BIOSTATISTICS SEMINAR

Developing Technologies for Mental Health Assessment and Intervention

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Abstract:

The MATTER Lab at the Child Mind Institute (matter.childmind.org) develops wearable devices, apps, and informatics and analysis tools with a passionate open science ethos and clinical mission to help diagnose, assess, monitor and improve mental health. An example wearable device is our wrist-worn position tracker called the “Tingle” that records and remotely monitors compulsive behaviors (such as trichotillomania, excoriation, and nail biting) and can provide an alert when engaging in such behaviors (by haptic feedback on the wrist). We have created apps to remotely administer therapies for children with anxiety disorders, as well as a general-purpose data collection platform called “MindLogger” to administer a wide range of assessments, including surveys, drawing and tapping tasks, and audio recordings (mindlogger.org). We support the Healthy Brain Network (healthybrainnetwork.org), an ongoing study of 10,000 children and adolescents that collects and freely disseminates data from brain imaging, eye tracking, voice, video, biosamples, and a large battery of mental health assessments. Our work therefore combines a patient network, data collection and analysis, intervention platforms and delivery platforms. This combination will enable us to increase access to relevant treatment options, improve mental health assessment and treatment efficacy and support research programs in mental health globally.