

Cognitive Behavioral Therapy Across the Stages of Psychosis: Prodromal, First Episode, and Chronic Schizophrenia

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Since the early 1990s, cognitive behavioral therapy (CBT) has been increasingly used as an adjunctive treatment for psychotic disorders. This paper describes the CBT of three cases, each at a different stage of psychotic disorder: at-risk mental state, first-episode psychosis, and chronic psychotic disorder. For the at-risk mental state, treatment focused on anxiety and social phobia, whereas the treatment of first-episode psychosis focused on the development of a shared formulation of the factors leading to and maintaining psychotic symptoms. For the chronic case, treatment emphasized the possibility of improving strategies to prevent symptoms from interfering with life goals. The potential contribution of CBT to improve outcomes in psychotic disorders beyond those obtained through traditional pharmacotherapy is discussed.

THERE IS NO cure for psychotic disorders and, despite appropriate medication, many patients continue to experience residual psychotic symptoms (Tarrier, 1987; Wiersma, Giel, De Jong, & Sloof, 1998; Wing, Cooper, & Sartorius, 1974). Treatment aims to reduce the symptoms and their consequences, often by combining pharmacological, psychological, and community support interventions (for an overview of the treatment for first-episode psychosis, see Penn, Waldheter, Perkins, Mueser, & Lieberman, 2005; for a review of the treatment of refractory psychosis, see Pilling et al., 2002a,b). Psychological interventions can help patients and their relatives cope with the consequences of having a psychotic disorder, and an increasing number of studies have shown that cognitive behavior therapy (CBT) alone or combined with standard psychiatric care, including antipsychotic medication, results in significant clinical benefits over standard care alone in a chronic population. However, the results are less clear-cut in the first-episode population and in people with an “at-risk mental state” (for a recent overview, see Tarrier & Wykes, 2004; Penn et al., 2005). CBT with schizophrenia has been widely used in the United Kingdom and in Northern Europe since the 1990s (e.g., Kuipers et al., 1997; Sensky et al., 2000; Tarrier et al., 1993;

Valmaggia, Van der Gaag, Tarrier, Pijnenborg, & Slooff, 2005) and it has more recently also been introduced in North America (Beck, 2005; Rector & Beck, 2001, 2002; Warman & Beck, 2003; Warman, Grant, Sullivan, Caroff, & Beck, 2005). The general CBT approach to psychosis has been discussed by Warman and Beck (2003) in this journal. The present paper focuses on CBT as a valuable intervention for improving the psychotic patient's quality of life in various stages of the disorder. The application and fine-tuning of CBT in the context of schizophrenia is presented in three cases, each illustrating a different stage of psychosis: prodromal symptoms; a first psychotic episode; and recurring chronic psychotic symptoms. Departing from a generic CBT approach, we propose to use specific submodels for each of these stages.

Case 1: CBT in the Prodromal Stage

There is one published randomized controlled trial (RCT) of CBT for individuals putatively prodromal for psychosis (Morrison et al., 2004), and one RCT of CBT combined with risperidone (McGorry et al., 2002). Both trials found a significant effect for the intervention on the rate of transition from putative prodrome to psychotic disorder (22% vs. 6% and 36% vs. 10%, respectively). The concept of psychotic prodrome or “at-risk mental state” (ARMS) employed by these trials is characterized by attenuated psychotic symptoms, full-blown psychotic symptoms of brief duration that resolve without treatment, and decline in functioning in combination with genetic vulnerability. These specific features are often accompa-

nied by nonspecific mood and anxiety symptoms, which may reach the threshold required to diagnose a disorder. In theory, CBT should be useful in the ARMS for the treatment of specific and nonspecific features. Interventions applied to the treatment of established psychotic disorders can be used to treat attenuated symptoms. Relapse prevention interventions can be used for brief, limited intermittent psychotic symptoms. Interventions applied to the treatment of mood and anxiety disorders can be used to treat the nonspecific features of the ARMS. Indeed, there is some evidence to suggest that mood and anxiety symptoms have a direct influence on the development of psychosis in those at high risk (Hanssen, Krabbendam, De Graaf, Völlebergh, & Van Os, 2005; Krabbendam et al., 2002; Yung et al., 2003).

The treatment approach adopted in the following case example is based on the treatment manual of CBT for individuals at high risk of developing psychosis (French & Morrison, 2004). The underlying model of psychosis (Morrison, 2001) suggests that the processes involved in the development of psychotic disorders are similar to the processes involved in the genesis of nonpsychotic disorders. This generic model therefore enables the therapist to incorporate disorder-specific cognitive models into a case conceptualization (French & Morrison, 2004). Because of the social nature of this patient's symptoms in the specific at-risk case presented here, the Clark and Wells model (1995) is adopted for this purpose (see below).

Case Presentation and Patient Background

Jim was a 20-year-old man who lived with his sister. His father was alcohol dependent, experienced seizures, and died when Jim was 5 years old. Jim had two brothers, one of whom experienced seizures; the other was alcohol dependent. His sister had been treated for depression. There was no family history of psychotic disorders. Jim left school at the age of 16 and began further education at college. He dropped out after 1 year without gaining any qualifications. Since that time his only job was working in a supermarket for 6 months.

Jim started smoking cannabis at the age of 13, and during his adolescence he experimented with amphetamines, ecstasy, and cocaine. He began using crack cocaine at the age of 17 and he used this regularly for about 12 months. He sought help from the local drug and alcohol service, which provided approximately 10 sessions of motivational interviewing and CBT. The therapist providing treatment noted a number of unusual, quasi-psychotic experiences and referred him to a psychiatrist. He was actually assessed by three psychiatrists, who disagreed about whether he met diagnostic criteria for a psychotic disorder.

He was referred to Outreach and Support in South London (OASIS), a specialist service for individuals at

high risk for psychosis, which assessed and treated him. (OASIS is described in details in Broome et al., 2005.) Briefly, patients are seen by OASIS if they are between 16 and 35 years old, have not experienced any previous full-blown psychotic episode, and meet one or more of the following criteria: (a) attenuated positive psychotic symptoms; (b) brief limited intermittent psychosis; or (c) a recent decline in functioning, together with either schizotypal personality disorder or a first-degree relative with a psychotic disorder.

Engagement Phase

Jim was actively seeking help for his difficulties, although he was somewhat mistrustful of mental health workers. He had a specific belief that doctors knew something about his health that they were reluctant to share with him. He also hoped that mental health services might aid him in securing permanent accommodation and extra welfare benefits. It was explained to him that it was possible for him to gain access to his medical notes by applying in writing and that the therapist would advise Jim about agencies that specialized in accommodation and benefits. Acknowledging these problems and providing some aid in solving them helped to build a trusting relationship between Jim and the therapist. Since patients presenting to OASIS are seen within primary care settings, Jim's appointments therefore took place at his family doctor's practice.

Assessment

Jim reported that he "sensed" other people's thoughts. These could be the thoughts of strangers passing him on the street, of next-door neighbors, or of members of his family. The content of these thoughts could be positive (e.g., "He has nice shoes on") or negative (e.g., "Keep away from him"). His response was determined by the content of the thought. He reported that this experience occurred everyday but that the level of his conviction that these thoughts originated in other people varied, depending on the amount of cannabis he had smoked. Whilst intoxicated he could become completely convinced but during the assessment interview he reported that he did not believe that thoughts came from other people, describing them as "imaginary." He also had a belief that he had damaged his brain by taking drugs. He was concerned that health workers were keeping information from him about the extent of the damage to his brain.

Jim was assessed using the Comprehensive Assessment of at-Risk Mental States (CAARMS; Yung et al., 2002). The first three sections of the CAARMS (Disorders of Thought Content; Perceptual Abnormalities; and Disorganised Speech) are used to assess positive symptoms of psychosis. In particular, the scale for Disorder of Thought Content implied a great severity and high frequency of this aspect.

On the Positive and Negative Symptom Scale (PANSS; Kay, Fitzbein, & Opler, 1987), both scales were marked elevated, the Hamilton Depression Scale (Hamilton, 1960) indicated moderate to severe depression, and the Hamilton Anxiety Scale (Hamilton, 1969) yielded a score of mild anxiety. Global Assessment of Functioning (GAF; American Psychiatric Association, 1994) was 40.

Case Conceptualization

In creating a problem list, Jim identified anxiety in social situations as a major problem. At times this could be conceptualized as social phobia in that Jim would think that other people had noticed aspects of his behavior that might lead them to evaluate him negatively and reject him. On other occasions, this could be conceptualized as paranoia in that Jim would think that he had “picked up” what other people were thinking about him. Both conceptualizations involve a mental representation of another person’s evaluation, the difference being the source of that mental representation. The mental representations of other people’s evaluations were reframed as intrusive thoughts.

The Clark and Wells (1995) social phobia model was adapted as a guiding clinical heuristic to create a formulation of anxiety and avoidance generated by social interaction. This formulation was shared with Jim and is described below and represented diagrammatically in Fig. 1.

Jim came from a family that was distrustful of outsiders and he was biased to perceive malevolent intent in other people. He experienced frequent rejection and expected to be rejected by other people. He believed that he had poor social skills and was generally not likeable. In social situations he deployed his attentional resources both toward other people’s reactions to him as well as toward an internal mental image of how he appeared to others in that situation. He tried to predict what other people were thinking about him so that he could protect himself if their intentions were malevolent. One effect of these strategies was to decrease the attentional resources available to accurately process experience and respond appropriately. Another effect was hypervigilance to mental representations of other people’s evaluations of him. These representations sometimes intruded into Jim’s

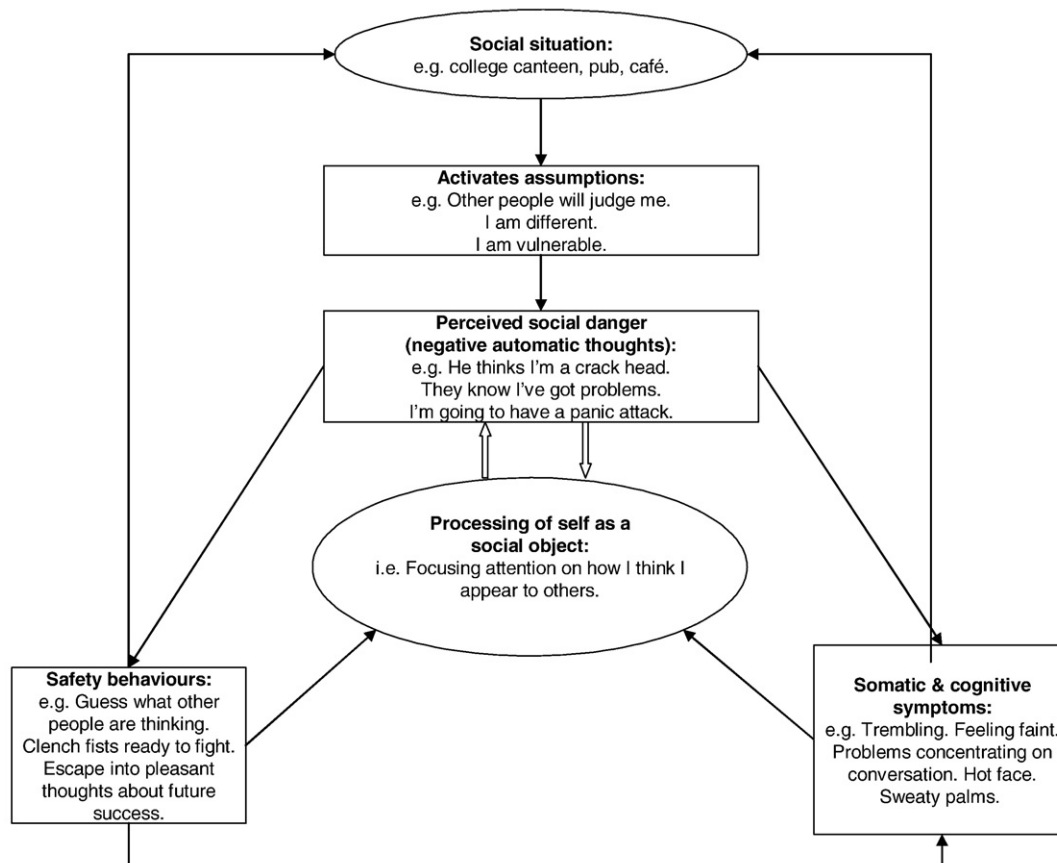


Figure 1. Formulation of the Prodromal Case.

consciousness, at times when he was not aware that he was thinking about them. He interpreted this as picking up someone else's thoughts.

Jim avoided other people so that he would not have to experience rejection, and he spent more time alone ruminating about past poor social performance, as well as worrying about potential future humiliation. These processes maintained sadness and anxiety. Jim came to believe that his problems were a consequence of the effects of drugs on his brain and he felt guilty about his previous use of illicit substances. Because of this belief, he became hypervigilant to minor visual and tactile anomalies, which he interpreted as further evidence of brain dysfunction.

Course of Treatment

Jim attended 16 appointments over 8 months. Several unhelpful safety behaviors that Jim used in social situations were identified: indulging in pleasant fantasies that prevented him from engaging in conversation, scanning the room for danger, monitoring his own voluntary and involuntary behavior. After sharing the social phobia formulation with Jim, we evaluated the advantages and disadvantages of devoting attentional resources to imagining how other people saw him. Jim experimented with dropping safety behaviors while we role-played social exchanges with other people. The dialogue below illustrates the process by which one covert safety behavior was assessed and evaluated:

Therapist: So you were feeling really down in class. What was going through your mind?

Jim: I was thinking that they all think that I am a crackhead and a loser.

T: If that was true, what would it mean?

J: They wouldn't want to have anything to do with me. If I tried to make friends with them, they'd make an excuse to get away.

T: I see how those thoughts would make you feel really bad. How did you respond? Were there things that you did or thought about in that situation?

J: Well, I started to think about being a famous musician and how everybody would want to be my friend.

T: And did that make you feel better?

J: Yes. It really took my mind off the situation.

T: So the advantage of imagining yourself as a famous musician was that, in the short term, your mood lifted because you were no longer focusing on potential

rejection by classmates. Can you think of any disadvantages to this response?

J: Well, I guess that I wasn't really concentrating on what the teacher was saying.

T: Were you able to concentrate on what your classmates were saying to you?

J: They weren't really talking to me but I was in my own world.

T: Do you think this strategy might interfere with your ability to make friends?

J: Well, I suppose that I don't always notice if people are trying to talk to me and if they are I can't always follow what they are saying because my mind is on other things.

T: What effect do you think this has on people who do try to talk to you?

J: Maybe they give up because I'm not listening.

T: And if they give up, what do you usually think?

J: Well, usually I think that it's because they think I'm a loser, but maybe it's sometimes just because I'm not listening.

T: OK, so imagining yourself as a famous musician has the advantage of lifting your mood but the disadvantage of preventing you from paying attention to what people say, which then increases the probability that they won't try to make friends, which makes you feel down because you think that they think you're a loser. It's quite complicated, so let's write down the steps and try to think of other ways you can respond when you feel down in class.

Alternative explanations for "picking up other people's thoughts" were considered and Jim was encouraged to generate as many explanations as possible for this phenomenon and rate his belief in each. We discussed the phenomenon of intrusive thoughts and how his attempts to protect himself from harm by predicting other people's intentions might influence the content of such intrusive thoughts. As a normalizing strategy, Jim was asked to read a paper on this subject by [Rachman and De Silva \(1978\)](#), which helped him to realize that intrusions per se are everyday phenomena that occur in most people. These interventions helped Jim to reframe "picking up other people's thoughts" as "experiencing my own intrusive thoughts."

Jim's beliefs about psychosis and schizophrenia were explored and modified. He was given clear information

about the results of the assessment and learned that, according to available research, between 20% and 40% of individuals with experiences similar to his would be expected to become psychotic within 12 months. However, that risk could be reduced by treatment with CBT and antipsychotic medication (McGorry et al., 2002; Morrison et al., 2004). Jim's belief that he had damaged his brain by taking drugs made him feel guilty and hopeless. The probability of such damage was discussed, supplemented by the results of a neuropsychological assessment indicating that Jim's general intellectual functioning was in the high average range. None of the cognitive domains tested were impaired, although his verbal memory was in the borderline range. Jim reframed his belief that brain damage would permanently impede his social and occupational performance to a belief that even if he had caused some damage, he still retained adequate cognitive abilities. He also formed a new belief that his brain was in convalescence, since ceasing to use drugs, and that his cognitive functioning might improve. These alternative beliefs resulted in a more hopeful outlook and less remorseful rumination.

Relapse Prevention

A one-page summary of therapy was produced both by the therapist and by Jim. These were discussed at the final session. The summary produced by the therapist included a list of early-warning signs that indicated deterioration in Jim's mental health and advice on how to respond if he identified these signs.

Outcome Data

At the end of treatment, Jim had made considerable gains in his functioning and symptoms had decreased. The frequency and severity scores on the CAARMS Disorder of Thought Content Scale decreased from severe to moderate. It is notable that the change in PANSS positive scores (from 16 to 14) was small relative to the change in PANSS negative scores (from 17 to 7). The Hamilton scales indicated that anxiety and depression had subsided. He commenced a 1-year college course soon after beginning therapy and he was able to complete this. He secured part-time employment by the end of therapy and he was spending more time socializing. He had not used any prescribed psychotropic medication or illicit drugs since commencing therapy and he had been discharged from the community drug and alcohol team, which had initially referred him for treatment.

Case 2: CBT with a First Episode of Psychosis

In the past decade there has been interest in the potential of multimodal treatment following the first

episode of psychosis, incorporating such components as assertive outreach, low-dose antipsychotic medication, and various psychosocial treatments, with the aim of preventing the potential residual symptoms and long-term disability that has been associated with psychotic illness (Spencer, Birchwood, & McGovern, 2001). Within this context, a small number of randomized controlled trials have been conducted on CBT with first-episode patients as an adjunctive treatment to enhance recovery and aid in relapse prevention (e.g., Jolley et al., 2003; Lewis et al., 2002). A recent review of these treatment studies has suggested that CBT may provide benefits in symptom reduction, adaptation to illness, and subjective quality of life, although as yet there have not been findings to suggest CBT produces a reduction in hospitalizations or relapses; there are also mixed results for long-term outcomes (Penn et al., 2005).

Typically CBT approaches with first-episode psychosis focus on engagement, individualized case formulation, psychoeducation and normalization of anomalous experiences, relapse prevention, coping strategies enhancement, and treatment of secondary morbidity such as depression, anxiety, and substance misuse (Addington & Gleeson, 2005). Cognitive and behavioral techniques are used with both persisting positive symptoms and appraisals of the psychosis to facilitate emotional and social adjustment (Addington & Gleeson, 2005; Jackson et al., 2001). The first-episode case described here was referred to the Lambeth Early Onset (LEO) Service by her family doctor. The LEO Service is for young people (ages 16 to 35 years) residing in the London Borough of Lambeth who are experiencing a first episode of psychosis. The LEO Service provides a multi-element treatment package, including assertive case management, low-dose antipsychotic medication, and psychosocial interventions. CBT for psychosis within the LEO Services uses the Garety et al. (2001) model of psychosis as a specific guide for the clinical formulation of positive psychotic symptoms (such as delusions). The model assumes that anomalies of experience (i.e., changes in perception and cognition) trigger a search for causal explanation. When a patient appraises anomalies as external in origin, this is influenced by cognitive biases in information gathering (e.g., jumping to conclusions, external attribution style, difficulties in understanding the intentions of others), emotional processes, and negative schemas regarding self and the world (e.g., regarding self as vulnerable to harm, expectation that others are dangerous). The maintenance of positive symptoms occurs as a result of reasoning processes, dysfunctional schemas and adverse environments, emotion (depression, anxiety, anger) and cognitive processes associated with emotion (selective attention, safety behaviors), and the secondary appraisal of psychotic

experience (humiliation and shame about psychosis). In sum, the model translates the general CBT approach to the specific features of a patient with positive psychotic symptoms.

Case Presentation and Patient Background

Marie, a 20-year-old Black British female, was born and raised in South London, the youngest daughter in a family of two girls and two boys. Marie's parents were divorced and she lived with her mother, sister, and younger brother in a housing project. Her father lived nearby and had regular contact with the family. Marie had a childhood history of witnessing domestic violence and emotional abuse by her father; she also experienced bullying at school, had few friends, and described feeling unhappy throughout her childhood. Her oldest brother was estranged from the family after developing mental health problems and substance abuse in his late adolescence. Marie had been unemployed for 12 months at the time of assessment. After losing her permanent job due to company downsizing, she had worked in temporary, part-time positions for 6 months, finding it difficult to gain further employment.

During the assessment with the early-intervention team, which occurred at her family's house, Marie appeared perplexed, had some pressure of speech, and provided rambling answers. Marie stated that she believed she was a "famous soul diva" and was responsible for singing a number of popular songs. Her mother, who was present at Marie's assessment, expressed concern that over the last 3 months Marie had been isolating herself, demanding special treatment, and expressing irritation when family members did not comply. It was also reported that she slept only 2 to 3 hours a night, and spent her time in her room, playing the same music repeatedly. Assessment revealed that Marie was experiencing a first episode of psychosis, the most prominent feature of which was a grandiose delusion. She was prescribed a low-dose novel antipsychotic medication and followed up closely by the early intervention team, which assisted in the engagement of Marie and her family.

Engagement Phase

Marie was offered psychological therapy a month after commencing antipsychotic medication. There had been a significant reduction in conviction and preoccupation in the grandiose delusion after 3 weeks of medication, although Marie described a worsening of her mood, becoming more depressed and anxious. Marie denied having "psychotic experiences," instead describing her problems as depression. It seemed that her reticence to accept a diagnosis of psychosis was based upon fears that she would have problems similar to her older brother, and that she too would be cut off from her family. Marie was

engaged in therapy by developing a problem list, such as wanting to increase her level of activity, dealing with worrying, and issues about self-esteem.

Assessment

Marie scored high on the delusion subscale of the Psychotic Symptom Rating Scale (PSYRATS; Haddock, McCarron, Tarrier, & Faragher, 1999), a semistructured interview for quantifying delusions and auditory hallucinations. Each item of the PSYRATS can be scored on a 5-point ordinal scale (0–4), with higher scores indicating the most severe symptoms. Marie reported moderate levels of depression on the Beck Depression Inventory–II (Beck, Steer, Ball, & Ranieri, 1996) and severe anxiety levels on the Beck Anxiety Inventory (Beck, Epstein, Brown, & Steer, 1988). Her general functioning was assessed using the GAF (American Psychiatric Association, 1994; for details, see outcome data below).

The assessment phase involved discussing Marie's experience of psychosis, the meaning attached to these experiences, and her past and current coping. In reviewing the events that led up to Marie being seen by the early intervention team, she reported that for 6 months she had experienced "weird thoughts," was not in control of her own actions, and displayed odd behavior both within the family home and the neighborhood. She stated that these symptoms started after a family friend had been killed in her neighborhood (shot by an unknown assailant). Marie reported that she became more preoccupied with thoughts that people were out to harm her family, and would engage in checking of the doors and windows in the family home during the day and at night, in order to reduce the risk that someone would break into the home. She described staying at home and isolating herself from her family. Marie stated that after 3 months she started to be convinced that she was a famous singer, and a feeling of calmness and relief was associated with this. She stated that she then spent most of her time in her room, listening to music (which she was convinced that she had sung). Marie stated that she found it confusing to understand why she was living where she was, considering she was famous, and that she did not recognize the other people in the house as members of her family. She reported that she would become angry at these other people as they did not seem to want to help her or respect her achievements.

At the start of therapy Marie reported that thoughts of being a famous singer continued to occur, although these were much less believable and she could easily switch her attention from them. Previously Marie had enjoyed thinking that she was famous, although now she found the thoughts disturbing, labeling them as "abnormal" and worried about continuing to have them, fearing that she would "go crazy."

Case Conceptualization

The case conceptualization was developed with reference to the Garety et al. (2001) model of positive symptoms of psychosis, described above (see Fig. 2). It was hypothesized that in Marie's case there were a number of psychosocial vulnerability factors for psychosis, such as her history of emotional abuse from her father and protracted bullying at school. These, combined with the triggering event of her friend being killed, resulted in increased fear and apprehension for Marie, and she started having anomalous experiences, such as increased salience of sounds outside her bedroom at night. Her appraisal of these emotional and cognitive changes was influenced by her preexisting beliefs about herself and the world ("I am vulnerable to harm"; "Other people are dangerous and can't be trusted"), her isolation from family and friends (spending time by self, being vigilant for sounds), and a "jumping to conclusions" reasoning style. Maintenance processes for the positive symptoms were hypothesized to be Marie's reasoning and attributional style, dysfunctional schemas (described above), depression and anxiety, selective attention, use of safety behaviors (social avoidance, making limited eye contact), her use of rumination and thought suppression as coping strategies, and her secondary appraisal about illness (stigmatizing evaluations of intru-

sive thoughts, belief of self as a "freak," thinking of psychosis as shameful and her "fault").

Course of Treatment

A time line was drawn to identify life events, changes in mood, behavior, and thinking, and other details that Marie thought important in understanding her situation. Building on the case formulation, a normalizing approach was used when discussing Marie's experience of the psychotic episode, which involved providing information about changes in perception and thinking in response to stressful events such as trauma and isolation, and validating her experience (Kingdon & Turkington, 2005). Part of this discussion involved challenging her belief that she was abnormal by suggesting that her responses were reasonable and understandable. Marie stated that this information helped her to view herself as less of a "freak."

Marie continued to experience intrusive thoughts about being a "famous soul diva," and although the belief was held with little conviction, these thoughts distressed her, as she was worried that she was going to have a relapse of psychosis. Marie described that she responded to the thoughts by trying to suppress them as well as by spending time alone worrying about them. In addition, she believed that the continuation of these thoughts,

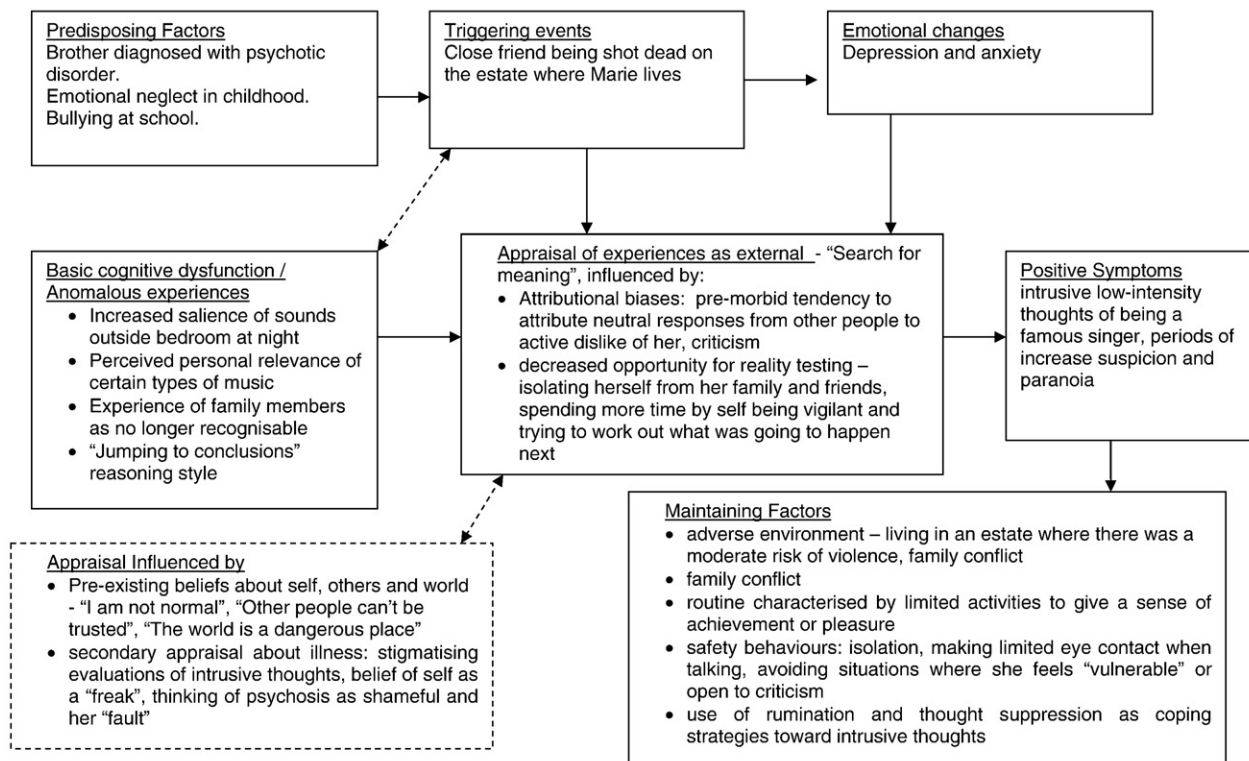


Figure 2. Formulation of the First-Episode Case.

despite taking medication, appeared to be self-recriminating evidence that she was “abnormal.” The approach taken was to develop a formulation of these thoughts as intrusions and to consider her efforts of suppressing them as playing a role in their maintenance.

Therapist: You have been telling me that these thoughts are like a sign of your freakiness and as long as they are there it means that you are different from other people. Also, you said you are worried that these thoughts hanging around could mean that you become unwell again, is that right?

Marie: Yes, I’m scared that I cannot control my own mind.

T: I wonder if this is a useful way of thinking about this problem: what if in some way the thoughts are not you but rather something that happens to you?

M: What do you mean?

T: Well, these thoughts pop into your mind out of the blue and you have told me that you don’t have any control over whether they are there...

M: That’s true, if I could stop them, I would. I don’t want them there.

T: And you are doing things, like taking meds and managing stress differently, which seem to be useful in helping you to feel better. And yet, it hasn’t completely got rid of the thoughts, although they have reduced in how believable and important they are to you...

M: Yeah, I feel stuck with them.

T: I’m not sure what we can do about getting rid of the thoughts... but I wonder if trying hard to get rid of them, spending lots of time worrying about them, is actually part of the problem, rather than the solution,

M: What do you mean?

T: Well, I wonder if in some way these thoughts are like having a song stuck in your head. Has that ever happened to you?

M: Sure, usually some stupid song that I don’t even like [smiles].

T: Same here [laughs]—and have you ever tried to stop thinking about it? Like to block out the song. What happens when you do that?

M: It doesn’t go away.... In fact, it becomes a bit more annoying.

T: Yeah. You notice it a lot more and it sort of intrudes on what you are thinking about. What if this is how our

minds work with songs, thoughts, memories, etc., that we don’t want to show up? They can become more upsetting the more we don’t want them there. Like we add fuel to the fire by trying to get rid of them. And I wonder, do you feel you have choice about what songs or upsetting thoughts are stuck in your mind?

M: No. they just happen, I don’t have much control over them.

T: Could this be another way to think about it? That you are not responsible for what thoughts show up... ? We don’t have a choice about that, but we do have a choice about what we do when they are there. You can feel annoyed or sad or worried about them, and also decide to do something different.

M: So my psychotic thoughts could be a like a song in my head?

T: Yeah, it could be... and perhaps no more dangerous than an annoying song! We could experiment with coping differently when they happen—instead of blocking them, perhaps letting them be there and do what you want to do, rather than spend time worrying. How does that sound?

M: It is worth a try.

Further discussion involved conducting some analogous exercises, such as the White Bear suppression task (Wegner, 1994), to explore the effects of these strategies. Marie reported less discomfort about continuing to experience intrusive thoughts, and she described more flexibility in her response over time, finding that she was able to continue planned activities despite their presence. Marie reported over the course of therapy that these thoughts did gradually reduce in frequency and believability.

In order to help improve Marie’s mood and to alter the use of safety behaviors, behavioral activation was used (Martell, Addis, & Jacobson, 2001). Behavioral activation involved a graded activity scheduling approach, with mastery and pleasure ratings, rehearsal of social interactions, and behavioral experiments to test ideas about socializing. Marie responded positively to the activity scheduling with improvement in her mood, and, despite her anxiety, persisted with activities and social situations that she had found difficult.

Relapse Prevention

Marie was engaged in a variation of the relapse prevention approach described by Birchwood, Spencer, and McGovern (2000), which involves the identification of a “relapse signature” (a combination of emerging psychotic and depressive/anxiety symptoms) and development of personalized relapse prevention plan. As a homework task

Marie discussed this symptom list with members of her family to gain a sense of how they observed her behavior changing and to add any further items to the list. Finally, Marie was guided in developing a relapse prevention plan, outlining the actions that Marie, family members, and the family doctor could take if there was a re-occurrence of early warning signs. A list of potential triggers was described using the cognitive behavioral formulation, and strategies covered during therapy were summarized on the relapse prevention plan.

Outcome Data

Marie was seen for a total of 20 therapy sessions over a 9-month period. A comparison of the assessments before and after treatment show a decrease in positive symptoms as measured with the PSYRATS (Haddock et al., 1999). The initial scores for amount of preoccupation with the delusions, their duration, and their conviction were all maximal (4) at the beginning of treatment, and dropped to zero at termination. Also remarkable is the decrease in depressive and anxiety symptoms (BDI scores from *severe* to *mild*; BAI scores from *moderate* to *mild*). During treatment Marie had experienced several short periods during which suspiciousness had increased, and she continued to have regular, low-intensity thoughts about being famous. These occasions were managed within the context of therapy and utilizing the relapse prevention plan. She did not require an increase in antipsychotic medication during the periods of increased suspiciousness, and 12 months after her entry into the service, medication was gradually reduced and finally withdrawn at her request. The reduction of delusional beliefs resulted in a steady improvement in Marie's level of functioning (GAF score increases from 25 to 78). She engaged in vocational training toward the end of therapy, and was able to secure employment following this training, through which her self-confidence further increased.

Case 3: CBT for Refractory Psychotic Symptoms

CBT for refractory symptoms of psychosis has been the subject of extensive research, suggesting that CBT is effective in reducing refractory positive symptoms in chronic patients (see Tarrrier, 2005, for a review). The CBT treatment model adapted in the case description below is based on a CBT treatment manual for refractory symptoms (Valmaggia, 2002; Van der Gaag, Valmaggia, Van Meer, & Slooff, 2005). Treatment begins with an engagement phase, which stresses the development of a collaborative relationship between the therapist and the patient. This is essential in working with these patients because their insight is often impaired, and thus, their willingness to engage in therapy is likely to be low. In addition, some patients have had aversive experiences in

the past when they talked about their symptoms and are wary about talking openly about what they are experiencing. By focusing on reducing the distress that accompanies the symptoms instead of targeting the "reality" of the symptoms directly, reactance is reduced, and this facilitates the challenging of the beliefs in the next phase of therapy (Kingdon & Turkington, 1994). A shared case formulation based on a detailed assessment of the problems experienced by the patient is developed in the next phase of treatment. The formulation aims at describing the patient's problems in terms of thoughts, emotions, and behavior and how these are related to each other. Specific techniques are then used to reduce symptoms and the distress that accompanies them. The last phase of therapy focuses on consolidating treatment gains, and attention is given to relapse prevention strategies. Patients experiencing chronic psychosis often have some degree of cognitive symptomatology affecting their ability to concentrate, remember, or plan their thoughts or activities. To cope with these symptoms, the pace of the session is slower, the therapist asks frequently for feedback on what was just discussed, and frequently summarizes relevant information. In conclusion, even more than in the approach described in the previous two cases, much work is made of the therapeutic relationship in terms of trust and validation, in order to engage the patient into therapy.

Case Presentation and Patient Background

John was a 46-year-old man with a diagnosis of paranoid schizophrenia. There was no family history of psychiatric illness. John was born after a normal pregnancy, the delivery was uncomplicated, and he achieved normal milestones. John had maintained regular contacts with his parents and his older brother. His parents were both retired and lived in a small town nearby. John had been on various antipsychotic medications since the onset of his psychotic symptoms at 21 years old, including a trial of clozapine. Despite this, he continued to hear voices and remained convinced there was a conspiracy to harm him. He lived in sheltered accommodation and he had been admitted to hospital on numerous occasions; in the past year he had been admitted to hospital three times. It was during the last admission that the therapist approached him.

Engagement Phase

John was reluctant to see what he described as "yet another mental health worker." He said he knew the therapist was going to say that he was "schizophrenic" and would not believe a word he said.

John: You don't get it, do you? I don't need a psychologist.

Therapist: There is nothing you need help with?

J.: Well, what I need is someone who will believe me and help me.

T.: Help doing what?

J.: Helping me, to stop them.... They are ruining my life.... They won't leave me alone.

T.: It sounds like you are under a lot of pressure at the moment.

J.: Yes, I don't need a psychologist— I need someone to help me stop them!

T.: I would really like to hear a bit more about it. You might be right—maybe I am not the best person to talk to, but if you want I'd be happy to hear more about it. Maybe together we can think of something that could help.

J.: You won't believe me.... You think I'm crazy.

T.: I don't know enough about it to say whether I believe you or not, but I would really like to hear more about it. Would it be okay if I come back tomorrow so that we can talk about it?

J.: Well, if you want to ... but not in the morning.

T.: Two o'clock okay?

J.: Fine. If you want to.

Assessment

John was assessed by a psychologist trainee using the PANSS (Kay et al., 1987), which yielded clinically elevated scores. John scored the maximum score on all the items of the PSYRATS (Haddock et al., 1999), indicating that he was experiencing severe and distressing auditory hallucinations and delusions over which he did not experience any control (see outcome data below for more details).

In the first therapy session John said that he first noticed that he might have been the victim of a conspiracy more than 25 years ago. He was in his second year at college when he started to notice that he could not focus on the lessons. Studying became very difficult as he could not concentrate and he could not remember what he had just read. After a while he started missing lessons or turned up to the wrong classes. The college tutor asked to speak with him. He told him that if he kept going on like this he would have to stop college. He also said that other students in the dormitory had complained about him making too much noise during the night. John remembered that he had a lot of trouble sleeping at that time and that he spent a lot of time wandering around in the dorm. It was during one of these nights that John first noticed that there were people carrying out "weird experiments."

The therapist asked John to explain a bit more about these "weird experiments," and John said that it was at night when he first heard the messages that are sent out all the time and that most people did not even notice. John stated that these messages could not be hallucinations because all the medication he had taken to stop the voices did not stop the messages he was hearing. John was convinced that the government was sending out these "subliminal" messages and that he was one of the few people that could hear them. He said he was labeled a "schizophrenic" so that nobody would ever believe him and the government could carry on with the experiment.

When asked about evidence of the conspiracy in his life at the present, John reported seeing evidence of the conspiracy all over—for example, a car parked in front of his door was labeled as someone monitoring him; a stranger smiling at him was suspected of wanting to harm him; someone walking behind him in the street was suspected of following him; a new member of staff at the sheltered accommodation could be "one of them." The therapist engaged in assessing how John reacted to this "evidence" and how it made him feel. John said that he was very sad that nobody believed him; he also reported feeling quite angry at times but that he was mostly afraid and anxious about the whole thing. Regarding his behavior, John was mostly avoidant. He avoided going outside alone, and when he did go out (e.g., to a supermarket), he kept to himself, staring at the ground and checking regularly to see if he was being followed. He said that due to the conspiracy it had been very difficult for him to concentrate or to remember things and that he had never been able to hold down a job or to live on his own. John had no friends, and the relationship with his brother had deteriorated because each time they met, John tried in vain to convince his brother that the conspiracy was true.

The therapist inquired about John's frequent admissions to hospital. As with everything else, John attributed his hospital admissions to the conspiracy. He described that sometimes he suspected that the staff at the sheltered accommodation were involved in the conspiracy too. Further questions revealed that at times John could not find his medication and became suspicious about people tampering with it. He thought that someone might have poisoned it and stopped taking it. After stopping his medication, John could not sleep and he became more irritable, very agitated and threatening to the staff and other tenants. This pattern led to him being admitted to hospital.

Case Conceptualization

The information gathered in the first three sessions was combined into a formulation of the symptoms. John and the therapist drew the formulation together, as depicted in Fig. 3.

Early experiences:

Experiences at college 25 years ago
 Many admissions since
 Nobody believes me

Activating events (A):

1. 'Subliminal messages'
2. People walking behind me in the street
3. Someone I don't know smiling at me
4. I can't find my medication

Beliefs (B): I think:

They are spying on me
 They want to destabilise me
 They want to harm me
 They want to kill me or poison me

Feelings (C):

'Subliminal messages'	anxious = 65	angry = 50	sad = 60	happy=0
People walking behind me in the street	anxious = 90	angry = 10	sad = 30	happy=0
Stranger smiling	anxious = 80	angry = 20	sad = 20	happy=0
I can't find my meds	anxious = 80	angry = 50	sad = 20	happy=0

Physical reaction (C):

My heart beats faster; I get a bit dizzy

Behaviour (C):

What do I do?	Effect
I listen hard for any messages	I hear all kind of things and I get confused
I scan the world around me to see if people are watching me	I notice people who look at me. I become more afraid
I think a lot about the conspiracy	I get irritated and depressed because I can't find a solution
I stop taking my medication	I can't sleep, I get admitted to hospital
I don't go outside	I'm less afraid, but I get bored
I try to convince my brother that I'm right	We don't have a nice time together anymore, we always argue

Figure 3. Formulation of the Refractory Case.

While writing up the formulation the therapist tried to normalize John's experiences. For example, she said, "After all these years it has become increasingly difficult for you to know who you can and can not trust. Because of this, when a stranger smiles at you, you immediately think that they are part of the conspiracy" and "You would like to go out more, but you are afraid that you might be in danger so you stay inside a lot and end up thinking a lot about the conspiracy. This often makes you more afraid and depressed." After the formulation was written, the therapist asked John what he thought about it and what might be done to change the disruptive effect that the conspiracy had on his life.

John: The best solution would be for the government to stop sending the subliminal messages.

Therapist: Hmm, yes ... hmm, if I look at what you told me so far, I reckon you tried to stop them

now for a long time, and I doubt there is anything else I could add to what you tried already to change that ...

J.: Yes, they would not listen to you... They don't care.

T.: Right, so I was thinking, maybe we could look at ways to make the whole experience less distressing for you. You know, see if you can be less bothered by it.

J.: Well, they should stop really.

T.: Hmm, that would be nice, but as you just said, there is not much I can do about that.. What we could do, if you want, is to look at ways that would make you regain control over your life.

J.: I guess we could try. I have become very afraid of doing things and it would be nice to change that.

Course of Treatment

Based on the formulation, John and the therapist agreed to spend time in the sessions talking about the belief in the conspiracy, as well as agreeing that it would be good for John to become more active and engage in activities outside the sheltered accommodation. Increasing activity would enable John to spend less energy and time thinking about the conspiracy and listening to the “subliminal messages,” while at the same time going out more would enable him to test whether all the things he perceived as dangerous were as risky as he thought.

In the sessions that followed, the therapist used Socratic dialogue to encourage John to examine evidence for and against his beliefs. John was gently encouraged to talk about his conclusions and to generate possible alternative explanations for any situation that was labeled as a consequence of the conspiracy. This was aided by the use of normalizing examples and the pie chart technique. Once John was able to consider alternative explanations for his day-to-day experiences, the therapist suggested that John could become a bit more active. An activity schedule was made for each day of the following week. John was asked to carry out the activities listed in the schedule and to monitor his thoughts, emotions, and behavior during or following the various activities using a thoughts record form. Taking into account John’s cognitive impairments, a very simple monitoring form was used, and it was agreed that his key-worker (nurse) would help him to complete the form during the first couple of days. In the next session John reported that he had been able to do at least one activity each day.

Therapist: Well done, excellent! I can see in the monitoring forms that you’ve done very well.

John: I’ve been to the supermarket every day.

T: I’m impressed. I can see in the forms that it was difficult at first.

J: Yes, the first three days I was scared, especially the first day, but then it got easier.

T: It must have been difficult the first couple of days, you should be proud you kept going.

J: Well, I thought about what we had been talking about in the sessions. And you had told me that the fear would get worse before it would come down again.

T: Mmm, hmm.

J: Also, I thought about what we talked about ... you know, about ignoring them.

T: What do you mean?

J: You know, that it is better for me to ignore “them,” even if it does not stop them.... At least I can gain more control over my own life.

Relapse Prevention

Three and a half months into treatment John was taking his medication regularly and was well enough to go back to his sheltered accommodation. Before returning, the therapist discussed with John his medication management and the pattern of stopping meds and needing to be hospitalized. John agreed that medication was useful in helping him to sleep and in keeping his thoughts from racing through his head; nevertheless, he remained convinced that he was not suffering from schizophrenia and that the voices he heard were real. He did report, however, that since he had started using medication regularly and having a daily routine he had been paying less attention to the “subliminal messages” and had been hearing them less often. At the beginning of therapy John was convinced that the staff at the hostel might be trying to poison him. This belief was discussed in the sessions and John was able to generate a number of alternatives to explain why he could not find his medication at times.

To prevent him from misplacing his medication in the future, John was given a medication box that he could keep on his bedside table. The box also contained a coping card on which were questions to generate alternative explanations and to help him avoid jumping to conclusions when he became suspicious about his medication. John and the therapist agreed that it would be helpful to involve the support staff at the sheltered accommodation and a meeting was planned with his key worker. John left the hospital after the 14th session but continued therapy as an outpatient on a weekly basis for 2 sessions. In order to consolidate the progress made during therapy, John was offered five booster sessions over a 4-month period.

Outcome Data

The outcome data of the formal assessment with the PSYRATS suggest that John still experienced auditory hallucinations, but they were not constantly present. He also reported that the voices were less distressing, influenced his daily life less frequently, and that he had more control over them (in general, the scores on these scales decreased from 4 to 2). The PANSS scores had decreased to some extent (the PANSS total score decreased from 87 to 72). Six months after the last session, John was still taking his medication regularly, was attending a vocational rehabilitation training, and had not been re-admitted to hospital.

Discussion

This paper illustrates how CBT can be applied in the different stages of a psychotic disorder. In each case the therapist engaged the patient not by focusing on the psychotic symptoms, but by acknowledging their presenting

concerns, with discussion centered on the problems as they were perceived by the patient first. In part this reflects the general CBT approach of creating a “problem list.” This approach also involves the use of emotional validation for the symptom distress, which is very important with this population in building rapport, particularly if the patient’s previous experience of help-seeking has involved clumsy efforts to convince the patient of alternatives or explanations suggesting their experiences are meaningless.

All cases were assessed using well-established instruments, with a detailed assessment leading to a case conceptualization of the patient’s problems. The assessment was translated into a formulation that was shared with the patient and used to plan interventions. This reflects the clinical complexity of problems in psychosis: There is not one cognitive model that explains psychosis. Rather, CBT for psychosis involves a focus on identifying the cognitive and behavioral processes operating for each patient’s problems, resulting in an idiosyncratic formulation. This is also a reflection of the “single symptom approach” (Persons, 1986) as a more pragmatic clinical and research method for psychological models of psychosis, in comparison to syndromal approaches. Finally, each case demonstrated that relapse prevention strategies are also an important part of CBT for psychosis.

The main message of this paper is the need to attune the generic CBT approach to the specific stages in the development of psychosis. In the at-risk phase, the focus of the therapy was on the comorbidity, because it was hypothesized that anxiety would be a prominent maintaining factor of the attenuated psychotic symptoms. Therefore, the specific Clark and Wells (1995) model was chosen as a tool to structure treatment. In the case of a first episode of psychosis, the emphasis of treatment was on making sense of the psychotic episode, on restarting one’s life, and on relapse prevention. For this purpose the Garety et al. (2001) model was thought to offer the best context, since it specifically aims at understanding and changing the patient’s delusions. Finally, in the patient with chronic schizophrenia, the refractory symptoms had been present for years and were consolidated in rigid beliefs, which also jeopardized the therapeutic relationship because of the presence of mistrust and fear. Therefore, the first focus of the therapy was on improving compliance by validating and engaging the patient. Next, the actual treatment goals—living with the symptoms, enhancing control over the symptoms, promoting adherence to medication, and preventing admission—could be reached. The challenge in treating these patients includes finding a specific CBT model that is attuned to the specific aspects of the disorder (e.g., delusions) as well as to the patient’s stage of development (e.g., a first episode). Fortunately, a number of these models have already been proposed, but we are in

dire need of more knowledge about the challenging condition of psychosis.

In first-episode psychosis, the use of antipsychotic medication is not controversial. On the contrary, there is a large body of evidence that demonstrates improved outcomes for individuals who adhere to prescribed medication regimens. However, patients may be skeptical of the benefits of medication or of any contact with mental health services. CBT can help to engage people by acknowledging the issues that they identify as problematic and by helping to make sense of a confusing situation.

The benefit of CBT for chronic psychotic disorders is well supported by evidence (see Tarrier & Wykes, 2004, for a review). Despite the use of antipsychotic medication, many individuals suffer residual symptoms and a proportion gain no benefit at all. In the case presented, John continued to be distressed by auditory hallucinations, even when he adhered to his prescribed medication regimen. He interpreted the failure of medication as evidence that his auditory hallucinations were not a symptom of mental illness. The case illustrates the way in which it was possible to decrease the negative influence of symptoms on his life by targeting the goals that he deemed most important, rather than challenging the validity of hallucinations and delusions.

In addition to targeting positive symptoms, each case illustrates how CBT—specifically, behavioral activation strategies—can be used to decrease negative symptoms. These findings are consistent with those of previous studies (e.g., Rector, Seeman, & Segal, 2003; Sensky et al., 2000). In a recent publication Rector, Beck, and Stolar (2005) proposed a comprehensive cognitive perspective of the negative symptoms of schizophrenia that “*highlights the interaction of neurologic deficits, stressors, personality vulnerability, dysfunctional beliefs, and negative expectancies in the development, expression, and persistence of negative symptoms.*” The case studies presented here show how behavioral and emotional disengagement can be targeted during therapy and how this can lead to clinically significant improvements in the daily social and behavioral functioning of patients.

In sum, our aim was to illustrate how CBT can be used as an adjunctive treatment to improve the lives of patients at risk of or affected by psychosis. The future of CBT for psychosis is not one standard module for everyone, but a tailored, formulation-driven approach adaptable to the different stages of the disorder.

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