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Metacognition, attachment and psychotherapy in first-episode psychosis: a case study

Sergio Vergara-Ramírez

Abstract

Aim of the study: Psychotherapy in first-episode psychosis is essential for the recovery of affected users. Those with primary psychotic disorders experience impaired abilities to form complex ideas about themselves and others, called metacognitive deficits. They also present important attachment disturbances.

Methods: This paper aims to review the concepts of metacognition and attachment in psychosis, present an interpersonal metacognitive model incorporating elements of attachment theory and analyze a clinical case to show the integration of different strategies in the initial phase of therapy. The Metacognitive Assessment Scale-Abbreviated (MAS-A) was used to assess changes in the user's metacognitive ability.

Results: The therapist adopted the role of secure base and safe-haven to develop an adequate therapeutic relationship, operating through metacommunication and self-participation. Normalization interventions were applied and the user's agenda was consistently prioritized. The user developed greater metacognitive abilities in the MAS-A along with better functioning, maintained few symptoms and was able to move into a new phase of therapy.

Discussion: The review and clinical case presented highlight the importance of an interpersonal metacognitive model that considers the users' attachment pattern and a solid therapeutic relationship. Hierarchical metacognitive interventions are presented that allowed the user to address more complex psychological conflicts in therapy.

Conclusions: Psychotherapeutic models that integrate the concepts of metacognition and attachment theory are promising to improve self-reflective abilities in users with a first-episode psychosis. The clinical case presented would be a contribution to design future studies about these processes.

metacognition; attachment; psychosis; schizophrenia; psychotherapy

INTRODUCTION

Primary psychotic disorders are considered mental health problems that emerge during a stage of high vulnerability, carrying a strong burden of stigma and therapeutic pessimism [1]. These are a heterogeneous group of disorders characterized by the presence of delusions and/or hallucinations, disorganized thinking, abnormal motor behavior and negative symptoms [2]. Eugen Bleuler, who coined the term schizophrenia, established that this psychotic disorder was related to a disruption of the associative processes necessary to form integrated ideas about oneself and others [3]. The alter-

Sergio Vergara-Ramírez[1,2]: [1]Psychiatrist. Universidad Católica del Maule, School of Medicine, Department of Clinical Sciences, Talca, Chile; [2]Talca General Hospital, Psychiatry Service, Talca, Chile.
Correspondence address: vergarasergio1@gmail.com

ation of such processes would generate a subjective experience of fragmentation and confusion, in which the subject withdraws from the outside world into his internal world [4]. Concerning its course and prognosis, the early stage of psychosis has been considered a critical period [5]. A shorter duration of untreated psychosis was related to lower levels of disability, suicidality and symptomatology in this population [6, 7]. From a therapeutic perspective, psychopharmacology has shown efficacy in the symptomatic management of psychoses, however, it has not been sufficient on its own for the treatment of these disorders [8]. Currently, combined pharmacological and psychosocial treatments are recommended [9-11]. Those individuals who suffer from primary psychotic disorders have serious difficulties reflecting their own and others' mental states, using the term metacognition to refer to this ability [12]. In addition, these users often present attachment disturbances, considered maladaptive strategies to cope with potentially destabilizing affects [13].

This work aims to review the concepts of metacognition and attachment in psychosis and present a psychotherapeutic approach based on an interpersonal metacognitive model incorporating elements of attachment theory. Besides, a clinical case is presented to show how different strategies were integrated into the initial phase of therapy [14] of a user with a first-episode psychosis diagnosed as paranoid schizophrenia. Finally, aspects related to clinical care and research in this field are discussed.

Metacognition and attachment in psychosis

The concept of metacognition was initially defined by Flavell (1979) as the ability to think about one's own thinking [15]. For Semerari et al. (2003), metacognition refers to the ability to understand and reflect on mental states in order to manage life problems and regulate internal states [16]. According to Lysaker & Dimaggio (2014), metacognition is related to the capacity to form, review and reformulate ideas of what is believed, felt, dreamed, feared, pretended or intended, both by oneself and by others, which describes a diverse range of internal and socially determined cognitive acts [17]. Metacognition is a skill that unfolds in intersubjective contexts and that can vary between people with different degrees of deficit, being influenced by social, psychological and biological factors [18]. The metacognitive skills in psychosis can be quantified using the Metacognitive Assessment Scale-Abbreviated (MAS-A) [19]. It establishes a global metacognitive capacity index, constituted by four metacognitive domains: Self-Reflectivity or the ability to become aware of one's own mental states; Understanding Others' Minds, the ability to think about the mental states of others; Decentration, the ability to adopt a non-egocentric perspective; and finally Mastery, the ability to apply useful strategies to resolve psychological conflicts or related distress [19]. The domains have sub-functions that express progressively more complex metacognitive levels, organized hierarchically [16, 19, 20]. Self-Reflectivity, Understanding Others' Minds and Mastery have a basal subfunction called Basic Requirements, which refers to the ability to recognize one's mind as something autonomous, separate and different from the mind of others. In the case of Self-Reflectivity and Understanding Others' Minds, the next tiers are Identification, Differentiation, Relation Amid Variables and Integration. Identification refers to the ability to identify thoughts and emotions. The Differentiation subfunction allows knowing the hypothetical nature of thought and the ability to take a critical distance from one's conviction. Relationship Amid Variables refers to the capacity to connect symptoms and somatic sensations with cognitive, affective and relational antecedents; and Integration allows the construction of coherent and complex narratives to describe one's and other's mental states. Finally, Mastery includes first, second and third level strategies in order to solve problems of increasing complexity [16, 19, 20]. In relation to metacognitive abilities in schizophrenia, these are lower compared to the general population and other mental health disorders [21-24]. The correlation of metacognitive deficits in schizophrenia with symptoms severity (mainly negative symptoms and disorganization) has been documented in the post-acute phase [25] and in first-episode psychosis [26-29]. Besides, the correlation of these deficits with poorer neurocognitive function [30, 31], low insight [32], jumping to conclusions [33], less ther-

apeutic alliance [34] and lower social functioning [35-37], has been reported. Metacognitive disturbances and poorly articulated narratives in subjects with schizophrenia have been associated with the development of an impoverished sense of self, deep demoralization, and lower quality of life, along with serious difficulties in associating everyday events with the past or foreseeing the future [38]. Thus, a lower global functioning would not only be caused by neurocognitive deficits and symptoms, but also by important disturbances in the ability to make sense of daily life challenges [19]. Based on these findings, metacognitive interventions have been developed in order to treat the proximal and malleable factors associated with primary psychotic disorders [4], mainly during the last decade [39].

Consequently, the attachment theory developed by John Bowlby during the years 1969 to 1980 [40], will be also discussed. The concept of attachment has been defined as the propensity of human beings to establish significant links with other people throughout their life cycle. This theory also explains the multiple forms of emotional suffering that are caused by separation and loss [41]. The caregiver's attunement to the child's attachment behaviors and the reliable responses to the child's stress signals generate a sense of security, allowing them to link the behavior with mental states, feelings, thoughts and desires. On the contrary, a lower attunement of the caregiver would reduce the child's expectations of security in the relationship and would lead to the development of avoidant, ambivalent or disorganized insecure attachment patterns [40]. In this way, the caregiver's attitude influences moderating the development of the child's ability to reflect their own mental states and those of others [42]. In the case of secure attachment, the availability of the caregiver allows exploration and autonomy, resulting in a mental model of trust. In ambivalent anxious attachment, there are doubts about the availability of the caregiver who has overprotective and underprotective behaviors, generating a mental model of uncertainty with great separation anxiety in the child, limiting exploration. In the avoidant pattern, the attachment figure is rarely available or distant, so the child dispenses with affective support, displaying emotional overregulation on a mental model of self-sufficiency. Finally, in disorganized attachment, a split mental model is established [43]. In primary psychotic disorders, initial studies indicated disorganized attachment as the most prevalent [44], however, the avoidant pattern has subsequently predominated, even in first-episode psychosis [13, 29, 45].

Regarding psychotherapy, metacognitive deficits and attachment disturbances in psychosis seem to influence the development of the therapeutic relationship [20, 46]. In this intersubjective space, the therapist witnesses the basic distrust of the user, a marked ambivalence and weak or absent ego boundaries [47]. If the initial therapeutic encounter with the user is successful, a feeling of security and predictability will develop [47]. Therefore, it is relevant for the therapist to consider the user's attachment pattern, which will allow people with insecure attachments to adhere to treatment and begin to experience the therapist as a secure base and safe-haven to address more complex and problematic content. In this way, the therapeutic relationship would promote the deployment of greater metacognitive abilities [48).

The case of Hector

Case introduction and history

In order to integrate the concepts of metacognition and attachment in the application of psychotherapeutic interventions in first-episode psychosis, the case of a user we will call Hector is presented, in order to protect his true identity. Both the user and his guardian gave informed consent to perform this work, which was approved by the Scientific Ethics Committee of the Maule Health Service. Hector is a 20-year-old man with an incomplete secondary education, who lives with his maternal grandparents. He has two younger brothers who live with his mother and he has no current contact with his father. His medical history includes a benign submandibular tumor awaiting surgery. He has no previous treatments in mental health services. Hector does not consume alcohol or other drugs, and does not have a history of suicide attempts either. In regards to his family, the mother was diagnosed with borderline personality disorder. Until he was seven years old, he

lived with his mother and maternal grandparents, then he moved with his mother and her new boyfriend to another city. During the first years, Hector remembers his mother's aggressive behavior toward his brothers, making him feel powerless. At the age of 16, he decided to go back to his grandparents' house to get away from the domestic violence environment. They described him as withdrawn, affectionate, fearful and obsessive. In Hector´s words: "I consider myself asexual. I have never had a partner, it disgusts me. I do not have friends. I do not like team sports because it means I have to be around other people". He presents significant difficulties in relating to others and talking about biographical aspects, even with his grandparents. In the last few years, nonspecific emotional changes, suspiciousness, social withdrawal and insomnia progressively appeared. A year ago, his grandparents took him to the emergency room of the general hospital, due to a week-long symptom exacerbation characterized by psychomotor restlessness, greater social withdrawal, auditory hallucinations, unplanned suicidal ideation and higher suspiciousness. In addition, he presented mild persecutory delusions, associated with major distress linked to not being able to control everyday events, successively repeating "I can't be understood by others". The user agreed to a voluntary admission into the Psychiatric Intensive Care Hospitalization Unit, in order to "be heard". He was hospitalized for two weeks, achieving a reduction in his distress, persecutory delusions, auditory hallucinations, insomnia and suicidal ideation. He was discharged with a prescription of Olanzapine 10 mg/day p.o, Valproic Acid 400 mg/day p.o, Clonazepam 1,5 mg/day p.o. and outpatient control with a psychiatrist, who happens to be the author of this work.

Assessment and case conceptualization

In his first outpatient session, the psychopathological examination highlighted the presence of high suspiciousness, preoccupation, ambivalence, loose thought associations, inappropriate affect, avolition, loss of vital contact with reality and important morbid rationalism. He was resistant to the possibility of receiving help from other members of the therapeutic team and sessions were agreed upon every 2 to 3 weeks. In regards to his metacognitive abilities at the beginning of the process, the MAS-A coding manual [19] was applied. Hector was capable to identify his own cognitive operations and partially emotions. About Understanding Others' Minds, he was able to identify cognitive operations, but not a wide range of emotions, with a minimum ability to decentrate. Concerning Mastery, he was able to respond to psychological problems through first-level coping strategies, mainly through avoidance or passive activities. Hector expressed his fears of not being understood by the clinician, experiencing high anxiety during the interview. The psychiatrist applied internal discipline techniques [20, 49], to generate an environment of tranquility in the first sessions according to the recommendations of Cullberg & Johannessen (2005) [50]. In relation to clinical insight, Hector pointed out that he attends to the psychiatrist to manage his "obsessions", assigning this name to pseudo-obsessions of symmetry of low frequency and intensity.

During the first sessions, the therapist experienced feelings of discomfort and inadequacy, with difficulty tolerating moments of silence during the sessions, being experienced as projections of the user and attributed to countertransference elements. Following what Linington (2020) pointed out, the therapist's feelings and thoughts could be understood as potential unconscious communications of the internal operating models of the user's significant relationships [51]. The therapist related these feelings of discomfort and inadequacy in the session with Hector's avoidant attachment pattern. This allowed to understand his tendency to self-sufficiency and to withdraw from the relationship as strategies for deactivating the attachment system, staying distant from the relational threat. In addition, considering Hector's avoidant attachment pattern allowed the clinician to establish a collaborative therapeutic relationship with the consequent development of metacognitive abilities.

Course of treatment and assessment of progress

According to the contributions of Italian cognitivism and other metacognitive therapies such

as Metacognitive Reflection and Insight Therapy [52] and Metacognitive Interpersonal Therapy for psychosis [49], special attention was paid to the user's agenda and normalization interventions were applied. Attending to his agenda meant prioritizing what Hector brought to the session, such as his needs or desires [52], his anxiety of not being understood by the therapist and his need to be heard. As for the preliminary normalization interventions, these reduced the anxiety generated by the symptoms and their subsequent amplifying effect [20]. Then, a crisis management plan was developed that reinforced passive or first-level strategies such as breathing and relaxation exercises and distraction techniques. These interventions were reviewed together throughout the entire process, seeking to progressively stimulate second-level strategies. Additionally, in order to promote a greater understanding of one's and others' mental states, the therapist applied the interventions adopting a style based on metacommunication and self-participation [49]. According to MacBeth, Gumley & Schwannauer (2020), when the therapist was established as a secure base and safe-haven, a greater capacity for emotional regulation and the deployment of more advanced metacognitive sub-functions during the sessions appeared in Hector [53].

In the following months, Hector decided to provide two notebooks that described his difficulties in maintaining control over daily experiences and a cognitive system that he developed to deal with this, an expression of intense morbid rationalism and antithetical thinking. This rigidly elaborated system favor "introversion, individuality, depth, positivity and genius" to the detriment of "extroversion, superficiality, negativity and mediocrity", applying it with diminished common sense in countless situations. When analyzing with Hector the relational consequences of this inflexible thought system, it was agreed to gradually complement it with a more adaptive alternative style to face his daily difficulties, based on what was discovered in the sessions. This represented a challenge for Hector, however, during later sessions he commented that it allowed him to consider points of view that he had not previously taken into account. The fact of noticing this greater flexibility in considering other perspectives evidenced the achievement of self-reflective sub-function of Differentiation. As for Understanding Others' Minds, he was able to identify different valences of emotions and relate them to other variables, becoming more skilled at recognizing his grandparents' emotional states. At the same time, he was able to adopt a more decentered attitude, being able to recognize that the actions of others come from motives and objectives unrelated to him, which became evident in the sessions, in the relationship with his grandparents and his gym instructor. Regarding Mastery, he managed to move from the deployment of first level to second level strategies, facing problems with his grandparents in a more active and adaptive way, improving their relationship. In addition, he resumed his studies and finished high school, planning to continue higher education studies. Having achieved a greater understanding of his own and others' mental states, he was able to develop a greater narrative capacity and his agenda focused on exploring his biography. This greater interest and ability to explore conflicts associated with feelings of loss and separation from their parents could be considered the transition to a more advanced phase of therapy. After one year of therapy, Hector agreed that this new phase would have the collaboration of other members of the psychosocial team.

DISCUSSION

Early psychotherapeutic interventions in primary psychotic disorders are essential to reduce the period of untreated psychosis, given its impact on the prognosis of users [7, 54]. These users present major metacognitive deficits [39], in which the contributions of an intersubjective metacognitive model [55, 56] and the attachment theory would be essential to build an appropriate therapeutic relationship.

The case of Hector was presented in order to illustrate how these concepts are articulated in the initial phase of therapy for first-episode psychosis, characterized by social withdrawal, blunted affect, autism, suspiciousness, morbid rationalism and antithetical thinking that persisted after hospitalization and the use of antipsychotics. From the beginning, it was fundamental to consider his avoidant attachment pattern, which

made it possible to consider his withdrawal as a strategy for deactivating the attachment system and the associated anxiety. However, this strategy could also perpetuate unresolved feelings and conflicts by "ignoring" emotional distress [57]. Keeping in mind the user's level of metacognitive functioning, the clinician considered it essential to respect the user's attachment style and assumed a role of secure base and safe-haven. In this way, it was possible to develop an appropriate therapeutic relationship with the progressive display of metacognitive capacities in Hector, through metacommunication and self-participation techniques. Moreover, normalization interventions were applied to reduce the user's distress, taking into account his agenda at all times. These metacognitive strategies [49, 52] made it possible to address Hector's metacognitive deficits, assessing changes through the MAS-A [19]. Thus, he made progress in the four metacognitive domains, acquiring greater functionality and narrative capacity, which will allow him in the future to face more effectively new therapeutic challenges, such as his biography and traumatic experiences. In short, based on a more solid therapeutic relationship and having achieved greater metacognitive capacity, the person has the basic skills to deal with more complex conflicts [58].

On metacognition and attachment in psychosis, Gumley and Liotti (2019) have pointed out that the appearance of negative and disorganized symptoms in the context of severe metacognitive deficits could be understood as the result of attempts to deactivate the attachment system, as occurs in the avoidant attachment pattern. In this way, metacognitive deficits in psychosis could appear not only as a stable "trait" linked to profound neurocognitive alterations, but also appear as a "state" related to distress that activates the attachment system in certain situations [45, 59]. This understanding has important repercussions for the design of interventions on these potentially modifiable factors of the disorder, as is shown in Hector's case. The possibility that metacognitive abilities may be interpersonally malleable in severe psychopathology has also been supported by the intersubjective metacognitive model [55, 56].

Considering the user's difficulties in differentiating their own experiences from those of others, the therapeutic space can evoke a sense of unreality, confusion or dissociation in the therapist. Due to projections of the person affected with psychosis, therapists may experience intense countertransference feelings of anger, desperation, inadequacy, boredom, hopelessness and frustration that could reflect the inner experiences of the user [47]. In the clinical case presented, the projections were interpreted as potential unconscious communications of the internal operating models of the user's significant relationships, according to the attachment theory [51]. Thus, the therapist's feelings of inadequacy made it possible to understand what Hector experienced in sessions and lay the foundations for subsequent interventions in therapy.

According to the review and clinical case presented, the existence of a hierarchy is proposed when applying the different interventions. Addressing interpersonal conflicts or traumatic experiences can be very complex if a solid therapeutic relationship has not been previously established. In addition, in order to narrate and understand a specific conflict, it is necessary to count on basic metacognitive abilities. This follows what was proposed by Semerari (2002a), who points out an intervention sequence that prioritizes the approach to the therapeutic relationship, metacognitive dysfunctions and subsequently more complex interpersonal conflicts [58].

Consequently, the clinical case presented shows the contributions of metacognition and attachment in the context of a treatment carried out in a public psychiatry service. The rapport in psychosis should not only be restricted to formal psychotherapy by specialists but should also be adopted by health teams in general. Bearing in mind that the users often have access to mental health services through non-specialist physicians, it is essential that these professionals are sensitized and trained to consider the metacognitive skills and relationship patterns of their users, in order to facilitate adherence to their treatments. This recommendation could even be extended to the user's support network and the general population. This work has some limitations; one of them is that it is a review of a particular case, so it is not possible to generalize these results. This difficulty could be overcome with the development of studies with great-

er methodological rigor that acknowledge the metacognitive and relational processes in therapy. Additionally, this would allow knowing how these interventions could be integrated with other psychosocial treatments. Another limitation is the current lack of conceptual clarity between similar terms such as metacognition, mentalization and social cognition, which overlap but also differ. In this regard, Lysaker et al. (2021) have carried out an exhaustive review that would help clarify this issue [18].

CONCLUSIONS

This paper presents a way of articulating the contributions of metacognition and attachment theory to the psychotherapy of a user in a first episode psychosis diagnosed as paranoid schizophrenia. From the beginning, the therapist sought to promote an adequate therapeutic relationship, using attachment theory concepts such as secure base and safe-haven. Besides, normalization interventions and first level coping strategies were applied to promote metacognitive mastery. The therapist promoted metacognitive abilities in Self-Reflectivity, Understanding Other's Minds and Decentration, through metacommunication and self-participation techniques considering the user's agenda at all times. There are still unknown aspects about the contributions of metacognition and attachment theory to the psychotherapy of first episode psychosis. The clinical case presented and its discussion, would be a contribution to the design of future studies about these processes.

Disclosure of interest
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