Pain Network
- Headache provider (MD, DO, NP, PA) who treats patients with migraine and actively works with patients with migraine.
- Seeing patients at least one full day or equivalent a week.

Materials and Methods

20 Participants will partake in an hour-long semi-structured interview assessing beliefs and attitudes towards digitally prescribing headache and smartphone applications/electronic headache diaries

Interviews will be audio recorded and fully transcribed and coded using general thematic analysis using Atlas.ti8.

We will conduct qualitative analysis with transcribed interviews using established qualitative techniques.

Rationale

(1) Many questions remain regarding the practical usage and implementation of electronic headache diaries from the clinical perspective such as how their utilization may affect visit times and productivity.

(2) By conducting and analyzing these interviews, we intend to better understand providers' priorities on these topics to create an informed, data-driven path forward for the implementation of previously developed electronic headache diaries to increase the treatment and care plans of patients, and streamline providers' workflow.

Goals

We are interviewing providers across the country from different institutions and types of practices to develop generalizable conclusions about headache apps and remote prescribing of apps/monitoring of headache app data. **Our goal is to aid in updating headache applications to reflect the feedback from headache providers.**

Citations:

Minen, M., J. Jaran, T. Boyers, and S. Corner. 2020. Understanding what people with migraine consider to be important features of migraine tracking: An analysis of the utilization of Smartphone-Based migraine tracking with a Free-Text feature. *Headache* 60 (7): 1402.

Minen, M. T., A. Jalloh, E. Ortega, S. W. Powers, M. A. Sevick, and R. B. Lipton. 2018. User design and experience preferences in a novel smartphone application for migraine management: A think aloud study of the RELAXaHEAD application. *Pain Med.*

Minen, M. T., T. Gumpel, S. Ali, F. Sow, and K. Toy. 2020. What are headache smartphone application (app) users actually looking for in apps: A qualitative analysis of app reviews to determine a patient centered approach to headache smartphone apps. *Headache* 60 (7) (Jul): 1392-401.