

Brief Description of Brief Description of Computational Modeling

Depression and schizophrenia are two of the most debilitating illnesses and they represent an enormous burden on patients and society. Currently, there are no objective measures to aid in the diagnosis or monitoring of patients with these disorders. However, computational analysis can extract objectively determined properties of patient language, and prior research indicates that there are quantifiable signals related to each condition. These quantifiable signals can power predictive models from the computational analysis of language and may change the way we provide care for both conditions. This is an untapped resource, and the high usage of social media provides a growing opportunity to seize upon readily available data to help predict and monitor illness. In this study, we will collect data on over 1000 people, including those with schizophrenia and depression. We will develop predictive models for symptom monitoring and detection, based on both self-rated and clinician-rated ground truth, and we will validate predictive models in real-world samples. We will explore the addition of spoken language analysis for in-clinic interviews as an additional resource in the development of models. This work will lay the foundation for future studies using these methods to integrate into the clinical process: facilitating diagnosis and monitoring and decreasing the personal and societal cost of mental illness.

Participants will be asked to complete data collection procedures as outlined at <https://umd.ourdatahelps.org/> and participate in 4 – 5 in-person appointments at the MPRC, located in Catonsville Maryland. Please call Anne Werkheiser, M.A., to inquire for additional information, (410-402-6874).