

Examining Self-Tracking by People with Migraine: Goals, Needs, and Opportunities in a Chronic Health Condition

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ABSTRACT

This research highlight presents our recent publication “Examining Self-Tracking by People with Migraine: Goals, Needs, and Opportunities in a Chronic Health Condition”, which appeared in the Proceedings of the ACM Conference on Designing Interactive Systems (DIS 2018) [1].

1 ORIGINAL ABSTRACT

Self-tracked health data can help people and their health providers understand and manage chronic conditions. This paper examines personal informatics practices and challenges in migraine, a condition characterized by unpredictable, intermittent, and poorly-understood symptoms. To investigate how people with migraine track and use data related to their condition, we surveyed 279 people with migraine and conducted semi-structured interviews with 13 survey respondents and 6 health providers. We find four distinct goals people bring to tracking and data: 1) answering questions about migraines, 2) predicting and preventing migraines, 3) monitoring and managing migraines over time, and 4) enabling motivation and social recognition. Each goal suggests different needs for the design of tools to support migraine tracking. We also find needs resulting from an individual’s goals evolving over time, their varied personal experiences, and their communication and collaboration with providers. We discuss these goals and needs in terms of opportunities for personal informatics tools to facilitate learning to: 1) avoid common pitfalls; 2) support customization and flexibility; 3) account for burden, negativity, and lapsing; and 4) support management with uncertainty.

2 RELEVANCE TO WISH

Recent work in the CHI and WISH communities has investigated how technology can support personal

informatics practices for a range of chronic conditions. Our recent DIS paper looks specifically at migraine, a condition characterized by unpredictable, intermittent, and poorly-understood symptoms. We interviewed people with migraine and health providers with the aim of investigating challenges and opportunities associated with migraine management, self-tracking, and patient-provider collaboration with patient-generated data. We found that people have distinct categories of goals for their migraine tracking. We also found needs resulting from an individual’s goals evolving over time, their varied personal experiences, and their communication and collaboration with providers. Based on our findings, tools designed to support migraine tracking may require both accounting for needs across migraine goals and adjusting functionality based on the specific tracking goals a person currently wants to pursue.

We look forward to participating in the WISH symposium to discuss how the particular goals people have could guide the design of future self-tracking tools. We hope to engage in discussions about other goals people may have for health and wellness management as well as the benefits and challenges of self-tracking toward those specific goals. The WISH community offers a great opportunity to engage in these discussions and develop new ideas about supporting the specific goals people have for their condition management.

3 STATEMENT OF NON-CONFLICT WITH POLICIES

This WISH submission does not conflict with the policies of DIS, where the work was originally published.

REFERENCES

- [1] Jessica Schroeder, Chia-Fang Chung, A. Daniel Epstein, Ravi Karkar, Adele Parsons, Natalia Murinova, James Fogarty, and Sean A. Munson. 2018. Examining Self-Tracking by People with Migraine: Goals, Needs, and Opportunities in a Chronic Health Condition. In *Designing Interactive Systems*. 135–148. <https://doi.org/10.1145/3196709.3196738>