Abstract

Introduction. The Mania Scale (EMUN) developed at the Universidad Nacional de Colombia was designed to measure the severity of manic symptoms, but has been validated only using classical psychometric theory. Objectives. The psychometric properties and measuring characteristics of the EMUN scale were determined using an analysis based on item response theory. Materials and methods. Two hundred sixty-four patients with manic, hypomanic or mixed episode symptoms were assessed using the EMUN scale. The psychometric characteristics of the scale were analyzed using a Rasch model for partial credit scoring. Results. The analysis based on the item response theory showed that reliability and separation indexes for persons are low in contrast to items. This suggested a narrow representation of the construct evaluated in this sample. Reduced need to sleep has been the most easily detectable symptom in mania. Excepting depressive affect and distractibility, the majority of items fit the model’s expectation. The rating scale diagnostics showed that the average measures increase monotonically across the rating scale. Two items showed redundancy and can be omitted in future versions of the scale. The person-item map suggested that the syndrome is not fully evaluated by the scale, probably because some depressive symptoms are not included. Conclusion. In this first study to use Rasch analysis to assess the psychometric properties of the EMUN scale, misfit and redundancy of items have been detected. The manic syndrome is not fully evaluated by the scale. The instrument can be improved by adding depressive symptoms.

Keywords

Psychiatric status rating scales, validation studies, bipolar disorder/diagnosis, psychometrics/statistics and numerical data, reproducibility of results; interview, psychological.