Pergamon

S0005-7967(96)00001-0

Behav. Res. Ther. Vol. 34, No. 4, pp. 351–356, 1996

0005-7967/96 $15.00 + 0.00

SHORTER COMMUNICATIONS

Cognitive therapy for punishment paranoia: a single case experiment

PAUL CHADWICK[1]* and PETER TROWER[2]

[1]*Psychological Treatments Service, Department of Psychiatry, Royal South Hants Hospital, Southampton SO14 0YG, U.K. and University of Southampton, Southampton, U.K.*
[2]*University of Birmingham, Birmingham B15 2TT, U.K.*

(Received 24 November 1995)

Summary—There is growing agreement that at least certain kinds of delusions defend against negative self-evaluation, and in consequence that cognitive therapy for delusions needs to address issues of self-evaluation more explicitly. However, in practice it can be difficult to enable clients to see the connection between delusions and self-esteem. The present single-case study exemplifies the conceptual and practical application of cognitive therapy for individuals who are both paranoid and have strong negative self-evaluative beliefs. A multiple-baseline approach is used, whereby one man's negative self-evaluative belief and two paranoid delusions are challenged sequentially. Conviction in two of the three beliefs changes at the point of intervention; conviction in the third changes prior to intervention. We discuss the details of the case, as well as the wider implications for cognitive approaches to delusions.

INTRODUCTION

An emergent issue for cognitive therapy approaches for delusions is the need to address the issue of low self-esteem, and the related concept of negative self-evaluation. This issue concerns both theory and practice. On the theoretical side, contemporary ideas about the function of different types of delusions are pointing at connections to self-esteem, and in particular at the idea of delusions as defending against low self-esteem. Neale (1988), for example, follows a long tradition in arguing that grandiose delusions fulfil the defensive function of maintaining high self-esteem, and he discusses how a need for grandiosity might arise in individuals who are prone to either low or unstable self-esteem. Similarly, Zigler and Glick (1988) draw attention to an established psychoanalytic tenet that paranoia defends against low-self esteem, and draw on their own developmental approach to psychopathology to suggest that certain forms of paranoid schizophrenia might be camouflaged depression. Building on this, Bentall and colleagues (Bentall, Kinderman & Kaney, 1994) have found strong empirical support for the idea that paranoia defends against low self-esteem. Bentall *et al.* seek to account for this by reference to Higgins (1987) self-discrepancy theory: in short, their position is that paranoids use an exaggerated 'self-serving bias' (Miller & Ross, 1975) in order to limit possible discrepancies between ideal and actual selves.

The importance of facing a person's low self-esteem, or negative self-evaluation, has also been raised by cognitive therapists working with delusions. Alford and Beck (1994) warn that the process of discussing delusions in cognitive therapy may lower self-esteem and increase anxiety, and they urge cognitive therapists to be "exceptionally sensitive to avoid threats to the patient's self-esteem" and to "apply standard cognitive therapy to restructure the negative self-concept" (p. 375).

One way of ensuring the negative self-concept is not overlooked is by employing the distinction usefully made in Rational–Emotive Behaviour Therapy (REBT) between inferences and evaluations. An inference is defined as an assertion of fact, and may be true or false. An evaluation or 'hot cognition' on the other hand may be defined as a good–bad judgment, or a preference as opposed to an inference (Zajonc, 1980), and a *person evaluation* as a global and stable evaluation of either oneself or another. Emotions are a function of inferences and evaluations, and never of inferences alone. This general position has both theoretical and empirical support (Beck, 1976; Ellis, 1962; Smith, Haynes, Lazarus & Pope, 1993).

Following this logic we can say that delusions—even bizarre ones—are inferential beliefs about how the world actually is. But when delusions involve strong negative emotions—as they invariably do—we can be sure that there will be negative person evaluations embedded within the delusional inference. We assert elsewhere (Chadwick, Birchwood & Trower, 1995) that when working with delusions, global evaluations of self and others *always* need to be explored. So for example, a person who believes he is a famous singer and feels elation may evaluate himself as a totally good and important person as a consequence—this latter belief not being a delusion. A person who believes himself to be the target of persecution and feels anger may implicitly evaluate those who mistreat him as utterly bad and worthless—again, an evaluation not a delusion.

In practice, the first challenge for the cognitive therapist working with delusions is therefore to draw out not only the delusion, but also the implicit person evaluations. A second challenge is then to aid clients to understand the close connection between the delusional and evaluative beliefs in such a way that they recognize the need to consider both in therapy. In the present study we consider how this might be done for one particular class of delusion where the negative self-evaluation is undefended, namely, punishment paranoia (Trower & Chadwick, 1996). In punishment paranoia individuals believe that others are reading their minds and plotting to harm them. However, unlike in the classical persecution paranoia, individuals believe their mistreatment to be a deserved punishment for their own intrinsic badness. In the present single-case study we illustrate the conceptual and practical process of using cognitive therapy to address both

*Author for correspondence.

the paranoid delusions and the negative self-evaluation of badness. The individual involved, Bill, held two distinct paranoid delusions and experienced depressive symptoms; he also held a core negative self-evaluative belief ("I am totally bad and perverted"). These beliefs were sequentially challenged using a form of cognitive therapy developed by the authors (Chadwick & Lowe, 1990, 1994; Chadwick *et al.*, 1996) within a multiple-baseline design across beliefs.

METHOD

Participant

Bill was a 31 yr old man who lived alone. He had a 9 yr psychiatric history and at the time of study was diagnosed by his psychiatrist as suffering from schizophrenia. The first author independently established that Bill met DSM-IV criteria for schizoaffective disorder (American Psychiatric Association: APA, 1994) with bizarre delusions (of reference, persecution and mind reading) and auditory hallucinations (usually mood congruent) as the prominent psychotic features. Medication (350 mg Stelazine every 2 weeks and 20 mg Seroxat a day) had been stable for 4 months prior to referral and was held constant throughout baseline and intervention.

Bill's life had been extremely traumatic. He was told by his mother that he was conceived when his father had raped her, an act that effectively marked the end of the marriage, which broke up some 5 yr later. On the separation Bill went at first to live with his father, then his mother—however, she remarried and he did not get on with his step-father, who physically abused his mother, though not him. In his late teens Bill molested a young girl on one occasion, and on three occasions had sexual contact with animals; there had been no recurrence of either behaviour and Bill reported no related urges or fantasies. Bill's father had died 10 yr previously.

Bill presented with a number of symptoms. Most prominently he described clear paranoid thinking, with associated delusions of reference and mind reading, and heard frequent abusive voices (usually male) in the third person when outside, calling him names like "pervert"; he occasionally heard voices when alone in his flat. Bill also experienced depressive symptoms, scoring 24 on the BDI at assessment (indicative of moderate disturbance) and was troubled by intrusive thoughts and images. The thoughts were either blasphemous ("Damn Jesus to hell") or abusive ones directed at other people ("She's a slut", "He's a wanker"). Bill would try and neutralize both types, saying for example "She's not a slut" or "Don't damn Jesus to hell". Also, Bill experienced intrusive images of his sexual behaviour with the girl and animals.

Bill held two distinct paranoid beliefs and one depressive self-evaluative belief. The first paranoid belief was that he was being punished by members of the public for his sexual misdemeanours. Specifically, Bill believed that others could read his thoughts, including the obsessional ones, and therefore knew about the sexual acts; hence they tormented him (i.e. the voices and references) and were planning that he should be exposed and ultimately attacked. The second paranoid delusion was that God was punishing him; this belief was distinct in that it rested on separate evidence and was developed much later than the first. Specifically Bill experienced frequent and severe pressure in his head, which he attributed to God physically punishing him for blasphemy (the intrusive thoughts) and for having broken a promise to God to attend church.

The negative self-evaluative belief was that he was a totally bad and perverted person; time was spent confirming that this was indeed a true person evaluation, a belief that he was globally and forever bad and perverted. This belief caused Bill most distress and was therefore challenged first. It was not shared by his family—Bill said "They think I'm a good person but I know I'm a bad one"—but Bill believed that if they knew of his sexual misbehaviour (he kept it secret) they too would see him as totally bad and perverted.

Measures

Beck Depression Inventory (BDI: Beck & Steer, 1987). The BDI was given a total of eight times; namely, at the selection interview, the first and last sessions of baseline, three times during cognitive therapy (corresponding to the close of each discrete intervention phase: see *Procedure*) and at all three follow-ups. It was given prior to measuring conviction and preoccupation.

Belief conviction & preoccupation. Following Hole, Rush and Beck (1979) conviction, certainty that a belief is true, was measured using a percentage rating, 0% implying a belief to be definitely false, 100% that it is definitely true. Percentage ratings of delusional conviction have been found to reliably correlate with more sophisticated measures (Chadwick & Lowe, 1990) and are quicker. Preoccupation was rated retrospectively using a simple 3-point scale; this was that in the past week Bill had thought about a particular belief 'Not at all', 'Occasionally' (fewer than four times), and 'Often' (four or more times).

Procedure

All sessions were conducted by the first author, lasted about 60 min and took place weekly.

Stage 1: pre-baseline interviews. Bill was seen three times in order to identify the beliefs and to begin to build a rapport. The beliefs were identified through extensive discussion and thought chaining exercises, and the precise wording was agreed with Bill.

Stage 2: baseline. At the three baseline sessions further information was gathered about the beliefs, especially the evidence for and against, and Bill's childhood was explored in detail. At no time was a belief disputed, nor was the cognitive model presented.

Stage 3: cognitive therapy for punishment paranoia. Our general approach to cognitive therapy for delusions (Chadwick *et al.*, 1996) draws from the work of Beck (Beck, Rush, Shaw & Emery, 1979) and Rational Emotive Behaviour Therapy (Ellis, 1962). Intervention for punishment paranoia follows three conceptual steps. First, the therapist introduces the cognitive model and challenges the negative self-evaluative belief. Second, the therapist conveys the insight that it is this sense of inescapable badness which drives the paranoid delusion, with its themes of exposure and punishment. Third, the therapist uses this rationale to introduce the process of challenging the delusions. (The process and practice of cognitive therapy for delusions is described in detail in Chadwick *et al.*, 1996).

The 12 intervention sessions were divided into discrete phases. The first 4 sessions included an initial description of the general ABC cognitive framework, and thereafter focused exclusively on the negative self-evaluation (I am totally bad and perverted). This challenge continued into the second phase (also 4 sessions), when the first paranoid belief was also challenged. This second phase of intervention began with a discussion of the way in which the paranoid belief was driven by Bill's inescapable sense of badness, and more particularly a terrible fear of being exposed as bad and perverted. Finally, in the last phase all three beliefs were challenged.

Each paranoid delusion was challenged as follows. First, the evidence for the delusion was challenged (Watts, Powell & Austin, 1973). Second, all irrational or inconsistent features of the belief system were highlighted. Third, following Maher (1988), an alternative perspective was offered, namely, that the belief was a reasonable reaction to and attempt to make sense of certain experiences (these might be abnormal perceptual experiences or important life events) and was motivated by the psychological need to conceal badness from others. Last the paranoid delusion and the alternative were assessed in the light of the evidence and put to an agreed empirical test.

Stage 4: independent valuation. Bill's psychiatrist, who had made the initial referral, maintained routine contact and saw Bill shortly after the conclusion of therapy. The psychiatrist had no knowledge of how therapy progressed and his opinion was used as a source of external validation of change.

Stage 5: follow-up. To assess for maintenance of change Bill was seen 1, 3, and 6 months after the close of the intervention. At each meeting conviction and preoccupation were measured and the BDI was given.

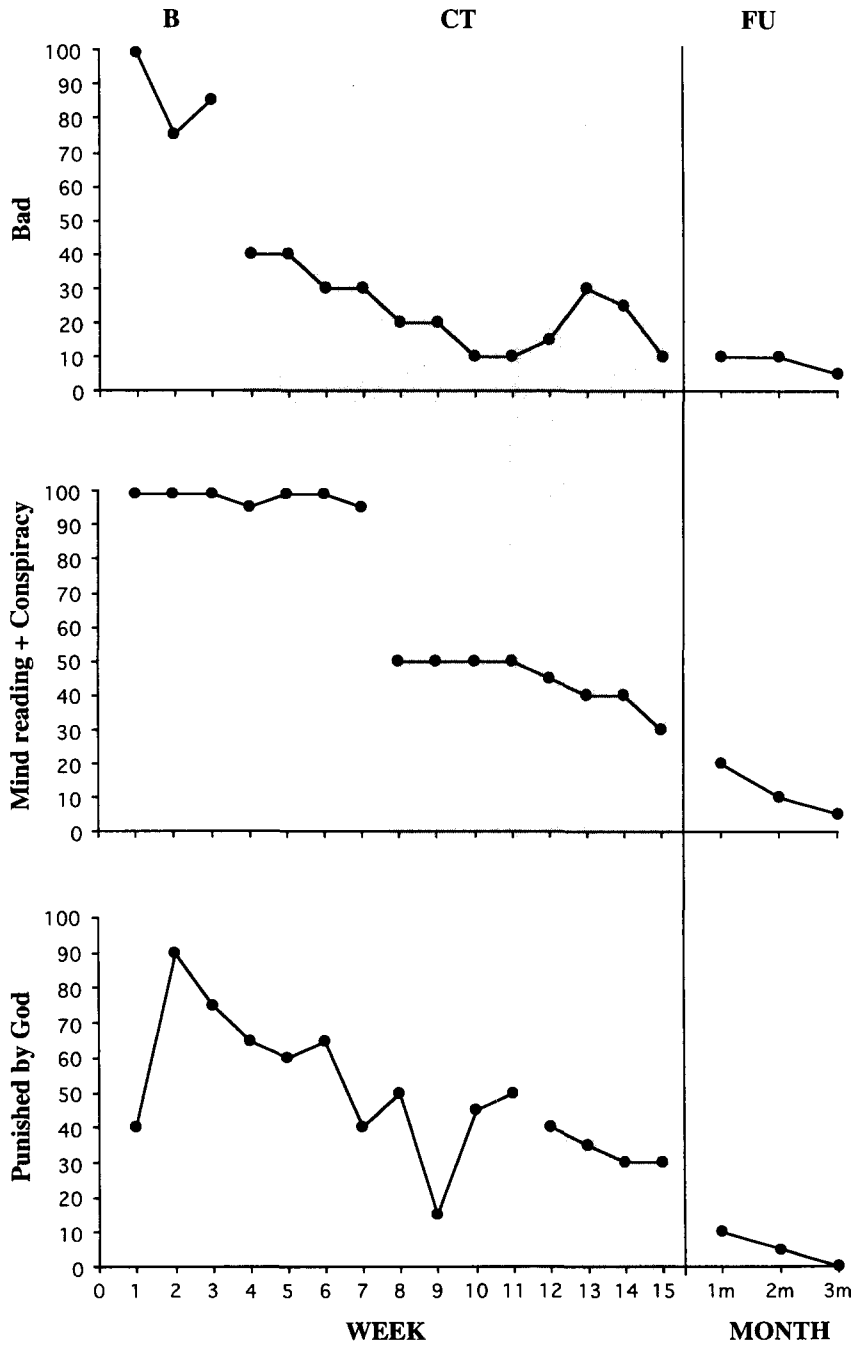

Fig. 1. Bill's percentage conviction scores for the negative self-evaluation and two paranoid delusions during baseline (B), cognitive therapy (CT) and follow-up (FU).

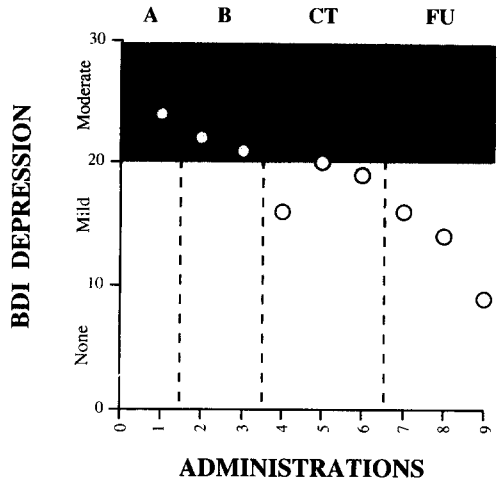

Fig. 2. Bill's BDI scores at assessment (A), baseline (B), cognitive therapy (CT) and follow-up (FU).

RESULTS

Belief conviction & preoccupation

Belief 1. The self-evaluative belief "I am totally bad and perverted" was rated as most distressing and was challenged first. Conviction during baseline was in the range 75–99%, but at the close of the first intervention session was rated only 40% (all conviction scores appear in Fig. 1). Bill identified two aspects of the session as being particularly significant. First, he had never before connected the circumstances of his conception with his sense of badness. Second, he found the distinction between condemning certain of his actions as opposed to him as a person, to be persuasive and relieving—also, not rating himself as totally bad and perverted gave him a sense of optimism that he might avoid future indiscretions. The agreed homework was that Bill would list those of his acts which he considered to be both good and bad; this would both further test the notion of *total* badness, and also help to define the nature of his vulnerability to behaving badly. This drew Bill's attention to the fact that all his perceived badness related to sexual behaviour, and this again was connected to the circumstances of his conception. Conviction fell steadily over the course of therapy and remained low at follow-up. (Both Bill and the therapist strongly condemned his past bad *behaviour* and viewed him as responsible for it, and for any repetition; what was being challenged was the additional condemnation of him as a person.)

Belief 2. The belief that people could read his mind and were tormenting him and planning to attack him was challenged second. Conviction, which had been high and stable throughout baseline, fell at the first intervention session (week 8) to 50%, where it remained for the subsequent 3 weeks before falling to only 30%. Scores remained low during therapy and follow-up. The challenge was introduced by discussion of how the paranoia was driven by the belief that he was utterly bad, and by fear of others recognizing this and reacting accordingly. The alternative put forward by the therapist was therefore that the paranoid belief was psychologically motivated, and a reasonable but mistaken reaction to and attempt to make sense of two puzzling experiences—his feeling that others knew about the sexual indiscretions and referred to them directly (hearing voices) or indirectly (references), and the sense of 'transparency' that accompanied intense embarrassment and guilt when abusive or sexual intrusive thoughts occurred in company. In support of the alternative explanation, Bill noted that the only occasions when he thought his mind was being read were indeed those associated with voices or strong emotions. Also, no one had ever challenged or hurt him. Again, the only people he thought could not read his mind were those very few who knew of his sexual indiscretions (i.e. they were in this sense not a threat) indicating the defensive function of the belief. The therapist also drew out a major contradiction in Bill's thinking—on the one hand he feared nothing as much as others finding out what he had done, yet on the other he believed they could read his mind and already knew it.

Two empirical tests were used; first, and least difficult to accomplish, Bill agreed to think thoughts such as "If you say pink flamingo I'll give you 50 pounds". The test was carried out repeatedly over 2 weeks with those people Bill thought could definitely read his mind and use the money! The subsequent, more difficult test involved Bill not neutralising his intrusive thoughts about other people ("He's a wanker"; "She's a slut"). In both instances the outcome was consistent with the therapist's prediction and at odds with Bill's.

Belief 3. The second paranoid belief, that God was punishing Bill for blasphemy, was tackled last. Throughout baseline conviction was unstable; for example, prior to any belief being challenged, conviction scores ranged from 40–90% certainty. This belief was recast as a reaction to and attempt to make sense of a strong and painful pulsating Bill experienced shortly after intrusive, blasphemous thoughts. Bill and the therapist explored how these intrusive thoughts might reflect Bill's sense of guilt, but also anger about his very difficult life history. The therapist also supplied information about the ordinariness of experiencing intrusive thoughts and Bill was able to ease his sense of responsibility for them (Salkovskis & Kirk, 1988). The agreed tests were that Bill would read the Bible in order to discover if the Christian God punished people in this world and in this way, and subsequently talk about his belief to a local vicar. In fact Bill did only the first of these, as he said after the first test that the belief no longer troubled him.

Preoccupation

There was no change in preoccupation scores over the course of the study. Bill consistently rated his preoccupation with the belief that his mind was being read as 'Often' and that he was totally bad as 'Occasional'. Preoccupation scores with the belief about punishment from God were unstable throughout.

Beck Depression Inventory (BDI)

The BDI was given a total of 8 times. As Fig. 2 shows, prior to intervention BDI scores indicated a depression of moderate intensity; however, the third BDI score was markedly lower and fell in the mild range—this fall corresponded with a fall in Bill's conviction that he was a bad person. The following two BDI scores were slightly higher, on the mild–moderate borderline, and over the follow-up period BDI scores fell steadily, and the final score was in the asymptomatic range (see Beck & Steer, 1987 for interpretation of BDI scores).

Independent corroboration

Bill had been on stable medication prior to and during the intervention period. However, by the time of the 1 month follow-up meeting Bill's psychiatrist, who was unaware how the study had progressed, had reduced his Stelazine by 50 mg on the basis of a perceived clear clinical improvement.

DISCUSSION

In the present study conviction in one paranoid and one negative self-evaluative belief was stable during baselines of 3 and 7 weeks respectively, and fell during intervention period. In the case of the second paranoid belief, conviction scores were unstable throughout the study, such that therapeutic efficacy could not be assessed. Nonetheless a fall in conviction for two out of three beliefs at *the point of intervention*, enables these effects to be attributed to cognitive therapy with a reasonable degree of certainty. Bill's psychiatrist, who had cared for him over many years, observed a clinical improvement in his functioning sufficient for him to lower an established drug regimen.

Accompanying these changes in conviction, BDI scores also fell over the course of study as a whole. At first, as is to be expected, this fall coincided with a weakening of the negative self-evaluative belief. There may have been a subsequent slight increase in depressive symptoms during the period of challenging delusions, and it was not until the follow-up period that BDI scores fell again, this time to the asymptomatic range. This is consistent with earlier studies, which found that weakening delusions was associated with a reduction in BDI score, and that for many individuals the major fall did not occur until the follow-up period (Chadwick & Lowe, 1994). These data collectively may indicate that for certain individuals the process of challenging delusions can be distressing, but where this occurs it is only short term.

Earlier studies have reported a connection between falling conviction that a belief is true, and falling preoccupation with that belief (Chadwick & Lowe, 1994). In the present study cognitive therapy appeared not to impact on preoccupation. Preoccupation is an important delusional dimension and this finding is of potential significance. However, we are not certain that a fall in preoccupation is always to be expected during or even soon after therapy; as part of the process of change many individuals will spend time thinking about their beliefs, perhaps even testing them out, and may therefore show as more preoccupied. Indeed, cognitive therapy encourages greater attention to and consideration of distressing thoughts and beliefs (Beck *et al.*, 1979). The concept of preoccupation therefore may need to be broken down into its constituent parts such that it is possible to predict an increase in one type (e.g. critical analysis of delusion) and a decrease in another (e.g. unquestioning acceptance). A similar concern applies to the interpretation of change in behaviour: some individuals may show an increase in behaviour associated with delusions during and following intervention because they are actively seeking to reality test the belief (Chadwick & Lowe, 1994).

It might appear on the basis of prevailing theories of paranoia (Bentall *et al.*, 1994) that weakening or removing delusions would leave individuals vulnerable to increase negative self-evaluation, or lower self-esteem. Trower and Chadwick (1995) have recently argued that there are two types of paranoia: persecution paranoia in which individuals believe others to be conspiring to harm them with no justification; and punishment paranoia, where the conspiracy and threatened harm are seen as deserved, if harsh, responses to their own badness. For 'persecution' paranoia the therapist has to be alert to the possible emergence of negative self-evaluations during therapy (Alford & Beck, 1994). However in punishment paranoia the self-evaluations are undefended and present alongside the paranoia, as in the present study, and must be addressed for if therapy targeted only the paranoia the client's central concern—inescapable badness—might remain intact. Indeed, in the present study the therapist spent more sessions challenging the negative self-evaluative belief (12) than the paranoid beliefs, and also sought to help the client understand how these different classes of beliefs might be connected.

This practice of challenging self-evaluative beliefs ahead of the paranoid ones is likely to limit psychological reactance (Brehm, 1962). In the present study Bill acquired the fundamental principles of cognitive theory and therapy and experienced its benefit (a fall in depressive symptomatology) while reformulating and questioning a belief he was highly motivated to surrender (that he was totally bad). The rationale for subsequently challenging the paranoid delusions was identical—they too were associated with significant emotional distress and behavioural disturbance and the consistent goal of cognitive therapy across the intervention phases was to reduce this.

A second, more general, feature of the present design likely to enhance therapeutic effectiveness is that therapy was aimed at three beliefs which were specific to the individual. The study thus satisfies Beck and Hollon's (1993) recent call for cognitive therapists to place greater emphasis on the individual, both in terms of measurement and the delivery of therapy, and to examine the process of change as well as outcome. In this respect research into cognitive therapy for delusions is well placed (Alford, 1986; Chadwick & Lowe, 1990; Lowe & Chadwick, 1990), with much of it using sophisticated single-subject methodology across both individuals and beliefs, and we urge continued use of these methods.

Lastly, the present study represents a development in cognitive therapy for delusions in that the choice of target beliefs and the sequence in which they were challenged were dictated by a psychological theory specific to one type of delusion—here, punishment paranoia. The key features of punishment paranoia are strong negative self-evaluations and paranoid delusions, with the former believed to be driving the latter (Trower & Chadwick, 1995). Consequently, in therapy the evaluation is challenged first, the delusions second, and the hypothesised connection between the two is used in the therapeutic process to render the process of therapy coherent to the client. However, this process does not work for those paranoid delusions where the main theme is one of persecution (not punishment) because these individuals manage to defend against negative self-evaluation and retain high self-esteem (Bentall *et al.*, 1994; Trower & Chadwick, 1995). Similarly, different methods are required for cognitive therapy for grandiose delusions (Chadwick *et al.*, 1996). It is therefore likely that as psychological understanding of different delusions advances, especially their putative defensive functions, so too cognitive therapy will be further adapted to the specifics of each.

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