The impact of thought disorder on therapeutic alliance and personal recovery in schizophrenia and schizoaffective disorder: An exploratory study

Marialuisa Cavelti [a,*], Philipp Homan [a], Roland Vauth [b]

[a] Translational Research Center, University Hospital of Psychiatry and Psychotherapy, University of Bern, Bolligenstrasse 111, CH-3000 Bern 60, Switzerland
[b] Psychiatric University Clinics Basel, Center for Psychotic Disorders, Kornhausgasse 7, CH-4501 Basel, Switzerland

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ABSTRACT

Thought and language disorders are a main feature of schizophrenia. The aim of the study is to explore the impact of thought disorder on therapeutic alliance and personal recovery because of its interference with verbal communication. Thought disorder, positive and negative symptoms (Positive and Negative Syndrome Scale), functioning (Modified Global Assessment of Functioning scale), insight (Scale to Assess Unawareness of Mental Disorder), attachment insecurity (Psychosis Attachment Measure), therapeutic alliance (Scale to Assess the Therapeutic Relationship), and personal recovery (Recovery Assessment Scale, Integration Sealing-Over Scale) were assessed in 133 outpatients with schizophrenia or schizoaffective disorder at baseline and twelve months later. The data were analyzed by hierarchical multiple linear regression. Higher levels of thought disorder were significantly associated with lower clinicians' ratings, but not with patients' ratings of therapeutic alliance. In addition, lower clinicians' ratings of therapeutic alliance were significantly linked to a more sealing over and less integrative recovery style. In fact, the lower therapeutic alliance ratings mediated the association between thought disorder and a sealing over recovery style. The results highlight the importance of considering thought disorder in treatment of schizophrenia and schizoaffective disorder which may interfere with therapeutic alliance and treatment efforts towards recovery.

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1. Introduction

Formal thought disorder is a multifaceted construct that encompasses a diverse set of thinking disturbances and manifests as a speech disorder. It reflects disorganized thoughts in terms of processes as opposed to content (Beck et al., 2011a) and can be distinguished in objective (e.g. derailment) and subjective positive forms (e.g. pressure/rush of thought) as well as in objective (e.g. poverty of speech) and subjective negative forms (e.g. inhibited thinking; Kircher et al., 2014). Thought disorder has been considered to be a core feature of schizophrenia (Bleuler, 1950) and described either as part of the positive syndrome or as part of the disorganization syndrome, based on factor analyses of the symptoms of schizophrenia (Beck et al., 2011a). It occurs in about 50% of patients with schizophrenia and 60% of patients with schizoaffective disorder, but is not pathognomonic of schizophrenia spectrum disorders and can be also observed in patients with mania or depression (Roche et al., 2015). Thought disorder

predicted psychosis transition of young people at-risk mental state (Katsura et al., 2014) and was also found among relatives of patients with schizophrenia (Manschreck et al., 2012). It is moderately stable (trait marker; Wilcox et al., 2012) but becomes exacerbated during the acute episode, tends to increase in severity with illness duration (Maeda et al., 2007), and may also persist during antipsychotic treatment (Remberk et al., 2012). Thought disorder can be as disabling as the other symptoms of schizophrenia, limiting social and occupational functioning (Tirupati et al., 2004) as well as wellbeing and life satisfaction (Sigaudo et al., 2014; Tan et al., 2014). Furthermore, it may impede the access to many effective psychological treatments of schizophrenia (e.g. cognitive behavioral or narrative therapies), because it heavily interferes with the verbal communication in the process of therapy. Consequently, thought disorder is probably among the least explored and treated symptoms of schizophrenia in psychotherapy (Beck et al., 2011a). Efforts have thus been taken to elucidate the neurobiological basis of thought disorder (Horn et al., 2009, 2010, 2012) which might allow for the use of recently developed treatment approaches such as noninvasive brain stimulation that has proven useful in other domains of schizophrenia (Homan et al., 2011, 2012).

* Corresponding author.
 E-mail address: marialuisa.cavelti@puk.unibe.ch (M. Cavelti).

Therapeutic alliance has a crucial impact on therapy outcome, beyond therapeutic methods (Orlinsky et al., 2004), and this is also true for the treatment of schizophrenia (Farrelly et al., 2014; Priebe et al., 2011). Recently, Goldsmith et al. (2015) demonstrated that therapeutic alliance has a causal effect on symptomatic outcome of a psychological treatment for people with a first or second episode of a non-affective psychosis, and that poor therapeutic alliance is actively detrimental. So far, positive and negative symptoms, lack of insight, attitude towards treatment or medication, social functioning, or attachment insecurity have been studied as impediments for developing an effective therapeutic bond with psychotic patients (Barrowclough et al., 2010; Gumley et al., 2014; Jung et al., 2014; Wittorf et al., 2009). In contrast, knowledge about the impact of thought disorder on therapeutic alliance is sparse. Because verbal communication is one of the main means for therapists to build relationship with patients (Cruz and Pincus, 2002), thought disorder may reflect a crucial obstacle in therapy.

Recovery from schizophrenia has been defined in various ways (Cavelti et al., 2012b). Traditionally, recovery was understood as sustained symptom remission, accompanied by functional rehabilitation (e.g. cognitive, social, and vocational) and reduced use of medical health services. For this scientific definition of recovery, the term "clinical recovery" was introduced (Bellack, 2006). During the last years, another definition of recovery emerged from individuals who had personally experienced severe mental illness (SMI) and had used mental health services (e.g. Ben-David et al., 2014; Frese et al., 2009; Helman 2014). From consumers' perspective, recovery refers to a personal process of overcoming the negative personal and social consequences of having a severe mental disorder and regaining a self-determined and meaningful life, beyond symptom remission and functional rehabilitation (Bellack, 2006). Thus, recovery is no longer seen as an event occurring solely within the individual, but as a dynamic interplay between the individual and its environment (Cavelti et al., 2012b). In this article, we will refer to the latter definition of recovery as "personal recovery" (Slade et al., 2012). Personal recovery which involves reconstructing illness episodes in life-narratives, finding meaning in psychotic experiences, and overcoming (self-) stigma may rely strongly on metacognitive and communicative abilities (Hasson-Ohayon et al., 2014; Salvatore et al., 2012). Even if it is easily conceivable that thought disorder impedes personal recovery, empirical data thereto is lacking.

As part of a larger investigation of predictors of service engagement with community mental health services among people with schizophrenia or schizoaffective disorder (Beck et al., 2011b; Cavelti et al., 2012a; Cavelti et al., 2014; Kvrgic et al., 2013), the current study aimed to explore (a) the impact of thought disorder on therapeutic alliance, (b) the impact of thought disorder and therapeutic alliance on personal recovery, and (c) whether therapeutic alliance mediates the association between thought disorder and personal recovery. Thereby, we controlled for the influence of established predictors of therapeutic alliance and personal recovery, such as positive and negative symptoms, functioning, insight, and attachment style.

2. Methods

2.1. Participants and procedure

Between February 2009 and March 2010 consumers of community mental health services in the region of Basel, Switzerland, between 18 and 65 years of age and diagnosed with schizophrenia or schizoaffective disorder were asked for study participation. Diagnoses were confirmed by the Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders-IV Axis I

Disorders (First et al., 1996). Exclusion criteria were a primary diagnosis of alcohol or substance dependency, an organic syndrome or learning disability, inadequate command of German, and homelessness. After a full explanation of the study aims and procedures, participants provided written informed consent. The assessment consisted of an interview (PANSS, MGAF, SUMD) conducted by three well trained research psychologists as well as of questionnaires for participants (PAM, STAR-P, RAS) and their therapists (STAR-C, ISOS), administered at baseline (t_b) and at 12-month follow-up (t_f). Participants received a financial compensation of 40 Swiss Francs for the baseline and of 60 Swiss Francs for the follow-up assessment. The study was approved by the local ethics committee.

2.2. Measures

Severity of symptoms common in schizophrenia was assessed by the *Positive and Negative Syndrome Scale* (PANSS; Kay et al., 1987). This semi-structured interview consists of 30 items which are rated on a 7-point Likert scale ("1=absent", "7=extreme"). Several factor analytical studies have suggested that a five-factor model better captures PANSS structure than the original three factors proposed by Kay et al. (1987). Based on five-factor models reported in the literature, Wallwork et al. (2012) constructed a "consensus" model that might enhance comparability between studies. For our statistical analyses, we used the Positive, Negative, and Disorganized/Concrete subscales (Excited and Depressed excluded). Disorganized/Concrete encompasses the items P2 (conceptual disorganization), N5 (difficulty in abstract thinking), and G11 (poor attention), and was applied as an indicator of thought disorder in this study. Especially P2 and N5 are in line with the concept of FTD and have been found to positively correlate with the Thought, Language, and Communication (TLC) scale (Horn et al., 2010, 2012).

The *Modified Global Assessment of Functioning* scale (MGAF; Hall, 1995) was used as an overall measure of psychological, social, and occupation functioning, covering the range from positive mental health to severe psychopathology. A single score is rated ranging from 1 to 90, with higher scores indicating a higher level of global functioning. The MGAF is intended to be a generic rather than a diagnosis-specific scoring system. However, it has been proved a valid measure of how patients with schizophrenia are doing (Schwartz, 2007).

The three global items of the semi-structured interview *Scale to assess Unawareness of Mental Disorder* (SUMD; Amador et al., 1993) were used to evaluate patient's awareness of having a mental disorder, of achieved effects of medication, and of social consequences of having a mental disorder. These dimensions of insight were rated on a 5-point Likert scale (1="aware" to 5="unaware"), with higher scores indicating poorer awareness.

The attachment style was measured by the *Psychosis Attachment Measure* (PAM; Berry et al., 2006). This self-rating scale was developed to assess insecure attachment in adults with psychosis. It includes 16 items that are rated on a 5-point Likert scale from 0="strongly disagree" to 4="strongly agree". A high overall total score reflects a pronounced insecure attachment style.

The *Scale to Assess the Therapeutic Relationship-Patient Version* (STAR-P) and *Clinician Version* (STAR-C; McGuire-Snieckus et al., 2007) was applied to measure therapeutic alliance in community psychiatry. Each version consists of 12 items, rated on a 5-point Likert scale, with 0="never" to 4="always". Higher total scores indicate better therapeutic alliance.

Several aspects of personal recovery were assessed: the *Recovery Assessment Scale* (RAS; Corrigan et al., 2004) measures subjective experience of the recovery process, including the extent to which people are living a satisfying, fulfilling, and hopeful life