

Ralph H. Benedict PhD



Professor

[Department of Neurology](#)

[Jacobs School of Medicine & Biomedical Sciences](#)

Specialty/Research Focus

Alzheimer Disease / Memory Disorders; Forensic Psychiatry; Geriatric Psychiatry; Multiple Sclerosis; Neurodegenerative disorders; Neurology; Neuropsychology; Psychiatry

Professional Summary:

I direct two UBMD clinics: an outpatient neuropsychology practice at the Buffalo General Medical Center and an inpatient consultation service at the Erie County Medical Center. In addition, I provide services for patients at the Jacobs Multiple Sclerosis Center and the UB Alzheimer's Disease and Memory Disorders Center. Our clinical mission is to provide compassionate, state-of-the-art care for patients and families affected by a wide range of neurological and psychiatric disorders. Our top-rate

neuropsychological services are based on the integration of neurological, psychiatric and imaging findings and structured to meet the needs of our patients and their caregivers.

Our neuropsychology service is dedicated to the teaching mission of UB. We support the departments of neurology and psychiatry as well as the rehabilitation services in the orthopaedic, occupational therapy and physical therapy divisions at our UB-affiliated hospitals. We provide practicum and internship placements for UB Psychology Graduate students. Students, residents and fellows have a rich learning experience with us and see a wide range of diseases such as personality disorder, malingering, depression, head trauma, concussion, multiple sclerosis (MS), stroke, dementia, epilepsy and pervasive developmental disorders. Medical students have the opportunity to work with both children and adults during didactic rounds, and they may choose to focus on the evaluation of either patient population based on their clinical focus.

My research mission is to employ behavioral psychometrics to understand how cerebral disease affects personality, cognition, and psychiatric stability. Two memory tests I developed, the Brief Visuospatial Memory Test Revised (BVMTR) and the Hopkins Verbal Learning Test Revised (HVLTR), are widely used in neuropsychology, especially in the areas of multiple sclerosis, head injury, and schizophrenia, and they are included in consensus panel test batteries for athlete concussions in the NHL and NFL. I work to develop new tests in order to understand more about the effect of cerebral injuries and disease.

I also focus my research in multiple sclerosis (MS) and have conducted several studies on pharmacological and behavioral treatments for cognitive function in MS patients. I have contributed in noteworthy studies as the lead author on a consensus battery for MS patients (the Minimal Assessment of Cognitive Function in MS), which is a gold standard in the literature, and as a major contributor to the idea that brain atrophy is the primary driver of cognitive impairment in MS, and in particular, deep gray matter atrophy. Other research contributions in MS include [a] personality changes and employment, MS dementia, and associations with clinical outcomes, [b] self-report is not a valid indicator of neuropsychological status in MS, [c] Symbol Digit Modalities Test is a reliable and valid marker for cognitive outcomes in clinical trials.

Education and Training:

- Fellowship, Johns Hopkins School of Medicine (1992)
- PhD, Psychology, Arizona State University (1990)
- BS, Ohio State University (1983)

Employment:

- Professor, Neurology, University at Buffalo (1999-present)

Research Expertise:

- Alzheimer's disease and memory disorders
- Multiple sclerosis

Grants and Sponsored Research:

- June 2017–June 2020
The effects of working memory training on brain function, structure, and cognition in MS
National Multiple Sclerosis Society
Role: Co-Investigator
\$622,839
- August 2013–July 2018
The effect of aerobic exercise on cognition in multiple sclerosis
National Multiple Sclerosis Society
Role: Co-Investigator

- October 2014–September 2017
Fall risk and incidence reduction in multiple sclerosis
National Multiple Sclerosis Society
Role: Co-Investigator
- August 2013–July 2016
Effects of adenocorticotrophic hormone (Acthar gel®) on recovery from cognitive relapses in MS
Questcor
Role: Principal Investigator
- March 2013–February 2016
Oligodendrocyte Progenitor Cell Delivery for Restoration of Function in Multiple Sclerosis
New York State Health Department
Role: Co-Investigator
- September 2014–August 2015
Does working memory training improve brain function and cognition in MS?
National Multiple Sclerosis Society
Role: Co-Investigator
\$44,000
- June 2005–December 2007
Predicting neuropsychological defects in MS with regional MTR using a semi-automated extraction technique
National Multiple Sclerosis Society
Role: Principal Investigator