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Depression and insight in schizophrenia: Comparisons of levels of deficits in social cognition and metacognition and internalized stigma across three profiles

Paul H. Lysaker [a,b,*], Jen Vohs [b], Ilanit Hasson-Ohayon [c], Marina Kukla [a,d], Jena Wierwille [e], Giancarlo Dimaggio [f]

[a] Roudebush VA Medical Center, Day Hospital 116H, 1481 West 10th St., Indianapolis, IN 46202, USA
[b] Department of Psychiatry, Indiana University School of Medicine, Indianapolis, IN 46202, USA
[c] Department of Psychology, Bar-Ilan University, Ramat-Gan, Israel
[d] Department of Psychology, Indiana University–Purdue University Indianapolis, Indianapolis, IN 46202, USA
[e] Indiana State University, Department of Psychology, Terre Haute, IN, USA
[f] Center for Metacognitive Interpersonal Therapy, Rome, Italy

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ABSTRACT

While research has paradoxically linked insight to greater emotional distress and depression in schizophrenia, little is known why and for whom insight can result in depression. One possibility is that internalized stigma and deficits in social cognition and metacognition are risk factors for insight to convert to depression. To explore this possibility we assessed insight, depression, internalized stigma, social cognition and metacognition for sixty five persons with schizophrenia spectrum disorders. We then performed a cluster analysis based on insight and depression scores. Three groups were produced by the cluster analysis: Good insight/Mild depression (n = 22); Fair insight/Moderate depression (n = 26) and Poor insight/Minimal depression (n = 17). As predicted, ANOVA comparing groups revealed the three groups differed in social cognition, and the metacognitive mastery aspect of metacognition. Those with fair insight and moderate depression reported more internalized stigma than those with poor insight and minimal depression. Persons with good insight and mild depression had higher levels of social cognition and metacognitive mastery than the other two groups. These differences persisted when controlling for neurocognition and symptom severity. These findings point to the possibility that future research should examine whether bolstering metacognitive and social cognitive capacities may have a protective effect as persons are assisted to achieve insight.

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1. Introduction

Unawareness of illness or lack of insight has been commonly observed in schizophrenia (Amador et al., 1994) and is a longstanding barrier to treatment adherence and a risk factor for poorer outcome (Schwartz, 1998; Francis and Penn, 2001; Olfson et al., 2006; Erickson et al., 2011). Paradoxically high insight may also be a risk factor for negative emotional experiences, such as depression (Mintz et al., 2003), lowered self-esteem (Warner et al., 1989), and decreased quality of life and hope (Kravetz et al., 2000; Hasson-Ohayon et al., 2006, 2009), though other investigators have failed to find an association (Ekinci et al., 2012). Pijnenborg et al. (2013b) did not find an association between insight change in therapy and depression in a meta-analysis, but also did not examine the relationship between insight and depression per se.

The confluence of depression and insight in schizophrenia poses a number of issues. Among the most important of these concerns are the factors that cause insight to lead or not to lead to distress. Answers to this question are vital for clinicians working with who might naturally be at risk for depression as they struggle to achieve greater levels of awareness of their psychiatric needs (Buck et al., in press).

To respond to these challenges it has been suggested that persons may be at risk to develop depression in the face of insight if they hold stigmatized views of what it means to have a mental illness (Roe and Kravetz, 2003). Research has suggested that greater internalized stigma predicts demoralization in persons with schizophrenia (Yanos et al., 2008) and that insight is more likely to be linked to depression and lesser meaning in life when persons have higher levels of

* Corresponding author at: Roudebush VA Medical Center, Day Hospital 116H, 1481 West 10th St., Indianapolis, IN 46202, USA.
E-mail address: plysaker@iupui.edu (P.H. Lysaker).

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internalized stigma (Lysaker et al., 2007; Cavelti et al., 2012; Ehrlich-Ben Or et al., in press). Improved insight is also more likely to cause distress when persons hold negative beliefs about the course of illness (Cavelti et al., 2013). Among parents of persons with severe mental illness, internalized stigma was found to mediate the relation between insight and family burden (Hasson-Ohayon et al., 2011).

Two additional factors that might influence the relationship of insight and depression are social cognition and metacognition. Social cognition refers to processes involved in thinking about social interactions such as theory of mind, emotion processing and attributional style (Green and Leitman, 2008). Metacognition refers to a spectrum of activities which involves thinking about thinking and stretches from consideration of discrete psychological phenomenon (e.g. specific thoughts and feelings) to the synthesis of discrete perceptions into an integrated representation of self and others (Lysaker et al., 2013). While the literature has yet to fully detangle the constructs of social cognition and metacognition, it should be noted that they share a unique interest in cognitive processes as applied to interpersonal experience. They may diverge however in that metacognition is more interested in the synthesis of complex psychological experiences into representations which themselves may then vary not necessarily by their absolute accuracy but by their complexity, adaptiveness and flexibility. In other words metacognition may be more a matter of meaning making rather than correct identification of component elements of social exchange.

Deficits in social cognition and metacognition have been commonly observed in schizophrenia. Social cognition and metacognition are widely understood as core processes which allow persons to recognize their personal challenges, identify their own thoughts and feelings, regulate emotional pain and on the basis of all of that formulate and pursue meaningful goals (Brüne et al., 2011). As such deficits in social cognition and metacognition might leave persons less able to name and regulate the painful emotions that arise with a growing awareness of schizophrenia. Additionally, they might leave persons less able to borrow from others' positive perceptions and support (e.g. detect others' hope that particular problems can be dealt with) and ultimately less able to develop personally meaningful ways to respond to the challenges of their condition, all culminating in demoralization and depressed mood.

Evidence supporting these possibilities includes findings that deficits in metacognitive mastery, or the ability to use metacognitive knowledge to respond to psychological challenges, are linked to lower self-esteem and greater social anxiety as well as difficulties forming meaningful ideas about the consequences of mental illness (Lysaker et al., 2011a,b). The impact of insight upon mood has been linked to the ability to cope with distress (Cooke et al., 2007). Poorer perspective taking has also been linked to poorer insight (Pijnenborg et al., 2013a).

To explore the possible roles stigma, social cognition and metacognition play in the confluence and lack of confluence of depression and insight in schizophrenia we examined the social cognitive and metacognitive profiles of participants with high insight who had greater vs. lesser depression and also compared those to participants with low insight. We anticipated that examining the social cognitive and metacognitive profiles of different groups could offer important information about the types of persons who do and do not develop depression in the face of insight. We predicted that participants with high insight and relatively higher levels of depression would report greater internalized stigma as well as have lower levels of social cognition and metacognition. We included two measures of metacognition: metacognitive mastery and alexithymia, and three domains of social cognition: emotion recognition, emotional regulation and mental state reasoning. We chose metacognitive mastery specifically as it involves the application of metacognitive knowledge to solving psychological problems and hence would seem especially pertinent to persons knowing how to respond to distress that might emerge from awareness. To rule out the possibility that group differences were the result of symptom severity or neurocognitive capacity, we included measures of these constructs.

2. Method

2.1. Participants

Sixty-two men and three women with SCID (34) confirmed DSM-IV diagnoses of schizophrenia (n = 42) or schizoaffective disorder (n = 23) were recruited from a VA Medical Center for a larger survey of the effects of cognitive remediation on work outcome. All participants were receiving ongoing outpatient treatment and in a post-acute or stable phase of their disorder, defined as no hospitalizations or changes in medication or housing in the last month. All participants were prescribed an antipsychotic medication, though adherence to medication was not assessed in this study. Participants with active substance dependence were excluded. Participants were referred by their clinicians and were accepted into the study after it was determined they met study criteria and were able to offer informed consent. Participants had a mean age of 50.22 (sd = 11.18), a mean educational level of 12.72 (sd = 2.32) and a mean of 4.78 (sd = 4.70) lifetime hospitalizations with the first occurring on average at the age of 29.30 (sd = 12.48). Twenty eight participants were Caucasian, 36 African American, and 1 Latino.

2.2. Instruments

2.2.1. Indiana Psychiatric Illness Interview

IPII (Lysaker et al., 2002) is a semi-structured interview typically lasting 30 to 60 min. Responses are audio taped and later transcribed. The interview asks participants to describe and discuss: i) the story of their life in general, ii) whether they think they have a mental illness and, if so, how that has affected and not affected their life, iii) how this condition controls and is controlled by them; iv) how it affects, and is affected by others and v) what they see for themselves in the future. The IPII differs from other psychiatric interviews in that minimal content is introduced and metacognitive capacities appear spontaneously.

2.2.2. Metacognition Assessment Scale — Abbreviated

MAS-A (Lysaker et al., 2005) was originally designed to study metacognition within psychotherapy transcripts (Semerari et al., 2003). It has been abbreviated and adapted for the study of IPII transcripts. The MAS-A differs from other assessments in that it focuses on metacognitive functions that arise spontaneously, rather than as cued in a task or questionnaire. In this study, we were interested in one MAS subscale: *Mastery*. Mastery represents the ability to utilize knowledge of mental states to intentionally manage conflicts and subjective distress. Lower scores (0–2) reflect difficulties in plausibly describing psychological challenges. Intermediate range scores (3–5) indicate plausible descriptions of psychological problems with a limited ability to respond to them. Higher scores (6–9) reflect an ability to respond to psychological challenges effectively on the basis of psychological knowledge. Good interrater reliability was found in this study (intraclass correlation = 0.82). Evidence of the validity of this scale has been presented elsewhere (Lysaker et al., 2011b).

2.2.3. Scale to assess Unawareness of Mental Disorders

SUMD (Amador et al., 1991) is a semi-structured interview that assesses insight. We used an abbreviated version of that scale which assesses awareness of symptoms of mental illness, treatment need and consequences of mental illness on a 1–5 scale with higher scores indicating reduced insight. For the purposes of this study, we utilized an overall score derived from the three scores. Good interrater reliably was found (intraclass r = .89).