Evaluating the inter-rater reliability of the Scale to Assess Unawareness of Mental Disorder using the DOMENIC method

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Letter to the Editor (Pre-print version available for share)

Insight in psychosis is a complex construct, conceptualized as a continuous and multidimensional phenomenon (Dumas et al., 2013). It comprises the awareness of having a mental disorder, treatment compliance, the ability to label unusual mental events as symptoms of the disorder (David, 1990), and the awareness of the social consequences of the disorder (Massons et al., 2017). Insight has an important impact on the outcome of psychosis and has been related to quality of life, psychosocial functioning, severity of symptomatology, therapeutic compliance, and number of readmissions (Elowe and Conus, 2017; Klaas et al., 2017; Lien et al., 2018; Ruiz et al., 2008). Thus, insight assessment is crucial in patients with psychosis (Elowe and Conus, 2017; Lien et al., 2018; Michel et al., 2013). But in real-world clinical settings, a single patient being assessed and/or treated by several clinicians is a common situation, and given the complexity of the phenomenon of insight, it is difficult to ensure that all clinicians are referring to the same construct. Using questionnaires could help clinicians to deal with this situation. The Scale to Assess Unawareness of Mental Disorder (SUMD) (Amador et al., 1993) is a widely used instrument to explore insight in clinical trials and epidemiological studies (Dumas et al., 2013; Elowe and Conus, 2017) that has proved to be adequate in terms of validity and reliability with the usual statistical procedures (Michel et al., 2013). Nevertheless, it is not easy to use, and heterogeneity across studies can compromise the results (Dumas et al., 2013). We proposed an inter-rater reliability study to explore differences in the assessment of insight using this instrument. Procedures based on the calculation of Kappa coefficients, weighted Kappa, or interclass correlation coefficient (ICC) require a sample of several subjects who are evaluated by a small number of examiners and, for our purpose, this reflects an inefficient strategy (García-Nieto et al., 2012). Therefore, we used the Detection of Multiple Examiners Not in Consensus (DOMENIC) method, elaborated by Cicchetti et al. (1997), which allows the interrater reliability for one single patient and several raters to be determined. Furthermore, this method is applicable when the variables are measured on a nominal, ordinal, or mixed scale (also denominated by Cichetti et al.(1997) as “dichotomous-ordinal (DO)”). The SUMD is composed of this last type of variable since each item rates “absence/presence” (nominal scale) and several categories of “presence” (ordinal scale). The examiner agreement weights for the DO rating scales were calculated by Cicchetti (1976) and Cicchetti and Sparrow (1981).

To develop the study, 37clinicians from different specialties (psychiatrists, psychologist and nurses) watched a videotaped interview in which the Spanish adaptation of the SUMD (Ruiz et al., 2008) was applied to a 41-year-old woman with a diagnosis of paranoid schizophrenia over the previous 15 years. The SUMD was designed so that any subscale or individual item can be used independently of the others, depending on the purpose of the specific research (Ruiz et al., 2008).

According to the symptoms observed by the interviewer, in addition to the 3 general items, we assessed 5 out of the remaining 17 symptoms that compose the scale regarding awareness and attribution, namely hallucinations, delusions, thought disorders, blunt affect, and associability. We found a high degree of variability among the raters across the different items of the scale, with a fair level of agreement overall (Table 1). There was no item that showed excellent levels of agreement. Good percentages of agreement were obtained only for awareness of medication effects (83.7 %) and awareness of hallucinations (81 %), while the poorest level of agreement appeared for the items

referring to negative symptoms (44.6 % for blunt affect and 65.3 % for associability) and one of the areas where these symptoms produce a deeper impact, namely the social consequences of having a mental disorder (50 %). These findings are in line with the literature and clinical practice (Galderisi et al., 2018) and suggest that the appraisal of negative symptoms insight constitutes a complex task, and this may lead to an underestimation of the awareness of these symptoms by patients. Regarding the variability in the percentages of agreement in the group, we found that there was just one rater who, despite 12 years of clinical experience as a psychiatrist, presented statistically significant discrepancies compared to the rest of the group for five items on the scale (01, 02, 04, 05, and 06) and the global score for the scale (available as supplementary material). These discrepancies did not concern the items with the poorest percentages of agreement, which indicates that this rater's disagreement could be explained by personal bias.

On those items with the poorest level of agreement, no examiners showed statistically significant discrepancies from the mean, which suggests that the poor agreement on these symptoms relates to specific characteristics of the symptoms and not to differences attributable to the raters. As a consequence, we cannot rule out the need to reformulate the items on the scale corresponding to these symptoms.

By using the DOMENIC method, we can see that items referring to insight of the negative symptoms of psychosis may cause the greatest difficulty for raters, a difficulty that, according to our data, does not seem to be significantly related to their clinical experience. Retraining clinicians in this area could be the best alternative to improve the reliability of the appraisals. Thus, the DOMENIC method could be a useful tool in the preparation phases of a study with this type of scale to easily identify areas of disagreement and investigators who need training to improve inter-rater reliability.

Declaration of competing interest

The authors declare no conflict of interest.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://www.sciencedirect.com/science/article/abs/pii/S0920996423002463?via%3Dihub

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