

Sociotechnical Synthesis

Even prior to the COVID-19 pandemic, the prevalence of mental health diseases among the young adult population was increasing. More than 50% of individuals will suffer from a mental illness or disorder at some point in their lives (CDC, 2021), but still, more than two-thirds of them will not receive treatment (Ellis, 2019). It is clear that traditional methods of one-on-one clinical therapy no longer suit the needs of today's individuals, particularly those who face barriers accessing care (WHO, 2020).

Mobile health technologies, most commonly known as digital mental health (DMH) interventions, have shown much potential for allowing for continuous treatment outside of original clinical settings. However, they have been unable to show their full potential due to high attrition and common premature dropouts.

For the capstone, my team worked together with the objective to research reasons behind these premature dropouts and design techniques to embed in the DMH interventions. The focus was on conversational agents, or chatbots, as the main DMH intervention, and innovative ways to study these in MindTrails, an internet-delivered cognitive bias interpretation already established at UVA. A virtual chatbot, DARA, was designed evaluating support needs with respect to embodiment/non-embodiment, free-text response/quick replies, and domain-free/domain-specific conversational properties. DARA was evaluated among 12 subject-matter experts. Overall, participants looked favorably towards the hybridization of human and chatbot coaching.

In order to get to this point of DMH interventions, however, there must be a way to ensure eligible individuals get treated to begin with. My thesis focused on a particularly common barrier experienced by individuals – stigma – and looked specifically at the region of India.

The World Health Organization labelled India as the “most depressed country in the world” (View, 2020) – with over 90 million Indians suffering from some form of mental health illness (Rathore, 2020). The inability to understand the severity of the situation due to public and self-stigma has led to a less than 20% treatment rate in the region and a shortage in mental health professionals (Bhatia, 2020). Overall, my thesis unearthed the ways that Bollywood media, the Indian government, faith healers, and social isolation contribute to the sociomaterial environment of negativity and disregard for mental health in India.

I believe that through my capstone and thesis, I achieved all that I set out to do at the beginning of this year. I am proud of the work I have completed and believe that my research does not end here regarding these topics. Mental health is definitely a topic I am passionate about and would love to continue researching. In particular, I would love to see my team's capstone work to be executed in a patient setting and for me to continue looking at different policies the Indian government could implement.

I would like to thank Ishita Ganotra, Janine Patel, Niketa Kumar, and Tara Devineni for inspiring me to research mental health in India, and my advisors, Professor Sean Lynch, Dr. Laura Barnes, and Sonia Bae, for encouraging me to push myself when researching these topics.