Cognitive Analytic Therapy for Borderline Personality Disorder: Therapist Competence and Therapeutic Effectiveness in Routine Practice

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This study sought to examine the competency of cognitive analytic therapy (CAT) delivered under routine care conditions and to identify the effectiveness of CAT for patients with borderline personality disorder (BPD). Ten cognitive analytic therapists in six National Health Service Trust sites treated 19 patients with BPD using the standard CAT BPD contract of 24 sessions plus four follow-ups. The methodology was small N repeated measures design, with patients interviewed at the third follow-up session using the Change Interview. Results indicate a high treatment and follow-up compliance rate (89.47%). Significant reductions in psychological distress, risk and dissociation over the time course of the CAT occurred, with a significant increase in personality integration. Most sessions (92.85%) were delivered in a competent manner. Reductions to psychological distress occurred early in treatment and were sustained, whereas increases in personality integration typically occurred later on in treatment. Patients tended to attribute change to the therapy received. Benchmarking against extant CAT BPD evidence notes a moderate effect size across routine care and trial contexts. The results are discussed in terms of identified methodological shortcomings, clinical implications and the contribution made by the CAT model to the treatment of BPD. Copyright © 2011 John Wiley & Sons, Ltd.

Key Practitioner Message:
- Narrative and diagrammatic reformulation in CAT offers the opportunity for early and effective engagement and potential symptomatic change in patients with BPD.
- It is possible to measure outcomes on a session-by-session manner with patients with BPD.
- Assessing fidelity to the treatment model is useful in practice-based studies.

Keywords: BPD, CAT, Outcome, Small N

Borderline personality disorder (BPD) is a disorder characterized by marked impulsivity, poor affect regulation, chronic interpersonal difficulties and poor self-image (Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition [DSM-IV]; American Psychological Association, 1994). Combinations of such symptoms inevitably create chronic and severe psychosocial impairment (Skodol et al., 2002). The clinical picture of BPD is both multifaceted and still poorly understood (Paris, 2005) but is generally considered to result from the interaction of biological (Torgersen et al., 2000), psychological (Winston, 2000) and social factors (Paris, 1996)—the association with adverse/abusive childhood experiences is a consistent finding (Zanarini, 2000). BPD is present in 1%–2% of the population (Torgersen, Kringlen, & Cramer, 2001), 10% of psychiatric outpatients (Swartz, Blazer, George, & Winfield, 1990) and 20% of inpatients (Widiger & Weissman, 1990). The epidemiological evidence identifies a consistent gender difference with BPD being more common in women than in men, with this differentiation most marked in service setting (Paris, 2005). Patients with BPD present to services at a high risk of self-harm, with 10% of psychiatric outpatients with BPD committing suicide, a rate almost 50% higher than the general population (APA, 2001).

Patients with BPD who are referred or choose to access mental health services are often experienced by clinical staff as burdensome, as they can challenge therapeutic boundaries, become aggressive or over-attached and present with repeated suicide attempts (Gunderson, 2003). The chronic relational problems and restricted interpersonal repertoire that represent a core feature of BPD...
patients’ relationships (Locke, 2000) are often replayed and repeated in their relationships with clinical teams. Staff may subsequently be drawn into responding in ways that have an adverse effect on the course of the disorder (Kellett, Wilbram, & Davis, 2009; Ryle & Kerr, 2002). The CAT model of BPD considers such difficulties to be manifestations of the patient’s typical dysfunctional reciprocal role procedures (Ryle, 1997; Ryle & Kerr, 2002). For example, patients can experience the boundaries set by services as a denial of their wish for ‘perfect care’, and clinical staff can experience the alternating neediness, hostility and frequent self-harm as exhausting and abusive and become abandoning as a result (Kerr, Dent-Brown, & Parry, 2007).

A key feature of the CAT BPD clinical model is that it places emphasis on the early and collaborative reformulation of patients’ core relational problems; process studies have contributed to the development and validation of the model. The accuracy and validity of CAT reformulations was initially demonstrated by Bennett and Parry (1998). This led to the development of an empirical model of CAT practice with patients with BPD through task analysis, in which threats to and ruptures of the therapeutic alliance are resolved by the reciprocal role analysis of the evident maladaptive interpersonal style (Bennett, Parry, & Ryle, 2006; Daly, Llewelyn, McDougall, & Chanen, 2010). Studies of the effectiveness and efficacy of the CAT treatment model with BPD include early practice-based evidence studies such as qualitative case studies (Beard, Marlowe, & Ryle, 1990; Kerr, 1999; Ryle & Beard, 1993), evidence-based randomized controlled trials (RCTs; Chanen et al., 2008, 2009) and field studies of the applicability of the model in routine practice (Ryle & Golynkina, 2000; Wildgoose, Clarke, & Waller, 2001). Chanen et al. (2008) compared the efficacy of CAT with manualized good clinical care as an adjunct to an extant comprehensive service model with 78 adolescents with BPD. CAT was shown to be an efficacious early intervention producing a faster rate of improvement. Both CAT and good clinical care demonstrated good outcomes at 2-year follow-up and were superior to historical treatment as usual (see also Chanen et al., 2009). Ryle and Golynkina (2000) in an uncontrolled group study (n = 27) examined the effectiveness of CAT in routine practice; at 6 months post-therapy, more than half the patients no longer met the BPD diagnostic threshold. Wildgoose et al. (2001) in a case series design (n = 5) of routine CAT practice demonstrated reduced personality fragmentation and BPD intensity. As a result of such accumulated evidence, CAT has been suggested as a potential treatment option for BPD in the BPD National Institute for Health and Clinical Excellence (NICE) guidelines (NICE, 2009).

The BPD NICE guidelines (NICE, 2009) reflect the situation that there is no consistent and methodologically sound evidence to suggest the superiority of a single psychotherapy modality over another for BPD (Bateman & Fonagy, 2000). The RCTs that have been completed with patients with BPD broadly share a number of common methodological deficits, including case identification problems, the use of clearly ineffective control conditions, uncertainty about the specificity and actual delivery of the treatment model and short follow-ups (Bateman & Fonagy, 2000). Some authors are critical of the use of shorter than usual treatment durations (Paris, 2000), but this would seem to pre-judge the effect of treatment duration on outcome. Although the RCT method represents an elegant and compelling method for testing causal relationships and establishing efficacy, its low external validity and broad practical limitations have been noted (Barker, Pistrang, & Elliott, 2002). As a result, supplementing RCT evidence with the greater use of systematic small N studies, which do not require delaying or removing treatments (reversal designs) or aspects of treatments (multiple baseline designs) has been strongly advocated (Elliott et al., 2009).

**Aims of the Present Study**

Despite the clarity of the CAT model of formulation and change with patients with BPD (Ryle, 2004) and the popularity of the CAT approach (Marriott & Kellett, 2009), there are too few studies of the effectiveness of the model in routine practice. The current study is unique in terms of its use of a small N design to examine the responsibility of patients with BPD to CAT under routine clinical care conditions, over the time course of the therapy and the follow-up period. Brodie, Williams, and Owens (1994) champion the small N type designs as clinically useful, as they are easier to draw clinical conclusions from than RCT designs. Breier (1988) noted that the intensive repeated measurement approach of the small N design also offered an insight into the determinants of the course and responsiveness to treatment of complex mental health problems. The current study therefore has the following aims: (1) to describe the delivery of CAT by experienced therapists in routine practice recording uptake, dropout and follow-up completion rates; (2) to assess the effectiveness of CAT for BPD; (3) to observe the shape of change in distress, identity and dissociation in patients with BPD undergoing CAT; (4) to assess fidelity to the treatment model; and (5) to benchmark the outcomes achieved in the current study by comparing effect sizes with extant outcomes of CAT for BPD.

**METHOD**

**Recruitment of Therapists and Patients**

All treatments were carried out by accredited cognitive analytic therapists (n = 10), working in six National Health
Service mental health service Trust sites in UK. All therapists had completed the 2-year CAT practitioner training and therefore had at least 2 years post-qualification experience in a core mental health profession (e.g., clinical psychology, psychiatry, social work) before commencing CAT training. Five of the 10 therapists were qualified to supervisor level. All therapists were required to be in receipt of regular CAT clinical supervision. One therapist treated six patients (S.K.), one therapist treated three patients and one therapist treated two patients (one of whom was lost to follow-up due to emigration); the remaining therapists all treated a single patient. A total of 19 patients were recruited to the study, with a single patient discontinuing CAT after 10 sessions. One patient with multiple psychological and physical problems was offered an extended 40 session CAT contract due to the presence of complex/collusive ongoing care for her physical problems from different health agencies, and therefore, these data were not used in the present study. Three male (mean age = 38.00, SD = 1.73) and 14 female patients (mean age = 28.27, SD = 8.73) constituted the research sample. Therapists were advised not to ‘cherry-pick’ potential patients for the study, but once local ethical approval was granted, to recruit their next available BPD patient to the study. One patient refused to participate in the study. Standard research participation information sheets and consent forms were used to recruit participants. The services involved in the research varied from specialist and tertiary level psychotherapy services to community mental health teams. All services involved were already seeing patients with BPD as a routine aspect of their service delivery.

Detailed biographical information was available on 14 patients; 10 (71.40%) were heterosexual, 5 (35.70%) had no educational qualifications, 8 (57.10%) were unemployed, 7 (50.00%) had been seen in Child and Adolescent Mental Health Services (CAMHS), 13 (92.90%) had a significant history of self-harm and 8 (57.10%) had a history of significant alcohol/drug abuse. As this was a study of routine practice, the establishment of a BPD diagnosis was made according to normal diagnostic practice of participating services. On the basis of the standard screening interview for assessing suitability for CAT and to be suitable for the research, patients had to meet DSM-IV (APA, 1994) BPD criteria and to score 28 or more on the Personality Structure Questionnaire (PSQ; Pollock, Broadbent, Clarke, Dorrian, & Ryle, 2001). Multisite ethical approval was granted by the South Sheffield Research Ethics Committee.

The Cognitive Analytic Therapy Model of Treatment for Borderline Personality Disorder

The theoretical CAT model of BPD—the Multiple Self State Model (MSSM)—was initially developed on the basis of extensive clinical work and repertory grid studies (Ryle, 1997). The MSSM characterizes BPD as a structural dissociation of personality into a small number of distinct ‘self-states,’ each with a characteristic central reciprocal role procedure. Structural dissociation of personality in BPD is seen as a consequence of early abuse or neglect (Ryle, 2004). Subsequent validation studies using the States Description Procedure, lent further support to the MSSM (Bennett & Ryle, 2005; Ryle & Fawkes, 2007). In clinical practice, the narrative and diagrammatic reformulations developed in early CAT sessions reflect the MSSM of BPD. Therefore, cognitive analytic therapists work collaboratively with patients to describe and map the number and range of states and their characteristic role procedures, consider their genesis and identify the triggers that provoke switches between states. Such narrative and diagrammatic reformulations also predict potential threats to the therapeutic alliance (Kellett, 2011) that aid in the frequent rupture–repair sequences that therapeutic work with patients with BPD often dictates (Daly et al., 2010), in the recognition of typical dysfunctional modes of relating and in the promotion of better self-management (Ryle, 2004). Diagrammatic formulations particularly assist therapists in preventing unhelpful reciprocations of the patient’s dysfunctional role procedures (Bennett et al., 2006; Kellett, 2011). Integration of personality structure in BPD is supported by the continued recognition and then exit from problematic states, reducing state switches and by the provision of an active, consistent and non-collusive therapeutic relationship (Ryle, 2004). Established CAT practice in BPD involves working within a pre-determined 24-session time limit, with four follow-up sessions spaced over a 6-month period (Ryle, 2004).

Research Measures

Therapist Competency

The competency of the CAT sessions delivered was assessed using the Competency of Cognitive Analytic Therapy measure (CCAT; Bennett & Parry, 2004). CCAT is a valid and reliable measure of CAT competency across 10 domains and a global score above 20 provides a cut-off for therapist competency for that session (Bennett et al., 2006). Audiotapes of sessions for CCAT analysis were selected according to two criteria: (1) where changes in the outcome measure graphs suggested either sudden improvement or deterioration and (2) on the basis of the patient’s replies and comments on the Helpful Aspects of Therapy measure (Llewelyn, 1988), which was completed following each session. Across the cases, five sessions were then randomly sampled from each therapy (20.88% per therapy) due to differences between the cases in terms of available CCATS. CCATS were available for 7 therapists spanning 14 patients.
**Outcome Measures**

The *Personality Structure Questionnaire* (PSQ; Pollock et al., 2001) is a self-report measure of identity disturbance. Bedford, Davies, and Tibbles (2009) reported a large cross-validation study of the PSQ, noting that the measure was sensitive to treatment effects. The PSQ was completed at screening, at every subsequent fourth therapy session and at every follow-up session.

The *Dissociative Experiences Scale* (DES; Bernstein & Putnam, 1986) is a self-report measure of the intensity of current dissociative symptoms and has been subject to meta-reliability and validity checks (van Ijzendoorn & Schuengel, 1996). The DES was completed at the screening appointment, at every fourth therapy session and at every follow-up session.

Clinical Outcomes in Routine Evaluation—Outcome Measure (CORE-OM; Evans et al., 2002) measures general psychological distress, with risk measured on a subscale. It has been demonstrated to have good concurrent and discriminant validity (Connell et al., 2007). The CORE-OM has sound internal and test–retest reliabilities (Evans et al., 2002) and is sensitive to psychotherapeutic change (Connell et al., 2007). The CORE-OM was completed at screening, before each CAT session and at every follow-up session.

The Borderline Index of Severity (Ryle & Golynkina, 2000) is an index that measures the severity and impact of the nine defining characteristics of BPD (DSM-IV; APA, 1994) and has been shown to have high inter-rater reliability (Ryle & Golynkina, 2000). This measure was completed by an assessor at initial screening appointments and repeated by a researcher after the third follow-up session.

The Change Interview

A researcher carried out the qualitative Change Interview (Elliott, Slatick, & Urman, 2001) immediately following the third follow-up session. The interview essentially involves engaging the patient in a skeptical enquiry of the degree and origin of change (Elliott, 2002). Outcome graphs of CORE-OM, DES and PSQ scores were available for the interviewer to stimulate reflections on change by the patient. Audiotapes of each interview were then rated by two separate researchers who had not completed the research interview and who were blind to the outcome of the case. Ratings were made of (1) the degree of change reported (Likert scale ranging from 1 ‘definite overall improvement’ to 5 ‘considerably worse’) and (2) of the attribution for change to the therapy (Likert scale ranging from 1 ‘change would not have occurred without therapy’ to 5 ‘no effect of therapy’). Change interviews were available for 12 (70.58%) of the 17 patients in the study. Intraclass correlation coefficients (Field, 2005) of 0.90 (95% confidence interval = 0.77–1.00) noted the excellent inter-rater reliability for both ratings of the degree and attribution of change.

Benchmarking, Effect Size and Recovery Rate Calculations

Comparison studies for benchmarking were required to (a) be composed of patients with a primary diagnosis of BPD; (b) for the CAT to have been delivered in a one-to-one format; (c) to have used a validated and reliable outcome measure pre-therapy and post-therapy; and finally, (d) to have reported mean and SDs of the outcome measure at pre-therapy and post-therapy. Three comparisons were available following an electronic search strategy of the standard bibliographic databases: one evidence-based practice study (Chanen et al., 2008) and two practice-based evidence studies (Ryle & Golynkina, 2000; Wildgoose et al., 2001). A measure of uncontrolled effect size was calculated by dividing the mean change score achieved pre/post-CAT by the mean pre-CAT SD (Barkham, Gilbert, Connell, Marshall, & Twigg, 2005; Westbrook & Kirk, 2005). Cohen (1988) divided the evaluation of effect sizes into three parts, so that sizes 0.20, 0.50 and 0.80 are labelled as slight, moderate and strong effects, respectively. The pre/post-CORE-OM scores were also used to define the following categories of change for the present study (Barkham et al., 2005): (a) recovery, a five-point reliable reduction in the CORE-OM and a shift from a clinical to non-clinical range; (b) improvement, a five-point reliable reduction in the CORE-OM score whilst remaining in a clinical score range; (c) stasis, a change of four points in either direction; and (d) deteriorated, a five-point reliable increase in CORE-OM scores.

**RESULTS**

Of the 19 patients who started treatment, 17 (89.47%) completed full CAT treatment and follow-up. Table 1 contains the results for the measure of competency of the CAT delivered and shows that six (85.71%) of the seven therapists routinely delivered competent CAT. The overall session CCAT mean was 34.35 (SD = 6.39). From the 70 sessions sampled, 65 (92.85%) met the CCAT criteria (CCAT ≥ 20) for competently delivered CAT. The six cognitive analytic therapists’ scoring over 20 on the CCAT showed highly consistent and competent levels of CAT delivery, with a mean score of 35.90 (SD = 2.79).

Table 2 contains the means, SDs and effect sizes on the measures for pre-treatment (session 1) to post-treatment (session 24) data. Large effect sizes were apparent for reduced borderline severity, as measured using the index of severity, and for increased personality integration, as measured using the PSQ. The smallest effect size was for dissociative symptoms, as measured using the DES. At
start of treatment, 14 patients (82.35%) were in the moderately severe or severe CORE-OM psychological distress category. The calculation of rates of clinically significant change on the CORE-OM takes into account the reliability of the measure, based on normative data from clinical and non-clinical samples (Matthey, 2004). This enabled patients to be categorized as 'recovered', 'improved but still in the distressed range', 'stasis' or 'deteriorated'. With these CORE-OM outcome criteria, three patients (17.64%) ‘recovered’, four ‘improved’ (23.52%), nine remained ‘in stasis’ (52.94%) and one ‘deteriorated’ (5.88%). Therefore, 41.16% of the total sample benefitted symptomatically from receiving CAT. Final treatment session CORE-OM scores noted that four patients (23.52%) scored in the sub-clinical range on the measure at end of treatment.

The session-by-session scores for the CORE-OM, DES and PSQ over the time course of the CAT are presented in Figure 1. There was a significant trend over the course of the sessions of reduced psychological distress, $F(1,26) = 28.56, p < 0.001$, and reduced risk, $F(1,27) = 9.20, p < 0.005$, as measured using the CORE-OM, reduced dissociation as measured using the DES, $F(1,12) = 30.11, p < 0.001$, and increased personality integration as measured using the PSQ, $F(1,12) = 9.67, p < 0.01$. Mean scores on the PSQ early in treatment were above the clinical BPD mean (Pollock et al., 2001) and fell later in treatment (post-session 19) to below the clinical mean. Comparisons between treatment and follow-up phase scores showed that the patients receiving CAT continued to experience reducing psychological distress ($t = 3.32, p < 0.05$) and dissociation ($t = 4.77, p < 0.001$) over the follow-up period but that no further significant personality integration ($t = 2.26, p = \text{ns}$) or reduction to risk ($t = 0.63, p = \text{ns}$) took place.

Averaged across the sample, the outcome measures display a trend of gradually reducing psychological distress, dissociation and identity disturbance over the time course of the therapy. Early CAT sessions (session 1–4) appeared particularly effective in reducing psychological distress as measured using the CORE-OM, whereas movements towards identity stabilization appear to take place later on in CAT. There was an increase in dissociative symptoms between screening and start of therapy, with symptoms of dissociation subsequently reducing over the time course of the CAT—the sample was below the BPD mean for dissociation throughout the time course of the study. Ratings of the change interviews recorded a change mean of 1.54 (SD = 0.77) indicating that change had taken place, with an attribution to therapy mean of 1.62 (SD = 1.13) indicating that patients felt that the CAT provided was the main reason for the changes experienced.

Table 1. Model fidelity for CAT in routine practice with BPD patients

<table>
<thead>
<tr>
<th>Therapist</th>
<th>Patient</th>
<th>Session and CCAT score</th>
<th>Mean (SD) CCAT score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>4 5 11 16 17</td>
<td>37.60 (2.3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>34 38 37 39 40</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>3 11 15 17 23</td>
<td>35.20 (2.48)</td>
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<tr>
<td></td>
<td></td>
<td>37 36 31 35</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>4 10 17 19 21</td>
<td>36.80 (1.30)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>38 36 38 37 35</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>4 8 16 19 20</td>
<td>34.80 (2.94)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>35 29 32 36</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>1 3 7 8 10</td>
<td>39.60 (0.54)</td>
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<td></td>
<td></td>
<td>39 40 39 40</td>
<td></td>
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<tr>
<td>6</td>
<td>6</td>
<td>5 8 13 14 17</td>
<td>14.20 (6.68)</td>
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<tr>
<td></td>
<td></td>
<td>22 21 9 9 10</td>
<td></td>
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<tr>
<td>7</td>
<td>7</td>
<td>1 3 18 23</td>
<td>30.20 (7.98)</td>
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<tr>
<td></td>
<td></td>
<td>25 19 33 33</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>3 7 13 16 22</td>
<td>31.20 (5.89)</td>
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<tr>
<td></td>
<td></td>
<td>25 34 34 36</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>4 10 16 23</td>
<td>38.40 (1.81)</td>
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<tr>
<td></td>
<td></td>
<td>39 37 40 40</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>1 16 17 20</td>
<td>34.00 (2.00)</td>
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<tr>
<td></td>
<td></td>
<td>32 33 35 33</td>
<td></td>
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<td>11</td>
<td>11</td>
<td>3 13 19 21</td>
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<td>37.20 (2.28)</td>
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<td>34 36 38 38</td>
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<td>3 11 20 22</td>
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<td>36 38 38 40</td>
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<td>14</td>
<td>14</td>
<td>6 11 13 20</td>
<td>35.80 (1.30)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 38 35 35</td>
<td></td>
</tr>
</tbody>
</table>

All therapists All patients (1–7) (1–14)

34.35 (6.39)

CCAT, Competency of Cognitive Analytic Therapy.

Table 2. Pre- to post-treatment outcome scores

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Pre-treatment mean (SD)</th>
<th>Post-treatment mean (SD)</th>
<th>Effect size (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borderline Severity Index</td>
<td>50.00 (25.56)</td>
<td>25.56 (14.40)</td>
<td>0.96 (CI, 0.19 to 1.93)</td>
</tr>
<tr>
<td>CORE-OM</td>
<td>25.83 (8.48)</td>
<td>19.18 (10.84)</td>
<td>0.78 (CI, –0.11 to 1.41)</td>
</tr>
<tr>
<td>CORE-RISK</td>
<td>1.82 (1.30)</td>
<td>0.92 (0.85)</td>
<td>0.69 (CI, –0.01 to 1.52)</td>
</tr>
<tr>
<td>Dissociative Experiences Scale</td>
<td>35.98 (18.18)</td>
<td>33.31 (17.16)</td>
<td>0.15 (CI, –0.58 to 1.04)</td>
</tr>
<tr>
<td>Personality Structure Questionnaire</td>
<td>33.58 (5.30)</td>
<td>24.82 (6.22)</td>
<td>1.65 (CI, 0.62 to 2.28)</td>
</tr>
</tbody>
</table>

CORE-OM, Clinical Outcomes in Routine Evaluation—Outcome Measure.

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The benchmarking results for the current study and the three extant CAT BPD outcome studies are presented in Table 3. Within-treatment effect sizes ranged from 0.65 to 0.96, suggesting a range from moderate to strong effect sizes for CAT with BPD. The effect sizes achieved under routine practice conditions are similar to the effect sizes achieved under trial conditions, with mean effect size across CAT BPD studies of 0.79 (SD = 0.12).

**DISCUSSION**

The results suggest that 24 sessions of CAT for patients with BPD can be clinically effective under routine care conditions by reducing psychological distress, dissociation, personality disturbance, borderline severity and risk. CAT is considerably briefer than other psychological approaches recommended for BPD (NICE, 2009). This suggests that an economic analysis of the cost-effectiveness of the various psychotherapies delivered in routine UK practice for BPD is overdue. More than a third of the sample benefitted symptomatically from CAT on a case-by-case CORE-OM recovery rate basis, and the largest effect size was recorded for reduced borderline severity. The low ‘dropout’ rate observed (10.53%) in the current research suggests that CAT is an accessible and acceptable form of psychotherapy for patients with BPD. The effectiveness study conducted by Ryle and Golynkina (2000) also noted a low dropout rate for CAT with patients with BPD. This dropout rate is low compared with the rates reported for schema-focused therapy (27%; Giesen-Bloo et al., 2006), psychodynamic psychotherapy (36%; Smith, Koenigsberg, Yeomans, Clarkin, & Selzer, 1995) and transference-focused psychotherapy (50%; Giesen-Bloo et al., 2006). High dropout rates are also common in the pharmacotherapy of BPD (Raj, 2007). Cowmeadow (1994)

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**Figure 1. Clinical Outcomes in Routine Evaluation—Outcome Measure (CORE-OM), Dissociative Experiences Scale (DES) and Personality Structure Questionnaire (PSQ) over the screening, treatment and follow-up sessions**

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**Table 3. Benchmarks for CAT with BPD**

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Data source and design</th>
<th>No. of patients completing therapy</th>
<th>Pre-treatment mean (SD)</th>
<th>Post-treatment mean (SD)</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPD</td>
<td>Current dataaSmall N design</td>
<td>17</td>
<td>25.83 (8.48)</td>
<td>19.18 (10.84)</td>
<td>0.78</td>
</tr>
<tr>
<td>BPD</td>
<td>Ryle &amp; Golynkina (2000)bProspective cohort design</td>
<td>27</td>
<td>1.92 (0.79)</td>
<td>1.41 (0.93)</td>
<td>0.65</td>
</tr>
<tr>
<td>BPD</td>
<td>Chanen et al. (2008)cRandomized controlled trial</td>
<td>41</td>
<td>1.03 (0.35)</td>
<td>0.75 (0.51)</td>
<td>0.80</td>
</tr>
<tr>
<td>BPD</td>
<td>Wildgoose et al. (2001)dCase series</td>
<td>5</td>
<td>2.29 (0.57)</td>
<td>1.74 (0.90)</td>
<td>0.96</td>
</tr>
</tbody>
</table>

*BPD, borderline personality disorder.

aClinical Outcomes in Routine Evaluation—Outcome Measure.
bSymptom Checklist 90-Revised.
cSocial and Occupational Functioning Assessment Scale Internalizing Scale.

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suggested that the rapid engagement of patients consequent upon the initial joint reformulation in CAT was a key method for reducing premature termination in BPD, with the present study supporting this viewpoint.

It is a major strength of the current study that fidelity to the treatment model was assessed (Bond, Evans, Salyers, Williams, & Kim, 2000). Many practice-based outcome studies are based on the dubious assumption that what therapists felt they delivered was actually what was delivered. The measure of CAT competency (CCAT) illustrated that in general, therapists adhered to the treatment model (Bennett & Parry, 2004) and were competently delivering CAT with their patients with BPD. One therapist accounted for most of the sessions not meeting the CCAT competency cut-off. As this therapist only submitted a single case, it was impossible to ascertain whether this was a competency problem limited to a particular patient, or whether the therapist was generally incompetent in terms of delivering CAT. It is worth noting that the outcome for case delivered with incompetent CAT was a ‘stasis’ outcome on the pre/post-CORE-OM. High levels of fidelity to the treatment model were displayed by the other cognitive analytic therapists, despite the recognition that patients with BPD tend to undermine therapists’ ability to perform effectively in psychotherapy sessions (Fonagy & Bateman, 2006). Individual patient trauma histories and the severity, chronicity and complexity of current psychological problems that the diagnosis of BPD indicates, all act as moderators of responsivity to treatment (Davidson & Scott, 2009). Although RCTs demand pre-trial training in the use of manualized therapies in the attempt to standardize interventions, this can often obscure variability in competence (Beutler, 2007), and within trial contexts, therapist effects (i.e., systematic differences between the effectiveness of therapists) still exist (Lambert & Baldwin, 2009). For psychotherapy delivered in routine care, there is considerable variability in client outcomes across and within therapists (Wampold & Brown, 2005). When large numbers of client outcomes are nested within therapists, a small number of ‘supershrinks’ and ‘pseudoshrinks’ become evident (Okiishi, Lambert, Nielsen, & Ogles, 2003). The current evidence suggests that CAT competency was fairly stable over the time course of the therapy, if it was stable in the early stages of the therapy. For therapists who completed more than one case, there was evidence that competency was a stable trait of practice across patients with BPD. It is acknowledged that the sampling of only a proportion of the total sessions conducted in terms of fidelity may not have captured all the variability in CAT competency that may have been apparent.

The data on the time course of the outcome measures illustrated that there was a significant trend for patients with BPD to experience less psychological distress, risk and dissociation and to experience increased personality integration over time during the CAT. The changes recorded in the outcome measures was consistent with the patients’ reports at the follow-up change interview, indicating that change had occurred and that the changes were attributable to the CAT conducted. It is a strength of the current study that in the post-therapy change interview, details of apparent attributions of change to the therapy conducted were examined in a skeptical manner. It is unfortunate that not all patients in the sample completed the change interview, and therefore, the limited sampling may have skewed the change and attribution results. The time course data shed light on the timing of change during CAT for BPD. Although the shape of change within individuals was varied and idiosyncratic, when data across all the patients was summed, it emerged that patients tended to gain rapid symptomatic relief early in CAT and that personality integration occurred during the latter stages. This result qualifies the study conducted by Wildgoose et al. (2001), which also showed personality integration but was restricted to a pre-post observation. It is possible that patients with BPD need to experience an early reduction in distress to engender hope, before facing the more challenging aspects of changing personality attributes.

The benchmarking exercise noted that CAT appears to generally produce moderate effect sizes with patients with BPD, regardless as to whether the CAT was conducted in routine practice or under trial conditions. This would indicate that the effectiveness of CAT for BPD is not an artefact of the trial context. A limitation of the current study is the lack of a contemporaneous alternative treatment or control group, which would have allowed between-treatment effect sizes to be calculated and thus enhance the validity of the findings. This also highlights the need for more CAT BPD outcome research to be conducted, due to the limited number of studies to gain outcome benchmarks from. The comparison of the follow-up data with the treatment data indicated that the patients with BPD continued to make progress in some aspects of their functioning after CAT was completed. Patients reported reduced psychological distress and dissociation over the follow-up compared to treatment, but no further reduced risk or personality integration. This would appear to indicate that the patients were using the CAT tools after treatment was completed and that patients were continuing to practice the methods learnt in therapy (or alternatively were learning new means of managing their distress after the CAT was completed). Further personality change would seem to require the support of on-going therapy. It is acknowledged that the follow-up period of 6 months was short and could have been longer to more effectively assess the long-term effect of the therapy (Levy, 2008). However, this was a study of the CAT model in routine practice, in which 6 months is
the maximum period set for follow-up (Ryle, 2004). It is a matter of debate concerning the offering of extended follow-up in BPD, in that though patients may well feel supported through extended follow-up sessions (such as the CAT BPD model), this may well alternatively be considered blurring and avoidance of a clear ending. Clinically, follow-ups need to be clearly demarcated from treatment sessions in that follow-ups serve the function of reviewing patient progress and revisiting newly acquired skills or coping methods rather than the overly reactive provision of more therapy.

In the current sample, a single patient experienced a clinically significant deterioration in psychological well-being on the pre-post CORE-OM—5.88% of the total sample. The poor outcome case was conducted competently according to the available CCAT evidence, and therefore, the poor outcome was not the result of incompetent CAT. Previous research suggests that a relatively small but nontrivial minority of Axis I patients can deteriorate following psychological intervention, with estimates ranging from 3% to 10% (Evans et al., 2002; Mohr, 1995; Strupp, Hadley, & Gomez-Schwartz, 1977). The deterioration rate for patients with BPD undergoing psychotherapy is unknown, although relapse and deterioration are stated as common phenomena in BPD (Jerschke, Meixner, Richter, & Bohus, 1998). The tendency for outcome studies in BPD to report group means and shifts on outcome measures and to ignore clinical and reliable change at the individual patient level obscures possible and troubling deterioration rates.

There are a number of methodological limitations that limit the internal reliability of the study (Barkham & Parry, 2008). Perhaps the most significant limitation is that BPD was informally diagnosed at screening interviews and no formal diagnostic interviewing was employed, such as the Structured Clinical Interview for DSM-IV (SCID-II; Spitzer, Robert, Gibbon & Williams, 1997). However, the index of borderline severity used in the study does involve systematically scoring the nine DSM-IV (APA, 1994) BPD symptoms for severity and impact on work, well-being and relationships. The use of diagnostic instruments is relatively rare in routine care settings, due to time constraints and lack of training (Marriott & Kellett, 2009). Therapists in the current research had completed practitioner level training in CAT and so had received training on the diagnosis and CAT treatment of BPD and were therefore experienced in the informal diagnosis of BPD. It is possible nevertheless that the patients in the study may not have met the diagnostic threshold on the SCID-II.

In terms of the outcome measure used, only the index of severity and PSQ directly assessed borderline symptoms. It is possible therefore that changes in psychological distress such as those evidenced on the CORE-OM were not indicative of changes in core borderline personality functioning. This is not to underestimate the usefulness of reducing psychological distress in a patient group that experiences chronically high levels of psychological distress (Skodol et al., 2002). The current evidence from the CORE-OM is useful, however, as it has shown that patients may need to experience symptomatic relief, to ensure enough stability for deeper aspects of change to take place. It is acknowledged that the addition of measures such as the Lifetime Parasuicide Count (Bohus et al., 2000) would have been useful in terms of capturing other potential changes to BPD functioning over the time course of the CAT. The ‘riskiness’ of the patients did significantly reduce during treatment according to the risk scale of the CORE-OM. The selection of therapists and patients may have inadvertently introduced bias into the sample. Participation in the project was voluntary and may have been more attractive to cognitive analytic therapists interested in research and secure enough in their own practice to tolerate the taping and analysis of sessions via the CCAT. Similarly, despite patients opting into the research via normal informed consent procedures, this may have attracted only those patients willing to engage with research, particularly as the current project employed a session by session outcome monitoring methodology. It is worth noting that the outcome for the case delivered with incompetent CAT was a ‘stasis’ outcome on the pre-post CORE-OM.

In conclusion, the current small N study demonstrated that CAT was generally conducted in a safe and competent manner in routine practice and achieved change in terms of reduced borderline intensity, reduced psychological distress, increased personality integration and reduced dissociation and risk. Patients generally attributed the changes observed to the CAT conducted. The study supports existing evidence that demonstrates that CAT provides a useful psychotherapy option in the treatment of BPD. Further evaluations of both the efficacy and effectiveness of CAT for BPD and fidelity to the treatment model in both trial and routine settings are nevertheless crucial to expand the nascent CAT BPD evidence base.

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REFERENCES


