



Scientific/Educational Workshop

Workshop title

Artificial Intelligence for Revolutionizing Mental Health Problems & Rehabilitation in Older Adults

Workshop organizer

Shehroz Khan (Toronto Rehabilitation Institute)

Speakers

Dr. Andrea Iaboni,
Dr. Jen Boger,
Dr. Alex Mihailidis

Workshop goals

Mental health problems of older adults are mostly under-identified due to lack of reporting, social stigma, and lack of access to services. Prevalence of other cognitive impairments in older adults (such as dementia) further exacerbates the diagnosis and rehabilitation. The goal of AIMH workshop is to bring together clinicians, AI and rehabilitation researchers, and usability experts to envisage a future to develop zero-effort assistive technologies and foster collaborations in the field.

Abstract

By 2050, the population of older adults (over the age of 60 years) worldwide is estimated to rise up to 2 billion. More than 20% of these older adults suffer from mental and neurological disorders; with depression and dementia being the most common. In Canada, more than 1.8 million people are living with mental health problems, which are mostly under-identified by both the healthcare professionals and the older adults. As people age, they may face stigma of living with such problems, which makes them reluctant to seek help. Depression in people living with dementia may range from 15-50% and may go undetected because its symptoms manifest directly from cognitive normal people. Therefore, early diagnosis of mental health issues is important to provide relevant rehabilitation techniques to mitigate negative impact on the quality of life of an individual. Recent advances in Artificial Intelligence (AI), sensor technology and big data analysis have led to developments in the field of detecting mental health issues. In this workshop, we explore the use of AI techniques to detect mental health problems in older adults (and those with dementia) and strategies to provide rehabilitation. To that end, our 1.5-hour workshop will take attendees through three sessions of talks and discussions, with the following themes

- Clinical importance of mental health assessment.
- Development of AI and Rehabilitation solutions.
- Usability and Acceptance of Technologies.

Firstly, an expert clinician will talk about barriers of diagnosing mental health issues, especially if it co-exists with dementia. Next, an expert will provide insights on the role of AI and developing rehabilitation strategies for this problem. Lastly, an expert will talk on transferring assistive technologies and their integration into people's everyday lives. The workshop will culminate with a panel discussion highlighting significant challenges and identifying key research areas to collaborate and progress in this field.