Psychiatry Research 216 (2014) 12–16

Contents lists available at ScienceDirect

Psychiatry Research

journal homepage: www.elsevier.com/locate/psychres

Depression in schizophrenia: The influence of the different dimensions of insight

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ARTICLE INFO

Article history:
Received 27 March 2013
Received in revised form
17 September 2013
Accepted 26 January 2014
Available online 31 January 2014

Keywords:
Schizophrenia
Insight
Cognitive insight
Depression
Suicide

ABSTRACT

Improving insight in patients with schizophrenia appears necessary to enhance medication adherence and clinical outcome, but in some patients acquiring insight can paradoxically increase hopelessness, depression and suicidal behavior. The aim of this study is to explore the association of two dimensions of insight (cognitive and clinical) with depression, hopelessness and clinical variables in patients with psychosis. Using a cross-sectional design, 61 remitted outpatients meeting DSM-IV criteria for schizophrenia or schizoaffective disorders were included. Insight was assessed using the "Scale to Assess Unawareness of Mental Disorder" (SUMD), the PANSS-item G12 and the Beck Cognitive Insight Scale (BCIS). Overall, 41.2% of the sample had a history of suicide attempts. Patients in the high clinical insight group had significantly higher depression scores, higher hopelessness scores, greater histories of suicide attempts and were more likely to have received psychoeducation. Compared to patients with low cognitive insight, those with high overall cognitive insight were significantly more depressed and had more often received psychoeducation. Greater insight may have negative consequences in terms of depressive symptoms and therefore presents a challenge to clinicians in assessing the individual risks and benefits of strategies intended to enhance awareness of mental disorder.

1. Introduction

Lack of insight is a common feature of schizophrenia (Amador et al., 1994). It has an important impact on several markers of clinical outcome. In particular, studies have demonstrated that lack of insight is linked to greater overall severity of psychopathology (Mintz et al., 2003; Mutsatsa et al., 2006) and to poorer medication adherence, which is in turn associated with more frequent relapses and hospitalizations (Llorca, 2008; Acosta et al., 2009; Velligan et al., 2009). By contrast, several studies show that greater insight is related to increased depression (Amador et al., 1994; Mintz et al., 2003; Mutsatsa et al., 2006; Mohamed et al., 2009), lower quality of life (Staring et al., 2009) as well as poorer subjective well-being (Valiente et al. 2011). Insight has also been linked to suicidal behavior (Drake and Cotton, 1986; Crumlish et al., 2005). Concerning the mechanisms underlying this association, some researchers have hypothesized that suicide risk may be mediated by depression or hopelessness levels (Kim et al., 2003; Bourgeois et al., 2004; López-Moríñigo et al., 2012). Although it is possible to improve insight while also reducing depression, such as by assisting persons to cope with awareness of illness and stigma through psychoeducation and family interventions (Lysaker, et al., 2006; Brent et al., 2011), the risks and benefits of insight remain complex and providing an individualized therapeutic strategy presents particular challenges for the clinician.

Current theories of insight have drawn support from a variety of studies, but a comprehensive conceptual model has yet to be proposed (Osatuke et al., 2008). While this construct is often assessed by single items from broader instruments such as the Positive and Negative Syndrome Scale (PANSS) (Kay et al., 1987), a multidimensional conceptualization of this construct has developed over the last 20 years in which insight is considered to exist on a continuum relative to on the patient's awareness. This multidimensional conceptualization of clinical insight is perhaps best illustrated by the Scale to assess Unawareness of illness in Mental Disorders (SUMD) (Amador et al., 1993). However, Beck and colleagues proposed the complementary concept of cognitive insight, defined as a patient's current capacity to evaluate their anomalous experiences and their specific misinterpretations

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http://dx.doi.org/10.1016/j.psychres.2014.01.039

of events. This conceptualization of insight contributed to the validation of the Beck Cognitive Insight Scale (BCIS) (Beck et al., 2004).

In light of its seemingly contradictory effects, insight is a complex phenomenon with uncertain determinants and that challenges clinicians to develop therapeutical startegies tailored to the individual. This investigation examines both clinical and cognitive insight in a sample of remitted outpatients with schizophrenia seen at regularly-scheduled consultations. The aim is to explore how each insight dimension is associated with hopelessness and suicidal behavior, as well as to examine if both dimensions differ among patients who received psychoeducation.

2. Subjects and methods

2.1. Sample and procedure

Using a cross-sectional design conducted in naturalistic conditions, 61 outpatients from a psychiatric hospital in Bordeaux were recruited for the present study. All patients were in a remitted state seen at a regular monthly consultation. The inclusion criteria were (1) diagnosis of schizophrenia or schizoaffective disorder according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR); (2) age $\geq$18 years; (3) ability to understand the protocol; and (4) fluency in the French language. Exclusion criteria were traumatic head injury, any past or present major medical or neurologic illness, and mental retardation. A trained psychiatrist (SD) not directly involved in the care of patients completed all assessments. A single interview of approximately 45 min was conducted. To reduce social desirability bias, patients were reminded that their participation in the study would not affect clinical treatment or discharge plans. The treating psychiatrists were blind to the nature of the investigation. The study received approval from the local human research committee and all patients provided written informed consent to participate.

A standardized semi-structured questionnaire was used to collect clinical and socio demographic information. Illness onset was estimated by the age at first contact with a mental health institution. Each patient's history of suicide attempts by asking "did you ever make a suicide attempt in your lifetime?" A suicide attempt was defined as an intentionally self-destructive act performed with at least some intent of death. The diagnosis of comorbid alcohol and substance use disorders was assessed using the MINI International Neuropsychiatric Interview (Lecrubier et al., 1997).

2.2. Instruments

2.2.1. SUMD

Level of insight was measured using the short version of the SUMD (Amador et al., 1993). This nine-item semi-structured interview evaluates global awareness of having a mental disorder, the effects achieved from medication and the social consequences of having a mental disorder, as well as specific insight into symptoms and their attribution to the mental disorder. These dimensions of insight were rated in present time on a five-point Likert scale ranging from one (aware) to five (unaware) with higher scores indicating lower awareness. Questions allow for documenting both awareness of specific symptoms and the subject's attribution of the symptoms. Intraclass correlation coefficients (ICC) were 0.89, 0.75 and 0.68 for the global items and 0.90 and 0.87 for the symptom-specific items (Amador et al., 1993).

2.2.2. BCIS

Cognitive insight was assessed using the BCIS (Beck et al., 2004). This 15-item self-report questionnaire is rated by the participant on a four-point scale from zero "do not agree" to three "agree completely." The BCIS consists of two subscales, self-reflectiveness (nine items) and self-certainty (six items). Self-reflectiveness is described as a measure of introspection and ability to acknowledge fallibility and to consider alternative explanations. Self-certainty is described as a measure of how confident the patient is about his or her beliefs. Higher levels of certainty might diminish the capacity for self-reflection; thus a composite index providing an estimate of overall cognitive insight is calculated by subtracting the score for the self-certainty subscale from the score for the self-reflective subscale. The two subscales have been shown to have adequate convergent, discriminant, and construct validity. The alpha coefficients of the self-reflectiveness and self-certainty scores were 0.68 and 0.60, respectively (Beck et al., 2004). The French translation of the BCIS has acceptable psychometric properties as well as cross-cultural validity for use with outpatients suffering from schizophrenia or schizoaffective disorders (Favrod et al., 2008).

2.2.3. PANSS, item G12

The PANSS is a 30-item rating scale completed by clinically trained research staff at the conclusion of chart review and a semi-structured interview (Kay et al., 1987). For the purposes of this study and to complete the clinical insight measure with the SUMD, the G12 item of the PANSS ('lack of judgment and insight') was administered. This item provides a rating of 1–7, which reflects global awareness of symptoms, treatment need and consequences of illness, with lower scores indicating higher insight.

2.2.4. Beck depression inventory (BDI).

The 13-item short version of the BDI (Beck and Beck, 1972) is a self-report instrument to assess the intensity of depressive symptoms where each item consists of four alternative statements that reflect gradations in the intensity of a particular depressive symptom (rated in severity from zero to three). The responses to each of the items are summed in order to obtain a total depression score (range 0–39), with a higher score indicating more depressive symptoms. The BDI is not considered as a specific instrument in assessing depression in schizophrenia.

2.2.5. Hopelessness

Hopelessness was measured by the Beck Hopelessness Scale (Beck et al., 1974). This 20-item, true–false, self-reported instrument asks participants to endorse statements as they can be applied to themselves. Each of the 20 items is scored as zero or one. The total score is the sum of the individual item scores (range 0–20).

2.3. Statistical analysis

Normality of quantitative data was checked using the Kolmogorov–Smirnov 1-sample test. Spearman's rank order correlations were applied to measure associations between two continuous variables. Continuous variables from the G12, SUMD and BCIS insight measures were not normally distributed and were not transformable to approximate a normal distribution. As no cut-off value is found in the literature to identify patients with high insight, individuals having highest insight (the last tertial of the distribution) were compared to those with low or moderate insight (the other two tertials). Univariate comparisons between low insight and high insight were examined by *t*-tests and Mann–Whitney *U* tests for normal and non-normal continuous variables, respectively, and $\chi 2$ test or Fisher exact test for categorical variables when appropriate. Multivariate logistic regression analyses were performed on clinical variables with *p*-values <0.05 in the univariate analysis and quantified with odds ratios and their 95% confidence intervals. All the analyses were carried out using SAS 9.2.

3. Results

3.1. Sample characteristics

The sample of 61 patients had a median age of 39 years (range: 21–73 years), was predominantly male (65.6%), and had a median age at illness onset of 23 years (range: 13–43). Demographic and clinical characteristics of patients are shown in Table 1. Overall, 25 patients (41.0%) had a history of suicide attempts. The mean age for the first suicide attempts was 24 years (range: 13–47 years). Among these 25 patients with a history of suicide attempts, time between illness onset and the first suicide attempt was most often in the year of the first contact with a mental health institution for six patients (25%) or within 2 subsequent years for seven patients (29.2%). Patients were prescribed a wide range of antipsychotic medications combined with antidepressant for nine patients (14.8%) and mood stabilizers for 22 patients (36%). Thirty-six patients in the sample had a diagnosis of schizophrenia and 25 were diagnosed with schizoaffective disorder. Patients with schizophrenia and those with schizoaffective disorder did not differ in depressive scores, clinical insight using the SUMD or cognitive insight using the BCIS composite index. The severity of clinical measures of depression, suicide behavior, hopelessness and insight were unrelated to presence of substance use disorders.

3.2. Correlations of insight dimensions, depression and hopelessness

Table 2 describes associations between insight dimensions with hopelessness and depression. For the cognitive insight (BCIS), the results indicate that the self-reflectiveness and composite index