Journal of Cognitive Psychotherapy: An International Quarterly
Volume 18, Number 3 • 2004

Should CBT Target the Social Impairments Associated With Schizophrenia?

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Adjunctive cognitive behavior therapy (CBT) has been found to reduce the impact of symptoms among individuals with schizophrenia; however, CBT has not been used to address the social deficits in this clinical population. The current article elaborates the rationale for targeting social functioning with CBT. These reasons include the following: (a) Social dysfunction is a core feature of schizophrenia that is not directly improved with medication; (b) Improved social functioning is a treatment goal of many patients with schizophrenia, and thus treatments designed to improve social functioning may increase treatment motivation and reduce attrition; (c) Adaptive social functioning is a critical component of mental and physical health; and (d) Social dysfunction appears to be responsive to psychosocial intervention. This article concludes with a description of functional cognitive behavior therapy (FCBT), a CBT intervention that has been developed with enhanced focus on social impairments.

Keywords: schizophrenia; cognitive behavioral functioning; social functioning

The various psychosocial interventions for schizophrenia derive from diverse theoretical approaches and differently target disease-related impairments. Social skills training, for example, draws on a behavioral learning approach and is designed to improve dysfunctional interpersonal behaviors. Interventions that target cognitive dysfunction, on the other hand, draw on two different approaches that tackle distinct problem areas (Penn & Mueser, 1996). *Process* approaches, such as cognitive remediation, target impairments in cognitive processing abilities that underlie behavior, such as attention and executive functioning. *Content* approaches, on the other hand, target maladaptive thought habits and/or patterns. This article focuses on the second cognitive approach, namely, the use of cognitive-behavioral therapy (CBT) to modify disordered thought content in schizophrenia.

Atypical antipsychotic medications are first-line treatment for schizophrenia, yet for several reasons, interest in CBT has grown in recent years. Most important, from 25% to 50% of individuals with schizophrenia experience residual positive symptoms after stabilizing on an optimal medication regimen (Kane & Marder, 1993; Pantelis & Barnes, 1996; Wiersma, Nienhuis, & Sloof, 1998). Additionally, between 45% and 60% of patients do not adhere to their medication regimen (Fenton, Blyler, & Heinssen, 1997), often because of troubling side effects (Hoge et al., 1990). Thus, psychological approaches to treating schizophrenia, including CBT, remain a focus of clinical research.

As discussed elsewhere in this issue (Dickerson), there is evidence for the efficacy of CBT for treating schizophrenia, particularly positive symptoms. However, no CBT studies have primarily targeted social dysfunction in schizophrenia, which, as we argue below, may be an important omission.

Why Target Social Dysfunction With CBT?

Social functioning encompasses a broad range of human behavior, including communication, role fulfillment, social integration, and social attainment. The rationale for developing CBT interventions that target this domain derives from a set of converging facts and findings. First, social dysfunction is a core feature of schizophrenia that is not directly improved with medication (Bustillo, Lauriello, & Keith, 1999; Dixon, Lehman, & Levine, 1995). Second, improved social functioning is a primary treatment goal of many patients with schizophrenia (Middelboe et al., 2001), and thus, treatments designed to improve social functioning are likely to improve treatment adherence and reduce attrition. Third, there is a strong association between social functioning and both mental and physical health (Rhodes & Lakey, 1999; Uchino, Uno, & Hold-Lunstad, 1999). Fourth, research indicates that social functioning is amenable to targeted psychosocial intervention (Bustillo, Lauriello, Horan, & Keith, 2001; Hogarty et al., 1997; Penn & Mueser, 1996). Finally, existing CBT studies that have measured social functioning as an outcome have not made it a primary target of intervention, which likely underestimates the efficacy of CBT for ameliorating social deficits in schizophrenia. The following section discusses these points in more detail.

Social Dysfunction as a Core Feature of Schizophrenia

Social dysfunction is more pronounced in this disorder than in other mental illnesses (Mueser & Bellack, 1998) and is recognized as a core disease domain. This is reflected in the fact that social or vocational dysfunction is a required criterion for diagnosing schizophrenia (American Psychiatric Association, 2000) and is borne out in research showing that more than 85% of individuals with schizophrenia are unemployed (Blyler, 2003; Lehman, 1995; Melle, Friis, Hauff, & Vaglum, 2000) and that only 11% of individuals with schizophrenia were able to demonstrate consistent social skill over the course of a year (Mueser, Bellack, Douglas, & Morrison, 1991). Additionally, 80% of inpatients with schizophrenia are socially withdrawn (Sylph, Ross, & Kedwarth, 1977), and the majority of outpatients report having few, if any, close friends (Breier, Schreiber, Dyer, & Pickar, 1991; Cohen & Kochanowicz, 1989; Hirschberg, 1985; Randolph, 1998; Tolsdorf, 1976).

There is evidence that impairment in social functioning represents a domain that is relatively independent of symptoms. Specifically, social impairments appear to be independent of positive symptomatology in general (Mueser, Douglas, Bellack, & Morrison, 1991) and of medication-resistant positive symptoms (DeJong, Giel, Slooff, & Wiersma, 1986; Prudo & Monroe Blum, 1987). Although social functioning has shown an association with negative symptoms in most studies (Bellack, Sayers, Mueser, & Bennett, 1994; Dickerson,

Boronow, Ringel, & Parente, 1996; Mueser, Douglas et al., 1991; although see DeJong et al., 1986), these associations are modest in strength. Furthermore, individuals whose symptoms are in remission still fail to meet social role expectations, and still establish fewer social contacts than do control subjects (Bellack, Morrison, Mueser, Wade, & Sayers, 1990; Breier et al., 1991). Thus, social dysfunction persists independent of symptoms. Additionally, factor analytic studies have found social impairment to be independent of positive and negative symptoms (Lenzenweger & Dworkin, 1996; Minas, Klimidis, Stuart, Copolov, & Singh, 1994; Peralta, Cuesta, & DeLeon, 1994), a finding that has recently been replicated in first episode psychosis (McClellan, McCurry, Speltz, & Jones, 2002). Thus, there is strong support for conceptualizing social functioning as a relatively independent domain in schizophrenia.

The centrality of social dysfunction to schizophrenia is also evidenced by its stability over time. It precedes disease onset (Davidson, Reichenberg, Rabinowitz, Weiser, & Kaplan, 1999; Haefner, Loeffler, Maurer, Hambrecht, & an der Heiden, 1999), does not reliably improve with improvement in symptoms (Tohen et al., 2000), and is evident throughout the course of the illness, often worsening in later phases (Addington & Addington, 2000; Dickerson, Boronow, Ringel, & Parente, 1999; Wykes, 1994). Furthermore, a recent follow-up study among young adults with schizophrenia found that participants lacked structured activity for nearly 3 years of the 5-year follow-up period (Lenior, Dingemans, Linszen, Haan, & Schene, 2001). Finally, social functioning is also a strong predictor of outcome in schizophrenia (Johnstone, MacMillan, Frith, Benn, & Crow, 1990; Sullivan, Marder, Liberman, Donahoe, & Mintz, 1990). Thus, social functioning deficits are a core, and critical, feature of schizophrenia.

Social Impairments Represent Problems That Many Individuals With Schizophrenia Desire to Ameliorate

A second reason to develop CBT interventions for social dysfunction is to provide clients with a treatment they desire, not merely a treatment that researchers and practitioners think they need. This rationale grows out of the needs assessment literature, which shows that clients with psychosis are generally reliable in assessing the number and nature of their treatment needs, but that they often disagree with their therapists about the nature of these needs (Slade, Phelan, Thornicroft, & Parkman, 1996). Moreover, clients consistently identify improved social functioning as a high priority (Bengtsson-Tops & Hansson, 1999; Wiersma, Nienhuis, Giel, & Sloof, 1998). In a 1996 study, only 37% of a sample of clients with schizophrenia rated management of psychotic symptoms as a current need; instrumental support was rated higher (Slade et al., 1996). In another study, individuals with schizophrenia rated social functioning as their area of greatest unmet need, and indicated that they were not receiving professional assistance in this domain (Middelboe et al., 2001). Coursey, Keller, and Farrell (1995) found that clients with schizophrenia rate "human concerns" as more important to their progress in therapy than illness-specific symptoms.

The findings cited above are consistent with self-report studies of the experience of schizophrenia, in which participants emphasized their desire to find ways to connect with others and reduce social isolation (Corin, 1990; Corin & Lauzon, 1992, 1994; Davidson, Stayner, and Haglund, 1998). They are also consistent with the findings, discussed below, that social support is strongly linked to good mental health. The importance of addressing these needs in therapy has received relatively little attention (Coursey et al., 1995), which may explain why some clients with schizophrenia drop out of CBT trials, due to the treatment "not meeting their needs" (Curtis, 1999; Tarrier, Yusupoff, McCarthy, Kinney, & Wittkowski, 1998). Thus, addressing social impairments may directly reduce therapy attrition rates, which may in turn, impact long-term recovery.

The Relevance of Social Functioning for Mental and Physical Health

A third rationale for targeting social dysfunction with CBT is that social isolation, which is common in schizophrenia, is strongly linked to poor mental health, poor mental health outcomes (Rhodes & Lakey, 1999), and poor physical health outcomes (Uchino, Uno, & Holt-Lunstad, 1999). With respect to schizophrenia in particular, the link between social support and health may help explain the nontrivial impact of supportive counseling (SC), relative to CBT, on outcomes in schizophrenia (Penn et al., 2004). One could argue that the therapeutic relationship, particularly in SC, represents a proxy, and a model, for developing meaningful bonds outside the clinical context.

By targeting social isolation during CBT, one is addressing person-general rather than illness-specific issues. A growing literature indicates that individuals have a fundamental need to connect with others (Andersen, Chen, & Carter, 2000; Baumeister & Leary, 1995). In fact, Ryff and Singer (1998) have developed a model of "positive human health" in which a prominent role is given to social support and connection to others. Specifically, Ryff and Singer argue that positive human health is comprised of "leading a life of purpose" (e.g., work, recreational activities, etc.) and of having "quality connections with others." Therefore, CBT for schizophrenia that is sensitive to social isolation and impairments will help the client resume developmentally appropriate (for individuals early in the course of their illness) and role-appropriate skills.

The Sensitivity of Social Impairments to Psychosocial Treatment

A fourth rationale for targeting social functioning with CBT is the success of other psychosocial interventions that have targeted specific social deficits (Bustillo et al., 2001; Penn & Mueser, 1996; although see Pilling et al., 2002). Social skills training has been shown effective in improving specific social behaviors, with results lasting for up to 1 year (Penn & Mueser, 1996). Social problem-solving training has also significantly improved circumscribed social skills and may provide benefits that persist after the intervention has ended (Liberman et al., 1998). Recent research suggests that cognitive remediation training in combination with social problem solving training may also be effective (Spaulding, Reed, Sullivan, Richardson, & Weiler, 1999). Despite these successes, existing process-focused social skills interventions do not appear to generalize to broader domains of social adjustment (Bustillo et al., 2001; Pilling et al., 2002; but see Liberman et al., 1998), which suggests the need to explore whether content approaches (i.e., those that address the content of an individual's beliefs) may improve generalizability. To that end, personal therapy (PT) (Hogarty et al., 1997) was found significantly more effective than SC at improving "social adjustment" in a 3-year trial. ("Social adjustment" was a composite measure derived from self-reports of patients, their therapists, and family members.) Preliminary findings from a CBT approach that targets social functioning in older adults with schizophrenia are also promising (McQuaid et al., 2000). These findings suggest that psychosocial treatments that are not solely social skills training can improve functional outcomes.

The Relative Omission of Social Functioning as a Primary Target of CBT Interventions for Schizophrenia

A final reason to target social functioning in CBT interventions is that studies that have measured social functioning outcomes have not prioritized this domain as a primary target of treatment. As Shapiro (1996) has explained, the meaning of an outcome domain is questionable if that domain was not specifically targeted by the intervention being studied. Because of the low

association between residual positive symptoms and social functioning (DeJong et al., 1986; Dickerson et al., 1999; Prudo & Monroe Blum, 1987), there is no reason to expect improvement in the latter secondary to treatment of the former. In the CBT studies that have measured social functioning directly (Gumley et al., 2003; Kuipers et al., 1997), this domain was a secondary target. For example, Kuipers and colleagues addressed it in the final phase of treatment after completion of symptom-focused work (Fowler, Garety, & Kuipers, 1995; Kuipers et al., 1997). Techniques used by several studies to improve negative symptomatology show some overlap with a social-functioning approach (e.g., Sensky et al., 2000), but again they were used only later in treatment, after work on positive symptoms had been completed. An appropriate examination of the effectiveness of CBT for social dysfunction must involve a CBT intervention specifically tailored to improve social functioning as the primary goal. Until then, conclusions that CBT is ineffective for social dysfunction (Garety, Fowler, & Kuipers, 2000) are premature.

Placing treatment emphasis on the outcome domain of interest is consistent with reviews of psychosocial interventions for schizophrenia, which show high domain specificity (Bustillo et al., 2001). From the standpoint of social functioning interventions, it is also consistent with the literature on competitive employment for individuals with severe mental illness, which has shown immediate competitive placement to be superior to programs using prevocational counseling and training (Bond, Drake, Mueser, & Becker, 1997).

Conclusion

In this article, we have argued that social functioning is a critical aspect of schizophrenia and one that deserves targeting during CBT. One could argue that improving social functioning in schizophrenia is the holy grail of work in this area. We cannot hope that proxies of social functioning, whether they are cognitive deficits (as targeted during cognitive remediation) or cognitive biases (as targeted by CBT) will automatically generalize to social behavior. Rather, we need to develop a psychosocial intervention that integrates the strengths of CBT (i.e., addressing symptoms and cognitive distortions) with the goal of improving functionality. One could view these functional impairments as contributing factors to the illness (as some of the research we have cited indicates) or as "collateral damage" (Heinssen, personal communication, June 26, 2003)—the social dysfunction that results after symptoms have remitted.

During the past 2 years, we have developed a cognitive-behavioral approach for schizophrenia, "functional CBT" (FCBT), which targets only those residual symptoms that interfere with functional goal attainment. Elements of this approach are described elsewhere (Cather, Penn, Otto, & Goff, this issue; Penn et al., in press), and a treatment manual is available from the second and third authors of this article. In brief, FCBT is an individual treatment for schizophrenia-spectrum disorders that is delivered in 16 weekly outpatient sessions, followed by 4 biweekly booster sessions, and uses a flexible modular approach. The first five sessions are delivered in a similar way across clients. The first session is devoted to orienting the client to the FCBT model, which is done with instructional videotape. In the second session, and continuing through session five, the client is engaged in two primary activities: (a) developing a list of functional goals and the symptoms that interfere with goal attainment; and (b) encouraging the client to enhance her well-being by collaborating in pursuit of pleasant activities. As stated earlier, we see the functional goals as serving the primary purpose of increasing quality of life and daily productivity. A secondary purpose is to increase the client's motivation for working on residual symptoms that compromise the client's day-to-day life. Typical functional goals selected by our clients included making more

friends, developing a new hobby, finding activities to fill one's day, such as part-time work or volunteering, and so forth. By the end of session five, the client and therapist have developed a functional goal list that is linked to specific symptoms. The remaining sessions are devoted to addressing those symptoms that interfere with functional goal attainment or to other factors (e.g., perceived stigmatization, social skill deficits, social anxiety) that are obstacles to achieving successful outcomes.

How does this approach play itself out clinically? First, it requires that the therapist not get lost (and consumed) in discussion of the client's symptoms, but rather understand how these symptoms reflect personal, intrapersonal and interpersonal concerns, and the social context in which they occur. For example, one client was concerned that others could read her mind, particularly when she had a thought that was negative about someone with whom she was conversing (e.g., that the person was wearing an ugly dress).[1] Her fear was that others could sense these negative thoughts and would then shun her. A review of this client's history revealed long-standing concerns about being accepted by others, including peers and family members, as the client struggled with her grades in high school while others enjoyed academic success. Once she developed schizophrenia, these concerns become greatly exaggerated, resulting in paranoia, avoidance, and depression. Thus, her paranoia was not conceptualized as merely a psychotic symptom, but as based on personal concerns that grew in severity.

A second client held the belief that he had been, at one time, the actor Tom Cruise. Because of this belief, the client felt that he was not getting the attention and admiration that he deserved. These feelings were exacerbated by the fact that the client was unemployed and living with his parents, despite being an age when most of his peers were living independently. In this case, the therapist conceptualized the delusional beliefs as stemming from the client's desire to be respected by others and to feel productive, needs that were not being met in the client's current social context.

Second, this approach requires a commitment to improving "quality of life," rather than "eliminating symptoms." With respect to the first case, the therapist and client focused on her functional goals (i.e., having more friends, being accepted by others), by collaboratively developing strategies for achieving them. Thus, the client and therapist discussed the various steps in strengthening a social network, which included: (a) being in places that lend themselves to meeting people, such as a coffee shop or bookstore, and (b) identifying those social skills and strategies that will maximize personal success (e.g., being friendly; showing interest by asking appropriate questions). When the client became concerned that others were reading her mind, the therapist and the client collaboratively developed behavioral tests of this belief. For example, the client agreed that if someone could read her mind, then if she had generated a specific thought (e.g., that the other person's fly was open), a specific reaction should be elicited (e.g., the other person looking down at the zipper on her pants). Thus, the client was able to behaviorally test her beliefs in the context of pursuing her personal goals.

With respect to the second case, the therapist and client developed a plan whereby the client would attempt to find fulfillment and respect in activities other than formerly being a famous actor. This client was actually good at writing poetry, so he was encouraged to submit poetry to a local newspaper and take a poetry class. These activities were viewed as providing the client with tangible outcomes that were more under his control than those that, due to their delusional nature, would be inherently dissatisfying and invalidating.

In closing, we argue that CBT interventions should pay more attention to social impairments when treating schizophrenia. One hopes that this will enhance adherence to treatment, reduce drop-out rates, and improve long-term outcomes.

NOTE

1. The clinical characteristics of the clients, and the techniques used to treat them, have been modified to protect the identity of the client. Thus, the client's presenting symptoms do not reflect a specific client, but rather reflect characteristics of a variety of clients and/or a variation of specific symptom presentations. In addition, the therapeutic techniques might have been used in different cases and/or are based on actual techniques, but content was modified for the purpose of maintaining confidentiality.

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Acknowledgment. *This article was written with the support of a grant from Eli Lilly and Company.*

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