



COGNITIVE THERAPY OF DELUSIONAL BELIEFS

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Summary—The present article articulates a cognitive theoretical perspective of delusional beliefs. In contrast to the focus of psychoanalytic therapy (theoretically-derived phenomena beyond personal awareness), the cognitive therapist focuses primarily on the conscious *cognitive-experiential level* in the treatment of delusional beliefs, thereby emphasizing a ‘common-sense’ level of analysis or reasoning shared by the delusional patient. Unlike noncognitive behavioral approaches, which focus on topographical ‘verbal behavior’ as such, cognitive therapy directly targets specific delusional beliefs which theoretically give rise to the disordered verbal behavior. In this article, the adaptation of cognitive therapy to the treatment of delusions is described, with special attention to the following issues: special problems in collaboration; difficulties in obtaining conviction ratings; how to avoid and reduce confrontation through the Socratic method; the collaborative design of homework experiments; distancing strategies; interpersonal relationship issues; and the necessity to identify and explore the emotions associated with the various delusions, especially feelings about the possibility that the delusions may be incorrect.

INTRODUCTION

Perhaps consistent with its ‘integrative’ nature (Beck, 1991a), the scope and empirical support for cognitive therapy continue to increase (Beck, 1993b). Cognitive therapy has now been shown to effectively treat disorders such as depression, generalized anxiety, panic, and eating disorders. Clinical trials are underway to test cognitive therapy of other disorders including drug abuse, obsessive-compulsive disorder, bipolar disorder, depression in HIV patients, avoidant and obsessive-compulsive personality disorders, sex offenders, posttraumatic stress disorders, multiple personalities, hypochondriasis, and marital problems (Beck, 1993b).

Given the scope of cognitive therapy, Kingdon and Turkington (1991a) have expressed ‘surprise’ that cognitive therapy has yet to be more widely applied to treat schizophrenic disorders in which disturbances of thought form (process) and content are central to the psychopathology (cf. Spaulding, Garbin & Crinean, 1989). Indeed, one would anticipate a special role for cognitive therapy in the treatment of core delusional beliefs and cognitive processes which constitute such disorders. Support for such a role is now rapidly accumulating. Consistent with these advances, the present article reviews cognitive therapy principles in the assessment and treatment of delusional beliefs.

It should be noted that treatment outcomes in the cognitive clinical treatment of delusions (as with other disorders) are heterogeneous or diverse. However, as suggested in an early study of a chronic schizophrenic who was able to take some distance from his autistic productions (Beck, 1952), the selection of treatable cases has now clearly been shown to be possible. [Kingdon and Turkington (1991a) credit this case (Beck, 1952) as the first to describe the use of ‘reasoning’ techniques in the treatment of delusional thinking and beliefs.] For some patients, reduction in delusions has been substantial and has persisted over time [for a review see Heinsen and Victor (in press)].

In reviewing the role of cognitive therapy principles in the assessment and treatment of delusional beliefs, we begin by articulating the cognitive perspective of the nature of delusions. Next, the issue of cognitive clinical assessment is addressed, although (as shown below) in practice it is often difficult to separate clinical assessment from therapy. Finally, the adaptation of cognitive therapy to the treatment of delusions will be described, with special attention to the following issues: (1) special problems in collaboration; (2) obtaining conviction ratings; (3) avoiding and reducing

confrontation through the Socratic method; (4) the collaborative design of homework experiments; (5) distancing strategies; (6) interpersonal relationship issues; and (7) the necessity to identify and explore the feelings associated with the various delusions, especially feelings about the possibility that the delusions may be incorrect.

COGNITIVE THEORY: THE NATURE OF DELUSIONAL BELIEFS

In defining delusional thought content, the DSM-III-R suggests such content to involve belief in "... a phenomenon that in the person's culture would be regarded as totally implausible, e.g. thought broadcasting, or being controlled by a dead person" (APA, 1987, p. 188). Thus, delusions may be defined in part by contrasting the content (and logical processing operations) of the patient's beliefs with that of the larger social context within which the patient exists (Gaines, 1988). However, our definition of delusion is more consistent with that of mental disorder articulated by Wakefield (1992). Delusional beliefs involve severe cognitive dysfunction which leads to negative (harmful) consequences; simply put, delusions are maladaptive cognitive constructions of internal or external phenomena.

As noted by Maher (1988), there is no reason to assume infrequently occurring behavior to be necessarily disordered: "There are many problems with this criterion, including the fact that it necessarily defines all new scientific hypotheses as pathological" (p. 334). Therapists must be cognizant not only of cultural diversity (to avoid 'treating' beliefs which within certain cultural contexts may be entirely acceptable and adaptive), but also of diversity without disorder within a cultural context. Thus, while our definition is otherwise entirely consistent with that of DSM-III-R, we add the stipulation that purely statistical definitions have no place in our conceptualization of delusional beliefs (cf. APA, 1987).

Delusional beliefs are heterogeneous and occur in numerous clinical disorders such as schizophrenia, delusional (paranoid) disorders, dementias, and severe mood disorders (APA, 1987). Even within a given clinical syndrome, heterogeneity prevails. For example, DSM-III-R lists the following delusional themes as subtypes of Delusional (Paranoid) Disorder: Erotomantic Type, Grandiose Type, Jealous Type, Persecutory Type, and Somatic Type (APA, 1987, pp. 199–200). The present article will not differentiate the treatment of delusions within specific diagnostic categories, but rather will address the cognitive therapy of delusions independent of the specific syndrome within which the delusional belief may exist.

Modification of Verbalizations vs Belief Modification

Though there is much overlap between behavior therapy and cognitive therapy (Beck, 1970), traditional behavioral treatment of delusions is readily distinguished from the approach of cognitive therapy. The central difference is that between modification of *verbalizations*, or 'verbal behavior' (e.g. Ayllon & Houghton, 1964; Liberman, Teigen, Patterson & Baker, 1973; Winze, Leitenberg & Agras, 1972), and belief modification (e.g. Alford, 1986; Chadwick & Lowe, 1990; Hole, Rush & Beck, 1979). As noted by Stahl and Leitenberg (1976), "...it has been clearly demonstrated [by behaviorists] that delusional speech can be controlled through operant techniques. An unresolved question is whether delusional 'thought' is modified by the same methods" (p. 234).

Marzillier and Birchwood (1981) were among the first to suggest that delusional thinking and beliefs are *not* necessarily modified by such therapies, and they demonstrated via (uncontrolled) clinical interviews a clear distinction between delusional 'verbal behavior' and delusional beliefs. Furthermore, delusions are *by definition* conceptualized as cognitive phenomena, not 'behavioral' phenomena. To argue that they are merely 'verbal behavior'—as some behaviorists suggest (e.g. Hawkins, 1989)—is to greatly oversimplify the nature of delusional ideation.

Behavioral, cognitive, and psychoanalytic views

At issue is the essential philosophical question of the proper theoretical level of analysis. This has historically differentiated the psychoanalytic, behavioral, and cognitive approaches to psychopathology and psychotherapy. Generally, psychoanalytic theorists seem most interested in theoretically-derived phenomena which are thought to take place at an unconscious level beyond

personal awareness. Behaviorists have largely limited their focus to the 'objective' realm of socially-validated behavior, while giving relatively little or no attention to the phenomenological perspective of the individual patient. In contrast, the cognitive therapist takes the position that the most important level of analysis is the primarily conscious personal cognitive-experiential level, which places the cognitivist more within the sphere of common-sense analyses shared by the patient who seeks psychotherapy.

It is our position that delusional beliefs as such are experienced at the level of the conscious phenomenological perspective of the individual patient. Put simply, such beliefs are *less* than the psychoanalysts theorize them to be (they can be directly understood apart from psychoanalytic theory), and *more* than the 'verbal behavior' conceptualization of some behaviorists. To attempt to understand and alleviate the suffering of a delusional patient by focusing on either the esoteric level of unconscious conflict (psychoanalytic theory) or the topographical level of discrete verbalizations (behavioral theory) is to miss the essential character of the delusional belief.

Measurement of 'verbal behavior' vs beliefs

As noted by Himadi, Osteen, Kaiser and Daniel (1991), Alford (1986) contended that the behavioral treatment of delusional verbalization described in previous studies would logically not be expected to insure reduction in delusional beliefs *per se*. Recent experimental work by Himadi *et al.* (1991) utilized a changing-criterion design to address this important and timely research question: do cognitive (belief) changes necessarily occur during the application of noncognitive behavioral approaches for the modification of delusional verbalizations? The study assessed conviction of delusional beliefs in a single-subject (*S*) experimental design. A list of 10 questions that reliably elicited delusional material was developed. Statements used in conviction ratings corresponded with the structured interview questions used in eliciting delusional verbalizations. This insured that the delusions targeted for verbal modification were the same as those for which conviction of delusional belief was assessed. Though a stepwise decline in the frequency of delusional responses (verbalizations) was found, no changes were obtained on measures of the *S*'s conviction ratings of delusional beliefs. Obviously, these preliminary findings have important *theoretical* as well as clinical implications. Followup studies on 3 additional patients have replicated the initial results (Himadi, Osteen & Crawford, in press).

As the authors point out (Himadi *et al.*, 1991), there is a 30-year history of the use of operant behavioral treatments for delusional verbal behavior which have employed differential social reinforcement, feedback and token reinforcement, timeout, satiation, and behavioral treatment 'packages' with multiple components. Verbal behavior is often targeted even today (cf. Hayes & Chase, 1991), instead of the more direct focus on the *cognitive content* (specific beliefs) and *cognitive processes* (cognitive distortions) which give rise to such behavior. The Himadi *et al.* (1991) study was the first to experimentally address the question of whether or not there are concomitant changes in conviction of delusional belief when delusional verbal behavior is targeted and successfully eliminated. These studies (Himadi *et al.*, 1991, in press) suggest the presence of delusional ideation—or rigidly held abnormal beliefs—to be *associated* with schizophrenic verbal symptoms, not synonymous with such verbalizations. This supports the cognitive perspective that the behavioral treatment of delusional verbalizations described in previous studies has not insured reduction in delusional beliefs *per se*. Therefore, cognitive therapy of delusional belief as such is clearly distinguishable from the behavioral studies, which focus exclusively on topographical verbal behavior.

ASSESSMENT

Assessment of Delusional Beliefs

Given the highly idiosyncratic nature of delusional beliefs, clinical assessment procedures must be properly individualized rather than nomothetic. Standard cognitive therapy interview strategies can be employed successfully, though (for the theoretical reasons articulated below) greater attention must be given to establish and maintain the interpersonal relationship. In this regard,

assessment (and treatment) of delusional beliefs is similar to the cognitive therapy of personality disorders (Beck, Freeman & Associates, 1990).

Frequency

In the beginning stages of assessment, it is important to be mindful of the possibility that the delusional patient may be relatively unaware not only of the frequency of delusional thoughts but also that the thoughts are abnormal. During the initial interview the therapist would do well to maintain a neutral emotional demeanor so as to communicate no surprise or overly skeptical reaction(s) to the delusional material.

Once a list of beliefs is obtained, the therapist may suggest that the patient keep a daily log to record the frequency of specific thoughts which represent the beliefs. The precise mechanics of such recordings should be adapted to what each patient considers feasible. For example, hospitalized inpatients may be agreeable to recording the frequency of thoughts as they occur throughout the day, though an employed outpatient would probably find such a procedure interruptive of daily activities.

In some chronic delusional populations, residents are often found unable to self-record due to factors such as limited intelligence, writing skills, and/or motivation. In such cases it may be necessary to devise therapist-administered time-sampled assessment (e.g. approach a delusional resident 4 times per day and assess various dimensions of delusions).

Conviction

One of the most important variables to be assessed is the degree to which a patient holds a specific delusional belief to be valid. This can be assessed using the common subjective rating scale with a range from 0 to 100%. An interesting finding by Hole *et al.* (1979) was that the interviewing process itself—during which conviction ratings were determined—decreased such ratings. This seems especially noteworthy since the interviewers were primarily interested in the phenomenology of the delusional beliefs rather than changing such beliefs (Hole *et al.*, 1979).

For some patients, the act of systematically obtaining conviction ratings activates metacognitive processing which results in a reduction of conviction. By 'metacognition' we mean knowledge of the cognitive enterprise itself, including both the cognitive content and processing activities (cf. Flavell, 1984; Johnson & White, 1971). Socratic questioning is useful both in assessing conviction of psychopathological beliefs, as well as in exploring with the patient the nature of the evidence necessary to properly evaluate such beliefs. Thus, assessment and treatment activities are interrelated.

Associated emotions

To facilitate collaboration and understanding of the phenomenological perspective of the delusional patient, the therapist must closely attend to the emotions associated with delusional thoughts and beliefs. In some cases, knowing the patient's emotional state during the activation of specific beliefs may assist in understanding the maintenance of such beliefs (For example, see the section on 'positive' distortions below.). In other cases, successful treatment of delusional beliefs is facilitated by directing the patient to the more positive feelings associated with alternative explanations of events originally misinterpreted in delusional terms.

If the consequent affect shift is substantial, the patient might then experience greater motivation to consider evidence incongruent with the maladaptive belief. Thus, information on the associated emotions is crucial in the cognitive therapy of delusional ideation. The cognitive therapist identifies and explores the feelings associated with the various presenting delusional beliefs, and feelings about the possibility that the delusions are incorrect.

TREATMENT

There is an intriguing simplicity to the notion of the possible application of cognitive therapy to treat delusional beliefs. Indeed, a central focus of cognitive therapy is the treatment of disordered cognitive content (such as negativity) and disordered cognitive processes (such as dichotomous thinking). This approach has been successfully applied in cognitive therapy of disorders which,

unlike delusional beliefs, have not historically been viewed as essentially cognitive in nature (Dobson, 1989; Hollon, DeRubeis & Seligman, 1992; Robins & Hayes, 1993). Therefore, in this sense the possibility of applying cognitive therapy to treat delusional beliefs may appear self-evident.

It should be noted that we will not address the obvious need to employ concurrent pharmacotherapy and other adjunctive treatments in the clinical management of delusional beliefs. Pharmacological, psychological, and social/interpersonal interventions all play a role in the treatment of these complex disorders. Cognitive therapists frequently utilize pharmacological treatments—and employ cognitive therapy to enhance compliance—in addition to focusing on the cognitive aspects of social, interpersonal, and psychological factors (e.g. Fritze, Forthner, Schmitt & Thaler, 1988; Perris, 1989).

Collaborative Interpersonal Stance: Reducing Resistance?

Beck (1991a) suggests that cognitive theory continues to incorporate principles derived from basic psychological research on processes such as development, cognition, and social interaction (cf. Rust, 1990). One such set of principles, which may be especially relevant to the clinical treatment of delusions, is that regarding psychological reactance (J. W. Brehm, 1966; S. S. Brehm, 1976). Psychological reactance refers to phenomena roughly identical to that which the psychoanalytic theorists term 'resistance', and the behaviorists term 'countercontrol'. In the present context, reactance is observed in the special difficulties which cognitive therapists encounter as they assist delusional patients in correcting their delusional beliefs. For example, therapy with this group of patients frequently results in a high rate of refusal and early treatment termination (e.g. TARRIER, Beckett, Harwood, Baker, Yusupaff & Ugarteburu, in press).

DSM-III-R criteria for paranoid schizophrenia—a disorder in which delusional beliefs are commonly found—specify that associated features include anger, argumentativeness, and delusions of persecution by others. Thus, delusional beliefs generally may contain within themselves elements which increase reactance to treatment interventions. However, a review of Brehm's (1976) theory shows that changing delusional beliefs might be expected to create maximum reactance even without a possible predisposition to 'resist' treatment on the part of certain delusional patients. Two of the three determinants of the magnitude of reactance include: (1) the importance of the specific freedom which is being threatened (e.g. the 'freedom' to have one's own thoughts, even if delusional); and (2) the magnitude of the threat (e.g. having to give up delusional beliefs entirely, rather than only partially changing them). Given this theory, changing such beliefs generally would be predicted to create high levels of reactance since such private cognitive behavior would appear to be 'important' to the patient, and therapists would ask that they be given up entirely.

In support of this view, analyses of clinical studies which have reported successful modification of delusional beliefs have typically employed strategies which would be expected to minimize reactance. For example, Chadwick and Lowe (1990) emphasize how their 'reality testing' procedure gives special attention to the collaborative approach: "In such cases the client and researcher collaborated to devise a simple test of the belief (see Hole, Rush, & Beck, 1979) . . . An important principle behind the reality testing was that the client agreed in advance that the chosen task was a genuine test of the belief" (p. 227). This emphasis on collaboration is also found in a study by Alford, Fleece and Rothblum (1982), which successfully modified delusional verbalizations in a chronic paranoid schizophrenic. During treatment, "Every attempt was made to lead or shape the patient to arrive at her own conclusions without appearing to dictate those conclusions" (Alford *et al.*, 1982, p. 427). These examples seem implicitly designed to reduce reactance by enhancing the patients' freedom to "have their own thoughts" (Brehm, 1976). This is accomplished by emphasizing to the patient that reason and observed evidence (rather than therapist opinion) should determine whether a belief is held, or relinquished.

On a speculative note, it may be that delusional beliefs are often viewed as unmodifiable due in part to a strong proclivity for reactance on the part of persons suffering from delusional symptoms. Several studies appear consistent with this hypothesis. For example, it is interesting to note that Greenwood's (1983) observations of increased guardedness on the part of delusional patients—following attempted cognitive restructuring strategies—were based on results of group therapy rather than responses to individual treatment procedures. A group setting may be expected

to result in confrontations of delusional beliefs by group members that would not likely arise in one-to-one interactions with an experienced cognitive therapist. This may account, at least in part, for the negative results reported in that setting. The effects of such direct confrontation may be seen in a study by Wincze *et al.* (1972) that reported adverse reactions in 30% (3 out of 10) of delusional schizophrenics following direct verbal feedback. The unilateral (from therapist to patient) feedback provided information to patients on whether answers to the experimenter's questions (which were designed to elicit delusional talk) were true or false, and why. 1 S accused the experimenter of persecuting him, and another became upset, requiring extra medication (Wincze *et al.*, 1972). In the following section, collaborative empiricism will be described as one approach which has been found useful in reducing the likelihood of such reactions.

Collaborative Empiricism

One of the most challenging aspects of the treatment of delusional patients is the special problems in developing a collaborative, working therapeutic relationship. The patient suffering from abnormal beliefs comes to therapy with severe problems in relating to others secondary to their extremely distorted view of themselves, the world, and other people. Consider the following case of one patient whom we will call Jack.*

The case of Jack

In the initial cognitive therapy session, Jack revealed a long history of obviously paranoid beliefs which had created enormous problems in adjusting to both his past and present environments. A review of this patient's history found that he had dropped out of medical school due in large part to a belief that professors were 'talking about' him and were (in his words) "after me—trying to get something on me". At the time Jack sought treatment, the same sorts of cognitions were activated, threatening his ability to properly conduct himself in his present employment position.

Specifically, Jack believed that the same people who had earlier been 'after' him had now located him—even though he had intentionally moved hundreds of miles from his previous location—and he once again believed they were, in his words, "monitoring my every move". Further, he believed several Federal agencies to be involved, and that specific billboards which had recently been erected were intended to communicate to him, "You have been found".

In attempting to establish a collaborative relationship with this patient, one central problem was his initial *apparent* 100% conviction that these various agencies and persons were indeed plotting against him. (As shown below, he actually often had grave—and, to him, quite disturbing—doubts regarding the veracity of these paranoid beliefs.) Thus, he initially portrayed the central presenting problem as follows: "I need someone to help me cope with the stress caused by these people".

In attempting to pose an alternative, mutually agreeable agenda, the therapist suggested adding the goal of first evaluating the evidence that there was in fact such a threat; and, if such a threat was found to exist, then assisting with the resolution of it by the therapist and patient jointly exploring ways to handle those persons responsible for the alleged harassment. At that point in therapy, the following dialogue took place:

TH: How would you feel about adding that (an exploration of the beliefs) as an agenda item or goal for our collaborative efforts?

PT: I don't know . . . I would not want to find that it was all me.

TH: What do you mean?

PT: I think that would be worse than finding out that there is a conspiracy.

TH: It would seem to me that you would not really want all those agencies and people after you. Wouldn't that be a bigger problem?

PT: Not really. I would not want to find out I've been the cause of all this.

TH: How would you feel if you did find that to be the case?

PT: (Hesitating; tears in eyes) I would be afraid.

TH: Of what?

PT: It would mean that I've *really* got a problem.

From this point, it was obvious that therapy would not proceed directly to collaborative development of techniques to test Jack's beliefs. Rather, the focus shifted to conducting a

*Certain details about this patient have been altered to ensure anonymity.

fine-grained analysis and compassionate understanding of this patient's struggle to come to terms with his condition.

Selection of Beliefs for Treatment

Jack's reactions to the nascent activation of metacognitive processing are not atypical or surprising. Who would not find it disconcerting to recognize the meaning one attached to events to be so markedly unrealistic? Probably the most critical clinical strategy in working with patients who experience delusional beliefs is to manage constructively the issue of the existence of delusions *per se*, and the meaning the patient attaches to the presence of such experiences.

The patient who is cognizant of holding presently—or having held in the past—markedly abnormal ideas is at risk to suffer loss of self-esteem and increased anxiety when such ideas are discussed during the course of treatment. Consequently, to facilitate appropriate 'integration' of the delusional experience the cognitive therapist must be exceptionally sensitive to avoid threats to the patient's self-esteem (cf. Dingman & McGlashan, 1989) and must apply standard cognitive therapy to restructure the negative self-concept.

Target low conviction, nonthreatening beliefs first

Consistent with the use of graded task assignments, cognitive therapy of delusional beliefs focuses initially on those beliefs having the lowest conviction ratings. The rationale for this procedure is that such beliefs would be expected to be less resistant to treatment, thereby increasing the chances for establishing a nonthreatening therapeutic relationship.

Testing delusional beliefs

The interrelated processes of identifying, monitoring, and evaluating thoughts and beliefs are central to the *general* clinical application of cognitive therapy, and may be applied directly to the treatment of delusional beliefs. Therapeutic strategies which include these processes aim to facilitate distancing from thoughts. The concept 'distancing' refers to the ability to view one's thoughts (or beliefs) as such, rather than to confuse them with 'reality'.

As discussed above, directly *challenging* beliefs has been associated with negative reactions on the part of some delusional patients (Greenwood, 1983; Milton, Patwa & Hafner, 1978; Wincze *et al.*, 1972). An alternative strategy of cognitive therapy is to take a Socratic stance and collaboratively *test* the beliefs. This involves use of such questions as follows: "Do other people seem to agree with you regarding (delusion)?" If the patient responds "No", then the therapist might ask: "How do we account for that?" This would then lead nicely into a dialogue to consider the evidence upon which the belief is based.

This approach has been compared to that of "Columbo" (of television and movie fame). Rather than a "Sherlock Holmes" approach in which the therapist appears to have all the answers, the therapist might ask: "So others disagree with you regarding (delusion). That's interesting. What do you make of that?" Additionally, experiments are devised which constitute direct tests of the belief. Rather than "take the therapists word", therapist and client collaborate to devise a test of the belief which is agreeable to both therapist and client (cf. Chadwick & Lowe, 1990).

This strategy is demonstrated in a case reported by TARRIER (1992) in which a patient, Tom, believed that he must get angry and shout back at hallucinated voices in order to avoid being physically attacked. The therapist hypothesized that Tom would not be attacked even if he failed to argue or shout when he experienced voices. Tom and the therapist agreed for Tom to put this to a test. TARRIER (1992) described this as follows: . . . "If the voices were real and Tom's belief true then a failure to argue should result in an attack. If the therapist's view that the voices were a symptom of his illness was true then no attack should occur" (p. 163). As it turned out, Tom was attacked, and he sought therapy elsewhere.

Actually, on reading more carefully, TARRIER (1992, p. 163) states: . . . "When Tom was seen again 3 days later . . . Tom agreed that he had *not* (emphasis added) been attacked and although his belief in the voices being real was still strong, he felt greatly relieved and much less concerned for his own safety." The efficacy of this general approach to testing delusional beliefs to reduce conviction ratings has now been demonstrated in numerous studies (e.g. Alford, 1986; Beck, 1952; Chadwick

& Lowe, 1990; Heinssen & Victor, in press; Hole *et al.*, 1979; Kingdon & Turkington, 1991a, b; TARRIER, 1992; Watts, Powell, & Austin, 1973).

Interpersonal Cognitive Strategies

In addition to the collaborative development of techniques to test beliefs, cognitive therapy of delusions includes analysis of the patient's struggle to come to terms with his condition (as in the case of Jack, noted above). This requires a greater focus on the interpersonal relationship than in many other disorders. For example, Beck (1952) describes his role in the early phases of work with a chronic schizophrenic as predominantly supportive and educative. He states "... I was relatively nondirective in allowing him to bring up whatever he felt was important" (p. 307).

The therapy in this case also included direct attempts to modify paranoid delusions by techniques such as identifying interconnections among external stresses, emotions, and symptoms (delusional beliefs). The patient held the delusional belief that 50 different customers of his father's small retail store (where the patient worked) were FBI agents. Therapy focused in part on reducing the patient's delusions regarding these specific customers. After 30 sessions over a period of 8 months, the following outcome was reported: "On the occasions when he would start to suspect that one of his customers was an agent he would reason (himself) out of it. He reported that he was able to narrow down the original group of fifty to two or three possibilities and that he felt he would soon be able to eliminate them completely" (Beck, 1952, p. 310).

The patient was assisted in identifying the original experiences which preceded delusional beliefs and in systematically testing his conclusions. At the same time, the interpersonal focus was deemed most essential to treatment. Regarding this particular case, Beck wrote: "The major force in the therapeutic process appears to have been the emotional experience between patient and therapist" (1952, p. 311).

Hole *et al.* (1979), likewise, have emphasized the interpersonal, relatively nondirective aspects of cognitive treatment of delusions. In this study, interviews of 8 delusional patients were for the most part structured in a nonconfrontational manner, and were designed to identify the phenomenology or introspective experience of the belief. The interviews were described as follows: "... (the interviewer) tried to engage the patient in a joint exploration of certain questions: Did the belief rest on current experience? How did he process information inconsistent with the belief? If there was some change in any aspect of the belief, how did the patient account for the change?" (Hole *et al.*, 1979, p. 314).

The cognitive approach to delusional beliefs has also been examined by Kingdon and Turkington (1991b), who correctly note the importance of attention to dysfunctional interpersonal relationships between patients and family members. Specifically, Kingdon and Turkington (1991b) point out that families catastrophize psychotic symptoms as much as patients, which leads to criticism and hostility within the family. To treat this problem, Kingdon and Turkington (1991b) explore alternative, 'normalizing' interpretations of psychotic symptoms. For example, they relate culturally acceptable beliefs to delusional beliefs in order to destigmatize the psychotic beliefs to patients and their families. They also have found it useful to normalize the psychopathology by showing the role of stress in onset of symptoms. In using cognitive therapy with a normalizing rationale, Kingdon and Turkington (1991b) report successful treatment of 64 patients with psychotic symptoms; little or no medication and minimal hospitalization has been required.

The manner in which a patient's delusional beliefs are viewed by those around him will determine their behavior towards him. As in the case of Tom (TARRIER, 1992) discussed above, a delusional patient may believe that hallucinated voices can be controlled only by displays of high-volume verbal aggressive counterattacks. Family members who fail to understand the patient's rationale for such outbursts may erroneously think such behaviour to be directed towards themselves (personalization). Consequently, they may then direct anger towards the patient, thereby exacerbating the symptoms. The cognitive therapist would do well in such cases to first understand the patient's behavior from the patient's point of view (standard cognitive therapy), then bring into therapy family members so they are informed of the meaning of such behaviour.

Concurrently, of course, the patient himself would be led to reconsider the necessity for—and the consequences of—his verbally aggressive responses to the hallucinated voices. In the meantime, the interpersonal stress associated with family members' counterattacks towards the patient would

be attenuated. This will decrease negative interactions and increase the cognitive resources available to the patient for his own personal therapy (rather than focus on the interpersonal stressors).

In summary, cognitive therapy has been found to successfully treat interpersonal problems and thereby reduce stressors implicated in the onset and maintenance of schizophrenic symptoms. By reattributing schizophrenic delusions as related to normal experiences (e.g. identifying the role of stress in symptom onset), for instance, families of schizophrenic patients learn to view the disorder and patient as less bizarre. This may then facilitate improvement in the patient's poor self-concept, leading to still further improvement. Additionally, when those within a delusional patient's interpersonal network understand the symptoms to be due to psychological disorder rather than under voluntary control, less blame (hence less stress-inducing communications) is likely to be directed to the patient.

Expressed Emotion

Studies on 'expressed emotion' (EE) are relevant to interpersonal cognitive strategies. Since delusional beliefs occur in an interpersonal context, the cognitive therapist must (as described above) address interpersonal factors in treatment (cf. Beck, 1988), including EE.

In a recent review of schizophrenia relapse rates in families rated high in EE, Barrowclough and Tarrier (1992) found family interventions to reduce relapse compared to control groups and routine treatments. Though the concept EE has recently been subjected to behavioral assessment (Halford, 1991), cognitive assessment of EE remains to be carried out. The focus of cognitive assessment of EE would explore patient and family thoughts, and underlying beliefs. Theoretically, the order of events within the family might be BELIEFS to automatic THOUGHTS to EXPRESSED EMOTION.

Beliefs

Family members are likely to have contrasting beliefs about numerous issues related to the schizophrenic or delusional patient. Consider the following example: a mother believes "My son has a mental disorder" (Belief 1); "I'm responsible for supporting him and helping him overcome the delusions" (Belief 2). At the same time, the father may believe: "My son has a motivation problem" (Belief 1); "He could get better if he tried harder" (Belief 2). In this case, the mother might interpret a specific situation, say, the son failing to properly keep his bedroom in order, with the thought "Sick children should not be expected to be neat and orderly". The father holding an opposing belief (that the schizophrenic child lacks motivation) might think, "This child should be disciplined". This discrepancy might then lead to faulty interpersonal relationships.

Thoughts and concomitant emotions

In family interactions among the mother, father, and son, each person's automatic interpretation of a specific event will be schema (belief)-driven; that is to say, the involuntary thoughts and associated emotions elicited by a specific interaction will be related to the dysfunctional beliefs. As in the above example, let's imagine the father finds the son's bedroom to be disorderly. The father's beliefs—that the son has a motivation problem and could get better if he 'tried harder'—may become activated, generating successively the following thoughts and associated emotions: (1) "He is getting worse because I listen too much to my wife and am too weak to discipline him" (sadness); (2) "It's all his fault since he could get better" (anger); (3) "I'd better put more pressure on him to do better or he will really get crazy" (fear).

On seeing the son's bedroom in disarray, the mother's initial interpretation of this situation will likewise be schema-driven. Her own dysfunctional beliefs may activate negative automatic thoughts and associated emotions, such as: (1) "I've failed" (sadness); (2) "My husband is going to be angry" (fear); (3) "He (her husband) should be more understanding. He is too strict. It's all his (the husband's) fault. He puts too many demands on our child" (anger). Given the differing perspectives, arguments are likely to ensue.

The cognitive perspective would view the expression of these emotions to be lawfully related to the respective schemas (content and structure) and thoughts about specific interpersonal events within the family. Of course, the emotional response generated will depend upon the underlying meaning structures associated with the topographical thoughts; these responses are given as rough

illustrations of the content specificity principle as it applies to expressed emotion (cf. Lazarus, 1991a, b). A more detailed analysis would be necessary to determine specific meanings associated with a given thought, and to predict more definitively the concomitant emotional reaction.

As mother and father begin to interact in the example given above, automatic thoughts and associated emotions become public. In this manner, the schizophrenic or delusional child's environment is made more stressful as he tries to process the meaning underlying the parents' arguments. Of course, the child himself is likely to become involved in the conflict between the mother and father, and will bring his own maladaptive beliefs into the interactions. Commonly, the child (patient) may believe "I'm the cause of their problems, since they argue over me". Thus, the patient's self-esteem is likely to suffer.

In conclusion, EE does not appear out of nowhere. The essential point to this example is that EE is theoretically derived from specific automatic thoughts, which in turn are derived from idiosyncratic maladaptive schema. Thus, the various emotional responses within a family are inextricably linked to specific cognitive processes (Lazarus, 1991a), disorders of which (both in content and processing) have been implicated in the various clinical syndromes (Beck, 1991b). The next logical step in discovering the precise mechanisms linking EE to higher relapse in schizophrenia [as reported in Barrowclough and TARRIER (1992)] is clear: Conduct idiographic cognitive assessment of EE, in the manner specified above.

Modifying the "Valence" of Beliefs: Positive Distortions

Delusional ideation is usually associated with confusion or negative emotional consequences (Oltmanns & Maher, 1988). However, it has been suggested that certain delusional beliefs are sometimes maintained by the intrinsic positive valence or consequences of the beliefs (Alford *et al.*, 1982). Grandiose delusions would often be in this category (APA, 1987, p. 200), although it is possible to hold grandiose beliefs with negative valence (e.g. A person might literally believe "I'm God", and may think "I can't stand the responsibility and pressure"). By exploring the meaning of the belief, the cognitive therapist is able to ascertain whether in some cases the patient's *positive* distortions may play a role in maintaining the disorder; and, if so, consider alternative, realistic interpretations. Through Socratic dialogue the meaning of delusional beliefs or hallucinations may be questioned.

Using an individual case experimental design, Alford *et al.* (1982) evaluated two cognitive intervention sessions designed to change the valence of delusional interpretations of hallucinations from positive to negative. Specifically, the therapist suggested to the patient that her messages—rather than from the 'Holy Spirit'—were actually sacrilegious, blasphemous, and evil. This resulted in marked and rapid reduction of the delusional behavior.

Though the described procedure seems promising [for a description, see Alford *et al.* (1982)], until additional data are available this particular approach should probably be considered experimental rather than clinically applied on a routine basis. It is not known at this time whether there are potential hazards associated with the described process, and this should be addressed through further research. For example, it is conceivable that changing the valence of beliefs from positive to negative might precipitate suicidal behavior and/or a depressive episode. In any case, the Alford *et al.* (1982) study suggests a potentially important pathway (belief valence modification) to enhance patients' motivation to consider alternative hypotheses to explain hallucinatory experiences.

CONCLUSIONS AND DIRECTIONS

There are several essential ingredients of cognitive psychotherapy generally that apply particularly to cognitive therapy of delusional beliefs. First, cognitive therapy is guided by the cognitive *theory* of psychopathology rather than the application of techniques. For example, the importance of the interpersonal framework of cognitive therapy would dictate that specific techniques (Socratic dialogue, normalizing rationale, belief testing experiments, reattribution etc.) be utilized to accomplish therapeutic goals established within the context of a collaborative working relationship. There is no such thing as a 'cognitive technique' apart from the context of the collaborative relationship within which cognitive therapy takes place.

Further, the interpersonal relationship in cognitive therapy is highly structured, and includes development of mutual agreement regarding such things as expectations for therapy, agenda for each session, nature of the patient's problems, and goals for treatment. Probably most important is discussion about (and agreement regarding) the specific rationale(s) for employing various techniques during therapy. Put simply, techniques to change delusional beliefs used in cognitive therapy by the therapist and patient are employed *with* (rather than applied to) the patient.

Several issues require additional clinical research, including the following:

- (1) One goal of cognitive therapy is to increase the patient's ability to distinguish disordered phenomenal experiences, such as hallucinations, from actual internal/external physical events. What are the limitations of the applicability of cognitive therapy to provide distancing from hallucinatory experiences? To what extent will such an approach prevent the development of delusional ideas?
- (2) Does the degree of 'bizarreness' of a delusional belief predict the response to cognitive therapy of that belief?
- (3) How does the cognitive therapist reduce the chances of becoming incorporated into the delusional system of the patient? Can such incorporation actually facilitate therapy by providing an opportunity to teach cognitive processing skills; or is such incorporation generally counterproductive?
- (4) Do cognitive therapists who become adept at treating delusional beliefs find it easier to treat disordered cognitive content and processing in less severe disorders? For example, do these therapists derive and apply more powerful techniques to the treatment of severely distorted negative beliefs, or views of self, in clinical depression?

In this article we have addressed special problems in therapeutic collaboration, the importance of conviction ratings, avoiding confrontation through the Socratic method, the collaborative design of homework experiments, distancing strategies, and the necessity to identify and explore the emotions associated with the various delusions, especially feelings about the possibility that the delusions may be incorrect. We did not specifically address the clinical application of cognitive approaches to stress reduction and prevention in delusional patients. However, the therapeutic role of cognitive approaches to stress reduction (Beck, 1993a) in treatment of schizophrenia generally is consistent with diathesis-stress models (Alford & Correia, in press). Effective stress-management strategies might be expected to yield clinically significant therapeutic effects in reducing delusional beliefs *per se*—and in the prevention of delusions (cf. Hollon *et al.*, 1992). Thus, the impact of cognitive stress management on delusional beliefs is another important area in which clinical research should be carried out.

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