Garcia-Cabeza I, Victor F, Epifanio MM, de Portugal E. Relationship Between Insight, Adherence and Disability in the Diagnose of Paranoid Schizophrenia. J Ment Health Clin Psychol (2018) 2(6): 6-10

JOURNAL OF MENTAL HEALTH AND CLINICAL PSYCHOLOGY
www.mentalhealthjournal.org

Mini Review Article Open Access

Relationship Between Insight, Adherence and Disability in the Diagnose of Paranoid Schizophrenia

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Article Info

Article Notes
Received: December 9, 2018
Accepted: December 28, 2018

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Keywords
Insight
Adherence
Disability
Psychosis

Abstract

The authors review the complex relationship between insight, adherence and symptoms with the functioning of the patient with diagnose of psychosis, either directly or as intermediary factors of each other.

Insight has been proposed to act through symptoms or psychodynamic factors. But in turn, adherence and insight are related in a bidirectional way and the first is one of the best predictors of outcomes in psychosis. Similarly symptoms, especially negative ones, are associated with a worse evolution of the disease.

The authors suggest that insight plays a role in the functioning of the patient, producing both a direct effect and also as a mediator by the improvement of adherence.

It is proposed that insight becomes a key therapeutic target in combined programs in order to favor better outcomes in the evolution of psychosis.

The concept of insight has evolved over the years from psychodynamic positions, related to defense mechanisms (denial or repression), or as well as to the inability to recognize a morbid process by oneself[1] to a multidimensional model of clinical insight in the 90s, which implied the ability of the patients to recognize their own symptoms, their attribution, its impact on their life and the need for treatment[2,3].

Beyond the conscience of illness or clinical insight, in the last few years the concept of cognitive insight (understood as the ability to re-evaluate thoughts and beliefs in order to make thoughtful conclusions, focused on more general metacognitive processes) is gaining strength[4].

At present, an increasing number of authors advocate for a multidimensional, integrative concept of insight in which internal aspects (the already mentioned defense mechanisms), external circumstances, the opinion of others, the patient's own biographical history and cultural background, as well as neuropsychological deficits, should be taken into account[5,6].

Lack of insight is frequently found among patients with schizophrenia, affecting between 50-80% of this population[7]. Poor insight has been linked to the clinical course and severity of the illness, greater psychosocial dysfunction, a worsened quality of life, an increased need for involuntary treatments, and greater aggressiveness[7-10]. On the other hand, good insight has been found to be associated with better global functioning[11-14] and an improved

personal development in some specific areas, such as social adjustment[15-17] or working performance[18,19].

This effect might be due to a mediating role of symptoms[7,12], but it is equally possible that psychodynamic aspects of insight can also be related to its direct effect on disability.

The finding of a lack of insight could be the result of the use of avoidant coping mechanisms[20], which the patients with psychosis may also not be able to use in their daily functioning, leading to an ultimate result of greater social and occupational disability. In other words, taking into account more current models, recovery occurs when people with mental illness faced to it feeling empowered, hopeful and in charge of their own recovery[21], attitudes hindered by the lack of awareness of illness and that would result in an increased disability[9].

However, it cannot be ignored that good insight has also been related to greater depressive symptoms, suicide, self-stigma, and worse quality of life[6,9,22-24]. This apparent paradox might be secondary to the mediation of other factors such as hopelessness, perceived discrimination, the decrease of self-esteem, and internalized stigma[6]. Therefore greater insight in the context of low stigma might be associated with better prognosis[25,26], while poorer outcomes may occur when insight increases depressive symptoms[27].

Nonadherence to pharmacological treatment is another common concern in schizophrenia and one of the best predictors of functional outcomes in these patients with this diagnose[15]. It has been possible to objectify the negative impact of nonadherence on the course of the illness, resulting in a higher frequency of relapses and rehospitalizations, on the patients' physical health and functioning, as well as on financial consequences for society[28].

Poor insight has been identified as the main reason for nonadherence in quantitative[29,30] and qualitative studies[31]. The explanation for this association has been posited to be that better insight leads to better attitudes towards medication, leading to improved adherence and therefore, better therapeutic outcomes[32].

Beck et al. (2011) showed that insight influences adherence in patients with schizophrenia, and, as a result of this, it improves the perception of the need for antipsychotic medication by the patients themselves. On the contrary, it has been observed that lack of insight is generally related to poorer adherence to medication, reduced therapeutic relationship with the therapist and a greater likelihood of relapse[30]. In addition, it has been found that non-adherence to pharmacological treatment also seems to directly contribute to a worse response to the treatment as a whole (both pharmacological and psychosocial treatments); all of this leading to a poorer illness evolution and prognosis[33].

Other key element in disability in paranoid schizophrenia are psychotic symptoms, mainly the negative ones, which are considered essential to schizophrenia and have been significantly related to patients´ functioning and quality of life[34]. Its association with both adherence or insight is non-existent, inconclusive or weak in most of the studies[29,35], so it is easy to think that they are directly related to disability.

Symptoms severity and attitudes towards medication predict both outcome[36] and treatment adherence[37]. Several studies report a lack of association between negative symptoms and adherence or a very weak association between both variables[32]. In addition, studies regarding the association of negative symptoms with insight have been in general scarcely consistent, with some studies finding no relationship, and others reporting inconsistent correlations[38].

Thus, the evidence available suggests that insight, symptoms, and adherence might be related to disability in patients with schizophrenia. In fact, all the studies cited draw conclusions from authors' opinions versus statistically significant results. There are few studies that propose an adequate methodology to support these assertions with a statistical correlation. In truth, the meta-analysis of Lincol et al (2007) found that insight is directly or partially related to global functioning in 13 of 18 reviewed cross-sectional studies, as well as in the 5 longitudinal ones[7]. The authors concluded that insight constitutes a key predictor of current functioning, assuming Schwartz et al.'s results (1997), one of the studies reviewed, who found that initial insight predicts improved functioning at 2 years in a longitudinal study, and that this effect might be due to a mediating role of symptoms[12]. This fact was questioned in a 12-month follow-up study carried out in Nederlands where illness insight was associated with change in outcomes, independent from symptom severity, although markedly ill patients had a more negative perception of their quality of life[39].

The first investigation, as far as we know, that proposes a study of mediation to determine how insight, adherence and functioning are related in patients with a diagnosis of schizophrenia and bipolar disorder is the one published in 2015 by Novick et al. These authors found in a 1-year longitudinal study that insight had an impact on treatment adherence and therapeutic alliance, as well as on global functioning and this effect of insight on global functioning could be modified by adherence to treatment. They also noticed that the effect of insight on global functioning could be modified by adherence to treatment[40].

Our own research corroborates these results in a more homogeneous sample, patients with paranoid

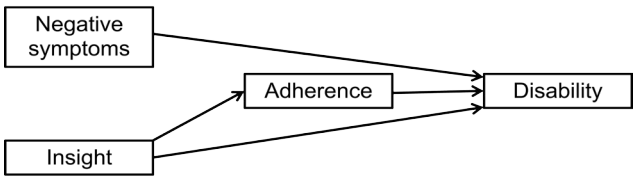

Figure 1. Resulting model from the mediation analysis assessing the effect of negative symptoms, insight and adherence on disability

schizophrenia diagnosis. We found that poor insight plays a major role in the disability in patients with paranoid schizophrenia and that this response is in part mediated by the effect of this poor insight on poor treatment adherence. It should be added that negative symptoms are associated with greater disability in this clinical population too (figure 1)[41].

In our study, we use a multidimensional concept of insight, as described above, and the Scale of Unawareness of Mental Disorder (SUMD) to be assessed[3]. We also chose the disability scale of the World Health Organization (DAS-WHO) as the main outcome measure instead of Global Assessment Functioning (GAF), the one used by Novick et al (2015)[40]. It should be noted, the GAF also assess symptoms and the collective weight of this measure can distort the interpretation of results on functioning. The decision to use the DAS-WHO scale provided us with an objective and clinically relevant measure of a patient's deficit, and its direct impact on the capacity to perform basic daily activities in the terms self-care, family relationships, occupational and social role; rather than with indirect measures, such as relapses, rehospitalizations, quality of life or even the GAF[41].

Along the lines of these findings, a broad and exhaustive theoretical review has been carried out recently by Lysaker et al (2018a). They have studied how insight influences the illness outcome and concluded, with a relatively solid conviction, that poorer insight can lead to a greater likelihood of rejecting antipsychotic medication and greater difficulties in forming a therapeutic alliance[6].

This paper intends to assess the clinically relevant question of the association between insight, adherence and functional outcome in schizophrenia. However, all the work done through the years would not make any sense unless we correlate it with its importance in clinical care. These findings lead us to believe that insight should become a key therapeutic target in the treatment of patients with schizophrenia, given its proven, direct influence on patient functioning, as well as its effect on adherence to pharmacological treatment.

Most of the once existing therapies oriented to insight in its classical conception - based on psychodynamic positions-, have been condemned to oblivion for their lack of efficacy and efficiency[42]. We could assume that is the reason why current theories are focusing their efforts on the present time, combining strategies of both support and introspection[43], trying to take some advantage of the positive effect that self-knowledge produces on clinical insight. These current theories are also striving to understand the patient in his biographical context by integrating the psychotic experiences, affirming the limits of the ego and helping the process of individuation[5]; then showing some degree of efficacy even in patients with psychosis[44].

Our work is focused on clinical insight, but we cannot ignore other aspects of it, not reviewed in this paper, such as cognitive insight, and its importance in the evolution of the illness[45,46]. Similarly other models of therapeutic interventions, the cognitive and metacognitive ones, could favor improving both clinical and cognitive insight by promoting adherence to the pharmacological treatment, insofar as they increase awareness of the usefulness of treatment and one's own difficulties, favoring cognitive flexibility and diminishing hopeless[45-49].

Therefore, including components aimed at enhancing metacognition, self-esteem, and reducing self-stigma may be useful in therapeutic programs for psychosis. In this sense, there is growing evidence that improving the metacognitive capacity in these patients promotes recovery by enhancing their ability to cope with the difficulties of daily life and better understand themselves and others[50].

The greatest scientific evidence in relation to the effectiveness of interventions on insight finds that the implementation of comprehensive psychotherapeutic programs, including at least psychoeducation, social skills training and cognitive-behavioral therapy is much more effective than any other intervention by itself. These interventions have not been shown to increase depressive symptoms, one of the already mentioned risks of improving insight[51].

As a way of conclusion, we want to point out that insight is a key element in schizophrenia outcomes through its direct effect on disability and adherence. It is absolutely necessary to assess it in any patient with psychosis as well as to involve those patients with poorer insight in comprehensive treatment programs to increase insight and improve outcomes.

Conflicts of Interest and Source of Financing

IGC has received fees from Janssen-Cilag and Lundbeck-Otsuka SL. This study was funded in part by a FIS (PI11/002849) grant.

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