Analytic Approaches for Neuropsychiatric Symptom Scales

Friday, July 26, 2024 | 8 a.m. – noon
Marriott (Grand Ballroom C) — Philadelphia, USA
All times are in Eastern Standard Time
In-person attendance only

Overview

This workshop will review commonly-used neuropsychiatric scales and statistical approaches depending on the distribution. Examples from different AD datasets will be used to demonstrate regression techniques (sample code will be provided). The workshop will begin with an overview of the different scales used to measure neuropsychiatric symptoms in neurocognitive disorders will be provided. Next, we will discuss data generated from neuropsychiatric scales, their key characteristics, and how to determine the best modeling approach. We will then provide a dataset and R code for hands-on practice in modeling the data using linear and non-linear approaches.

A significant portion of the workshop will also discuss and demonstrate techniques for evaluating model fit and covariate adjustment. Attendees will have the opportunity to work interactively with the workshop presenters on analyzing the provided data.

This workshop is a collaboration of the Design and Data Analytics and the Neuropsychiatric Syndromes PIAs.

Attendees will need to bring their own laptops with R and R Studio installed. Datasets and R code will be accessible via Dropbox prior to the workshop.

Organizing Committee

- Michael Malek-Ahmadi, Banner Alzheimer's Institute

Presenters

- Byron Creese, Brunel University London
- Ana Capuano, Rush Alzheimer's Disease Center

Target Audience

This ISTAART Immersive workshop is targeted to attendees who are in clinical practice, research and teaching roles and is pitched at a beginner-intermediate level.

Learning Objectives

1. Identify Neuropsychiatric Scales commonly used to quantify affective and behavioral syndromes in the AD spectrum.
2. Analyze the distribution of Neuropsychiatric Scales from different AD studies and discuss model selection and adequacy.
3. Demonstrate the use of models for count data as well as ordinal models and extensions applied to NPI outcomes in AD. Through a hands-on activity, they will practice how to fit the models in R.

Registration

Educational workshops are offered for in-person attendance only. Workshops require a separate registration fee in addition to AAIC full conference registration, or they may be purchased as stand-alone events.

Agenda

Time	Session Details	Speakers and Moderator
7:00 a.m. - 8:00 a.m.	**Light Breakfast**	
8:00 a.m. – 8:15 a.m.	**Session 1:** Welcome, Introductions, Technical and Software Check for Attendees	Michael Malek-Ahmadi
8:15 a.m. – 9:00 a.m.	**Session 2:** Overview of Select Neuropsychiatric Assessments	Byron Creese
9:00 a.m. – 10:00 a.m.	**Session 3:** Characteristics of the NPI Scales, Model Building and Model Fit	Michael Malek-Ahmadi
10:00 a.m. – 11:00 a.m.	**Session 4:** Using Ordinal Regression Models to examine NPI and Individual Neuropsychiatric Symptoms Severity in AD	Ana Capuano
11:00 a.m. – noon	**Session 5:** Discussion and Hands-On Analysis in R;	Michael Malek-Ahmadi, Ana Capuano, Byron Creese

Time	Session Details	Speakers and Moderator
7:00 a.m. - 8:00 a.m.	**Light Breakfast**	
8:00 a.m. – 8:15 a.m.	**Session 1:** Welcome, Introductions, Technical and Software Check for Attendees	Michael Malek-Ahmadi
8:15 a.m. – 9:00 a.m.	**Session 2:** Overview of Select Neuropsychiatric Assessments	Byron Creese
	Workshop Survey for Attendees	
Noon - 1:00 p.m.	**Lunch**	