

## Probability of major depression diagnostic classification using semi-structured versus fully structured diagnostic interviews

### ABSTRACT

**Background:** Different diagnostic interviews are used as reference standards for major depression classification in research. Semi-structured interviews involve clinical judgement, whereas fully structured interviews are completely scripted. The Mini International Neuropsychiatric Interview (MINI), a brief fully structured interview, is also sometimes used. It is not known whether interview method is associated with probability of major depression classification.

**Aims:** To evaluate the association between interview method and odds of major depression classification, controlling for depressive symptom scores and participant characteristics.

**Method:** Data collected for an individual participant data meta-analysis of Patient Health Questionnaire-9 (PHQ-9) diagnostic accuracy were analyzed. Binomial Generalized Linear Mixed Models were fit.

**Results:** 17,158 participants (2,287 major depression cases) from 57 primary studies were analyzed. Among fully structured interviews, odds of major depression were higher for the MINI compared to the Composite International Diagnostic Interview (CIDI) [OR (95% CI) = 2.10 (1.15–3.87)]. Compared to semi-structured interviews, fully structured interviews (MINI excluded) were non-significantly more likely to classify participants with low-level depressive symptoms (PHQ-9 scores  $\leq 6$ ) as having major depression [OR (95% CI) = 3.13 (0.98–10.00)], similarly likely for moderate-level symptoms (PHQ-9 scores 7–15) [OR (95% CI) = 0.96 (0.56–1.66)], and significantly less likely for high-level symptoms (PHQ-9 scores  $\geq 16$ ) [OR (95% CI) = 0.50 (0.26–0.97)]

**Conclusions:** The MINI may identify more depressed cases than the CIDI, and semi- and fully structured interviews may not be interchangeable methods, but these results should be replicated.

**Keywords:** Major depression; Semi-structured; Fully-structured; Mini International Neuropsychiatric Interview (MINI)