

Short report

Transference-focused psychotherapy for borderline personality disorder: change in reflective function

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Summary

Borderline personality disorder is associated with deficits in personality functioning and mentalisation. In a randomised controlled trial 104 people with borderline personality disorder received either transference-focused psychotherapy (TFP) or treatment by experienced community therapists. Among other outcome variables, mentalisation was assessed by means of the Reflective Functioning Scale (RF Scale). Findings revealed only significant improvements in reflective function in the TFP group within 1 year of treatment. The between-group effect was of medium size ($d=0.45$).

Improvements in reflective function were significantly correlated with improvements in personality organisation.

Declaration of interest

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Transference-focused psychotherapy (TFP) is a manualised psychodynamic treatment for borderline personality disorder.¹ The treatment focuses on symptoms and self-destructive behaviour and, in addition, aims to improve personality organisation. This term is used synonymously with psychic structure, which stands for the make-up of an individual's mind, manner of establishing relationships and way of dealing with conflicts. Personality organisation is typically impaired in personality disorders; major parts of the concept of personality organisation have recently been adopted by the alternative DSM-5 model for personality disorders.² The concept of mentalisation covers a specific structural aspect of the personality and is defined as the ability to understand and interpret one's own and others' behaviours as expressions of intentional mental states.³ People with borderline personality disorder typically show an unstable capacity for mentalisation characterised by the re-emergence of prementalistic modes of thinking.³ The concept of mentalisation has been operationalised as reflective function⁴ with a scoring manual for application to the Adult Attachment Interview (AAI).⁵ To date, the efficacy of TFP for borderline personality disorder has been evaluated in three randomised controlled trials (RCTs).^{6–8} Two of these demonstrated its efficacy. A 1-year RCT compared TFP with dialectical behaviour therapy and psychodynamic supportive therapy.⁷ All three groups showed significant change in borderline personality disorder symptomatology, but only the TFP group improved significantly in reflective function and attachment style. Doering *et al*⁸ compared TFP with treatment by experienced community therapists in a 1-year RCT; TFP was more efficacious in the reduction of borderline symptoms, as well as improvement in psychosocial functioning and personality organisation. The aim of the present study was to assess changes in reflective function.

Method

The study design (Clinicaltrials.gov: NCT00714311) has previously been described.⁸ Briefly, female patients with borderline personality disorder, aged 18–45 years, were randomised to either TFP (TFP group) or experienced community therapists (ECP group). Assessments took place at baseline and after 1 year of treatment and included the AAI⁵ for assessment of reflective function⁴ and

the Structured Interview of Personality Organization (STIPO)⁹ for assessment of personality organisation.

The AAI⁵ is a semi-structured interview designed to elicit thoughts, feelings and memories about early attachment experiences. The AAI is transcribed verbatim and scored with the Reflective Functioning Scale (RF Scale),⁴ an 11-point scale that ranges from –1 (negative reflective functioning; totally barren or rejecting of mentalisation) to 9 (exceptional reflective functioning; unusually complex and elaborated reasoning about mental states). Coders were trained at the Anna Freud Centre, London. Coders were completely masked to treatment condition. The two coders coded a subset of each other's transcripts ($n=25$) and showed good interrater reliability ($\kappa=0.79$).

Statistical analysis

Between-group differences in reflective function after 1 year were determined by analysis of covariance (ANCOVA), controlling for individual differences in reflective functioning at baseline. Within-group changes in reflective function were explored using paired *t*-tests. In addition, we explored associations between changes in reflective function and personality organisation by correlating residualised change scores. We applied three strategies of intent-to-treat analyses: observed cases (OC), last observation carried forward (LOCF) and multiple imputation (MI). All analyses were carried out with the statistical platform R (v.3.0.1 for Windows 8), using the package 'mice' for MI.¹⁰

Results

A total of 104 patients were included in the study. However, because of technical problems the baseline audio recordings of 12 participants were lost so we could only assess 92 patients with AAI and RF Scale data at baseline. A further 29 patients dropped out during the first year, leaving 63 patients for the follow-up. Patients' characteristics of the full intent-to treat sample are shown in online Table DS1. No significant group differences occurred with regard to sociodemographic and clinical variables at baseline.

Results of the three data-analytic strategies are shown in online Table DS2. ANCOVAs revealed that, after controlling for

the influence of baseline reflective function, reflective function after 1 year was significantly greater in the TFP group. Depending on the applied strategy, the between-group effect size (Cohen's d) was 0.39 (OC), 0.34 (LOCF), or 0.45 (MI). Paired t -tests indicated that reflective function improved significantly in the TFP group, but not in the ECP group. Finally, changes in reflective function were negatively associated with changes in personality organisation. Depending on the applied strategy, the correlation was $r = -0.29$, $P = 0.029$ (OC), $r = -0.41$, $P < 0.001$ (LOCF) or $r = -0.31$, $P = 0.023$ (MI).

Discussion

We examined changes in reflective function in patients with borderline personality disorder after 1 year of either TFP or treatment with experienced community therapists. Reflective function scores at baseline were about 2.7 with no difference between the two groups. This result confirms previous studies^{7,11} reporting questionable or low mentalising capacity in people with borderline personality disorder. Our findings revealed significant improvements in reflective function in the TFP group, whereas no changes occurred in the ECP group. In the TFP group, scores on the RF Scale improved from 2.75 to 3.31. A score of 1 indicates absent mentalisation, a score of 3 stands for naive/simplistic or overanalytic/hyperactive reflections on mental states and a score of 5 describes the capacity to hold a fairly coherent model of the mind. Thus, exceeding the threshold of 3 represents an important step towards a gradual development of genuine mentalisation. The between-group effect size was 0.45 when applying MI to deal with missing data. This is in line with a former study yielding a significant increase in reflective function only with TFP, but not with dialectical behaviour therapy and psychodynamic supportive therapy.⁷

In our study, patients who improved in reflective function also showed reduced levels of impairment in personality organisation ($r = -0.31$). However, the within-group effect size for the latter was higher ($d = 1.2$) than for reflective function in the TFP group ($d = 0.54$). How can these differences in the effect sizes in personality organisation and reflective function be explained? Although these two measures, as well as changes in these measures, are significantly associated, they do not tap the same construct. Reflective function covers the ability of the individual to understand and interpret one's own and others' behaviours as expressions of various intentional mental states. In contrast, personality organisation is a broader construct, which, in addition to covering aspects of self- and object perception, includes dimensions such as quality of object relations, defences, aggression, coping and moral values. Whereas the investigation of reflective function is placed in the context of attachment narratives, the assessment of personality organisation focuses on the investigation of important domains of personality functioning in the patient's present life. Our study suggests that reflective function is a structural aspect of personality that requires more time to be improved than personality organisation. Based on Kernberg's¹² developmentally based theory of borderline personality disorder, the central mechanisms of change in TFP stem from the integration of polarised affect states and 'split-off' self- and other representations. Focusing on the present therapeutic relationship is a core aspect of TFP technique. Transference interventions are assumed as a major tool in addressing reflective function impairment in order to gradually enable the patient to think more coherently and reflectively.

There were some limitations to our study: the high drop-out rate and the low participation in the follow-up assessment. This

reduces the validity of the results to a certain degree. However, results were quite consistent across three different strategies to deal with missing values. Our study, coupled with the work of Levy *et al*⁷ has shown that TFP is not only efficacious with respect to symptom change but also with regard to improvements in personality organisation and reflective function. Future research should address the complex relationship between borderline personality disorder symptomatology, the specific psychopathology beyond symptoms and the processes of change in long-term psychotherapy.

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