ABSTRACT

Depression is a common problem that imposes a tremendous societal burden in terms of cost, morbidity, quality of life, and mortality. However, few people are able to obtain adequate or appropriate treatment for depression. Digital mental health (DMH) technologies such as web-based and mobile applications have shown great potential, with a large number of randomized controlled trials (RCTs) consistently demonstrating efficacy, particularly when coupled with support from a clinician or coordinator. Yet for all of the promise, evidence is emerging that these findings do not carry over when these tools are implemented in real-world settings. Indeed, a large-scale implementation trial of two well-known web-based tools (Beating the Blues and MoodGym) for treating depression found that patients did not want to engage with the tools. This research-to-practice gap is not being addressed by our current approaches for designing, implementing, and evaluating DMH technologies. In particular, we face three major challenges: (1) these technologies are often designed without sufficient stakeholder input throughout the design process; (2) we often plan for implementation only after the efficacy testing is completed; and (3) technological capabilities, care systems, and user expectations change rapidly but we currently are not flexible and rapid in how we respond to these changes.

In this talk, I will discuss how we are attempting to address these research-to-practice gaps through our Accelerated Creation-to-Sustainment (ACTS) model developed by our multidisciplinary team of DMH and HCI researchers. In particular, I will focus on the work that we are doing to try to better understand the needs of users, both patient and healthcare organization stakeholders, in terms of DMH technologies and services. I will then conclude with some thoughts about future directions for the field of digital mental health.

BIO

Dr. Madhu Reddy is a Professor in the Department of Communication Studies in the School of Communication and in the Division of Health and Biomedical Informatics in the Feinberg School of Medicine. He directs the People, Information, & Technology Changing Health (PITCH) Lab. Dr. Reddy’s primary research interests are at the intersections of Human-Computer Interaction (HCI) and Biomedical Informatics. His current research focuses on improving the design and implementation of DMH tools in order to better meet the needs of its users. Dr. Reddy has won the American Medical Informatics Association’s Diana Forsythe Award given to the best paper at the intersection of social science and medical informatics in 2002 and 2010. In 2015, he was elected as Fellow of the American College of Medical Informatics for his contributions to the field of biomedical informatics.