



UMass Chan
MEDICAL SCHOOL

Morningside
Graduate School of
Biomedical Sciences

Morningside Graduate School of Biomedical Sciences Masters in Clinical Investigation Program

Announces the MSCI Thesis Defense of

KARA SMITH

Speech Markers of Cognitive Impairment in Parkinson's Disease

Monday, November 21, 2022 at 5 p.m. Via Zoom Meeting

Parkinson's disease (PD) is a complex neurodegenerative disease that may cause a range of motor and non-motor symptoms. Cognitive impairment is common in PD, but current tools available to detect and monitor this complication have significant limitations. Speech and language deficits also occur frequently in PD, though the course and severity are variable and heterogeneous. Speech and language impairments may be related to cognitive deficits, thus serving as a proxy for cognitive status. Speech data could be developed into a useful marker of cognitive function in PD.

The overall aim of my thesis is to evaluate speech and language performance in individuals with PD and either normal cognitive status (PD-NC) or mild cognitive impairment (PD-MCI). I administered a speech and cognitive battery to 49 individuals with PD and 8 older adult controls. This assessment included standard tasks as well as novel cognitively challenging speech tasks. I will describe the speech performance of the PD group in general on these novel tasks. I will then focus on variables that distinguished PD-NC from PD-MCI, including speaking rate, pitch, and pausing locations.

Mentor

Robert Brown, MD, DPhil

Dissertation Exam Committee

Robert Goldberg, PhD

Bruce Barton, PhD