

COURSE TITLE: Developmental and clinical studies: meta-analysis in R

LENGHT (hours, lessons): 6 hours

PERIOD: June 17 and 18

COURSE CONTENTS, OBJECTIVES AND LEARNING OUTCOMES

The course will focus on the theoretical and practical background to conduct a meta-analysis. Within this course, participants will explore the principal concepts of systematic review and meta-analysis. Through the integration of theoretical and practical sessions, attendees will develop proficiency in utilizing the 'metafor' package to conduct meta-analyses, covering topics such as effect size calculation, meta-analytic models, and techniques for addressing heterogeneity and publication bias. By the end of the course, participants will not only understand these methodologies but also possess the practical skills to apply them effectively within developmental and clinical contexts. In particular, the following topics will be discussed:

1. introduction to the concept of systematic review and meta-analysis (definition, reasons to perform a meta-analysis, examples in developmental and clinical populations)
2. meta-analysis with R and the "metafor" package (outcomes and effect size calculation, meta-analytic models, heterogeneity, publication bias, moderator analysis).
3. practical session for performing a meta-analysis

DUBLIN DESCRIPTORS (Indicate the learning objective(s) that the activity aims to achieve, exercise and/or consolidate)

- systematic understanding of the implementation of meta-analytic approach in developmental and clinical field
- mastery of the methods of research associated with meta-analysis;
- ability to critically analyse, evaluate and synthesise new and complex ideas;
- ability to communicate with their peers, the larger scholarly community and with society in general about their areas of expertise.

ENTRANCE REQUIREMENTS

Basic knowledge of R and R Studio.

TEACHING AND LEARNING METHODS AND ACTIVITIES

The teaching consists of theoretical lessons combined with practical activities.

ASSESSMENT OF THE ACHIEVEMENT OF LEARNING OBJECTIVES

Practical session of meta-analysis implementation in R.

BIBLIOGRAPHY /STUDY MATERIALS (video-lessons, etc.)