Sense of hyper-positive self and response to cognitive therapy in bipolar disorder

DOMINIC LAM*, KIM WRIGHT AND PK SHAM
Institute of Psychiatry, London, UK

ABSTRACT

Introduction. Cognitive therapy (CT) for bipolar disorder emphasizes the monitoring and regulation of mood, thoughts and behaviour. The Sense of Hyper-Positive Self Scale (SHPSS) measures the extent to which bipolar patients value themselves and perceive themselves to possess personal attributes (e.g. dynamism, persuasiveness and productiveness) associated with a state of being 'mildly high', which does not reach the severity of clinical hypomania. It is hypothesized that patients who score highly on the SHPSS do not respond well to cognitive therapy.

Method. One hundred and three bipolar-I patients were randomized into CT and control groups. The SHPSS was administered at baseline and at a 6-month follow-up.

Result. The SHPSS had good test-retest reliability after 6 months. At baseline, the Goal-Attainment Dysfunctional Attitudes contributed significantly to the SHPSS scores after the mood measures were controlled for in a regression analysis. There was a significant interaction between baseline SHPSS scores and group allocation in predicting relapse during therapy. Patients who scored highly on the SHPSS had a significantly increased chance of relapse after controlling for mood scores, levels of social functioning at recruitment, and the previous number of bipolar episodes.

Conclusion. Not all patients benefited from CT. For patients with high SHPSS scores, CT was less efficacious. The results also indicate that future studies could evaluate targeting these attributes and dysfunctional beliefs with intensive cognitive behavioural techniques.

INTRODUCTION

Despite the use of mood stabilizers, bipolar disorder still runs a course of high frequency of relapses (Prien & Potter, 1990; Solomon et al. 1995; Moncrieff, 1995; Goodwin, 2002). New antipsychotics such as clozapine and olanzapine need more research as the adverse side-effects associated with these antipsychotics may outweigh the benefits (Kusumakar, 2002).

Psychotherapies specifically designed for bipolar disorder have been sparse but emerging, particularly in the last 5 years. These include cognitive therapy (CT) to increase medication compliance (Cochran, 1984), family-focused treatment (Miklowitz et al. 2000), interpersonal and social rhythm therapy (Frank, 1999), teaching patients to identify prodromes and seek medical help early (Perry et al. 1998) and the two small CT pilot studies (Lam et al. 2000; Scott et al. 2001).

Lam et al. (2003) reported a randomized controlled study of CT for bipolar disorder. One hundred and three DSM-IV (APA, 1994) bipolar-I patients suffering from frequent relapses were randomized into CT or control groups. The CT group received CT adapted for bipolar illness (Lam et al. 1999) as well as mood stabilizers. Therapy consisted of a relapse prevention approach and lasted 6 months. In addition to standard CT for depression (Beck et al. 1979), the relapse prevention approach also
emphasized the use of cognitive behavioural skills to monitor mood and to modify behaviour in order to prevent prodromal stages from developing into full-blown episodes. The importance of sleep and routine was emphasized to avoid sleeplessness triggering a manic episode and therapists targeted unrealistic, high-striving goal-attainment cognitions. Both promoting a good daily routine and the detection of and coping with prodromes involve monitoring and regulating. Therapists aim to teach patients techniques for monitoring, examining and changing their dysfunctional thinking and behaviour. CT produced significant and beneficial effects.

However, clinically it is observed that a proportion of bipolar patients like being in a state of constant high arousal, positive mood and being behaviourally active. This state of mild 'high', though not reaching the severity of clinical hypomania, often leads to chaotic routine and highly driven behaviour (Lam et al. 1999). Furthermore, such patients perceive themselves to possess the personal attributes associated with being mildly high and value these attributes as desirable. These attributes include being more persuasive, creative, dynamic, entertaining, outgoing, and so on. They often aspire to achieve this 'sense of hyper-positive self'. Hence, this outlook on life is contrary to the relapse prevention goals of regulating mood and behaviour within a narrower range of intensity. It is hypothesized that these patients with high levels of 'sense of hyper-positive self' do not respond well to therapy and will continue to have frequent relapses. These attributes were assessed by the Sense of Hyper-Positive Self Scale (SHPSS) in this study.

Studies have reported that certain high goal-attainment or high achievement striving beliefs are vulnerability factors in bipolar disorder (Rosenfarb et al. 1998; Lozano & Johnson, 2001). Lam et al. (2004) found that euthymic bipolar patients scored significantly higher on the goal-attainment subscale in the Dysfunctional Attitudes Scale (DAS) than euthymic unipolar patients. The DAS high-goal-attainment subscale consists of items such as, 'If I try hard enough I should be able to excel at anything I attempt' and 'I should be happy all the time'. Individuals who believe in their own ability to excel at anything they attempt or their ability to solve problems quickly and effortlessly would value being creative, productive, optimistic and dynamic. Likewise individuals who believe that they should be happy all the time would value the personal attributes of being outgoing and entertaining. It is hypothesized that unrealistic and extreme goal-attainment dysfunctional beliefs contribute to this 'sense of hyper-positive self' independent of current mood measures of both depression and mania.

This paper reports the results of testing these hypotheses in the context of bipolar relapses at the end of 6 months of intense CT for relapse prevention. The full results of the first 12 months of the study are reported elsewhere (Lam et al. 2003).

Hypotheses
(1) Patients who have a high score on the SHPSS would not respond well to a course of relapse prevention CT, which emphasizes the importance of regulating mood and behaviour within a narrower range of intensity.
(2) The extreme goal-attainment dysfunctional beliefs at baseline contribute to the patients' scores on the SHPSS at baseline after the baseline mood scores are controlled for.

METHOD
Inclusion and exclusion criteria
The inclusion criteria were as follows:
(1) DSM-IV Bipolar-I disorder.
(2) Prescribed prophylactic medication at an adequate dose according to the British National Formulary.
(3) Age between 18 and 70 years.
(4) At least two episodes in the last 2 years or three episodes in the last 5 years in order to identify a subgroup vulnerable to relapses.
(5) Currently not fulfilling criteria for a bipolar episode.
(6) Beck Depression Inventory (BDI; Beck et al. 1961) rating of < 30 and Mania Rating Scale (MRS) rating of < 9. Patients currently in an acute episode, defined as fulfilling DSM-IV criteria for major depression or mania, were excluded in order to avoid therapists having to use the majority of therapy sessions to treat an acute episode. Patients' exclusion criteria were: actively suicidal (BDI
Suicide item score of 3) and currently fulfilling criteria for substance use disorders.

Procedure
All patients were receiving out-patient treatment at recruitment. They were either referred by their psychiatrist or contacted directly via a list of patients who had had blood taken for serum levels of mood stabilizers in the last 12 months. After the study had been fully explained, written informed consent was obtained. Patients were interviewed using the Structured Clinical Instrument (SCID) for DSM-IV (First et al. 1996) and the Medical Research Council (MRC) Social Functioning (Hurry et al. 1983).

Two research assistants with a bachelor’s or master’s degree in psychology were trained to use the SCID for DSM-IV diagnosis and MRC Social Functioning ratings. There was 100% agreement for the diagnosis of bipolar disorder and manic and depressed episodes for the first five patients who entered the study. The inter-rater reliability ranged from 0.91 to 0.76 for the different areas of social functioning with the 10 training cases. After the interview, patients filled out the questionnaires, which included the SHPSS and the DAS-24 for bipolar disorder (Lam et al. 2004). The Mill Hill Vocabulary, 1995 edition was also administered on recruitment as an estimate of IQ for the sample.

Patients who fulfilled the study criteria were randomly allocated into the CT group or the control group by using sequentially numbered and sealed opaque envelopes. The allocation sequence was generated prior to the recruitment of patients by a computer program. The control group received ‘minimal psychiatric care’, which was defined as mood stabilizers at a recommended level with regular psychiatric follow-up as outpatients. The CT group received CT plus ‘minimal psychiatric care’. The four therapists in this study were clinical psychologists (three men and one woman) with a minimum of 5 years’ post-qualification experience.

Independent assessors, who were blind to the patients’ group status, assessed patients at 6 months using the SCID to determine relapse status. Relapse was defined as any episode that fulfilled DSM-IV criteria for major depression, mania or hypomania. Hospital admissions and episodes were confirmed by patients’ medical notes. The number of days in bipolar episodes was defined as days during which patients fulfilled DSM-IV criteria for bipolar episodes from the SCID interview. Medication compliance was monitored by questionnaires returned by the patients and every 6 months by key-workers from the psychiatric service that had most contact with the patient.

Measures
Sense of Hyper-Positive Self Scale (SHPSS)
The scale, which was devised for this study, consists of seven adjectives which bipolar patients use to describe the positive attributes they possess when they are in a mildly ‘high’ state. These are: confident, dynamic, adorable, entertaining, outgoing, optimistic and creative. Patients were asked to rate each attribute twice: ‘how well these words describe you most of the time’ and ‘ideally how you would like yourself to be’. Each adjective was rated on a seven-point scale from 1 (not at all) to 7 (extremely). The two anchoring points were labelled in extreme terms to reflect the overvaluing of these personal attributes. A total score was derived by summing up the score of each attribute. A high score on this scale was designed to capture mildly elated (a state of positive mood, high arousal and being behaviourally active, though not clinically hypomanic or manic) bipolar patients who value these attributes associated with mild elation and perceive themselves to possess these attributes.

Mania Rating Scale (MRS: Bech et al. 1978)
This scale consists of 11 items that map into symptoms associated with mania. Each item is rated on a five-point scale (0 = not present; 1 = mild; 2 = moderate; 3 = marked; and 4 = severe or extreme). The total scores are interpreted as: 0–5 = no mania; 6–9 = hypomania (mild); 10–14 = probable mania; 15 or more = definite mania. The scale has good inter-rater reliability and construct validity.

Short version of Dysfunctional Attitude Scale for Bipolar Disorder (DAS: BD; Lam et al. 2004)
This DAS: BD consisted of 24 items. It is derived from a principal component analysis study using 143 bipolar-I patients who filled in a
24-item version of the DAS (Power et al. 1994). Each item was rated on a seven-point scale ranging from ‘totally agree’ through ‘neutral’ to ‘totally disagree’. Three factors were derived: factor 1, ‘Goal-Attainment’, accounted for 25.0% of the total variance; factor 2, ‘Dependency’, accounted for 11.0% of the total variance; factor 3, ‘Achievement’, accounted for 8.2% of the total variance. The scores of euthymic bipolar patients (n=49) were significantly higher than euthymic unipolar patients (n=25) in factor 1 ‘Goal-Attainment’. Goal-attainment also correlated with past hospitalizations due to mania. The Goal-Attainment subscale was thought to capture the highly motivated attitudes described by the Behavioural Activation System Theory and the highly driven attitudes in the cognitive model for bipolar disorder.

Beck Depression Inventory (BDI; Beck et al. 1961)
This is a well-known 21-item inventory designed to measure the severity of depression in adults and adolescents. It enquires into the somatic, cognitive and behavioural aspects of depression in the last week. Each item is scored on a four-point scale.

Medical Research Council Social Performance Schedule (MRC-SPS; Hurry et al. 1983)
This is an observer-rated scale based on a semi-structured interview that provides a quantitative assessment of social performance in the last month. The informant is the patient. The interview is directed towards actual behaviour and performance in each area and is rated on a four-point scale. The schedule covers eight areas of social performance: household management, employment, money management, intimate relationship, childcare, non-intimate relationship, and coping with emergency. An overall score is obtained by totalling the scores.

Medication Compliance Questionnaire (MCQ; Lam et al. 2000)
This is a report of compliance with any prescribed mood stabilizers. Respondents had a choice of noting whether the patient in the past month had: never missed taking their medication, missed taking it once or twice, missed taking it between three and seven times, missed taking it more than seven times, or stopped taking it altogether. This measure provides more detailed information about whether patients have been taking their medication. The questionnaire was sent out monthly to the patient and at 6 months to the clinician, respectively.

Analysis
Logistic regression analysis was used when the dependent variable was categorical, for example to compare the proportions of patients who relapsed in the two groups. Multiple regression analysis was used when the dependent variables were ordinal. Where applicable, adjustments for differences in the relevant measures at baseline were carried out by analysis of co-variance (ANCOVA) or regressions. Hierarchical multiple regression was used to test the main hypothesis about the moderating effect of the SHPSS on therapy. The relevant co-variates were entered first to control for their potentially confounding effects: these included: DAS Goal-Attainment scores; number of past bipolar episodes; MRC Social Functioning scores; MRS total scores and BDI total scores in block 1; group allocation in block 2; and SHPSS in block 3. The interactive effect of group allocation and SHPSS was finally entered in block 4 of the logistic regression to test the main hypotheses. Individual items of the DAS Goal-Attainment subscale were used as independent variables with the SHPSS as the dependent variable in multiple regressions with the baseline BDI and MRS controlled for. Owing to multiple testing, a p value of 0.01 was set as statistically significant in these regressions. All analyses reported in this paper are intention-to-treat analyses. All tests for hypothesized differences were one-tailed. Otherwise all p values were two-tailed.

RESULTS
Patients’ characteristics
A total of 367 potential patients were contacted to take part in the study. Of these, 154 patients refused to take part and 55 were found to be unsuitable after the initial telephone screening. A total of 158 patients were interviewed. Of the patients who were interviewed, the main reasons for non-inclusion were: not enough episodes in the last 5 years, not prescribed any mood
stabilizers, and did not fulfill DSM-IV criteria for bipolar-I. Six patients who fulfilled recruitment criteria declined to participate owing to commitments at work. In the end 103 patients were recruited into the study and randomly allocated into the CT group \((n=51)\) and control group \((n=52)\) respectively. Table 1 summarizes the demographic and clinical features of the CT and control groups. There were no significant differences between the two groups in any of the initial characteristics summarized in Table 1.

Validation of the SHPSS

The sample had a SHPSS total score of 58.0 (s.d. = 10.09), total SHPSS Usual score of 23.9 (s.d. = 7.0) and a total SHPSS Ideal score of 34.1 (s.d. = 5.3). In terms of internal consistency, the Cronbach alphas were 0.83 for SHPSS Total, 0.79 for SHPSS Usual and 0.83 for SHPSS Normal. The number of previous manic episodes correlated significantly with the SHPSS total scores \((Pearson \ r = 0.35, p < 0.01\) two-tailed) and the SHPSS usual scores \((Pearson \ r = 0.30, p < 0.01)\) but not with the SHPSS Ideal scores. In terms of test–retest reliability, the SHPSS scores at baseline and month six correlated significantly in the control group \((Pearson \ r = 0.68, p < 0.001)\). The correlation of the SHPSS scores at baseline and 6 months in the CT group was less significant \((Pearson \ r = 0.34, p = 0.03)\). There were no significant gender differences in the scores \((male = 57.7, s.d. = 10.8; female = 58.3, s.d. = 9.6)\). There was also no significant correlation between age and SHPSS mean scores.

Relationships between the main variables at baseline

Table 2 summarizes the intercorrelations between the scores for SHPSS Total, SHPSS Ideal, SHPSS Usual, BDI, MRS, MRC Social Functioning and DAS Goal-Attainment at baseline. The SHPSS Total scores correlated significantly with the SHPSS Ideal scores \((Pearson \ r = 0.75, p < 0.01\) two-tailed) and SHPSS Usual scores \((Pearson \ r = 0.97, p < 0.01\) two-tailed). The SHPSS Ideal scores and the SHPSS Usual scores correlated significantly with each other \((Pearson \ r = 0.33, p < 0.01\) two-tailed). The BDI scores correlated significantly with the SHPSS Total scores \((Pearson \ r = -0.51, p < 0.01\) two-tailed) and the SHPSS Usual scores \((Pearson \ r = -0.59, p < 0.01\) two-tailed) but not with SHPSS Ideal scores. There were no significant correlations between the MRS scores and any of the SHPSS scores. The MRC Social Functioning scores correlated significantly with the SHPSS total scores \((Pearson \ r = -0.34, p < 0.01\) two-tailed), the SHPSS Usual scores \((Pearson \ r = -0.38, p < 0.01\) two-tailed), and the BDI scores \((Pearson \ r = -0.48, p < 0.01\) two-tailed).

SHPSS and DAS Goal-Attainment scores

A multiple linear regression was carried out with the baseline scores of the DAS Goal-Attainment subscale, BDI and MRS as the independent variables and the SHPSS Total Scores as the dependent variable. In block 1, the BDI and MRS scores were entered. In block 2, the DAS goal attainment subscale was put in. The final model was significant with \(R^2 = 0.33, F = 15.7, df (3, 94), p < 0.01\). After controlling for BDI and MRS, DAS goal attainment contributed...
Table 2. Pearson correlations of the main variables at recruitment

<table>
<thead>
<tr>
<th>SHPSS Total</th>
<th>SHPSS Usual</th>
<th>SHPSS Ideal</th>
<th>MRS</th>
<th>BDI</th>
<th>MRC Social Functioning</th>
<th>DAS Goal-Attainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.87**</td>
<td>0.75**</td>
<td>0.33**</td>
<td>-0.02</td>
<td>-0.51**</td>
<td>-0.34**</td>
<td>0.19</td>
</tr>
<tr>
<td>0.75**</td>
<td>0.67**</td>
<td>0.33**</td>
<td>0.07</td>
<td>-0.59**</td>
<td>-0.38**</td>
<td>0.12</td>
</tr>
<tr>
<td>0.33**</td>
<td>0.33**</td>
<td>0.67**</td>
<td>-0.13</td>
<td>-0.19</td>
<td>-0.16</td>
<td>0.20</td>
</tr>
<tr>
<td>MRS</td>
<td>MRS</td>
<td>MRS</td>
<td>0.06</td>
<td>0.06</td>
<td>0.11</td>
<td>0.10</td>
</tr>
<tr>
<td>BDI</td>
<td>BDI</td>
<td>BDI</td>
<td>0.48**</td>
<td>0.48**</td>
<td>0.48**</td>
<td>0.04</td>
</tr>
<tr>
<td>MRC Social Functioning</td>
<td>MRC Social Functioning</td>
<td>MRC Social Functioning</td>
<td>MRC Social Functioning</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SHPSS, Sense of Hyper-Positive Self Scale; MRS, Mania Rating Scale; BDI, Beck Depression Inventory; MRC, Medical Research Council; DAS, Dysfunctional Attitudes Scale.

** p < 0.01 (two-tailed).

Significantly in the final regression [standardized beta ($\beta$) = 0.27, $t = 3.11$, $p = 0.002$]. To explore the relationship between the DAS and the SHPSS further, the multiple regression analysis was repeated with each individual item of the DAS Goal-Attainment subscale as the independent variable. The two items, which produced significant results, were: 'If I try hard enough I should be able to excel at anything I attempt' ($\beta = 0.33$, $t = 4.00$, $p < 0.000$) and 'I should be happy all the time' ($\beta = 0.27$, $t = 3.20$, $p < 0.002$).

Outcome

Patients in the CT group had an average of 13.9 sessions (s.d. = 5.5). The sample as a whole had a total of 25 bipolar depression and 18 manic/hypomanic episodes in the first 6 months. Thirty per cent (14/47) in the CT group compared with 48% (23/48) in the control group had at least one bipolar episode. After co-varying for the number of previous episodes in the logistic regression, the difference was significant: Wald = 4.0, df = 1, exp($\beta$) = 0.41, $p = 0.02$. In terms of depression, 37.5% (18/48) in the control group compared with 15.0% (7/47) in the therapy group had depressive episodes. The difference was significant after the previous number of depressive episodes was controlled for: Wald = 6.86, df = 1, exp($\beta$) = 0.25, $p = 0.003$. In terms of mania/hypomania, 21.3% (10/47) in the control group compared with 16.6% (8/48) in the therapy group had an episode. However the difference was not significant. The therapy group also had fewer days (mean = 26.2, s.d. = 46.4) when they were in bipolar episodes than did the control group (mean = 59.2, s.d. = 110.1). After co-variation for the number of previous episodes ($F = 12.5$, df = 1, $p = 0.001$, exp($\beta$) = 0.04), the difference remained significant. Fig. 1 summarizes the main outcome data for the two groups.

SHPSS as moderator of response to therapy

Logistic regression was carried out to predict whether patients had bipolar episodes in the 6 months period of therapy using various relevant baseline scores. In block 1, the baseline total scores of BDI, MRS, MRC Social Functioning, DAS High Goal-Attainment, as well as the total number of previous bipolar episodes were entered. In block 2, the allocation of the group was entered. In block 3 the SHPSS at baseline and in block 4 the interaction between the SHPSS total and allocation were entered. For block 1, the value of Cox & Snell $R^2$ was 0.13, $\chi^2 = 13.20$, df = 5, $p < 0.02$. For block 2, the value of Cox & Snell $R^2$ was 0.16, change of $\chi^2 = 3.26$, df = 1, $p < 0.05$. For block 3, the value of Cox & Snell $R^2$ was 0.21, change of $\chi^2 = 5.30$, df = 1, $p < 0.01$. For the final block the value of
Table 3. B, s.e., Wald (df) and exp(B) in the final equation of the logistic regression to predict whether patients had a bipolar episode

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>s.e.</th>
<th>Wald (df)</th>
<th>exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAS Goal-Attainment</td>
<td>-0.06</td>
<td>0.04</td>
<td>2.52</td>
<td>0.94</td>
</tr>
<tr>
<td>Past bipolar episode</td>
<td>0.03</td>
<td>0.04</td>
<td>0.54</td>
<td>1.03</td>
</tr>
<tr>
<td>MRC Social Functioning</td>
<td>0.53</td>
<td>0.49</td>
<td>1.17</td>
<td>1.69</td>
</tr>
<tr>
<td>MRS total*</td>
<td>0.21</td>
<td>0.10</td>
<td>4.67</td>
<td>1.24</td>
</tr>
<tr>
<td>BDI total**</td>
<td>0.11</td>
<td>0.04</td>
<td>7.88</td>
<td>1.13</td>
</tr>
<tr>
<td>Group allocation**</td>
<td>-0.84</td>
<td>0.61</td>
<td>7.43</td>
<td>0.00</td>
</tr>
<tr>
<td>SHPSS total</td>
<td>-0.14</td>
<td>0.09</td>
<td>2.30</td>
<td>0.78</td>
</tr>
<tr>
<td>Group allocation by SHPSS**</td>
<td>0.15</td>
<td>0.06</td>
<td>6.40</td>
<td>1.17</td>
</tr>
</tbody>
</table>

DAS, Dysfunctional Attitudes Scale; MRC, Medical Research Council; MRS, Mania Rating Scale; BDI, Beck Depression Inventory; SHPSS, Sense of Hyper-Positive Self Scale.

Cox & Snell $R^2$ was 0.27, change of $\chi^2 = 7.75$, df = 1, $p<0.01$. The interaction between group allocation and SHPSS was significant at $p<0.01$, indicating that the slopes are indeed different. Repeating the logistic regression for the control group only and the CT group only, respectively, showed that the slope was not significantly different from zero in the control group but significantly positive in the CT group (i.e. higher SHPSS scores were associated with relapse). Table 3 summarizes the details of the final equation of the regression analysis.

In order to visualize the significant interaction between the SHPSS and CT, we used the results from the logistic regression analysis to calculate the predicted risk of bipolar relapse as a function of the SHPSS score for the CT and control groups separately. The predicted risk of a person is calculated by exponentiating the linear function of the group and SHPSS variables as defined by the estimated regression coefficients. The resulting risk curves, shown in Fig. 2, indicate that CT reduces risk among those with low SHPSS scores but has little impact on the risk in the group with high SHPSS scores.

When the SHPSS Total score was replaced by the SHPSS Ideal score or the SHPSS Usual score respectively, the interaction in the regression was less significant for the SHPSS Usual score ($B=0.20$, s.e. $=0.09$, Wald $=4.90$, $p<0.03$), compared with the SHPSS Total score. The SHPSS Ideal score did not produce a significant interaction. When the SHPSS Total score was used to predict manic/hypomanic episodes or depressive episodes respectively, the interaction in the regressions was statistically significant for manic/hypomanic episodes, though less so ($p=0.04$) compared with bipolar episodes as a whole ($p<0.01$), and non-significant for depressive episodes.

**DISCUSSION**

CT had a significant effect in preventing bipolar episodes and the CT group also had significantly fewer days in bipolar episodes. However, not all patients did well with CT. There was a significant interaction between group status and SHPSS in the regression to predict whether or not patients relapsed during the first 6 months. For patients who valued the personal attributes associated with mild hypomania and perceived themselves as possessing these personal attributes normally (the high SHPSS group), CT did not make much difference to the main outcome variables. This finding was not due to other baseline high-risk factors such as mood scores, past bipolar episodes or levels of social functioning. In the regression analyses, which showed a significant group and SHPSS interaction, we controlled for the baseline mood measures, the level of social functioning and the mean number of past bipolar hospital admissions. When the SHPSS Ideal and Usual
scores were used individually to substitute for the SHPSS Total scores in separate regressions, the interactive effect was significant for the SHPSS Usual scores, but not for the SHPSS Ideal scores. However, the SHPSS Total scores produced the strongest effect. These findings rather suggest that it is how patients perceive themselves to possess and value these personal attributes that is important in moderating the effect of CT.

The SHPSS consisted of seven adjectives that bipolar patients use to describe the perceived personal positive attributes when they are in a ‘high’ state. However, the SHPSS does not just relate to a hypomanic state, as there was no significant correlation between the SHPSS total score and the mania symptom rating. The SHPSS is a stable construct and has good internal validity. We chose to investigate the test–retest reliability in the group of patients who did not receive any CT as CT may change this variable. The test–retest reliability over 6 months was high. The SHPSS also correlated with the past number of manic episodes. As hypothesized, the levels of DAS Goal-Attainment scores predicted the SHPSS scores. These last two findings gave the SHPSS some construct validity.

Individual items of the DAS Goal-Attainment were used singly in regression analyses controlling for mood scores to predict SHPSS scores. The individual items that predicted the SHPSS most highly were to do with ‘high striving to excel by trying hard’ and ‘wanting to be happy all the time’. These findings made clinical sense. The belief that ‘one should excel at anything if one puts in enough effort’ can lead to very driven behaviour, which may lead to poor routine and an unbalanced lifestyle. Poor routine and unbalanced lifestyle may lead to dysregulation of circadian rhythm and relapse (Wehr et al. 1987). Individuals who have a strong belief about ‘having to be happy all the time’ may be prone to be ‘depressed about being depressed’, a mechanism for a depressed mood to spiral down to a deeper depression. The results support the notion that bipolar patients who value the personal attributes linked to this state have cognitions relating to extreme goal-attainment.

Our finding is similar to the findings in the collaborative study of treatment for unipolar depression by Sotsky et al. (1991) that low cognitive dysfunction as measured by the DAS predicted superior response to CT in the Treatment for Depression Collaborative Research Project. Jarrett et al. (1991) reported that patients who scored low on learned resourcefulness also did not respond well to CT. These findings rather suggest that for patients to respond to CT, they need to have a natural affinity with the basic ideas within the model to enable them to make use of time-limited, focused therapy. In bipolar disorder, patients who valued these personal attributes in the SHPSS and perceived themselves to possess these attributes normally did not respond well to a course of short-term focused therapy, as outlined in our treatment manual. In our study, CT helped the patients who did not score highly on the variable that reflected their liking for being slightly ‘high’. In a previous paper, we reported the favourable outcomes of CT for bipolar patients (Lam et al. 2003). However, it is also important to identify the characteristics of patients who did not respond well to CT and try to improve the treatment efficacy of individuals with characteristics similar to the non-responders in our study. In this study, we found that patients who did not respond well to CT valued these perceived positive personal attributes described in the SHPSS. Future efforts to improve the efficacy of CT for bipolar patients should include targeting these beliefs more energetically. Traditional collaborative CT techniques at an early stage of therapy such as examining the ‘pros and cons’ of their highly driven beliefs and scheduling less driven behaviour as experiments for experiential learning, and deliberate effort to develop the neglected domains of the individual’s life, may be useful in helping patients with high SHPSS scores.

There are several weaknesses in our study. Sense of Hyper-Positive Self is conceptualized as a moderator, but the issue of whether this effect is causal is not clear. The fact that the effect remains after the adjustment for baseline measures supports the causal relationship, but not conclusively. Secondly, the nature of bipolar disorder is characteristically curvilinear. We did measure mood changes monthly and reported them in our main outcome study. However, it would have been better to have made greater use of the variability of scores over time for the SHPSS measure. Thirdly, there is no normative
data for the SHPSS and it is not known how the SHPSS applies to other mood disorders such as unipolar depression. Lastly, the result that patients with high SHPSS are less responsive to CT cannot be generalized readily to all bipolar patients as our sample was a more treatment-resistant group.

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DECLARATION OF INTEREST

None.

REFERENCES


