Measuring What Matters: Evaluating, Selecting And Developing Outcome Measures Using Advanced Psychometrics And Clinimetrics

Friday, July 26, 2024 | 9 a.m. – 5 p.m.
Marriott (Grand Ballroom A) — Philadelphia, USA
All times are in Eastern Standard Time
In-person attendance only

Overview

The choice of an appropriate measurement instrument is a key issue in dementia research and clinical trials in terms of optimizing diagnosis, prognosis, and the ability to evaluate the effectiveness of interventions. In this context, a critical question is whether the outcome measure is capable of detecting clinically meaningful change.This course aims to improve the quality of outcome measures, as well as the design and evaluation of the quality of clinimetric/psychometric studies.

We will discuss how to: (1) develop methods of assessing the properties of health measurement instruments; (2) apply those methods to develop new, or evaluate existing, health measurement instruments, with the overall aim to (3) improve the quality of measurements.This workshop will include interactive lectures and assignments that provide hands-on training in the application of measurement properties. The emphasis is on knowing “what to measure”, based on a detailed definition of the construct of interest and relevant conceptual models. We incorporate discussion of measurement theories such as classical test theory and item response theory. Sessions focus on reliability, validity and responsiveness and interpretability of test scores, using specific use cases, focused on subjective cognitive decline (SCD-Item Analyses project), Everyday Functioning (Amsterdam IADL Questionnaire), as well as in-depth information on how to address cross-cultural diversity in the measurement of cognition.

This workshop is organized by representatives from the Subjective Cognitive Decline PIA, Cognition PIA and Diversity and Disparities PIA,

Organizing Committee

- Sietske Sikkes, Vrije Universiteit Amsterdam
- Roos Jutten, Massachusetts General Hospital
- Laura Rabin, Brooklyn College

Presenters

- Seo-Eun Choi, University of Washington School of Medicine
- Renelle Bourdage, Erasmus University Medical Center & Université de Paris Cité
- Angel Garcia De La Garza, Albert Einstein College of Medicine

Target Audience

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

Learning Objectives

1. Describe the required steps for the evaluation of measurement instruments, and apply these steps to their own outcome measure(s);
2. Design (cross-cultural) studies on measurement properties and describe the terminology and definitions of all measurement properties (according to the COSMIN taxonomy).
3. Select the most appropriate statistical methods for evaluating measurement properties, describe criteria for good measurement properties and explain and apply basic principles of Item Response Theory.

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
8:00 a.m. - 9:00 a.m.	**Light Breakfast**	
9:00 a.m. - 10:00 a.m.	**Session 1:** Assessing the properties of health measurement instruments using the COSMIN criteria	Dr. Sietske A.M. Sikkes
10:00 a.m. - 10:30 a.m.	**Session 2:** Why a clinical trial is as good as its outcome: Cognitive outcome measure selection and clinical meaningfulness	Dr. Roos J. Jutten
11:00 a.m. - 11:30 a.m.	**Assignment 1:** Apply COSMIN health measurement instrument criteria to bring-your-own outcome measure used in study/clinic	
11:30 a.m. - noon	**Session 3:** Cultural diversity in the measurement of cognition	Renelle Bourdage, PhD Candidate
Noon - 1:00 p.m.	**Lunch**	
1:00 p.m. - 1:45 p.m.	**Session 4:** Novel approaches to specifying and defining subjective cognitive decline	Dr. Laura Rabin Dr. Angel Garcia de la Garza
1:45 p.m. - 2:30 p.m.	**Session 5:** The Amsterdam IADL Questionnaire: Optimizing the measurement of everyday functioning	Dr. Sietske A.M. Sikkes
3:00 p.m. - 3:45 p.m.	**Session 6:** Advanced Psychometrics: Lessons from the ADNI data	Dr. Seo-Eun Choi
3:45 p.m. - 5:00 p.m.	**Assignment 2:** Apply confirmatory factor analyses using IRTmodels to bring-your-own dataset	