



Letter to the Editor

Metacognition in psychosis: What and how do we assess it?

Dear Editor,

Metacognition is a central aspect in the psychopathology of psychosis, and a key target of psychological treatments from various theoretical orientations in this population.^{1–3} Despite the different characterisations of this construct, the shared definition of metacognition includes the set of cognitive processes of which allows us to be aware of, reflect upon, control and regulate our mental states (thoughts and feelings) so to influence our experiences and behaviours and change our minds according to a higher-order understanding of psychological processes.^{4–6} Sometimes the boundaries between what is and is not metacognition are not clear. In this direction, a possible limit to trace this difference is the fact that if metacognition exists, we would have to encounter reflective processing, identification and/or change of psychological processes. For example, cognitive insight involves thinking about beliefs and interpretations,⁷ or social metacognition involves reflection on the decoding and processing of social information.⁸ More broadly, Lysaker et al. (2005)⁹ understand metacognition as a process of complex and integrated understanding about the self and others.

The importance given to metacognition in psychosis lies precisely in the regulatory and corrective functions involved in ways of thinking, doing and feeling, which are linked to better clinical outcomes, adaptation to the environment and understanding of everyday life experiences.^{10,11} The possibility of thinking about and reflecting on various cognitive processes could lead to improvements and adjustments in our functioning according to the different goals and contexts that make up our life domains.^{11,12} Conversely, failures and dysfunctions in metacognition could compromise different contexts in which we live such as social and affective relationships, work and education, and the capacity to sustain tasks of daily life.^{11,13} In psychosis, a compromised metacognitive architecture could lead to not understanding of self and social situations leading to the loss of a person's sense of purpose, possibilities, place in the world and cohesion of self, resulting in the subjective disturbances widely observed in this population.¹⁴

Research and clinical interest in metacognition in psychosis has been growing over the last decades. Alongside the different therapeutic approaches, the assessment and measurement of metacognition has also increased. In our first searches, we found that there are different metacognitive processes or domains addressed by different theoretical approaches and measures. Some of these measures are self-reported, such as the Beck Cognitive Insight Scale⁷ or The Metacognitions Questionnaire-30 (MCQ-30).¹⁵ Likewise while others instruments are conducted by clinicians, e.g. the Metacognition Assessment Scale (MAS and MAS-

Abbreviated)⁹ and others measure metacognitive constructs with empirical approaches, as in the proposal of Koren et al. (2006)¹⁶ that assesses metacognition by adding to the WCST the degree of certainty with which decisions have been made.

We also observed that measures differ in the amount and complexity of training required from practitioners, the duration of the administration, number of items, and the field of application in which it is used (e.g., clinical or research). In addition, and considering the original proposal of Flavell (Flavell, 1979),¹² who coined the term, we initially looked at measures that assess different characteristics of the four phenomena of metacognition: metacognitive knowledge, metacognitive experiences, tasks and goals and strategies or actions. These findings demonstrate the interest and availability of measures of metacognition that deserve to be collected and ordered so that different actors in our field can make use of them.

The main purpose and motivation for writing this letter to the editor is to inform the scientific community of the development of the present project and the scientific motivations for doing so. Due to the continuous growth and the numerous availability of measures, the project we are undertaking has as a general purpose to review the most used measures and the most explored metacognitive domains and functions. Bringing these measures together will help us to generate a first index to offer clinicians and researchers a streamlined way to know and decide which metacognition measures to use in the different domains of application.

We recognize that in daily practice, patient care times are short, waiting lists are long and human, economic and clinical resources are limited, so we believe that having an index of measures to assess such a central construct can simplify the clinical process. Likewise, in research, we have an extensive scientific production related to metacognition that, on the one hand, helps us to have a wide availability of measures and clinical trials that include interventions and metacognitive measures, but on the other hand, offers us redundant and confusing information about it.

Therefore, this review aims to build a first index of the most evaluated processes/levels/subdomains of metacognition in psychosis so far, by means of a systematic review of their corresponding assessment instruments (PROSPERO Registry: CRD42020198821). We will also organize the instruments according to fields of application (e.g., research, clinical), level of difficulty in applying the measure (e.g., training needed to use the measure, requirements for correcting the assessment), and psychometric properties.

Far from believing that this proposal will be definitive, we believe that this step will be the first of many for other colleagues interested in the field of psychosis to provide consensus and guidance on how to operationalize and measure metacognition. We hope to generate the expectation and interest necessary to connect research colleagues and clinicians in the field of metacognition from all over the world.

Contribution statement

Díaz-Cutraro, Luciana: idea, conceptualization, methodology, implementation, writing of manuscript.

García-Mieres, Helena: Supervision, conceptualization, methodology, edition of manuscript.

Dimaggio, Giancarlo: Supervision, conceptualization, edition of manuscript.

Lysaker, Paul: Supervision, conceptualization, edition of manuscript.

Moritz, Steffen: Supervision, conceptualization, edition of manuscript.

Ochoa, Susana: Supervision, conceptualization, methodology, edition of manuscript, research funding.

Conflict of interest

Dr. Steffen Moritz is the creator of metacognitive training for psychosis. Dr. Paul Lysaker developed the MERIT approach for psychosis. However, given that the present letter to the editor introduces a project consisting of a systematic review of tools for assessing metacognition in psychosis, and not of psychological therapies based on metacognition, we declare that we have no conflicts of interest with the present work.

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