Mobile Health and Personal Informatics in Mental Health and Migraine

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ABSTRACT

In this social paper, I provide information about my current and future work and discuss why I wish to participate in the Computing and Mental Health Symposium at CHI 2018. I am a fourth-year PhD student from the University of Washington focusing on personal informatics, health informatics, and patient-provider collaboration. My current research at UW focuses on novel tools and methods to support self-tracking by people with migraine. During the summer of 2017, I also worked with Mary Czerwinski on Pocket Skills, an application that provides holistic support for Dialectical Behavioral Therapy (DBT).

INTRODUCTION

I am a fourth-year PhD student working with James Fogarty and Sean Munson. In my research, I design, develop, and evaluate novel methods to help people understand and manage health conditions. I am particularly interested in supporting people in collecting, analyzing, and interpreting personal informatics data to address health goals, as well as addressing challenges in patient-provider collaboration with patient-generated data. I have worked in a wide range of personal informatics domains, including menstrual tracking [2], food tracking for healthy eating [1], and the formation [5] and testing [3] of personal hypotheses regarding symptom triggers in irritable bowel syndrome.

During the summer of 2017, I completed an internship at Microsoft Research with Mary Czerwinski. We conducted a feasibility study on Pocket Skills, a mobile web app that offers holistic support of DBT. I am presenting a paper on Pocket Skills at CHI 2018 [6], and I hope to attend the Computing and Mental Health Symposium to meet people in the field and learn more about current research examining how technology can support mental health.

RELEVANT RESEARCH

I am currently investigating how to support people with migraine in collecting, interpreting, and collaborating with health providers around migraine-related data, and recently submitted a paper characterizing goals, needs, and opportunities that arise in migraine as a condition characterized by unpredictable, intermittent, and poorly-understood symptoms [4]. Although my migraine research is not currently focused on mental health, comorbidities between migraine and mental health disorders contributes to my interest in this symposium and to computing and mental health more generally.

Most relevant to this symposium, I led a feasibility study on Pocket Skills, a mobile web app designed to provide holistic support for DBT [6], including goal setting, educational components, skill practice, and self-tracking of moods and behaviors. We demonstrated promising preliminary outcomes and yielded a model of how participants felt Pocket Skills was able to support their DBT. In the future, I hope to investigate how therapists and clients can better communicate and collaborate using data collected and visualized via Pocket Skills.

CONCLUSION

As a relative newcomer to mental health research, I hope to attend this symposium to learn more about current research examining how technology can support and promote mental health. I also look forward to meeting people involved in the space and discussing ideas for potential future research in the area.

REFERENCES

1. CF Chung, E Agapie, J Schroeder, S Mishra, J Fogarty, and SA Munson. When Personal Tracking Becomes Social: Examining the Use of Instagram for Healthy Eating. *CHI 2017.*

2. DA Epstein, NB Lee, JH Kang, E Agapie, J Schroeder, LR Pina, J Fogarty, JA Kientz, and SA Munson. Examining Menstrual Tracking To Inform The Design of Personal Informatics Tools. *CHI 2017.*

3. R Karkar, J Schroeder, DA Epstein, LR Pina, J Scofield, J Fogarty, JA Kientz, SA Munson, R Vilardaga, and J Zia. Tummytrials: A Feasibility Study of Using Self-Experimentation To Detect Individualized Food Triggers. *CHI 2017.*

4. J Schroeder, CF Chung, DA Epstein, R Karkar, A Parsons, N Murinova, J Fogarty, and SA Munson. Examining Self-Tracking by People with Migraine: Goals, Needs, and Opportunities in a Chronic Health Condition. *In Submission.*

5. J Schroeder, J Hoffswell, CF Chung, J Fogarty, SA Munson, and J Zia. Supporting Patient-Provider Collaboration To Identify Individual Triggers Using Food and Symptom Journals. *CSCW 2017.*

6. J Schroeder, C Wilks, K Rowan, A Toledo, A Paradiso, M Czerwinski, G Mark, and MA Linehan. Pocket Skills: A Conversational Mobile Web App To Support Dialectical Behavioral Therapy. *CHI 2018.*