When less is more: The perception of psychotherapy techniques as a function of patient personality disorder

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Objective. Psychopathology research suggests that individuals with higher levels of personality disorder (PD) traits, especially those with a comorbid major depressive disorder (MDD), tend to be highly aroused in interpersonal contexts, manifested by an intensified perception of interpersonal interactions. Little is known about the way this tendency manifests in the process of psychotherapy. The current study explored the patient's perception of techniques in psychotherapy among patients with higher vs. lower levels of PD, as well as the patient–therapist agreement on techniques used.

Design. The study used an integration of qualitative and quantitative methodology on data from a randomized controlled trial (RCT) for the treatment of depression.

Method. Sixty-nine patients with MDD participated in the study and were evaluated for PD symptoms prior to treatment. A set of multilevel analyses were conducted to assess the association between PD and perception of techniques, as well as a zoom-in exploration within a case study.

Results. Patients with higher levels of PD reported more techniques implemented by the therapist than patients with lower levels. In addition, the agreement between patient and therapist on techniques was lower, such that patients with PDs reported more techniques than their therapist. The case study supported these findings and illustrates the potential for patients with PDs to perceive a greater use of techniques as a sign of therapist investment.

Conclusion. Consistent with psychopathology research, the findings suggest that patients with PDs tend to experience techniques as more intense than the therapist, in comparison with patients without PD.

Practitioner points

- There are indications that patients with higher levels of personality disorder traits will tend to experience the techniques in psychotherapy in a more intense manner than patients with lower level personality disorder traits.
- It is likely that patients with higher levels of personality disorder traits will experience their therapists as more active than therapists think they are.

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- Therapists of patients with higher levels of personality disorders should be sensitive of each of their patients' experiences.
- As the case study demonstrated at least in some cases patients with higher levels of personality disorder may experience the techniques in an intense manner as a sign of therapist investment, however, other patients may experience this differently. Therefore, it is crucial for the therapist to be aware of how the patient experienced the encounter – investment or intrusiveness.

A personality disorder (PD) generally refers to an enduring way of thinking, feeling, and behaving that deviates from the expectations of the culture, and causes distress or limits functioning (American Psychiatric Association, 2013). PDs are highly prevalent psychiatric conditions, with estimates of 6.1–9.1% in United States and international samples (Huang et al., 2009; Lenzenweger, Lane, Loranger, & Kessler, 2007) and a 35–50% comorbidity rate with mood disorders. Comorbidity is especially common among patients with major depressive disorder (MDD), estimated at approximately 45% in a recent meta-analysis (Friborg et al., 2014). Examining individuals with MDD and a comorbid PD is of great importance, as these patients are characterized with more severe pathology (Skodol et al., 2005), higher resistance to treatment (Newton-Howes et al., 2014), and a faster time to relapse after remission (Grilo et al., 2010).

There is a growing consensus that individuals with PD may pose serious challenges to interpersonal functioning and relationships (Dimaggio et al., 2012). As such, individuals with PD, regardless of the particular type of disorder, tend to present with the following characteristics: (1) social-cognitive distortions and metacognitive difficulties in understanding states of mind regarding self and other (Bateman & Fonagy, 2004; Dimaggio et al., 2007), (2) dysfunctional constructions of self-with-other relationships (Benjamin, 1996), and (3) emotion and impulse dysregulation or over-regulation (Linehan, Armstrong, Suarez, Allmon, & Heard, 1991). Social-cognitive distortions are conceptualized as contributing to a biased perception which may foster and maintain an enduring, rigid, and pervasive pattern of inner experience and behaviour (Beck, Rush, Shaw, & Emery, 1979; Liebke et al., 2018) that deviates markedly from what is expected by one's culture (Beck et al., 1990). Fonagy et al., (1996) provided preliminary evidence that impaired social cognition is linked to PD symptomatology. Moreover, individuals with a PD and comorbid MDD exhibited even higher levels of cognitive bias than individuals with only a PD (Abela, Payne, & Moussaly, 2003). Therefore, many psychotherapy approaches aim to improve the ability for mentalization and metacognition, as well as emotion and impulse regulation, for patients with PD (e.g., Bateman & Fonagy, 2010; Dimaggio, Montano, Popolo, & Salvatore, 2015).

One explanation for the perceptual biases characterized by PDs is their tendency towards high rejection sensitivity (RS) – the tendency to interpret social cues as signs of rejection (Staebler, Helbing, Rosenbach, & Renneberg, 2011) – which results in heightened arousal in interpersonal interactions (Gao, Assink, Cipriani, & Lin, 2017). This point of view corresponds with Kernberg's (Kernberg, 1996) view that individuals with PD tend to split and polarize affect states and representations of self and others. In a recent review on trust and rejection sensitivity in PDs, Poggi, Richetin, and Preti (2019) argued that all PDs are characterized by presenting cognitive biases in interpersonal situations due to sensitivity to rejection and trust situations. However, the implications of RS for symptom manifestation may differ between different types of PD. Whereas individuals with avoidant and paranoid PD typically respond to interpersonal stressors, such as rejection, by withdrawing and isolating, narcissistic and borderline PD individuals often react with anger and hostility (Poggi et al., 2019). In either case, these behaviours

increase the odds for actual rejection to occur, a vicious cycle that is often linked with the evolution of depression (Liu, Kraines, Massing-Schaffer, & Alloy, 2014).

In the context of interpersonal interactions, there are vast empirical findings yielded in controlled environments portraying the various perceptual biases shown by individuals with PDs. The majority of the research in this field focused on patients with specific types of PDs (e.g., borderline personality disorder; BPD), but other types of PDs and individuals with higher levels of PD traits also seem to share these biases (Poggi et al., 2019). Empirical findings suggest that individuals with PDs tend to show bias in their reports of others, while judging them in a more intense (positive or negative) manner (Arntz & Veen, 2001; Daros, Uliaszek, & Ruocco, 2014; Napolitano & McKay, 2007; Veen & Arntz, 2000). For example, individuals with higher levels of PD traits tend to evaluate others as being more supportive and helpful (Weertman, Arntz, Schouten, & Dreessen, 2006). Other studies show that individuals with higher levels of PDs have a tendency to evaluate others in a more negative (Kramer, Vaudroz, Ruggeri, & Drapeau, 2013; Meyer, Pilkonis, & Beevers, 2004; Wagner & Linehan, 1999) and aggressive manner (Arntz, Weertman, & Salet, 2011; Barnow et al., 2009) and are more likely to reject them (Bowles & Meyer, 2008; Meyer, Ajchenbrenner, & Bowles, 2005).

These biases were also found in natural settings. While collecting daily diary information, Gadassi, Snir, Berenson, Downey, and Rafaeli (2014) found that individuals with PDs experience a wider range of emotions in reaction to social proximity in daily life vs. being alone. In addition, individuals with higher levels of PD symptoms reported experiencing marital conflicts and resolutions more intensely than individuals with low levels of PD symptoms (South, 2014). This cumulative literature suggests that individuals with higher levels of PDs tend to show a perception bias that is manifested in a more intense interpretation of interpersonal contexts, characterized by a tendency to experience emotions and judge others in a more heightened and exaggerated manner than individuals with low levels of PD.

Psychotherapy is built on the relationship and interpersonal interaction between patient and therapist and their efforts to collaboratively engage in the therapeutic process. Therefore, it is important to examine whether the same biases that characterize individuals with PD traits in interpersonal relationships outside of the therapy room will emerge in their relationship with the therapist as well (Pretzer, 2004). It may be expected that the reports of therapeutic processes with patients with higher PD traits will differ from the work with patients with low PD traits. Indeed, the clinical literature has intensively addressed this question, mainly through the therapist's experience in therapy while treating patients with PDs. Therapists often struggle with the challenge of coming to alignment and agreement with patients with PDs in the therapy process itself (Pretzer, 2004). However, not much is known about how patients with higher vs. lower levels of PD traits perceive and experience psychotherapy and its process, and the possible manifestation of bias, potentially in the form of more intense judgements in this context characterized by a heightened or exaggerated perception.

The limited literature that examined patients with different levels of PD traits and their perception of processes in psychotherapy mainly focused on the therapeutic alliance. For example, Tufekcioglu, Muran, Safran, and Winston (2013) examined the relationship of pre-treatment PD to the quality of early therapeutic alliance in 145 patients randomly assigned to either cognitive behavioural therapy or brief relational therapy. They found that patients with PDs tend to report significantly higher in-session rupture intensity compared with the non-PD group. In addition, they found that patients with PDs tend to report a significantly higher amount of session depth and session smoothness than non-PD

patients. Until now, no research has been done on the experience of patients with higher vs. lower levels of PD traits and techniques in therapy. Previous studies have suggested that the amount of interventions being used by the therapists is of importance and that therapists should adjust the amount of interventions they implement to the patient. For example, McCarthy, Keefe, and Barber (2016) found that moderate use of psychodynamic and experiential techniques, as rated by external raters, predicted greater symptom change. In the same vein, Fisher et al. (2020) found that greater use of psychodynamic-expressive interventions was associated with increased insight. However, only moderate use of experiential interventions, as rated by the therapists, was associated with greater emotional experience as reported by the patients. However, these studies used external raters and therapists' ratings to report the use of the techniques, rather than the patients' experience. Previous studies have repeatedly shown that patients' experience and perception of the therapy processes are better predictors of treatment outcome than therapists' and external raters (Macran, Ross, Hardy, & Shapiro, 1999; Roussos, 2013). Therefore, to better tailor therapy to the individual patient, it is crucial to understand more about patients' experiences of techniques as an essential component of psychotherapy (Crits-Christoph et al., 2013).

In the current study, we focused on the perception of the therapists' use of techniques among patients with MDD with higher vs. lower levels of PD traits. Based on the reviewed literature on patients with PD traits, we examined three questions: (1) Whether patients with higher levels of PD traits tend to report experiencing more frequent use of techniques in comparison with patients with lower levels of PD traits; (2) whether therapists of patients with higher levels of PD traits report having experienced implementing techniques in different frequencies to patients with lower levels of PD traits; and (3) whether there will be less agreement between therapists and their patients with higher levels of PD traits, than between therapists and their patients with lower levels of PD traits on the amount of use of techniques. In congruence with contemporary literature, we examined PDs using the dimensional approach and repeated the analyses with the categorical approach.

In the current study, we used mixed methods to examine the therapists' and patients' experiences of techniques in therapy at both macro- and micro-levels. At the macro-level, we examined whether patients with higher vs. lower levels of PDs tend to experience the use of techniques in psychotherapy as more intense than their therapists (i.e., to experience their therapists using techniques with higher frequency). Accordingly, we focused on a sample of patients receiving psychotherapy for MDD with a high rate of comorbid PDs, to compare patients with and without a comorbid PD. At the micro-level, we zeroed in on and examined a single case study, attempting to reach a deeper understanding of the findings from the macro-level. We compared the patient's and the therapist's ratings of the frequency of interventions to two external observers' analyses of the case study to discover which ratings (patient or therapist) were closer to the observers' perceptions. In addition, we analysed the sessions' content, to examine the nuances in the differences between the patient's and therapist's reports of techniques and how they were manifested and experienced by the patient in therapy sessions.

The micro-level analysis will help us understand the clinical implications underlying the findings. Integrating the findings from these two methods together can help develop and improve personalized treatments for patients with MDD and a comorbid PD, by learning more about the process of treatment among these patients.

Method

Participants

Sixty-nine patients with major depressive disorder (MDD) were recruited through advertisements offering treatment free of charge as part of an ongoing trial (Zilcha-Mano, Dolev, Leibovich, & Barber, 2018). Inclusion criteria were as follows: (1) a diagnosis of MDD based on the Structured Clinical Interview for DSM-V (Sheehan et al., 1998), with scores above 14 on the 17-item Hamilton Rating Scale for Depression (HRSD; Hamilton, 1967) at two evaluations, 1 week apart, and current MDD based on the MINI (International Neuropsychiatric Interview; Sheehan et al., 1998); (2) if on medication, patients' dosages had to be stable for at least 3 months before the start of the study, and they had to be willing to maintain a stable dosage for the duration of treatment; (3) age between 18 and 60 years; (4) provision of written informed consent. Exclusion criteria were as follows: (1) current risk of suicide or self-harm (HRSD suicide item > 2); (2) current substance abuse disorder; (3) current or past schizophrenia or psychosis, bipolar disorder, or severe eating disorder, requiring medical monitoring; (4) history of organic mental disease; and (5) currently in psychotherapy. Mean patient age was 32.1 (*SD* = 9.231), and 32 participants (62.3%) were female; 75% were single, 18.8% married or cohabiting, 6.2% divorced or widowed; 11.6% were high school graduates, 37.7% had some college education, 26.1% were college graduates, 7.2% had some post-graduate education, and 17.4% had graduate degrees. At intake, all patients met criteria for a primary diagnosis of mood disorder and 73.9% for anxiety disorders; 69.6% had a primary PD. The most frequent PDs were obsessive–compulsive (40.6%), avoidant (33.3%), dependent (15.9%), borderline (14.5%), narcissistic (14.5%), and histrionic (7.2%). Almost half of the patients (43.75%) that were diagnosed with a PD were found to have a comorbid PD and were diagnosed with at least one other PD.

Treatment

Patients received 16 sessions of 50 min each, either in a supportive-expressive or in a supportive-only condition (Book, 1998; Luborsky, 1984; Luborsky et al., 1995; for more details see Zilcha-Mano et al., 2018). Given that it is an ongoing trial, for the current analysis, the data from both conditions were used. Aside from the therapist, the entire research team is blind to the patient's assigned treatment condition, and therefore, the conditions could not be used.

Therapists

Therapists acted as their own controls and provided treatment in both conditions to avoid nesting of therapists within condition, which may result in unwanted confounding. Seven therapists participated in the study, three male and four female psychologists, with a range of 7–21 years of clinical experience. The therapists attended a 20-hr training workshop in supportive and expressive techniques. The training included formal teaching and role-playing, using the different techniques. All therapists completed treatment of two pilot patients, one of each treatment type, and had to demonstrate sufficient adherence in the two pilot cases before moving into the trial phase.

During the pilot phase and throughout the study, each therapist received weekly group supervision from two supervisors, as well as weekly individual supervision from one of the supervisors. Individual and group supervision made extensive use of

videotaped sessions for feedback. The supervisors received supervision from an international expert in *SE*, with more than 20 years of experience in psychodynamic treatment for depression, and more than 15 years of experience in SE treatment in RCTs. The mean number of patients treated by each therapist in the current study was 9.85 ($SD = 6.41$, range: 1–16).

Procedure

At the baseline assessments, participants were invited to participate in three assessment meetings. At the first two meetings, inclusion and exclusion criteria were checked, the research goals were explained, and information was provided about participation in the research project. Patients willing to participate signed an informed consent. Subsequently, interviews using the Hamilton Depression Rating Scale (HRSD-17; Hamilton, 1960, 1967) and the Mini-International Neuropsychiatric Interview – Plus (MINI-Plus; Sheehan et al., 1998) were conducted to confirm the presence of a depressive disorder and to determine its severity. Patients with a MINI-Plus diagnosis of depressive disorder and HRSD score of 14 or above were included in the study. At the third meeting of the baseline assessment, PDs were evaluated using the SIDP-IV interview (SIDP-IV; Pfohl, Blum, & Zimmerman, 1997). The interview was conducted prior to treatment (third baseline assessment), at mid-treatment (week 8), and at the end of treatment (week 16). For the purpose of this study, we used the first interview, which was taken at the third meeting of the baseline assessment.

After the three meetings of the baseline assessment, therapy began and consisted of 16 sessions. To assess the therapist's use of techniques, patients and therapists completed the MULTI (McCarthy & Barber, 2009; Solomonov, McCarthy, Gorman, & Barber, 2018) after every session. All interviews were recorded to ensure reliability.

Measures

MDD diagnosis

To assess symptom severity, we used the Hamilton Rating Scale for Depression (HRSD; Hamilton, 1967), a 17-item clinically administered semi-structured interview, with higher scores indicating greater severity of depression. The HRSD interviewers received extensive training and supervision in the administration of the HRSD. Inter-judge reliability for the current study as assessed by intraclass correlation (ICC; Shrout & Fleiss, 1979) was .93 and considered excellent (Fleiss, Levin, & Paik, 2003). In addition, we also used the Mini-International Neuropsychiatric Interview (MINI), a clinically administered semi-structured interview that has been shown as both a valid and reliable tool (Sheehan et al., 1998, 2010).

Personality disorders

The patient's PDs were measured using the Structured Interview for the Diagnosis of Personality Disorders (SIDP-IV; Pfohl et al., 1997). This instrument is a comprehensive semi-structured clinical interview for the assessment of DSM-IV Axis II diagnoses. The SIDP-IV includes non-pejorative questions organized into topical sections to produce a natural flow in the interview. The number of criteria for each PD in the DSM-IV varies from 7 to 9. Each of the specific criteria was rated as follows: 0 = absent, 1 = sub-threshold,

2 = present, and 3 = strongly present. A score of 2 or more on at least 3–5 criteria (depending on the PD in question) is required for a diagnosis of PD. The instructions for the SIDP-IV specify a scoring rule which says that behaviour typical of the past 5 years represents the basis for the ratings. SIDP-IV interviewers were master or doctoral level clinical psychologists, who received extensive training and supervision in the administration of the SIDP-IV. Inter-judge reliability for the 79 items of the SIDP-IV as assessed by intraclass correlation (ICC; Shrout & Fleiss, 1979) was .95 and considered excellent (Fleiss et al., 2003). PDs were examined both categorically and dimensionally.

Categorical.   PDs were determined categorically by tabulating the number of instances in which all criteria were met for a DSM-IV Axis II PD diagnosis.

Dimensional.   A dimensional assessment of PD was determined by tallying the total number of personality traits endorsed across all SIDP-IV items.

Therapeutic interventions

The Multi theoretical List of Therapeutic Interventions (MULTI-30; Solomonov et al., 2018; McCarthy & Barber, 2009) is a self-report measure, assessing interventions from nine different psychotherapy orientations (cognitive behavioural, cognitive, behavioural, person-centred, psychodynamic, process-experiential, interpersonal, dialectical behavioural, and common factors). It consists of 30 items, each rated on a scale from 1 to 5, referring to the manifestation of each intervention in the current session. An example of an item on the MULTI is: "The therapist set an agenda or established specific goals for the therapy session." Within the sample analyses, we only used the total MULTI score, which is the average score of all 30 items. MULTI-30 intra-rater reliability in this sample was .94 intraclass correlation coefficient (ICC) for patients and .93 ICC for therapists.

Data analysis

The data were hierarchically nested on three levels: assessments nested within patients nested within therapists. To account for the resulting non-independence of assessments, and to prevent inflation of the effects, we added the patient and therapist as random effects, using the SAS PROC MIXED procedure for multilevel modelling (Littell et al., 2006). Three separate multilevel models were conducted to examine our three research questions: (1) patient-reported MULTI as predicted by patient PD as a continuous variable, measured by the number of patient PD traits; (2) therapist-reported MULTI as predicted by the number of patient PD traits; (3) agreement between patient- and therapist-reported MULTI as predicted by number of patient PD traits.

For each of the three models, the unexplained variance due to the random effects of the therapist and patient and the most fitting model of time were tested separately, as detailed below. To measure the amount of unexplained variance in MULTI (patient and therapist reports) due to the random effects of the therapist and patient, we used intraclass correlations (ICCs), using the SAS PROC Mixed output. Therapist's random effects were calculated as follows: ICC = σ2therapist/(σ2therapist+σ2patient+σ2error).

The therapist's and patient's random variance components were estimated based on a model with only random intercept of the therapist and patient, with no other covariates.

To examine MULTI development over time as reported by the patient (Model 1), the therapist (Model 2), and the difference between them (Model 3), we evaluated the following trend models for each: linear, linear in log of time, and stability over time, either as fixed or random effects. We started with a model with only a fixed intercept and no random effects, and added sequentially a random intercept, fixed effect of week, and random effect of week in therapy. Next, we examined the models with fixed and random linear effect of log of week. We used the log-likelihood test and the Bayesian information criterion (BIC) to determine whether the inclusion of each term improved the model fit. Finally, we repeated all three models, replacing the continuous PD variable with PD as a dichotomous variable.

Results

Preliminary results

Measured dichotomously, there were 41 patients with MDD and PD group, and 28 patients with MDD and without PD. Patients with PD had a higher average aggregated score of patient-reported MULTI ($M = 3.3$, $SD = 0.77$) than patients without a PD ($M = 2.87$, $SD = 0.72$); $t(1011) = -7.75$, $p < .001$. There was no difference between average therapist-reported aggregated scores among patients with PD ($M = 2.9$, $SD = 0.64$) and patients without a PD ($M = 2.95$, $SD = 0.64$); $t(996) = 0.94$, $p = .35$. Patients with PD had a higher aggregated-average difference between patient- and therapist-reported MULTI ($M = 0.36$, $SD = 0.83$) than patients without a PD ($M = -.08$, $SD = 0.97$); $t(996) = -7.38$, $p < .001$.

The estimated variance of the therapist's and patient's random effects for each of the three models appears in Table S1 in the online supplements. The model that was found to have the best fit based on the BIC for MULTI (Model 1–3) was the one with a fixed effect of log of time, random intercept, and random slope in log of time. Graphical depiction demonstrated that the MULTI of all three models develops in a log of time. This model was used in all analyses. The main and interaction effects of each model appear in Table S2.

Model 1: PD as a predictor of patient-reported MULTI over time

The interaction between PD and time was a significant predictor of patient-reported MULTI development ($\beta = .0052$, $SE = .0017$, $p = .0025$, $t(1004) = 3.03$, $\eta^2 = .09$). Patients with higher levels of PD reported significantly higher levels of MULTI, than patients with lower levels of PD. Results were replicated using PD as a dichotomous variable ($\beta = -.274$, $SE = .081$, $p = .0008$, $t(1004) = -3.83$, $\eta^2 = .12$) as shown in Figure 1a. Table 1 presents the slope estimates for these effects.

Model 2: PD as a predictor of therapist-reported MULTI over time

The interaction between PD and time was not a significant predictor of therapist-reported MULTI development ($\beta = .001$, $SE = .001$, $t(989) = 1.02$, $p = .31$). Results were replicated using PD as a dichotomous variable ($\beta = -.05$, $SE = .04$, $t(989) = 1.29$, $p = .25$), as shown in Figure 1b and Table 1.
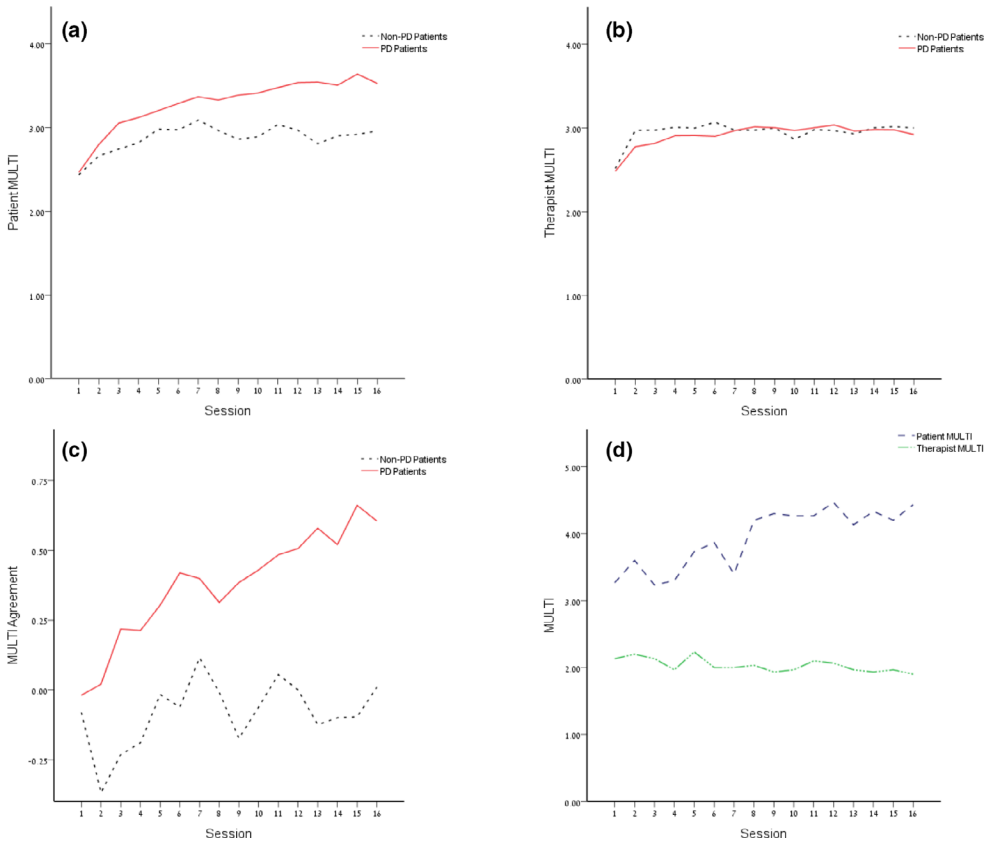
Figure 1. Patients' with and without PDs and their therapist's ratings of the amount of techniques and the agreement between them. In (a), the y-axis is the patient's ratings of the amount of techniques. In (b), the y-axis is the therapist's ratings of the amount of techniques. In (c), the y-axis is the agreement between patient and therapist ratings of the amount of techniques. And in (d), the y-axis is Tom's (patient) and Carol's (therapist) ratings of the amount of techniques in the case study. In (a,b,c,d), the x-axis is the therapy session number.

Model 3: PD as a predictor of the differences between patient- and therapist-reported MULTI over time

The interaction between PD and time was a significant predictor of the agreement between patient- and therapist-reported MULTI over time ($\beta = .004$, $SE = .001$, $p = .01$, $t(989) = 2.48$, $\eta^2 = .06$). Results were replicated using PD as a dichotomous variable ($\beta = -.22$, $SE = .08$, $p = .006$, $t(989) = -2.73$, $\eta^2 = .09$), as shown in Figure 1c and Table 1.

Case study

To explore and further understand the results above, we examined a case study. The specific aims of the case study were threefold. First, we attempted to discover whose ratings of techniques (patient's or therapist's) were more accurate compared with a third

Table 1. Slope estimates for the effects of PD (Continuous and Dichotomous) and time on changes in patient and therapist MULTI reports and the difference between them throughout the therapy sessions

PD Scale	Dependent variable	Values of PD	Slope estimate	SE	Z value	p
PD as a dichotomous variable	Patient-reported MULTI	Patients without PD	0.36	.12	3.01	.003
		Patients with PD	0.90	.08	11.20	<.001
	Therapist-reported MULTI	Patients without PD	0.27	.08	3.39	<.001
		Patients with PD	0.37	.05	0.05	<.001
	Differences between patient- and therapist-reported MULTI	Patients without PD	0.07	.12	0.54	.60
		Patients with PD	0.49	.10	5.05	<.001
PD as a continuous variable	Patient-reported MULTI	Low PD level: Mean PD −1 SD	0.51	.11	4.68	<.001
		Average PD level: Mean PD	0.70	.08	9.12	<.001
		High PD level: Mean PD +1 SD	0.89	.11	8.31	<.001
	Therapist-reported MULTI	Low PD level: Mean PD −1 SD	0.29	.06	4.79	<.001
		Average PD level: Mean PD	0.34	.04	7.68	<.001
		High PD level: Mean PD +1 SD	0.38	.06	6.10	<.001
	Differences between patient- and therapist-reported MULTI	Low PD level: Mean PD −1 SD	0.20	.11	1.78	.08
		Average PD level: Mean PD	0.36	.08	4.62	<.001
		High PD level: Mean PD +1 SD	0.52	.11	4.79	<.001

Note. MULTI = The Multi theoretical List of Therapeutic Interventions; PD = personality disorder as measured by the SIDP-IV.

observer's view of techniques throughout the sessions. Second, we explored a possible way the results can be manifested throughout therapy sessions. Lastly, we examined how a patient with high levels of PD may experience this discrepancy between patient–therapist technique ratings throughout the sessions. We selected one case from the pilot study (not from the RCT itself) which was assigned to the supportive therapy condition. A supportive case was chosen because, in this condition, the therapists were required to not use expressive techniques, and the number of techniques expected to be used in this condition should be relatively low. The names and details of the patient and therapist were disguised, and they both signed informed consent forms agreeing that information about them be published.

Background

Tom is a 27-year-old male university student. He is the oldest in his family, with three younger siblings. When he was a teenager, he experienced the trauma of his mother being killed in an auto accident. His father is a relatively distant man, having suffered a difficult

crisis of his own when his wife was killed. Since then, Tom's relationship with his father was rife with tension, blame and arguments. Tom has a warm relationship with his grandmother, who for a few years acted as a replacement for his mother and cared for the family. In general, Tom does not tend to speak openly about himself with others, nor does he seem interested in doing so. His reason for seeking therapy at this point was due to having difficulty in his studies, trouble concentrating, and feeling disappointment in his failures to succeed.

At the assessment session, he reported feeling as though all the people in his life were causing him nothing but problems and hardship. His relationship with his live-in girlfriend was in crisis. He felt that they were incompatible and that she was too pushy and suspicious. At the assessment session, Tom had a Hamilton score of 27 and was diagnosed based on the MINI-Plus as having MDD. In addition, Tom was diagnosed with avoidant personality disorder (APD) using the SIDP-IV. The therapist, Carol, is a female clinical psychologist in her 40's with 20 years of experience in psychodynamic psychotherapy.

Case formulation

Tom's interpersonal wish is to feel more intimacy with close people (such as his girlfriend), but it is difficult for him to be in touch with these needs. The therapist worked at actualizing Tom's wish within the relationship with the therapist during the therapy sessions (Book, 1998). Actualizing Tom's wish in this case was conceptualized as encouraging him to form a relationship with the therapist that is supportive and close (for the clinical process, please see online supplemental material).

Case quantitative analysis

Tom started treatment with a score of 27 on the 17 items of HRSD and ended treatment with a score of 7; thus, he started therapy under the cut-off of the clinical population and finished therapy above the clinical cut-off. A significantly reliable improvement was noted in Tom's HRSD scale (RCI = 20.27 > 1.96; Jacobson & Truax, 1991), and in terms of clinical change, he is considered 'recovered', indicating an improvement in depressive symptoms and severity from pre- to post-treatment. Regarding the process of treatment, Tom started treatment with a score of 5.17 on the WAI and ended treatment with 6.75.

As shown in Figure 1d, we found the same pattern of disagreement between Tom's and Carol's self-reports of techniques (MULTI) as we found in the full sample among patients with higher levels of PD and their therapists. From the first session to the last session, Tom reported experiencing significantly more techniques than Carol reported. In the MULTI subscales, Tom and Carol both reported a high level of supportive techniques (the common factor subscale of the MULTI). Whereas Carol reported very low expressive techniques (the psychodynamic subscale, as well as the other subscales), Tom had reported a high level.

In an attempt to examine whose reports were more accurate relative to what an external observer would have reported on what occurred in the therapy sessions, two external coders analysed the techniques used in Tom's treatment. They coded the 4th, 6th, and 8th sessions, examining the levels of techniques in each session, using the Penn Adherence–Competence Scale (PACS; Barber & Crits-Christoph, 1996). The coders were two graduate students in clinical psychology who were blind to the treatment conditions and were supervised by an international expert on the use of the PACS. Each session was coded by the two coders, and their coding was averaged. The raters' intercoder reliability

based on a sample of cases ($N = 60$) was excellent (Fleiss et al., 2003): Expressive--Adherence scale 0.88, Supportive–Adherence scale 0.90.

From the standpoint of the external coders, there are relatively high scores for supportive techniques, but significantly low scores for expressive techniques. From these findings, we can conclude that, in this specific case study, it appears that Carol's reports of techniques are more similar to the external coding, whereas Tom's reports are exaggerated and more intense in comparison with the external observers. These differences between Tom's and Carol's perception of techniques throughout the therapy sessions may indicate that Tom perceives the amount of techniques used in the session in an intensive and magnified manner.

Session's narrative analysis

The questions that remain are how this difference in perception is manifested throughout the sessions and how Tom may have experienced the exaggerated amount of techniques he reported. Does he see this as Carol's investment in him and in the therapeutic process, or does he feel that Carol is being too intrusive and invasive? To answer these questions, we conducted descriptive analyses (following the procedure of Castonguay, Goldfried, Wiser, Raue, & Hayes, 1996) of this case study. Similar to Book's (1998) stages of therapy, the treatment process can be divided into three different stages of treatment, each having a different central theme. Two sessions were chosen from each stage, representing the techniques and interaction between patient and therapist from this stage. This was done in consultation with the patient's therapist. Descriptive analyses were conducted on sessions 1, 4, 6, 8, 14, and 16 in this case study. The research team, which included three psychologists, watched the videos of these sessions, in order to investigate and demonstrate the amount of techniques that were implemented, as well as the patient's experience and reaction to these techniques in each stage of therapy. We then engaged in discussion and characterized techniques used in each of the three therapy stages and examined the patient's reaction within their clinical context.

Stage 1: sessions 1–4, in which the therapist shows interest in Tom's everyday life and invites him to begin sharing his thoughts. Stage 2: sessions 5–12, in which the therapist attempts to get to know Tom's past and build a deeper bond. And Stage 3: sessions 13–16, in which Tom and Carol are able to look back and reflect on their work.

The transcripts that were chosen demonstrate the amount of techniques that were implemented in each stage and attempt to shed light on Tom's experience and reaction to these techniques.

Stage 1: The therapist shows interest in the patient's everyday life and encourages him to open up

From the start of therapy, Tom brings his avoidant patterns to the therapeutic interaction. Tom is distant and wary of Carol; his posture is closed, and he does not make much eye contact. Carol asks Tom simple questions, and Tom has a hard time opening up, answering Carol with one-word answers. Tom is laconic and disengaged. In reaction, Carol is relatively active and continues to show interest in Tom, asking questions about his everyday life. Even when Tom is silent or gives very brief answers, she continues to engage Tom in conversation and ask more questions, while still respecting the distance and not pushing him too much. Carol shows him that she is not going to lose interest in him. It seems that Carol conveys to Tom that she is staying put and she is genuinely interested in

what is going on in his life. In reaction to this, Tom slowly starts responding to her and opening up by giving more elaborate answers and talking about more personal topics. In the following vignette from the first moments of the fourth session, it is possible to see how Carol uses only a few techniques, most of which are supportive, to which Tom's response slowly evolves.

> *Carol:* How are you?
> *Tom:* Ok
> *Carol:* How was your week?
> *Tom:* Fine
> *Carol:* Did you end up going to the amusement park over the weekend?
> *Tom:* Yeah
> *Carol:* And how was it?
> *Tom:* Good
> *Carol:* Did you go on rides?
> *Tom:* Yeah, even the ones I was nervous about
> *Carol:* You went on all the rides?
> *Tom:* Yeah (smiles)
> *Carol:* Wow, and was the park packed with people as you were worried it might be?
> *Tom:* Not really
> *Carol:* So you didn't have to wait long on lines?
> *Tom:* Yeah, it was pretty empty which was nice
> *Carol:* That's great
> *Tom:* Yes, it was a nice rest from a hectic week
> *Carol:* What else did you have this week?
> *Tom:* I was preoccupied with a bunch of things
> *Carol:* What things?
> *Tom:* My grandmother wasn't feeling well again and my father also isn't doing well

In this vignette, which may seem like an everyday chat, we can see Tom slowly opening up. Tom at first gives one-word answers, but after Carol tries, again and again, to get through to him, he starts slowly collaborating and gradually answering the questions with more detail, and with a small smile on his face. From this scenario, combined with Tom's facial expressions and body language it is possible to see that Tom experienced the therapist as actively interested in him, remembering in detail his schedule and plans. This demonstrates how Tom may have translated the therapist's active presence to experiencing many techniques. During the rest of the session, following the vignette, Tom begins to open up more and share conflicted topics in a way he might not have been able to do without Carol's initial cultivation.

Stage 2: The therapist reaches out to get to know the patient more deeply and to fully actualize his wish

The second stage of therapy demonstrates how the use of a few techniques by Carol leaves Tom feeling 'held' but not overwhelmed and without overstepping his boundaries. At this stage, there is a development towards a closer and more intimate relationship between them.

Together with movement towards more intimacy and progress, we see that when Tom begins to dig deeper and explore his inner self, signs of ruptures in the therapeutic alliance

begin to show. As Tom's past unfolds, he seems more anxious and it seems evident that it is hard for him to share these memories with Carol. At these times, he again loses eye contact with Carol, is silent and there is an avoidant rupture. In response, Carol, with a few techniques, again shows Tom that she is not going anywhere and will be sensitive, by warmly and gently asking him about his past and patiently waiting until he is ready to answer. Tom responds by opening up in a way he had not previously. In the following vignette from the middle of the sixth session, see how Carol is trying to reach out and ask Tom more about his relationship with his father, throughout the midst of a rupture, and how they work through it together.

> *Carol:* It must have been hard that your father wasn't around much.
> *Tom:* (looking away) I don't know
> *Carol:* Did you have anyone else at the time that you could lean on?
> *Tom:* Not really.
> *Carol:* How did you feel at the time?
> *Tom:* I don't know (silence, Tom is averting his gaze)
> *Carol:* It must be hard to remember and think about those times (silence)
> *Carol:* Do you want to tell me more about your relationship with your father today?
> *Tom:* Yeah (pause) since I've started University and been more out of the house it has allowed me and my father to get closer. Initially it was hard for him that I moved away, and now he is supportive and happy when I come back. I feel like since I've started my bachelor's degree, I've gotten my family back.

This vignette demonstrates how Tom, at first, may have felt that they went too far, and there is a rupture. Carol does not push or intervene; instead, she simply invites Tom to explore his past together with her. Tom looks away and avoids making eye contact with Carol; his body language is closed and insecure. However, once again, Carol respects Tom's space and patiently waits with him until he is ready: It seems that the rupture has been repaired and Tom feels that he can now talk more openly about his relationship with his father. It is possible that this low amount of interventions fits Tom's sensitivity.

Stage 3: The patient and therapist reflect on the therapeutic process

This stage at the end of the therapy sessions illustrates Tom's experience of Carol's intense work throughout the sessions. Although Tom has an avoidant personality and it is hard for him to talk about therapy with Carol, at the last session he tells Carol what the therapy meant for him. This demonstrates how, although we have seen only a few techniques implemented by Carol, Tom was greatly impacted and experienced the therapist's work intensely. Here is a brief vignette from part of the last session.

> *Carol:* What do you see when looking back on therapy?
> *Tom:* I have learned a lot and grown
> *Carol:* You have matured
> *Tom:* Yes, and I understand a lot of things that I didn't understand before. I have learned to cope better with feelings and challenges. Also, I have learned to be more honest with myself and show weakness, and not just to say "I'll be ok"
> *Carol:* You worked hard these past 6 months
> *Tom:* I think we both worked hard (smiling)
> *Carol:* (smiles)

Tom: Also, not only have I been going through changes, my father has also been opening up to me more.
Carol: He was influenced by you?
Tom: I think.

Tom reflects on the many positive changes he feels due to the therapy. It seems that Tom appreciated and acknowledged the hard work that Carol invested in him and that she was able to actualize his interpersonal wish through these few techniques.

In conclusion, this case study demonstrates how the patient's sensitivity can require the therapist to limit the amount of techniques he uses: Too many techniques might have been too overwhelming for Tom and caused him to close up. This illustrates the idea that for some patients, less is more.

Discussion

Empirical evidence shows that individuals with PDs have a tendency to perceive and experience interpersonal interactions in a biased and intense manner, characterized by a heightened and exaggerated perception (Arntz & Veen, 2001; Daros et al., 2014; Napolitano & McKay, 2007; Veen & Arntz, 2000). The limited literature that examined this pattern in the realm of psychotherapy found evidence that patients with PDs experience different aspects of psychotherapy in a more intense manner than patients without PDs (Tufekcioglu et al., 2013). However, no empirical work has examined whether patients with PDs will have the same biased perception of experiencing the techniques used by the therapist in psychotherapy in a more intense way. The present study sought to contribute to this gap in the literature by investigating the experience of techniques in a short-term psychodynamic therapy setting among patients with higher vs. lower levels of PD and their therapists. We examined this both at the macro-level – our sample – and at the micro-level – a zoom-in on a single case study.

The analysis of the sample showed a tendency among patients with higher levels of PD to experience the techniques in psychotherapy in a more intense and exaggerated way than their therapists, as well as compared to patients with lower levels of PD, demonstrating the same biased perception found in the literature. From the quantitative analyses of the sample, we found that patients with higher levels of PD traits tend to report having experienced a greater use of techniques in comparison with patients with lower levels of PD traits. This finding was found both when we referred to PDs as a dichotomous and a dimensional variable. In contrast to the patients, there were no significant differences between the therapists' reports based upon levels of patient PD. Accordingly, the disagreement between patient and therapist reports was greater among patients with higher levels of PD. These findings suggest that patients with PDs tend to perceive interactions as more intense than patients without PDs, not only outside of therapy, but in a therapy setting as well. This finding may be explained by various underlying mechanisms, such as hypermentalizing, defined as the tendency to make hasty and unfounded attributions of mental states and intentions to others (Sharp et al., 2013). Future studies should examine this as well as other mechanisms and how they correlate with individuals with PDs' perception of techniques.

To further illustrate the potential tendency of patients with PDs to perceive a greater use of techniques than their therapists, we focused on a single case study to examine how this was manifested in a treatment with a patient with high levels of PD traits. The first aim

was to explore whose reports (therapist or patient) were a more accurate impression of what occurred in the therapy sessions by comparing them to an external observer. The case study demonstrates that the observers' ratings of the techniques were closer to the therapist's experience than to the patient's experience. Integrating these findings together with the results from the sample suggests that, indeed, patients with PDs experience techniques in an intense and magnified manner. This can be explained by the literature on PD which argues that these individuals are more sensitive to rejection and, therefore, more aroused in interpersonal contexts (Poggi et al., 2019). Notably, in this paper to assess therapists' interventions, we used the MULTI, which measures the frequency rather than the strength of the intervention. Another possible explanation for the discrepancy between patients and therapists in their ratings of the frequency of interventions is that therapists use more potent interventions, rather than greater amounts of intervention. For example, Davidson et al. (2007) found that with PD patients, therapists tend to use interventions that were higher in integrative complexity (i.e., explanations that include both recognition of more than one perspective on a problem and recognition of relations among them). Future studies should examine other plausible explanations and determine which fits best with the findings.

The second aim of the case study was to explore whether the patient experienced this magnified perception of techniques as beneficial to him or as intrusive and adverse. From our analyses in this specific case, it seems that the patient may have experienced this magnified perception as a positive experience, feeling that the therapist was invested and devoted to helping him. It seems that the patient felt the therapist was inviting and encouraging him to open up and not cooperating with his avoidant tendencies, which allowed the patient to engage relatively quickly in the short-term treatment and use it successfully. This may suggest that patients with PDs have the potential to experience a biased perception of techniques as positive and beneficial, rather than problematic and intrusive.

If replicated in future samples, these findings may have important clinical implications. Therapists of patients with higher levels of PD should be sensitive and mindful of each of their patients' experiences. Therapists are urged to metacommunicate the therapeutic process by developing an open dialogue with their patients about the patient's experience of the techniques (Safran & Muran, 2000). This can serve as a window into the patient's experience of interventions and signal to the therapist whether they should be less or more active. In turn, this may strengthen the therapeutic alliance, which is partially based on the agreement between patient and therapist (Bordin, 1979). In summary, it is likely that patients with higher levels of PD traits will experience their therapists as more active than therapists think they are, and it is crucial for the therapist to be aware of how the patient experienced the encounter – whether as investment or intrusiveness.

The results of the present study represent only initial steps in the process of inferring about the patients' experience of techniques and understanding the discrepancy between patient and therapist ratings of techniques. Furthermore, it is important to stress that the case study demonstrates how the discrepancy between the patient and his therapist manifests within these specific sessions and explores some possible explanations from which we cannot draw conclusions. Future studies systematically exploring different therapeutic processes that may explain the underlying mechanisms (e.g., increase in alliance or increase of common language) will be helpful in inferring a causal explanation and understanding how the discrepancy in technique ratings affects the therapeutic process and outcome. A second limitation of the current study is the relatively small effect

sizes. Relative to other PD literature, our sample is large; however, it is still not big enough to detect large effect sizes. Moreover, although it is widely accepted to refer to PDs as one whole (South, 2014), it is likely that there would be differences between different types of PDs (Meyer et al., 2004; Veen & Arntz, 2000) and future research with larger samples should examine this perception in the context of separate types of PDs.

A third limitation has to do with the fact that, in the present study, we did not examine the possible interactive effects between patient and therapist reports of techniques together with the outcome and the two therapy conditions. Given that the RCT is still ongoing, we could not use the assignment to treatment condition as a potential control variable, nor the treatment outcome. With adequate theoretical justification, future studies should examine additional interactions, such as the discrepancy between patients' and therapists' ratings of specific techniques and in association with treatment outcome and differences on the MULTI scores and subscales between the different therapy conditions.

Fourth, given the limited number of therapists and the limited number of patients nested within each therapist, we were not able to estimate the therapist effect in the models that we examined in this study. We could only account for the therapist effect in our model by inclusion as a random effect. This is an important area of inquiry, as empirical literature has demonstrated the importance of the therapist's role in the therapeutic process over and above patients' characteristics (Del Re et al., 2012; Firth et al., 2019). For example, therapist responsiveness has been found to predict a patient's perception of the therapeutic relationship, patient dropout, and outcome (Elkin et al., 2014; Stiles, Honos-Webb, & Surko, 1998). Future studies with a greater number of therapists and patients nested within each therapist (Crits-Christoph, Gibbons, Hamilton, Ring-Kurtz, & Gallop, 2011) could examine the unique contribution of the therapist effect on the patient and therapist experience regarding the amount of techniques used among patients with and without PD.

A fifth limitation with regard to the measures implemented in the current study is due to the fact that we used the SIDP-IV to measure PD, both as a categorical and a continuous variables. Though the SIDP-IV enables continuous assessment of the severity of PD symptoms (or level of functioning), it was originally designed and developed to measure personality problems from a categorical perspective. Several studies have used the SIDP-IV as a continuum rather than a binary PD diagnosis (e.g., Disney, Weinstein, & Oltmanns, 2012) and it was found to highly correlate with measures assessing the severity of personality pathology as a continuum (Morey et al., 2011). Nevertheless, we recommend that future studies should examine whether the findings are replicated with measures designed to assess dimensional and continuous models of PD, such as the Severity Indices of Personality Problems (SIPP–118; Verheul et al., 2008) or with measures that are designed to assess maladaptive personality traits that could serve as the basis for personality pathology, such as the PID-5 (Krueger, Derringer, Markon, Watson, & Skodol, 2012). Finally, with regard to measures used in the case study, we utilized two different instruments to compare the perceptions of techniques implemented: the patient and therapist self-reports, and the external observers' ratings, which precluded a direct comparison.

The present study portrays that the intense perception that characterizes individuals with PD in a wide range of interpersonal interactions is manifested in psychotherapy as well. The current findings show that patients with higher levels of PD traits will experience an intense use of techniques, which will be greater than their therapist's experience. The case study illustrates the potential that the patient may perceive this as a

sign of therapist investment. These notions help us gain a richer insight into the patient's perception of therapy and understand the variability as a function of their PD. Taking this into account, therapists can gain a stronger understanding of the way their interventions are experienced by the patient and potentially plan them accordingly. Additional research can examine how to further tailor and personalize the process of treatment for patients with PDs as well as patients with comorbid MDD.

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Conflicts of interest

All authors declare no conflict of interest.

Author contributions

Ilana Lipsitz-Odess (Conceptualization; Data curation; Formal analysis; Investigation; Methodology; Writing – original draft) Hadar Fisher (Conceptualization; Methodology; Writing – review & editing) Ori Kartaginer (Data curation; Investigation; Methodology; Writing – review & editing) Liat Leibovich (Formal analysis; Methodology; Writing – review & editing) Sigal Zilcha-Mano (Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Resources; Supervision; Writing – review & editing).

Data Availability Statement

The data are not publicly available due to privacy or ethical restrictions.

References

Abela, J. R., Payne, A. V., & Moussaly, N. (2003). Cognitive vulnerability to depression in individuals with borderline personality disorder. *Journal of Personality Disorders*, *17*(4), 319–329. https://doi.org/10.1521/pedi.17.4.319.23968

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing. https://doi.org/10.1176/appi.books.9780890425596.dsm05

Arntz, A., & Veen, G. (2001). Evaluations of others by borderline patients. *The Journal of Nervous and Mental Disease*, *189*, 513–521. https://doi.org/10.1097/00005053-200108000-00004

Arntz, A., Weertman, A., & Salet, S. (2011). Interpretation bias in Cluster-C and borderline personality disorders. *Behaviour Research and Therapy*, *49*(8), 472–481. https://doi.org/10.1016/j.brat.2011.05.002

Barber, J., & Critis-Christoph, P. (1996). Development of a therapist adherence/competence rating scale for supportive-expressive dynamic psychotherapy: A preliminary report. *Psychotherapy Research*, *6*(2), 81–94. https://doi.org/10.1080/10503309612331331608

Barnow, S., Stopsack, M., Grabe, H. J., Meinke, C., Spitzer, C., Kronmüller, K., & Sieswerda, S. (2009). Interpersonal evaluation bias in borderline personality disorder. *Behaviour Research and Therapy*, *47*(5), 359–365. https://doi.org/10.1016/j.brat.2009.02.003

Bateman, A. W., & Fonagy, P. (2004). Mentalization-based treatment of BPD. *Journal of Personality Disorders*, *18*(1), 36–51. https://doi.org/10.1521/pedi.18.1.36.32772

Bateman, A., & Fonagy, P. (2010). Mentalization based treatment for borderline personality disorder. *World Psychiatry*, *9*(1), 11–15. https://doi.org/10.1002/j.2051-5545.2010.tb00255.x

Beck, A.T., Freeman, A., Pretzer, J., Davis,, D. D., Fleming, B., Ottaviani, R., . . . Trexler, L. (1990). *Cognitive therapy of personality disorders*. New York, NY: Guilford Press.

Beck, A., Rush, J.A., Shaw, B., & Emery, G. (1979). *Cognitive therapy of depression*. New York, NY: The Guilford Press.

Benjamin, L. S. (1996). *Interpersonal diagnosis and treatment of personality disorders* (2nd ed.). New York, NY: Guilford Press.

Book, H. E. (1998). *How to practice brief psychodynamic psychotherapy: The core conflictual relationship theme method*. Washington, DC: American Psychological Association.

Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy: Theory, Research & Practice*, *16*(3), 252–260. https://doi.org/10.1037/h0085885

Bowles, D. P., & Meyer, B. (2008). Attachment priming and avoidant personality features as predictors of social-evaluation biases. *Journal of Personality Disorders*, *22*(1), 72–88. https://doi.org/10.1521/pedi.2008.22.1.72

Castonguay, L. G., Goldfried, M. R., Wiser, S., Raue, P. J., & Hayes, A. M. (1996). Predicting the effect of cognitive therapy for depression: A study of unique and common factors. *Journal of Consulting and Clinical Psychology*, *64*(3), 497–504. http://doi.org/10.1037/0022-006X.64.3.497

Crits-Christoph, P., Gibbons, M. B. C., Hamilton, J., Ring-Kurtz, S., & Gallop, R. (2011). The dependability of alliance assessments: The alliance-outcome correlation is larger than you might think. *Journal of Consulting and Clinical Psychology*, *79*, 267–278. https://doi.org/10.1037/a0023668

Crits-Christoph, P., Gibbons, M. C., & Mukherjee, D. (2013). Psychotherapy process-outcome research. In *Bergin and Garfield's handbook of psychotherapy and behavior change* (6th ed., pp. 298–340). New York, NY: Wiley.

Daros, A. R., Uliaszek, A. A., & Ruocco, A. C. (2014). Perceptual biases in facial emotion recognition in borderline personality disorder. *Personality Disorders: Theory, Research, and Treatment*, *5*(1), 79–87. https://doi.org/10.1037/per0000056

Davidson, K., Livingstone, S., McArthur, K., Dickson, L., & Gumley, A. (2007). An integrative complexity analysis of cognitive behaviour therapy sessions for borderline personality disorder. *Psychology and Psychotherapy: Theory, Research and Practice*, *80*(4), 513–523. https://doi.org/10.1348/147608307X191535

Del Re, A. C., Flückiger, C., Horvath, A. O., Symonds, D., & Wampold, B. E. (2012). Therapist effects in the therapeutic alliance-outcome relationship: A restricted-maximum likelihood meta-analysis. *Clinical Psychology Review*, *32*, 642–649. https://doi.org/10.1016/j.cpr.2012.07.002

Dimaggio, G., Montano, A., Popolo, R., & Salvatore, G. (2015). *Metacognitive interpersonal therapy for personality disorders: A treatment manual*. London, UK: Routledge.

Dimaggio, G., Procacci, M., Nicolò, G., Popolo, R., Semerari, A., Carcione, A., & Lysaker, P. H. (2007). Poor metacognition in narcissistic and avoidant personality disorders: Four psychotherapy patients analysed using the Metacognition Assessment Scale. *Clinical Psychology & Psychotherapy*, *14*(5), 386–401. https://doi.org/10.1002/cpp.541

Dimaggio, G., Salvatore, G., Fiore, D., Carcione, A., Nicolò, G., & Semerari, A. (2012). General principles for treating personality disorder with a prominent inhibitedness trait: Towards an operationalizing integrated technique. *Journal of Personality Disorders*, *26*(1), 63–83. https://doi.org/10.1521/pedi.2012.26.1.63

Disney, K. L., Weinstein, Y., & Oltmanns, T. F. (2012). Personality disorder symptoms are differentially related to divorce frequency. *Journal of Family Psychology*, *26*, 959–965. https://doi.org/10.1037/a0030446

Elkin, I., Falconnier, L., Smith, Y., Canada, K. E., Henderson, E., Brown, E. R., & Mckay, B. M. (2014). Therapist responsiveness and patient engagement in therapy. *Psychotherapy Research*, *24*(1), 52–66. https://doi.org/10.1080/10503307.2013.820855

Firth, N., Saxon, D., Stiles, W. B., & Barkham, M. (2019). Therapist and clinic effects in psychotherapy: A three-level model of outcome variability. *Journal of Consulting and Clinical Psychology*, *87*, 345–356. https://doi.org/10.1037/ccp0000388

Fisher, H., Rafaeli, E., Bar-Kalifa, E., Barber, J. P., Solomonov, N., Peri, T., & Atzil-Slonim, D. (2020). Therapists' interventions as a predictor of clients' emotional experience, self-understanding, and treatment outcomes. *Journal of Counseling Psychology*, *67*(1), 66–78. https://doi.org/10.1037/cou0000377

Fleiss, J. L., Levin, B., & Paik, M. C. (2003). The measurement of interrater agreement. In W. A. Shewart & S. Samuel (Eds.), *Wilks Statistical methods for rates and proportions* (3rd ed., pp. 598–626). New York, NY: John Wiley & Sons Inc.

Fonagy, P., Leigh, T., Steele, M., Steele, H., Kennedy, R., Mattoon, G., . . . Gerber, A. (1996). The relation of attachment status, psychiatric classification, and response to psychotherapy. *Journal of Consulting and Clinical Psychology*, *64*(1), 22. https://doi.org/10.1037/0022-006X.64.1.22

Friborg, O., Martinsen, E. W., Martinussen, M., Kaiser, S., Øvergård, K. T., & Rosenvinge, J. H. (2014). Comorbidity of personality disorders in mood disorders: A meta-analytic review of 122 studies from 1988 to 2010. *Journal of Affective Disorders*, 152–154. https://doi.org/10.1016/j.jad.2013.08.023

Gadassi, R., Snir, A., Berenson, K., Downey, G., & Rafaeli, E. (2014). Out of the frying pan, into the fire: Mixed affective reactions to social proximity in borderline and avoidant personality disorders in daily life. *Journal of Abnormal Psychology*, *123*, 613. https://doi.org/10.1037/a0036929

Gao, S., Assink, M., Cipriani, A., & Lin, K. (2017). Associations between rejection sensitivity and mental health outcomes: A meta-analytic review. *Clinical Psychology Review*, *57*, 59–74. https://doi.org/10.1016/j.cpr.2017.08.007

Grilo, C. M., Stout, R. L., Markowitz, J. C., Sanislow, C. A., Ansell, E. B., Skodol, A. E., . . . McGlashan, T. H. (2010). Personality disorders predict relapse after remission from an episode of major depressive disorder: A 6-year prospective study. *Journal of Clinical Psychiatry*, *71*, 1629–1635. https://doi.org/10.4088/JCP.08m04200gre

Hamilton, M. (1960). A rating scale for depression. *Journal of Neurology, Neurosurgery, and Psychiatry*, *23*(1), 56. https://doi.org/10.1136/jnnp.23.1.56

Hamilton, M. A. X. (1967). Development of a rating scale for primary depressive illness. *British Journal of Clinical Psychology*, *6*(4), 278–296. https://doi.org/10.1111/j.2044-8260.1967.tb00530.x

Huang, Y., Kotov, R., De Girolamo, G., Preti, A., Angermeyer, M., Benjet, C., . . . Kessler, R. C. (2009). DSM–IV personality disorders in the WHO World Mental Health Surveys. *The British Journal of Psychiatry*, *195*(1), 46–53. http://dx.doi.org/10.1192/bjp.bp.108.058552

Jacobson, N. S., & Truax, P. (1991). Clinical Significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology*, *59*(1), 12–19. https://doi.org/10.1037/0022-006X.59.1.12

Kernberg, O. (1996). A psychoanalytic theory of personality disorders. In J. F. Clarkin & M. F. Lenzenweger (Eds.), *Major theories of personality disorders* (pp. 106–140). New York, NY: Guilford.

Kramer, U., Vaudroz, C., Ruggeri, O., & Drapeau, M. (2013). Biased thinking assessed by external observers in borderline personality disorder. *Psychology and Psychotherapy: Theory, Research and Practice*, *86*(2), 183–196. https://doi.org/10.1111/j.2044-8341.2011.02056.x

Krueger, R. F., Derringer, J., Markon, K. E., Watson, D., & Skodol, A. E. (2012). Initial construction of a maladaptive personality trait model and inventory for DSM–5. *Psychological Medicine*, *42*, 1879–1890. https://doi.org/10.1017/S0033291711002674

Lenzenweger, M. F., Lane, M. C., Loranger, A. W., & Kessler, R. C. (2007). DSM-IV personality disorders in the National Comorbidity Survey Replication. *Biological Psychiatry*, *62*(6), 553–564. https://doi.org/10.1016/j.biopsych.2006.09.019

Liebke, L., Koppe, G., Bungert, M., Thome, J., Hauschild, S., Defiebre, N., . . . Lis, S. (2018). Difficulties with being socially accepted: An experimental study in borderline personality disorder. *Journal of Abnormal Psychology*, *127*(7), 670–682. https://doi.org/10.1037/abn0000373

Linehan, M. M., Armstrong, H. E., Suarez, A., Allmon, D., & Heard, H. L. (1991). Cognitive-behavioral treatment of chronically parasuicidal borderline patients. *Archives of General Psychiatry*, *48*(12), 1060–1064. https://doi.org/10.1001/archpsyc.1991.01810360024003

Littell, R. C., Milliken, G. A, Wolfinger, R. D., & Oliver, S. (2006). *SAS for Mixed Models* (2nd ed.). Cary, NC: SAS Institute.

Liu, R. T., Kraines, M. A., Massing-Schaffer, M., & Alloy, L. B. (2014). Rejection sensitivity and depression: Mediation by stress generation. *Psychiatry: Interpersonal and Biological Processes*, *77*(1), 86–97. https://doi.org/10.1521/psyc.2014.77.1.86

Luborsky, L. (1984). *Principles of psychoanalytic psychotherapy: A manual for supportive-expressive treatment*. New York, NY: Basic Books.

Luborsky, L., Mark, D., Hole, A. V., Popp, C.A., Goldsmith, B., & Cacciola, J. (1995). Supportive-expressive dynamic psychotherapy for depression: Axis I. In J. P. Barber & P. Crits-Christoph (Eds.), *Dynamic therapies for psychiatric disorders: Axis I* (pp. 13–42). New York, NY: Basic Books.

Macran, S., Ross, H., Hardy, G.E., & Shapiro, D. A. (1999). The importance of considering clients' perspectives in psychotherapy research. *Journal of Mental Health*, *8*(4), 325–337. https://doi.org/10.1080/09638239917256

McCarthy, K. S., & Barber, J. P. (2009). The multitheoretical list of therapeutic interventions (MULTI): Initial report. *Psychotherapy Research*, *19*(1), 96–113. https://doi.org/10.1080/10503300802524343

McCarthy, K. S., Keefe, J. R., & Barber, J. P. (2016). Goldilocks on the couch: Moderate levels of psychodynamic and process-experiential technique predict outcome in psychodynamic therapy. *Psychotherapy Research*, *26*(3), 307–317. https://doi.org/10.1080/10503307.2014.973921

Meyer, B., Ajchenbrenner, M., & Bowles, D.P. (2005). Sensory sensitivity, attachment experiences, and rejection responses among adults with borderline and avoidant features. *Journal of Personality Disorders*, *19*(6), 641–658. https://doi.org/10.1521/pedi.2005.19.6.641

Meyer, B., Pilkonis, P. A., & Beevers, C. G. (2004). What's in a (neutral) face? Personality disorders, attachment styles, and the appraisal of ambiguous social cues. *Journal of Personality Disorders*, *18*(4), 320–336. https://doi.org/10.1521/pedi.2004.18.4.320

Morey, L. C., Berghuis, H., Bender, D. S., Verheul, R., Krueger, R. F., & Skodol, A.E. (2011). Toward a model for assessing level of personality functioning in DSM–5, Part II: Empirical articulation of a core dimension of personality pathology. *Journal of Personality Assessment*, *93*(4), 347–353. https://doi.org/10.1080/00223891.2011.577853

Napolitano, L. A., & McKay, D. (2007). Dichotomous thinking in borderline personality disorder. *Cognitive Therapy and Research*, *31*(6), 717–726. https://doi.org/10.1007/s10608-007-9123-4

Newton-Howes, G., Tyrer, P., Johnson, T., Mulder, R., Kool, S., Dekker, J., & Schoevers, R. (2014). Influence of personality on the outcome of treatment in depression: Systematic review and meta-analysis. *Journal of Personality Disorders*, *28*(4), 577–593. https://doi.org/10.1521/pedi_2013_27_070

Pfohl, B.M., Blum, N., & Zimmerman, M. (1997). *Structured Interview for DSM-IV Personality (SIDP-IV)*. Washington, DC: American Psychiatric Publishing.

Poggi, A., Richetin, J., & Preti, E. (2019). Trust and rejection sensitivity in personality disorders. *Current Psychiatry Reports*, *21*, 69. https://doi.org/10.1007/s11920-019-1059-3

Pretzer, J. (2004). Cognitive therapy of personality disorders. In J. Magnavita (Ed.), *Handbook of personality disorders* (pp. 169–191). New York, NY: John Wiley & Sons Inc.

Roussos, A. (2013). Introduction to special section on clients' perceptive of change in psychotherapy. *Psychotherapy*, *50*, 503–504. https://doi.org/10.1037/a0033847

Safran, J. D., & Muran, J. C. (2000). Resolving therapeutic alliance ruptures: Diversity and integration. *Journal of Clinical Psychology*, *56*(2), 233–243. https://doi.org/10.1002/(SICI) 1097-4679(200002)56:2<233::AID-JCLP9>3.0.CO;2-3

Sharp, C., Ha, C., Carbone, C., Kim, S., Perry, K., Williams, L., & Fonagy, P. (2013). Hypermentalizing in adolescent inpatients: Treatment effects and association with borderline traits. *Journal of Personality Disorders*, *27*, 3–18. https://doi.org/10.1521/pedi.2013.27.1.3

Sheehan, D. V., Lecrubier, Y., Sheehan, K. H., Amorim, P., Janavs, J., Weiller, E., & Dunbar, G. C. (1998). The Mini-International Neuropsychiatric Interview (MINI): The development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *The Journal of Clinical Psychiatry*, *59*(Suppl 20), 22–33.

Sheehan, D. V., Sheehan, K. H., Shytle, R. D., Janavs, J., Bannon, Y., Rogers, J. E., . . . Wilkinson, B. (2010). Reliability and validity of the Mini International Neuropsychiatric Interview for Children and Adolescents (MINI-KID). *The Journal of Clinical Psychiatry*, *71*(3), 313–326. https://doi.org/10.4088/JCP.09m05305whi

Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin*, *86*, 420–428. https://doi.org/10.1037/0033-2909.86.2.420

Skodol, A. E., Grilo, C. M., Pagano, M. E., Bender, D. S., Gunderson, J. G., Shea, M. T., . . . Mcglashan, T. H. (2005). Effects of personality disorders on functioning and well-being in major depressive disorder. *Journal of Psychiatric Practice*, *11*, 363–368. https://doi.org/10.1097/00131746-200511000-00002

Solomonov, N., McCarthy, K. S., Gorman, B. S., & Barber, J. P. (2018). The multitheoretical list of therapeutic interventions–30 items (MULTI-30). *Psychotherapy Research*, *29*(5), 565–580. https://doi.org/10.1080/10503307.2017.1422216

South, S. C. (2014). Personality pathology and daily aspects of marital functioning. *Personality Disorders: Theory, Research, and Treatment*, *5*(2), 195–203. https://doi.org/10.1037/per0000039

Staebler, K., Helbing, E., Rosenbach, C., & Renneberg, B. (2011). Rejection sensitivity and borderline personality disorder. *Clinical Psychology & Psychotherapy*, *18*, 275–283. https://doi.org/10.1002/cpp.705

Stiles, W. B., Honos-Webb, L., & Surko, M. (1998). Responsiveness in psychotherapy. *Clinical Psychology: Science and Practice*, *5*(4), 439–458. https://doi.org/10.1111/j.1468-2850.1998.tb00166.x

Tufekcioglu, S., Muran, J. C., Safran, J. D., & Winston, A. (2013). Personality disorder and early therapeutic alliance in two time-limited therapies. *Psychotherapy Research*, *23*(6), 646–657. https://doi.org/10.1080/10503307.2013.843803

Veen, G., & Arntz, A. (2000). Multidimensional dichotomous thinking characterizes borderline personality disorder. *Cognitive Therapy and Research*, *24*(1), 23–45. https://doi.org/10.1023/A:1005498824175

Verheul, R., Andrea, H., Berghout, C. C., Dolan, C., Busschbach, J. J. V., van der Kroft, P. J. A., . . . Fonagy, P. (2008). Severity Indices of Personality Problems (SIPP-118): Development, factor structure, reliability, and validity. *Psychological Assessment*, *20*(1), 23. https://doi.org/10.1037/1040-3590.20.1.23

Wagner, A. W., & Linehan, M. M. (1999). Facial expression recognition ability among women with borderline personality disorder: Implications for emotion regulation? *Journal of Personality Disorders*, *13*(4), 329–344. https://doi.org/10.1521/pedi.1999.13.4.329

Weertman, A., Arntz, A., Schouten, E., & Dreessen, L. (2006). Dependent personality traits and information processing: Assessing the interpretation of ambiguous information using the Thematic Apperception Test. *British Journal of Clinical Psychology*, *45*(2), 273–278. https://doi.org/10.1348/014466505X85853

Zilcha-Mano, S., Dolev, T., Leibovich, L., & Barber, J. P. (2018). Identifying the most suitable treatment for depression based on patients' attachment: Study protocol for a randomized

controlled trial of supportive-expressive vs. supportive treatments. *BMC Psychiatry*, *18*, 2–9. https://doi.org/10.1186/s12888-018-1934-1

Supporting Information

The following supporting information may be found in the online edition of the article:

Table S1. Estimated variance of the therapist's and patient's random effects.
Table S2. The interaction between patients' personality levels and time, as well as the main effects in predicting therapist- and patient-reported multi and the differences between them.