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# A pilot study of cognitive therapy in bipolar disorders

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## ABSTRACT

Background. The efficacy and effectiveness of cognitive therapy (CT) is well established for unipolar disorders, but little is known about its utility in bipolar disorders. This study aimed to explore the feasibility and efficacy of using CT as an adjunct to usual psychiatric treatment in this patient population.

Method. Subjects referred by general adult psychiatrists were assessed by and independent rater and then randomly allocated to immediate CT ($N = 21$) or 6-month waiting-list control, which was then followed by CT ($N = 21$). Observer and self-ratings of symptoms and functioning were undertaken immediately prior to CT, after a 6-month course of CT and a further 6-months later. Data on relapse and hospitalization rates in the 18 months before and after commencing CT were also collected.

Results. At 6-month follow-up, subjects allocated to CT showed statistically significantly greater improvements in symptoms and functioning as measured on the Beck Depression Inventory, the Internal State Scale, and the Global Assessment of Functioning than those in the waiting-list control group. In the 29 patients who eventually received CT, relapse rates in the 18 months after commencing CT showed a 60% reduction in comparison with the 18 months prior to commencing CT. Seventy per cent of subjects who commenced therapy viewed CT as highly acceptable.

Conclusion. Although the results of this study are encouraging, the use of CT in subjects with bipolar disorders is more complex than in unipolar disorders and requires a high level of therapist expertise. The therapy may prove to be particularly useful in the treatment of bipolar depression.

## INTRODUCTION

The aims of therapy in bipolar disorder (BP) are to alleviate acute symptoms, restore psychosocial functioning and to prevent relapse and recurrence. Although the mainstay of treatment has always been pharmacotherapy, there is increased recognition of the need for psychological approaches in combination with medication (Prien & Potter, 1990; Scott, 1995*a*). The efficacy of cognitive therapy (CT) for individuals with treatment-resistant schizophrenia and severe and chronic depressive disorders (for a review see Scott & Wright, 1998) has encouraged case studies and open trials of CT in BP (Cochran, 1984; Chor *et al*. 1988; Palmer *et al*. 1995; Scott, 1995*b*; Bauer *et al*. 1998; Zaretsky *et al*. 1999). However, there are only two published randomized controlled trials (RCTs) and these both used abbreviated CT approaches that targeted a specific aspect of BP or its treatment Cochran (1984) used six sessions of CT to enhance medication adherence, while Perry *et al*. (1999) used cognitive and behavioural techniques as part of a package of interventions to help individuals identify and manage early warning of relapse.

This study explores the feasibility and potential benefits of using a more formal CT approach to BP. Patients were randomly allocated to receive CT (25 sessions) immediately after initial assessment or to a 6-month waiting-list control (WLC) condition followed by the

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opportunity to then receive a course of CT. All participants in both groups continued to receive their usual treatments. We examined whether CT reduced symptoms or improved general functioning and explored relapse and hospitalization rates before, during and after CT. We also explored the acceptability of CT and the patients' views about any potential benefits of this approach.

## METHOD

### Sample

After obtaining ethical approval from the joint NHS and University Ethics Committee, a letter requesting referrals was then sent to consultants in general adult psychiatry working in and around Newcastle. The letter emphasized that we were not seeking 'ideal' candidates for CT as a key aim of the study was to assess the feasibility of using CT with people with BP. It also stated that current treatments and decisions about changes in treatment (other than CT sessions) remained at the discretion of the clinical team. Subjects were included if they were aged over 18 years, had a lifetime diagnosis of BP-I or BP-II disorder, and had experienced one or more episodes of affective disorder in the last 2 years. Exclusion criteria were: BP secondary to organic disorder, severe physical ill-health, cognitive impairment sufficient to impair judgement about participation, or being unable or unwilling to give written informed consent. Patients who were currently in an acute in-patient unit or who met criteria for mania were not immediately entered into the study but were accepted at the point of discharge and/or as soon as their mental state allowed them to give informed consent.

### Baseline assessment

A semi-structured interview was undertaken by an independent research psychiatrist (S.M.). This baseline assessment gathered information on demography, pre-morbid personality, social functioning, current and past psychiatric history, current treatments and services received, and medication adherence. The latter was measured using a self-report measure described in a previous publication (Adams & Scott, 2000), this approach has a specificity of 90% and a sensitivity of 68%. Hospital records were used to supplement interview data. The rater completed the Schedule for Affective Disorder and Schizophrenia-Lifetime Version (SADS-L; Endicott & Spitzer, 1978) and the Global Assessment of Functioning (GAF; American Psychiatric Association, 1987). The subject completed the Personality Disorder Questionnaire (PDQ-R; Dowson, 1992), a brief rating of work and social adjustment (WASA; Marks *et al*. 1993), the Internal State Scale (ISS; Bauer *et al*. 1991), the Beck Depression Inventory (BDI; Beck *et al*. 1961), and the 90-item Symptom Checklist (SCL-90; Derogatis & Cleary, 1977). Most of the ratings are established and robust measures that have been widely used in other outcome studies. The others are briefly described below.

The ISS was used as it simultaneously assesses manic and depressive symptoms. It comprises 16 items each rated on 0–100 Likert scale. These items are then divided into four subscales (Activation: ISS-ACT; Depression: ISS-DEP; Perceived Conflict: ISS-PC; Well-Being: ISS-WB). Bauer *et al*. (1991) suggest that ISS subscale ratings can be used to classify subjects as depressed (ISS-WB $< 125$), hypomanic/manic (ISS-WB $> 125$, ISS-ACT $> 200$), or in remission (ISS-WB $> 125$, ISS-ACT $< 200$). The WASA asks individuals to assess five aspects of their life-work, individual social activities, social activities involving others, home life and sex life. We rated each area on a 0–8 scale, with higher scores indicating better functioning. Scores on each subscale were combined to give an overall WASA rating (range 0–40).

After the interview the patient was randomly allocated according to predetermined random numbers to one of two groups- 'CT' or 'WLC'. Subjects in the former group commenced CT within about 2 weeks of the baseline assessment. Therapy comprised a maximum of 25 sessions (about 45 min duration each) over 6 months. Subjects in the WLC group continued with their usual treatment for 6 months. At this point they repeated the baseline assessment and were then offered the opportunity to receive CT.

### Intervention

Both groups of patients continued to receive medication, out-patient and other services as

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previously. The CT was undertaken by two experienced therapists with recognized expertise in the use of CT in severe affective disorders (J. S. and A. G.). The CT approach has been described in detail elsewhere (Scott, 1995*b*; Scott & Wright, 1998; Scott & Palmer, 2000), but key elements are as follows.

*(i) Socialization into CT model and development of an individualized formulation and treatment goals*

The therapy began with an exploration of the patients understanding of BP and a detailed discussion of previous BP episodes focusing on identification of prodromal signs, events or stressors associated with onset of previous episodes, typical cognitive and behavioural concomitants of both manic and depressive episodes and an exploration of interpersonal functioning (e.g. family interactions). Early sessions emphasized the psychobiosocial model of treatment and hence the rationale for using CT. Sessions included education about BP within a CT framework; facilitation of adjustment to the disorder by identifying and challenging dysfunctional automatic thoughts and developing behavioural experiments particularly focused on ideas about stigmatization and self-acceptance; collating accurate information and enhancing understanding about the epidemiology, treatment approaches and prognosis of BP; and beginning to develop an individualized formulation of the client's problems that takes into account underlying maladaptive assumptions and beliefs.

*(ii) Cognitive and behavioural approaches to symptom management and dysfunctional thoughts*

Using information gathered previously, sessions were used to teach self-monitoring and self-regulation techniques which enhance self-management of depressive and hypomanic symptoms, and exploration of skills for coping with depression and mania e.g. establishing regular activity patterns, daily routines, regular sleep patterns, coping with stress, time management, use of support, recognizing, and tackling dysfunctional automatic thoughts about self, world and future using automatic thought diaries.

*(iii) Dealing with cognitive and behavioural barriers to treatment adherence and modifying maladaptive beliefs*

Problems with adherence to medication and other aspects of treatment were tackled e.g. through exploration of barriers (challenging automatic thoughts about the use of drugs; or beliefs about bipolar disorder and self-reliance; exploring attitudes to authority and control) and using behavioural and cognitive techniques to enhance treatment adherence. This and data from previous sessions was used to help the client identify their maladaptive assumptions and underlying core beliefs and to commence work on modifying these beliefs.

*(iv) Anti-relapse techniques and belief modification*

Further work was undertaken on recognition of early signs of relapse and coping techniques (fortnightly sessions) e.g. developing self-monitoring of symptoms, identifying possible prodromal features (the 'relapse signature'), developing a list of 'at risk situations' (e.g. increased alcohol intake, exposure to stressors) combined with a hierarchy of coping strategies for each situation; identifying strategies for managing medication intake and obtaining advice regarding it; planning how to cope and self-manage problems after discharge from CT. Sessions include typical CT approaches to the modification of maladaptive beliefs that may otherwise increase vulnerability to relapse. Common themes related to need for approval and perfectionism.

Many components of this model are the same as those included in CT approaches to other disorders. The common aspects of formulation, homework assignment, identification of links between events, thoughts, feelings and behaviours, identification and modification of dysfunctional automatic thoughts and of underlying beliefs, are undertaken in the same manner as in other CT interventions. Differences include a greater emphasis on biological aspects of the disorder and its treatment and the use of self-regulation. There is also a need for flexibility in when and how issues are tackled to account for the frequent shifts in the patients' mood state and the consequent variation in their desire or ability to engage in CT.

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### Follow-up assessments

Ratings of symptoms and functioning were repeated at 6-monthly intervals for a maximum of 18 months. The interview points were fixed so that even if a subject did not attend all CT sessions, the immediate post-CT interview was 6 months after therapy commenced and the final follow-up was 12 months after therapy commenced. After completing CT, patients were asked their views about its usefulness. The number of CT sessions attended, relapses occurring during the course of therapy and CT dropouts were also noted. Patient and case-note reports were used to identify the relapses and hospitalizations in the 18 months prior to and the 18 months following commencement for CT.

### Statistical analyses

The groups were first assessed to see if there were any differences at baseline. Chi-squared tests were used to compare categorical measures (gender distribution, prevalence of BP-I and BP-II disorders, etc.) and analyses of variance (ANOVA) were used for continuous measures (age, symptom ratings etc.).

An intent to treat analysis was undertaken. Analyses of co-variance (ANCOVA) were used to assess changes in symptoms and functioning by group and time using current age, age of onset of BP, gender, and baseline symptom ratings as covariates. Pre- and post-CT difference in relapse and hospitalization rates were analysed using chi-squared tests. For patients from both groups who commenced a course of CT, paired *t* tests were used to assess differences in their pre- and immediate post-CT ratings and between pre-CT and final follow-up ratings.

## RESULTS

### Patient characteristics

Sixty-one patients were referred to the study. Of this sample, seven patients did not meet criteria, four refused to participate because they were not prepared to be randomized to the WLC group, one person only wished to participate if they did not get CT. Two people refused to participate because they felt they would have to travel too far to appointments and five failed to respond to three letters offering an initial meeting to discuss the study. From the limited information available on these 19 people we noted that seven were female, their average age was about 43 years and they had been ill on average for about 12 years.

Table 1. *Baseline characteristics of the 'CT' and 'WLC groups*

| Characteristic | CT group ($N = 21$) | WLC then CT ($N = 21$) |
|---|---|---|
| Mean age in years (S.D.) | 37·8 (8·7) | 40·5 (6·7) |
| Gender, female : male | 14 : 7 | 11 : 10 |
| Married or cohabiting | 16 | 12 |
| Currently in employment | 9 | 5 |
| Left full-time education by 16 years | 10 | 8 |
| Mean age of onset of bipolar disorder (S.D.) | 24·2 (10·5) | 24·7 (12·4) |
| Bipolar I disorder | 19 | 15 |
| Current mental state | | |
| Euthymic | 11 | 14 |
| Depressive disorder | 5 | 5 |
| Rapid cycling disorder | 2 | 1 |
| Hypomanic | 2 | 0 |
| Mixed state | 1 | 0 |
| Other diagnoses | | |
| Drug and/or alcohol problems or dependence | 5 | 7 |
| Personality disorder | 12 | 15 |
| Mood stabilizer | | |
| None | 2 | 1 |
| Lithium alone | 8 | 11 |
| Lithium plus other | 8 | 5 |
| Other mood stabilizer alone | 3 | 4 |
| Self-reported medication non-adherence | 9 | 7 |

Baseline data on the 42 trial subjects is shown in Table 1. There were no statistically significant between group differences in age, gender, illness or personality characteristics. The mean age of the sample was 38·8 years (S.D. 8·1), 25 were female, and 28 were married or cohabiting. Eighteen subjects had left full-time education before the age of 16 years; 14 subjects were currently in paid employment. The mean age of illness onset was 24·4 years (S.D. 12·9), the median number if illness episodes was five (range 1–12), 34 subjects met criteria for BP-I disorders and eight for BP-II disorder.

Eleven subjects met diagnostic criteria for depressive disorder, three for rapid cycling disorder (RCD), two for hypomania, and one for a mixed state. Twelve subjects met criteria for drug and/or alcohol problems or dependence, two met criteria for other Axis I disorders. About 60% of the sample met criteria for personality disorder on the PDQ-R. The most prevalent were borderline ($N = 15$) and anti-

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Table 2. *Changes in symptoms and functioning by group and time*

| Mean ratings (S.D.) | CT group ($N = 21$) | WLC then CT Gp ($N = 21$) | ANCOVA* $F$ | ANCOVA* $P$ |
|---|---|---|---|---|
| Global Assessment of Functioning | | | | |
| 0 months | 68·1 (12·5) | 73·2 (11·1) | | |
| 6 months | 84·5 (13·9) | 77·1 (11·9) | 3·4 | 0·05 |
| Beck Depression Inventory | | | | |
| 0 months | 20·7 (12·1) | 17·0 (14·1) | | |
| 6 months | 13·4 (11·9) | 19·5 (13·1) | 5·9 | 0·02 |
| Internal State Scale | | | | |
| Depression | | | | |
| 0 months | 89·1 (66·4) | 80·1 (71·9) | | |
| 6 months | 37·2 (27·6) | 73·5 (68·8) | 7·1 | 0·01 |
| Well-being | | | | |
| 0 months | 102·7 (49·2) | 111·9 (54·3) | | |
| 6 months | 136·6 (60·7) | 120·4 (56·7) | | NS |
| Activation | | | | |
| 0 months | 106·7 (80·6) | 95·1 (62·1) | | |
| 6 months | 50·9 (29·6) | 83·8 (46·2) | 8·6 | 0·007 |
| Perceived conflict | | | | |
| 0 months | 74·1 (72·4) | 80·6 (77·7) | | |
| 6 months | 39·4 (31·2) | 70·7 (65·3) | 6·4 | 0·01 |
| Symptom Checklist | | | | |
| 0 months | 230·8 (51·6) | 227·3 (55·2) | | |
| 6 months | 174·1 (48·2) | 219·6 (50·4) | | NS |
| Work and Social Adjustment | | | | |
| 0 months | 10·3 (6·7) | 9·8 (6·9) | | |
| 6 months | 14·5 (8·5) | 11·1 (7·0) | | NS |

* Covariates = current age, age of onset of BP, gender baseline symptom ratings.

social disorders ($N = 11$), but 14 patients met criteria for more than one personality disorder. There were no significant differences between groups on baseline symptom ratings.

A review of treatment revealed that three patients (with the knowledge of their consultant psychiatrist) were currently not on any medication. However, the majority of the sample were being prescribed lithium alone ($N = 19$) or lithium plus another mood stabilizer ($N = 12$), seven patients were receiving other mood stabilizers without lithium. On self-report, 16 patients reported non-adherence with mood stabilizers (missing $>30\%$ of their prescribed treatment). Fourteen subjects were also prescribed other medications: 10 were on antidepressants (CT = 6; WLC = 4) and four were taking either anti-psychotic medications or benzodiazepines (CT = 2; WLC = 2). All subjects were receiving out-patient psychiatric support, 10 subjects also had a key worker (a nurse, social worker or other professional supporter) in the community (CT = 4; WLCT = 6) and two (both WLC subjects) attended a day-care unit.

## Changes by group and time

Table 2 shows changes in symptoms and functioning by group and time. Statistically significant changes were found in mean scores on the GAF, BDI and three ISS subscales (DEP, ACT, PC). The WLC group scores showed relatively little change between baseline and 6-month repeat assessment. However, between baseline and 6-month follow-up, the CT group demonstrated statistically significant reductions in symptoms (BDI and ISS DEP, ACT and PC) and improvements in global functioning (GAF), with similar non-significant improvements in mean scores on the ISS-WB, SCL-90 and WASA scales. An analysis of subscale scores on the WASA showed a significantly greater improvement in ratings of social activities involving others in the CT group as compared with the WLC group ($F = 5{\cdot}6$; df 1, 4, 36; $P < 0{\cdot}01$). Data on medication and treatment received did not reveal any significant between group differences. There were no significant differences between subjects who remained in the study and those who dropped out, although there was a

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Table 3. *Number of patients categorized as relapsed, experiencing a persistent episode or euthymic in the* 18 *months before and* 18 *months after commencing CT*

| | Months prior to starting CT ($N = 29$) | | | Months after starting CT ($N = 29$) | | |
|---|---|---|---|---|---|---|
| | | | | CT | Post-CT | |
| Category | 18–13 | 12–7 | 6–0 | 0–6 | 7–12 | 13–18 |
| New episode | 6 | 7 | 6 | 2 | 2 | 2 |
| Persistent episode | 9 | 6 | 10 | 8 | 4 | 5 |
| Euthymic* | 14 | 16 | 13 | 19 | 23 | 22 |

* This category includes subjects who were euthymic or who did not meet full criteria for an affective episode.

trend for dropouts to be younger and three of these subjects reported that the index episode was their first experience of BP.

### Between group comparison of dropout, relapse and recovery rates

Six people in the WLC condition dropped out of the study in the first 6 months. Three subjects randomized to CT dropped out over the same period. This difference between groups was not statistically significant.

At baseline assessment, 10 CT subjects and six WLC subjects met diagnostic criteria for an affective episode. At 6 months, four people in the CT group and eight in the WLC group met such criteria. A more detailed review revealed that in the CT group, seven people entered remission during the course of CT, three remained unwell and one other previously euthymic subject experienced a relapse. In the WLC condition, two subjects met criteria for remission, four patients remained in episode, and two other patients experienced a relapse. These changes just failed to reach statistical significance ($\chi^2 = 3{\cdot}9$; df 1; $P = 0{\cdot}06$).

### Sample attrition from subjects initially allocated to the control group

Fifteen subjects from the WLC condition entered CT after repeating the original assessment interview. Two of these subjects dropped out of therapy almost immediately. Two other subjects relocated some distance from Newcastle within weeks of starting CT and were unable to participate any further. During the 6 months post-CT follow-up phase, two other subjects dropped out of the study. One other subject who had received the designated course of CT was deemed to be so severely depressed that we removed protocol constraints and provided further CT. (Sadly, this individual later committed suicide.)

### Change in symptoms and functioning during and after CT

From the original sample of 42 subjects, we had data on 29 subjects who completed a pre-CT and a 6-month (immediate post-CT) assessment and data on 25 subjects who also completed a final 12-month assessment (6 months after finishing CT). There were statistically significant reductions in symptoms and improvements in functioning immediately after CT compared with the pre-CT ratings (GAF $t = 3{\cdot}1$, df 28, $P = 0{\cdot}01$; WASA $t = -3{\cdot}4$, df 28, $P = 0{\cdot}04$; BDI $t = -5{\cdot}6$, df 28, $P = 0{\cdot}005$; ISS DEP $t = -7{\cdot}8$, df 28, $P = 0{\cdot}001$; ISS ACT $t = -3{\cdot}3$, df 28, $P = 0{\cdot}04$; SCL $t = -4{\cdot}4$, df 28, $P = 0{\cdot}02$). There were also significant differences between pre-CT and final follow-up symptom ratings. Although the gains made during therapy were largely maintained at final follow-up, there was evidence of a slight but non-significant trend for symptoms to increase compared with the immediate post-CT levels.

We assessed the nature and frequency of affective relapses and hospitalizations in the 18 months before starting CT and the 18 months after starting CT (6 months when CT was offered then 1 year follow-up). Nineteen of the 29 subjects had a relapse in the 18 months prior to commencing CT, in 45% of the sample ($N = 13$) this occurred in the 12 months prior to receiving CT (see Table 3). Six had depressive episodes, five manic or mixed episodes and two met criteria for rapid cycling disorders. In the 18 months after starting CT, two subjects (7%) relapsed during the 6-month course of CT (one

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met criteria for a manic episode and one for a mixed episode) and a further 14% ($N = 4$) relapsed in the 12 months after CT had finished (one subject met criteria for mania, one for hypomania, one for a mixed state and one depression). To analyse changes in mental state over time, subjects were categorized as experiencing a relapse, experiencing a persistent affective episode, or as not meeting diagnostic criteria for an affective episode.

There were statistically significant changes in mental state over time ($\chi^2 = 6{\cdot}4$; df 9; $P = 0{\cdot}04$), with fewer subjects meeting criteria for relapse or persistent illness after CT compared to before CT and more subjects are classified as euthymic (or not meeting criteria for an affective episode). Hospitalization rates were slightly lower than reported relapse rates, being 38% in the year prior to CT, 0% during the 6 months of CT and 7% in the year after CT. The difference between relapse and hospitalization rates appeared to be due to fewer people with depressive episodes being admitted to in-patient units.

### Patient views of CT

Five subjects out of 33 (15%) who commenced CT actually dropped out of therapy. Unfortunately, no formal feedback was available from these individuals. Most of the other 29 subjects missed some of the scheduled appointments and the median number of sessions attended was 14 (out of a maximum of 25). Of these participants, 26 viewed CT as a highly acceptable form of therapy (90% of 29 CT participants; 70% of the sample of 33 who started CT). Twenty-three subjects said they would recommend CT to another person with BP. On self-assessment, medication non-adherence rates fell from 48% (14 out of 29 ) to 21% ($N = 6$).

## DISCUSSION

This study is one of the first to assess the benefits of CT for people with BP. To maximize patient participation and to increase the data available from a small scale pilot study, we chose a trial design that offered all subjects the opportunity to receive CT at some point. The RCT allowed assessment of the effects of CT as compared to treatment as usual over a 6-month period. The offer of CT to the control group after a 6-month delay then allowed an assessment of any changes in symptoms and functioning or relapse and hospitalization rates over a longer time period in a cohort of 29 of the original sample of 42 subjects.

The results of the RCT suggest that, compared with subjects receiving treatment as usual, those who received additional CT experienced statistically significant improvements in global functioning and in some, but not all of their reported symptoms. It is noteworthy that, in the CT group, reductions in depressive symptoms were more convincing than reductions in manic symptoms. Data from the cohort study confirmed that changes in symptoms and functioning immediately after receiving CT were statistically significant. However, these improvements were not fully maintained in the 6 months after CT finished. Data collected over a longer period on changes in relapse and admission rates were encouraging, with about 60% fewer relapses in the 18 months after receiving CT as compared with the 18 months prior to receiving CT. Hospitalization rates showed parallel reductions. These findings should be interpreted with caution given that prior and recent experience of a BP episodes will also influence the likelihood of relapse.

The results of our study are comparable with the other published RCTs. Like Cochran (1984) we noted improvements in medication adherence and reductions in hospital admissions. The largest study so far ($N = 69$) was undertaken by Perry *et al*. (1999). They used a brief intervention (7–12 sessions) that aimed to help people identify early warning signs of relapse, and to develop an action plan with their usual treatment providers. The study demonstrated significantly increased time between illness episodes and reduced lengths of hospitalization for mania for those receiving the experimental intervention as compared with control subjects. However, this difference was not replicated for depression. The differential effects of the intervention on mania (relapses fell from 57% to 27%) as compared with depression (relapses increased from 37% to 55%) may be a result of the comparative difficulty of designing an appropriate intervention for bipolar depression where the use of conventional antidepressant regimes may be hampered by the risk of precipitating a manic swing. As such, the finding in our study that CT has a significant effect on depressive symptoms

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suggests that CT may be particularly useful for bipolar depression. The impact of CT on manic symptoms was less marked, but there was a trend toward fewer manic relapses. These findings are compatible with the hypothesis that CT in BP teaches patients how to manage early warning signs (so preventing escalation into a full scale relapse) rather than always being able to prevent the occurrence of prodronal symptoms of mania.

The findings reported in this study do not offer conclusive support for the above hypotheses. The small sample and restricted follow-up assessments increase the risk of type I and type II errors and reduce the impact of the findings. Although these limitations were partly dictated by practical issues relating to the research funding available and time constraints for completion of the project, these methodological weaknesses create potential problems. The 6-month interval between assessments does not adequately capture the fluctuations in individual symptoms and functioning that were frequently observed by the therapists offering CT. The occurrence of a suicide during the course of the study, albeit in someone with a severe mental disorder, cannot be ignored. This, plus the slight deterioration in symptoms and functioning 6 months after finishing CT, leaves some questions about the overall benefit of CT. It may indicate that a more extensive course of therapy is required or that CT is only useful for BP if maintenance sessions are provided.

The use of patient recall and retrospective analysis of case note information to identify relapses and admissions may have led to inaccuracies. We did not view these data as sufficiently reliable to allow accurate assessment of date or length of relapses and so we were not able to undertake more sophisticated analyses such as survival analysis. Such approaches will be needed in the future if we are to undertake a comprehensive assessment of the cost *versus* benefits of providing CT to a new patient population.

A major goal of this preliminary study was to assess the feasibility and acceptability of CT for people with BP in addition to treatment as usual. The evidence suggests that CT is feasible, but the multiple problems presented by this sample (e.g. co-morbidity) mean that this is not appropriate clinical territory for novice therapists. Furthermore, the intervention needs to be modified to meet the needs of this heterogeneous patient population. It is not possible to follow a fixed format with all subjects. People who present in a hypomanic state need immediate help in applying behavioural strategies to reduce symptoms and prevent ill-judged behaviours. Subjects who are euthymic may be able to begin with the more usual agenda of identifying problems and targets for therapy. However, individuals with BP may take longer to engage with CT than individuals with unipolar disorders, as the former group often wish to avoid discussing previous manic or depressive episodes.

Although dropout rates from CT were relatively high, they were comparable with other published CT studies of affective disorders and schizophrenia. However, it appears that subjects with BP attended a lower proportion of CT sessions (about 60% of those offered) than reported in studies of unipolar depressions. This phenomenon may be a consequence of more men being included in BP samples, as Thase *et al.* (1994) reported lower therapy attendence rates in males as compared with females. Equally, it may reflect the greater chaos in the lives of people with BP and/or their greater ambivalence about CT. On a more positive note, 26 out of the total sample of 42 subjects reported CT was highly acceptable. Furthermore, 85% of subjects who commenced CT said they would recommend it to another individual with BP.

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