



## UvA-DARE (Digital Academic Repository)

### Addressing the punitive parent mode in schema therapy for borderline personality disorder: Short-term effects of the empty chair technique as compared to cognitive challenging.

van Maarschalkerweerd, F.A.T.; Engelmoer, I.M.; Simon, S.; Arntz, A.

**DOI**

[10.1016/j.jbtep.2021.101678](https://doi.org/10.1016/j.jbtep.2021.101678)

**Publication date**

2021

**Document Version**

Final published version

**Published in**

Journal of Behavior Therapy and Experimental Psychiatry

**License**

Article 25fa Dutch Copyright Act (<https://www.openaccess.nl/en/in-the-netherlands/you-share-we-take-care>)

[Link to publication](#)

**Citation for published version (APA):**

van Maarschalkerweerd, F. A. T., Engelmoer, I. M., Simon, S., & Arntz, A. (2021). Addressing the punitive parent mode in schema therapy for borderline personality disorder: Short-term effects of the empty chair technique as compared to cognitive challenging. *Journal of Behavior Therapy and Experimental Psychiatry*, 73, Article 101678. <https://doi.org/10.1016/j.jbtep.2021.101678>

**General rights**

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

**Disclaimer/Complaints regulations**

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.



## Addressing the punitive parent mode in schema therapy for borderline personality disorder: Short-term effects of the empty chair technique as compared to cognitive challenging.

Frauke A.T. van Maarschalkerweerd<sup>a,\*</sup>, Izabella M. Engelmoer<sup>a</sup>, Sem Simon<sup>b</sup>, Arnoud Arntz<sup>c</sup>

<sup>a</sup> Community Mental Health Center De Viersprong, Amsterdam, the Netherlands

<sup>b</sup> Community Mental Health Center PsyQ, Amsterdam, the Netherlands

<sup>c</sup> Department of Clinical Psychology, University of Amsterdam, Amsterdam, the Netherlands

### ARTICLE INFO

#### Keywords:

Schema therapy  
Empty chair technique  
Cognitive behavioral therapy  
Borderline personality disorder  
Punitive parent mode  
Experiential technique

### ABSTRACT

**Background and objectives:** In Schema Therapy (ST) for Borderline Personality Disorder (BPD) patients the empty chair technique (EC) is often used to diminish the 'punitive parent mode' (PP). The present study is a first attempt to assess whether EC is more effective in reducing the PP than a standard Cognitive Behavioral Therapy technique (CT).

**Methods:** We utilized a counterbalanced, crossover design comparing one EC session to one CT session in twenty patients with a primary BPD diagnosis who had started ST. Before and after each intervention we assessed credibility, power, and valence of the PP-associated core belief and how much power patients felt over this core belief (dominance). Patients also completed a working alliance inventory. An interview was conducted to explore subjective views regarding the interventions.

**Results:** Both techniques reduced power and credibility of the PP-associated core belief and increased dominance. CT reduced credibility more strongly than EC. Still, patients preferred EC as they felt it was better able to elicit feelings during the session and believed it would be more effective than CT when administered repeatedly.

**Limitations:** A complex technique was tested early in treatment and only once, effects might be different later in treatment and when applied repeatedly. Moreover, only short-term effects were assessed in a rather small sample.

**Conclusion:** Both EC and CT help combat the PP in BPD patients, with CT being more effective in reducing credibility after one session. However, patients preferred EC and suggest multiple sessions might be needed to truly elucidate differences between both techniques.

### 1. Introduction

Borderline personality disorder (BPD) is a severe psychiatric disorder that has traditionally been viewed as one of the most difficult psychiatric disorders to treat in psychotherapy (Maier, Lichtermann, Klingler, Heun, & Hallmayer, 1992). The prevalence of BPD ranges from 1% to 3% in the general adult population and is one of the most frequently met personality disorders in mental healthcare (American Psychiatric Association, 2013; Widiger & Trull, 1993; Trull, Tomko, Brown, & Scheiderer, 2010). In the last decades, Schema Therapy (ST) has proven to be a promising treatment for BPD as studies on effectiveness have shown positive outcomes, such as reduction in symptom severity and general psychopathology (Giesen-Bloo et al., 2006; Farrell, Shaw & Webber, 2009;

Nordahl & Nysaeter, 2005; Fassbinder et al., 2016). In addition, cost-effectiveness for ST has been demonstrated (Van Asselt et al., 2008). Unsurprisingly then, ST has increased in popularity as a treatment of BPD. As most studies focus on the overall effect of ST, much is unknown about the effectiveness of specific techniques used. One prominent ST technique, the empty chair technique, is often used when BPD patients have difficulty banishing the so-called 'punitive parent mode' (Arntz & van Genderen, 2020). In ST, the punitive parent mode represents a state of mind in which patients are extremely critical towards themselves, hate themselves, and punish themselves in rigid ways. As the punitive parent mode is thought to prevent healing, it is essential to banish this mode in order to make progress in therapy. The current study is the first attempt to assess whether the empty chair

\* Corresponding author.

E-mail addresses: [f.vanmaarschalkerweerd@ggz-nhn.nl](mailto:f.vanmaarschalkerweerd@ggz-nhn.nl), [fraukevanmaarschalkerweerd@hotmail.com](mailto:fraukevanmaarschalkerweerd@hotmail.com) (F.A.T. van Maarschalkerweerd).

<https://doi.org/10.1016/j.jbtep.2021.101678>

Received 1 January 2021; Received in revised form 23 June 2021; Accepted 17 July 2021

Available online 22 July 2021

0005-7916/© 2021 Elsevier Ltd. All rights reserved.

technique is more effective in reducing the punitive parent mode compared to a standard cognitive-behavioral technique.

ST derives from Cognitive Behavior Therapy (CBT) and was initially developed in the 1980s by Jeffrey Young for patients who did not respond to standard CBT (ST; McGinn & Young, 1996; Young, Klosko, & Weishaar, 2003; Kellogg & Young, 2006). This integrative therapy applies different kinds of techniques based on cognitive behavioral therapy, Gestalt therapy, attachment theory, object-relations theory, and psychoanalytic therapy (Young, 1994; Young, Klosko, & Weishaar, 2003). The theory underlying ST states that during childhood everyone develops schemas, which are defined as broad patterns of information processing, comprising emotions, thoughts, memories, and attention preferences (Fassbinder et al., 2016). When core emotional needs are met in childhood healthy schemas develop, which enable a person to deal with difficult situations in a functional way. However, when these needs are not met maladaptive schemas may develop. To cope with a maladaptive schema, patients are thought to adopt three coping styles: overcompensation (i.e., doing the opposite of the schema), avoidance (i.e., avoid experiences that trigger the schema), and surrender (i.e., giving in to the schema; van Genderen, Rijkeboer, & Arntz, 2012; Young et al., 2003). A BPD patient may use more than one coping style to handle the schema and can have multiple schemas, leading to an overwhelming complexity for the therapist. To reduce this complexity and to explain the rapid changes in emotions, cognition, and behaviors in BPD patients, Young et al. (2003) introduced the schema mode model. A schema mode is a combination of activated schemas and a coping style. As patients can have different coping styles for one schema, schema modes are transient, while a schema is enduring (Fassbinder et al., 2016). There are five central schema modes in BPD: 1) the abandoned and abused child, 2) the angry and impulsive child, 3) the detached protector, 4) the punitive parent, 5) the healthy adult mode (which is usually very weak in BPD patients). Patients with BPD are characterized by a powerful punitive parent mode (Nysaeter & Nordahl, 2008). This mode reflects internalized punitive beliefs about the self, which the patient has acquired in childhood due to the behavior and reactions of significant others (Arntz & Weertman, 1999). Within ST, it is thought the punitive parent mode harms the abandoned and abused child and prevents it from healing. Reducing the strength of punitive parent mode is mainly done using experiential techniques.

Experiential techniques focus on eliciting emotions and take an important position in ST, especially in the early and middle phases of treatment. One of these techniques, the empty chair technique, is often used when BPD patients have difficulty banishing the punitive parent mode (Arntz & van Genderen, 2020). The therapist or the patient challenge internalized punitive core beliefs by symbolically placing the mode on an empty chair and combating it verbally, and even moving the empty chair out of the room when punitive messages do not stop. With this technique, practitioners aim to reduce the dominance of the mode and to help patients take distance from the mode, i.e., to de-identify from it. It is theorized such experiential techniques are more effective compared to cognitive techniques because they are better able to elicit emotions, which is required to modify the 'hot' implicational meaning subsystem (Epstein, 1998; Samoilov & Goldfried, 2000; Teasdale, 1997). Cognitive techniques, such as cognitive restructuring, in contrast, are thought to lead to changes at an intellectual level rather than at a deeper, emotional level (Samoilov & Goldfried, 2000).

Kellogg (2004) argues that the use of chair techniques such as the empty chair technique are effective in eliciting emotion because boundaries of logic or reality do not constrain them. This makes it possible to, for example, confront the punitive parent, which consequently creates exposure to distressing affective states and facilitates emotional processing (Foa & Kozak, 1986; Hunt, Schloss, Moonat, Poulos, & Wieland, 2007). Still, little empirical knowledge exists about the effectiveness of chairwork compared to traditional CBT techniques while both are applied in ST.

As the punitive parent mode is strong in BPD patients and impedes

their recovery, we aim to investigate whether the empty chair technique is indeed more effective in banishing the punitive parent mode as compared to a standard CBT technique. We predict the empty chair technique to reduce the strength of the patients' punitive core belief reflecting the punitive parent mode, and a reduction in the power of the punitive parent mode. In addition, we expect a reduction in these punitive core beliefs, not only on a cognitive but also on an affective level. By contrast, we predict that challenging the punitive core belief by a standard CBT technique (compared to the empty chair technique) will not be as beneficial in changing the feelings toward the punitive parent mode and related punitive core belief. In addition to effects on punitive core belief, we explored how both techniques influence the therapeutic alliance as experienced by patients. Lastly, we interviewed patients to evaluate their experiences with both techniques, which could help optimize therapy to the needs of patients. We believe this study is an important first step to test the theory underlying experiential techniques in ST.

## 2. Methods

### 2.1. Participants

BPD patients of the Community Mental Health Centers the Viersprong and PsyQ in Amsterdam who were starting ST were asked to participate in this study if they met the following criteria: (1) BPD as defined by the DSM-IV (American Psychiatric Association, 2000), assessed with the SCID-II (Structured Clinical Interview for DSM-IV Axis II; First, Spitzer, Gibbon, Williams, & Benjamin (1994)); (2) BPD as primary diagnosis, which was assessed by administration of the SCID-II and the SCID-I (Structured Clinical Interview for DSM-IV Axis I; First, Spitzer, Gibbon, & Williams, 1997) and subsequent multidisciplinary consultation by a team of experienced clinicians and psychiatrists; (3) age between 18 and 65 years; (4) ability to understand, read, write and speak Dutch or English (5) ability (e.g., the patient is able to invest time in therapy and attend sessions) and willingness to enter ST; (6) the participant did not yet undergo any explicit intervention targeting the punitive parent mode. Participants were excluded from this study when they met the following criteria: (1) comorbid psychotic disorder; (2) evidence of organic mental disorders accounting for the complaints; (3) IQ < 80; (4) current Bipolar I Disorder as defined by the DSM-IV; (5) if patients entered ST in the last year.

Initially, we approached 28 eligible patients to participate in the study. Twenty-three participants expressed interest. One patient could not participate due to suicidal behavior; 22 provided informed consent. Two patients withdrew during the exploration period because they did not want the interventions to be tape recorded. The remaining 20 participants (19 women;  $M_{age} = 32.06$  years [range: 22–48]) completed both interventions and all measurements.

The ethical committee of the Faculty of Societal and Behavioral Sciences of the University of Amsterdam approved the study. All participants gave written consent after reading an information brochure.

### 2.2. Design

We used a crossover design to assess whether the empty chair technique (EC) was more effective in reducing the punitive parent mode compared to a standard CBT technique (CT). This within-patient design was chosen for both power reasons and ethical reasons, as it allowed every patient to receive both techniques. Participants completed measures directly before, after, and one week following each session the techniques were administered. Patients took part in one individual and one group ST session each week. No other therapy was offered during this period. A protocol described both interventions and all therapists were trained in applying the protocol (See Appendix C and D). Therapists were blind to the answers of the participants. Both intervention-sessions were audiotaped.

Sample size ( $N = 20$ ) was based on a power analysis with alpha 0.05, power 80%, and a medium to large effect size,  $d = 0.67$ . The power analysis was based on the following reasoning. If, indeed, the EC is a powerful technique, a large effect size (short-term change in dependent variable) was expected ( $d = 1$ ). In contrast, if (in this population) the CT has a weak effect, let's say not more effectiveness than placebo, an effect size of  $d = 0.33$  was expected. The difference,  $d = 0.67$ , was taken for the power analysis. It should be realized that given the lack of empirical data, the study is highly explorative, and that the power analysis therefore indicates what effect size could be detected at a 0.05 significance level with 80 % power, rather than that there was an empirical basis to expect such an effect.

A paired  $t$ -test was used to test differences between the effects of both interventions. Repeated-measures ANOVA was used to test the effects of intervention order.

### 2.3. Assessments

Assessments forms, except the WAI-SR, can be found in the Appendix.

#### 2.3.1. Formulation of core belief associated with the punitive parent mode

This belief was assessed with a semi-structured interview (see Appendix A), which was conducted one session before the intervention sessions. The formulated punitive core belief was written down above every VAS measurement.

#### 2.3.2. Valence of the punitive core belief

Participants were asked to call their punitive core belief to mind. They were then asked to rate how they felt on the 9-point valence scale of the Self-Assessment Manikin (SAM; Bradley & Lang, 1994; see Appendix B). The reliability of the valence scale ranges between  $\alpha = 0.63$  and  $\alpha = 0.82$  (Backs, da Silva, & Han, 2005).

#### 2.3.3. Credibility of the punitive core belief

Participants were asked to rate how much they believed the punitive core belief on a 100 mm VAS (0, "I don't believe this at all"; 100, "I believe this completely"; see Appendix B). For the analyses, we used the average belief strength (0–100). VASs have been found to show moderate-to-good test retest reliability (Krabbe, 2016).

#### 2.3.4. Power of the punitive core belief

To assess the power of punitive core belief, participants were asked to rate how powerful the associated belief felt on a 100 mm VAS (0, "It doesn't feel powerful at all"; 100, "It feels very powerful"; see Appendix B).

#### 2.3.5. Dominance of the punitive core belief

Participants were asked to rate how powerful they felt towards the punitive core belief on the 9-point dominance SAM scale (Bradley & Lang, 1994; see Appendix B). The reliability of the dominance SAM scale was estimated to be  $\alpha = 0.85$  (Rubin, Rubin, Graham, Perse, & Seibold, 2010).

Note that we aimed to assess the strength of the punitive belief on a more cognitive level using the VASs, whereas the two Manikin scales were used to assess the strength on an emotional-experiential level.

#### 2.3.6. Working alliance inventory - short form revised (WAI-SR)

The WAI-SR (Hatcher & Gillaspay, 2006) is a 12-item self-report questionnaire assessing the therapeutic working alliance on a 5-point Likert scale ranging from seldom to always. An example of a question is: "I feel that my therapist appreciates me." A total alliance score as well as scores for three subscales (Goal, Task, Bond) can be obtained using the WAI-SR. The WAI-SR is an abbreviated version of the WAI developed by Horvath and Greenberg (1989). Correlations between the WAI-SR and the WAI range from 0.83 to 0.94 (Hatcher & Gillaspay,

2006). Cronbach's alpha of the WAI ranges between  $\alpha = 0.87$  and  $\alpha = 0.93$  (Horvath & Greenberg, 1989).

#### 2.3.7. Audiotapes

All sessions were audiotaped to rate the therapists' adherence to both techniques. For this purpose, audiotapes were independently rated by one graduate student in clinical psychology and the first author of this article on adherence scales developed for this study. Each session was rated on both scales so differentiation could be assessed and inter-rater reliability scores could be computed. The internal consistency was  $\alpha = 0.91$  for the CT scale and  $\alpha = 0.99$  for the EC scale.

#### 2.3.8. Interview

After both interventions, participants were called by the first author of this article and interviewed about their experience. Questions were asked about their experience of both techniques, whether they experienced any differences regarding the effect of the techniques and whether they had any preference. Thematic analysis of individual interviews was performed to explore personal experiences of patients with either intervention. Thematic analysis has an exploratory character and identifies recurring themes and exceptions (Mays & Pope, 2000).

### 2.4. Procedure

BPD patients were asked to participate in this study when they entered ST. If interested, they received information about the study and the interventions they would receive. Participants were then asked to sign an informed consent form. Around session 6 to 8, a structured interview was administered in which the punitive parent mode was investigated and associated punitive core belief was written down. One week later, the first intervention (EC or CT) was administered. Participants were asked before and after the intervention to rate the credibility, valence, dominance, and power of the punitive core belief. One week later, the other intervention was administered, with assessments before and after the intervention as well.

#### 2.4.1. Semi-structured interview

A semi-structured interview (see Appendix A) was administered around session 6–8 to assess the description and meaning of the punitive parent mode. Participants were asked to describe what they see, feel, think, and hear when the punitive parent mode is active. To do this, participants were asked to describe the most recent situation in which they remembered feeling the way they do in their punitive parent mode. Subsequent questions were asked to further investigate the punitive parent mode and its message. The therapist and patient then formulated one punitive core belief that reflected these punitive messages. The interview lasted approximately 30 min and consisted of a series of standardized questions in a fixed order.

#### 2.4.2. CT

The CT comprised 45 min of challenging the punitive core belief using the "pros and cons" technique (see Appendix C). For example, the punitive core belief "I am no good and worthless" is challenged by listing its pros and cons and inviting the patient to come up with a new evaluation of the original belief. In essence, the therapist helps the patient to reevaluate their punitive core belief but also helps the patient to think about alternative ways of seeing themselves.

#### 2.4.3. EC

Whilst administering EC (see Appendix D), the punitive parent mode was symbolically placed on an empty chair. Sticky notes with the punitive core belief were placed on the chair. Subsequently, the therapist combated the mode by firmly disagreeing with the statements of the mode and after several rounds, the punitive mode was sent away if it was still active.

#### 2.4.4. Therapists

Interventions were delivered by therapists who had received extensive training in CBT and ST and had prior experience with both interventions. A protocol described both interventions and all therapists were trained in applying the protocol (See Appendix C and D). Seven therapists participated in the study.

#### 2.5. Statistical analysis

Statistical analyses were performed using SPSS 24.0 software (IBM). Normality of the data was tested, and missing data were not imputed. Internal consistencies of the adherence scales were estimated by Cronbach's alpha; the interrater agreement on these scales by the ICC of the average score (as this was used in the analysis), based on absolute agreement and a two-way mixed model. Differences in demographics between both orders were investigated using Chi-square tests for categorical variables and t-tests for dimensional variables. To test our research question, paired t-tests on pre-post session change scores (except for the WAI-SR where post-session scores were used) were conducted. A repeated measure ANOVA was used to test the effects of order of intervention.

### 3. Results

#### 3.1. Drop-outs

All 20 participants completed the two experimental sessions and filled out the rating scales. Nineteen participants were interviewed by phone, one refused.

#### 3.2. Treatment adherence

Two independent raters assessed intervention sessions for therapist adherence to the protocol. Some recordings were missing either due to technical failure ( $N = 5$ ) or because the participant did not give permission for recording the treatment session ( $N = 6$ ). In total, 29 video recordings were assessed. A high degree of reliability was found between the two raters on the EC checklist, average ICC = 0.998,  $F(5,5) = 625.000$ ,  $p < .001$ . A similar result was found between the two raters on the CT checklist, average ICC = 0.900,  $F(5,5) = 23.500$ ,  $p < .001$ . We conducted a paired t-test to assess whether the two techniques differed. EC differed significantly on the EC adherence scale ( $M = 0.988$ ,  $SD = 0.032$ ) from the CT ( $M = 0.106$ ,  $SD = 0.035$ ),  $t(25) = 67.914$ ,  $p < .001$ . Similarly, the CT differed significantly on the CT adherence scale ( $M = 0.917$ ,  $SD = 0.096$ ) from the EC sessions ( $M = 0.276$ ,  $SD = 0.107$ ),  $t(25) = 16.154$ ,  $p < .001$ .

#### 3.3. Effects of intervention

Subsequently, we assessed the effect of CT and EC on credibility, power, valence, and dominance of the punitive core belief. Additionally, we investigated whether there was an effect of intervention order on intervention effects.

**Credibility.** Credibility of the punitive core belief significantly decreased both in the EC ( $M = -10.35$ ,  $SD = 19.83$ ) and the CT condition ( $M = -22.20$ ,  $SD = 20.40$ ),  $p < .05$ . On average, participants experienced significantly greater reduction in belief credibility in the CT condition than in the EC condition,  $t(19) = -2.656$ ,  $p = .016$ ,  $d = -0.59$ . We did not find an intervention by order effect,  $F(1,18) = 0.395$ ,  $p = .538$ .

**Power.** Power of the punitive core belief significantly decreased both in the EC ( $M = -12.90$ ,  $SD = 21.056$ ) and CT condition ( $M = -22.300$ ,  $SD = 23.150$ ),  $p < .001$ . The reduction did not differ significantly between both conditions,  $t(19) = -2.058$ ,  $p = .054$ ,  $d = -0.46$ . We did not find an intervention by order effect,  $F(1,18) = 0.132$ ,  $p = .720$ .

**Valence.** We found that both EC ( $M = -0.975$ ,  $SD = 1.839$ ) and CT

( $M = -0.500$ ,  $SD = 2.206$ ) did not reduce negative valence significantly,  $p > .05$ . In addition, the effect on valence did not differ between both conditions,  $t(19) = 0.907$ ,  $p > .376$ ,  $d = 0.20$ . We did not find an intervention by order effect,  $F(1,18) = 1.724$ ,  $p = .206$ .

**Dominance.** We found that both EC ( $M = 1.150$ ,  $SD = 2.283$ ) and CT ( $M = 0.650$ ,  $SD = 1.631$ ) increased the feeling of dominance significantly,  $p < .05$ . The increase in dominance did not differ significantly between both conditions,  $t(19) = 1.129$ ,  $p = .273$ ,  $d = 0.25$ . We did not find an intervention by order effect,  $F(1,18) = 2.726$ ,  $p = .116$ .

#### 3.3.1. WAI

Working alliance experienced by patients was measured after each intervention. We found no significant difference between EC ( $M = 51.400$ ,  $SD = 5.798$ ) and CT condition ( $M = 50.400$ ,  $SD = 6.065$ ),  $t(19) = 1.013$ ,  $p = .324$ . There was no intervention by order effect,  $F(1,18) = 0.824$ ,  $p = .376$ .

#### 3.3.2. Exploratory analysis

We decided to examine if an overall difference of main effects was found by summing the scores of belief, power, valence, and dominance of the punitive core belief. This was achieved by dividing the double difference scores (ECpost-ECpre) – (CTpost-CTpre) by their standard deviation and then adding these scores. The sum score obtained was then tested against the null-hypothesis ( $H_0$ : difference = 0), using an one sample t-test. We found that overall, the techniques did not differ significantly in their treatment effect.

#### 3.3.3. Preference of patients

After the intervention sessions all patients ( $N = 20$ ) were approached for a short interview by phone. One patient refused to participate due to suicidal thoughts, of which the patient's therapist was informed.

Thematic analysis showed that most patients preferred EC to the CT (14 patients preferred EC, four patients preferred CT, and one patient had no preference). In addition, almost all patients reported that EC provoked the strongest feelings and also influenced their emotions the most (17 patients) while the CT changed their cognitive stance the most (13 patients). The following quote from a patient is exemplary: "The beginning with the empty chair technique was strange and odd, but ultimately it changes my feelings more, so I prefer the empty chair technique." Moreover, six patients described the CT as frustrating, because awareness of their thoughts' irrationality did not change their feelings. For instance, one patient stated: "With the cognitive technique I got frustrated because I know my thoughts are false, but I cannot change my feelings about them". Nevertheless, patients did report that the CT was straightforward to understand and helped them to challenge their beliefs (e.g., "The cognitive technique is clear and helps to get your thoughts straight.").

Notably, patients indicated that although both techniques elicited emotions (albeit more strongly in the EC condition), this did not have an enduring effect in reducing their punitive core belief. However, fourteen patients underscore the importance of repeating the techniques over time as they think this is vital for a long-lasting change. With regard to EC, 18 patients also noted that they initially had to familiarize themselves with the technique: "I have now done the empty chair technique more often, and I really had to get used to it, but it changes my feelings a lot."

Fifteen patients said that both techniques did not influence the working relationship with the therapist. Three patients indicate that EC had a positive influence on their working alliance as they felt that the therapist stood up for them.

### 4. Discussion

The current study is the first attempt to compare the effectiveness of an experiential ST technique with a traditional CBT technique in reducing the punitive parent mode in BPD patients. Overall, after

administering either technique, we found significant reductions in the power and credibility of patients' punitive core belief and a significant increase in dominance over the punitive core belief. CT was more effective in reducing the credibility of the belief in comparison with EC. On all other measures, no significant difference was found between both techniques. In addition, both techniques were found to have no negative effect on working alliance.

Notably, however, structured telephone interviews after the experiments showed a preference for EC over CT as patients thought this technique was better able to elicit feelings during the session. While they report that EC has more effect on an emotional level, CT was thought to work on a rational level. This is in concurrence with existing theories, that propose that experiential techniques such as EC are more effective in eliciting emotions (Epstein, 1998; Samoilov & Goldfried, 2000; Teasdale, 1997). Almost all patients underscore the importance of repeating EC to increase the effect on the punitive parent mode as the effects were mostly felt during the treatment session. Thus, although our experiment shows a slight advantage for CT on belief and power of belief, patients themselves prefer EC and hint that differential effects might become visible after repeating the techniques more often.

Moreover, some patients also disclosed that they already were familiar with the CT while they were not familiar with EC, which they experienced as a bit 'odd' or 'unusual'. Thus, future studies repeating each technique more often (e.g., performing each technique five times in separate sessions) are needed. Elongating the period studied might also provide information about the stability of the results over an extended period. Repetition of EC could also help alleviate the difficulty therapists seemingly had with evoking the punitive parent mode; to work on an emotional level, it is necessary to have the emotions associated with the punitive parent mode in the therapy room. This is inevitably difficult in a research setting as the punitive parent mode is usually combated when it emerges naturally during a therapeutic session. We believe that repetition of the techniques increases the chance of having a high enough emotional level present.

In the current study and ST protocols for BPD as tested in RCTs, the therapist (not the patient) starts combating the punitive parent mode, as instructed by the initiator of ST, Jeffrey Young, in his training for the Giesen-Bloo et al. trial (2006). However, in other applications of EC, it is the patient who speaks back to the empty chair (e.g., Pugh, 2019). Pugh (2017, 2019) argues that the empty chair technique is powerful because it allows patients to practise 'stepping into' certain roles (immersion). Therefore, it could be that EC is more effective when the patients themselves combat the punitive core belief. To our knowledge, it has not been investigated if effectiveness of the empty chair technique is affected by who addresses the chair.

One of the reasons why therapists start combating the punitive parent in ST-protocols for BPD is because this is seen as a form of re-parenting as the patient hears the therapist standing up for them and also models the healthy adult mode (Kellogg, 2014). The main reason is, however, that early in treatment patients are considered not strong and healthy enough to combat the punitive parent mode (e.g., Arntz & van Genderen, 2020). This assumption has to our knowledge not yet been empirically tested. Research into complex trauma indicates that therapists are reluctant to apply techniques they see as too destabilizing for their patients (Cloitre et al., 2011; Boterhoven et al., 2020), arguably impeding appropriate treatment (de Jong et al., 2016). Therefore, it seems important to investigate whether BPD patients are indeed not strong or healthy enough to directly combat their punitive core belief.

Finally, we used single-item rating scales measuring belief as well as valence, power, and dominance of the punitive core belief. We hypothesized that these questions would be appropriate to capture the experiences of the patients. Still, psychometric data on these measures is limited, and a future study would benefit from using well-established measures to assess the punitive parent mode and additional beliefs. In hindsight, one of the questions ("how do you feel") might not have been most suitable to assess affect related to the punitive parent mode as it

might have been too general. It is, for instance, not unthinkable that the patient does not feel good after such intensive techniques, but still feels a change in his or her feelings towards the punitive core belief (e.g., that they feel that the punitive parent elicits less negative emotions). In addition, it is important to note the analyses have to be interpreted with caution, as our sample size was limited. Nevertheless, both techniques lead to significant within session change, which is encouraging, and may stimulate others to do a more ambitious study.

To conclude, the current study showed that both EC and CT are effective in reducing the punitive parent mode. This suggests the "toolbox" of the therapist should contain both techniques. CT was significantly superior to EC on one outcome (i.e., credibility of punitive core belief), whereas the other three outcomes showed the opposite pattern but failed to reach significance. Future studies should investigate whether the punitive parent mode can be combated by BPD patients themselves right away and whether this affects the effectiveness of EC. A qualitative substudy revealed patients preferred EC and indicated they believe EC would be more effective if administered repeatedly. Thus, the divergence between our quantitative and qualitative results suggest multiple sessions are needed to be better able to find differences in the effects of experiential and cognitive techniques in combating the punitive parent mode.

## Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

## Author contributions

Frauke .A.T. van Maarschalkerweerd: Conceptualization; Methodology; Formal analysis; Investigation; Project administration; Writing – original draft. Izabella. M. Engelmoer: Validation; Formal analysis; Writing – review & editing. Sem Simon: Data curation; Formal analysis; Investigation; Project administration. Arnoud. Arntz: Conceptualization; Methodology; Formal analysis; Supervision; Writing – review & editing.

## Declaration of competing interest

The authors declare that there is no conflict of interest in relation to this paper.

## Acknowledgements

The authors wish to acknowledge the contributions of the patients and the therapists (Annemieke Koppeschaar, Bonnie Noordegraaf, Charlotte ter Steege, Joanne Gomperts, Kasper Nikkels, Leonie Kortsjens, Maria Rocher, Suzan Ben Chamal) that participated in this trial.

## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jbtep.2021.101678>.

## References

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders*. In *Text Revision* (4th ed.). Washington, DC: American Psychiatric Association.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: American Psychiatric Association.
- Arntz, A., & van Genderen, H. (2020). *Schema therapy for borderline personality disorder* (2nd ed.). Chichester, UK: John Wiley & Sons.
- Arntz, A., & Weertman, A. (1999). Treatment of childhood memories: Theory and practice. *Behaviour research and therapy*, 37(8), 715–740.
- Backs, R. W., da Silva, S. P., & Han, K. (2005). A comparison of younger and older adults' self-assessment manikin ratings of affective pictures. *Experimental Aging Research*, 31(4), 421–440.

- Boterhoven de Haan, K., Lee, C., Fassbinder, E., Van Es, S., Menninga, S., Meewisse, M., ... Arntz, A. (2020). Imagery rescripting and eye movement desensitisation and reprocessing as treatment for adults with post-traumatic stress disorder from childhood trauma: Randomised clinical trial. *British Journal of Psychiatry*, 217(5), 609–615. <https://doi.org/10.1192/bjp.2020.158>
- Bradley, M. M., & Lang, P. J. (1994). Measuring emotion: The self-assessment manikin and the semantic differential. *Journal of Behavior Therapy and Experimental Psychiatry*, 25, 49–59. [https://doi.org/10.1016/0005-7916\(94\)90063-9](https://doi.org/10.1016/0005-7916(94)90063-9)
- Cloitre, M., Courtois, C. A., Charuvastra, A., Carapezza, R., Stolbach, B. C., & Green, B. L. (2011). Treatment of complex PTSD: Results of the ISTS expert clinician survey on best practices. *Journal of Traumatic Stress*, 24(6), 615–627.
- De Jongh, A., Resick, P. A., Zoellner, L. A., Van Minnen, A., Lee, C. W., Monson, C. M., et al. (2016). Critical analysis of the current treatment guidelines for complex PTSD in adults. *Depression and Anxiety*, 33(5), 359–369.
- Epstein, S. (1998). Cognitive-experiential self-theory. In *Advanced personality* (pp. 211–238). Boston, MA: Springer.
- Farrel, J. M., Shaw, I. A., & Webber, M. A. (2009). A schema-focused approach to group psychotherapy for outpatients with borderline personality disorder: A randomized controlled trial. *Journal of Behavior Therapy and Experimental Psychiatry*, 40, 317–328. <https://doi.org/10.1016/j.jbtep.2009.01.002>
- Fassbinder, E., Schuetze, M., Kranich, A., Sipos, V., Hohagen, F., Shaw, I., & Schweiger, U. (2016). Feasibility of group schema therapy for outpatients with severe borderline personality disorder in Germany: a pilot study with three year follow-up. *Frontiers in Psychology*, 7, 1851.
- First, M., Spitzer, R., Gibbon, M., Williams, J., & Benjamin, L. (1994). *Structured Clinical Interview for DSM-IV Axis II personality disorders (SCID II)*. New York: Biometric Research Department.
- First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B. W. (1997). *Structured Clinical Interview for DSM-IV Axis I disorders (SCID I)*. New York: Biometric Research Department.
- Foa, E. B., & Kozak, M. L. (1986). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin*, 99, 20–35.
- van Genderen, H., Rijkeboer, M., & Arntz, A. (2012). *Schemas, coping styles, and modes* (Vol. 27). The Wiley-Blackwell Handbook of Schema Therapy.
- Giesen-Bloo, J., van Dyck, R., Spinhoven, P., van Tilburg, W., Dirksen, C., van Asselt, T., et al. (2006). Outpatient psychotherapy for borderline personality disorder: Randomized trial of schema-focused therapy vs. transference-focused psychotherapy. *Archives of General Psychiatry*, 63, 649–658.
- Hatcher, R. L., & Gillaspay, J. A. (2006). Development and validation of a revised short version of the Working Alliance Inventory. *Psychotherapy Research*, 16(1), 12–25.
- Horvath, A. O., & Greenberg, L. S. (1989). Development and validation of the working alliance inventory. *Journal of Counseling Psychology*, 36(2), 223.
- Hunt, M., Schloss, H., Moonat, S., Poulos, S., & Wieland, J. (2007). Emotional processing versus cognitive restructuring in response to a depressing life event. *Cognitive Therapy and Research*, 31, 833–851.
- Kellogg, S. (2004). Dialogical encounters: Contemporary perspectives on “chairwork” in psychotherapy. *Psychotherapy: Theory, Research, Practice, Training*, 41, 310–320.
- Kellogg, S. (2014). *Transformational chairwork: Using psychotherapeutic dialogues in clinical practice*. Rowman & Littlefield.
- Kellogg, S. H., & Young, J. E. (2006). Schema therapy for borderline personality disorder. *Journal of Clinical Psychology*, 62(4), 445–458. <https://doi.org/10.1002/jclp.20240>
- Krabbe, P. (2016). *The measurement of health and health status: Concepts, methods and applications from a multidisciplinary perspective*. Academic Press.
- Maier, W., Lichtermann, D., Klingler, T., Heun, R., & Hallmayer, J. (1992). Prevalence of personality disorders (DSM-III-R) in the community. *Journal of Personality Disorders*, 6(3), 187–196. <https://doi.org/10.1521/pedi.1992.6.3.187>
- Mays, N., & Pope, C. (2000). Quality in qualitative health research. In N. Mays, & C. Pope (Eds.), *Qualitative research in Health care* (pp. 89–102). London: BMJ Books.
- McGinn, L. K., & Young, J. E. (1996). Schema-focused therapy. In P. H. Salkovskis (Ed.), *Frontiers of cognitive therapy* (pp. 182–207). New York: The Guilford Press.
- Nordahl, H. M., & Nysaeter, T. E. (2005). Schema therapy for patients with borderline personality disorder: a single case series. *Journal of Behavior Therapy and Experimental Psychiatry*, 36, 254–264. <https://doi.org/10.1016/j.jbtep.2005.05.007>
- Nysaeter, T. E., & Nordahl, H. M. (2008). Principles and clinical application of schema therapy for patients with borderline personality disorder. *Nordic Psychology*, 60(3), 249–263. <https://doi.org/10.1027/1901-2276.60.3.249>
- Pugh, M. (2017). Chairwork in cognitive behavioural therapy: A narrative review. *Cognitive Therapy and Research*, 41(1), 16–30.
- Pugh, M. (2019). *Cognitive behavioural chairwork: Distinctive features*. Routledge.
- Rubin, R. B., Rubin, A. M., Graham, E., Perse, E. M., & Seibold, D. (2010). Self-assessment manikin. In *Communication research measures II* (pp. 354–359). Routledge.
- Samoilov, A., & Goldfried, M. R. (2000). Role of emotion in cognitive behavior therapy. *Clinical Psychology: Science and Practice*, 7, 373–385.
- Teasdale, J. D. (1997). The relationship between cognition and emotion: The mind-in-place in mood disorders. In D. M. Clark, & C. G. Fairburn (Eds.), *Frontiers in cognitive therapy* (pp. 26–47). New York, NY: Guilford.
- Trull, T. J., Tomko, R. L., Brown, W. C., & Scheiderer, E. M. (2010). Borderline personality disorder in 3-D: Dimensions, symptoms, and measurement challenges. *Social and Personality Psychology Compass*, 4(11), 1057–1069.
- Van Asselt, A. D., Dirksen, C. D., Arntz, A., Giesen-Bloo, J. H., van Dyck, R., Spinhoven, P., et al. (2008). Outpatient psychotherapy for borderline personality disorder: Cost effectiveness of schema-focused therapy vs. transference-focused psychotherapy. *British Journal of Psychiatry*, 192, 450–457.
- Widiger, T. A., & Trull, T. J. (1993). Borderline and narcissistic personality disorders. In *Comprehensive handbook of psychopathology*. Springer US.
- Young, J. E. (1994). In rev (Ed.), *Cognitive therapy for personality disorders; A schema-focused approach*. Sarasota, FL: Professional Resource Press.
- Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). *Schema Therapy, a practitioner's guide*. New York: Guilford.