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Emotional Processing, Interaction Process, and Outcome in Clarification-Oriented Psychotherapy for Personality Disorders: A Process-Outcome Analysis

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Abstract

It is important to understand the change processes involved in psychotherapies for patients with Personality Disorders (PDs). One patient process that promises useful in relation to the outcome of psychotherapy is emotional processing. In the present process-outcome analysis, we examine this question by using a sequential model of emotional processing and by additionally taking into account a therapist’s appropriate responsiveness to a patient’s presentation in clarification-oriented psychotherapy (COP), a humanistic-experiential form of therapy. The present study involved \(N = 39\) patients with a range of PDs undergoing COP. Session 25 was assessed as part of the working phase of each therapy by external raters in terms of emotional processing using the Classification of Affective-Meaning States (CAMS) and in terms of the overall quality of therapist-patient interaction using the Process-Content-Relationship Scale (BIBS). Treatment outcome was assessed pre- and post-therapy using the GSI of the SCL-90-R and the BDI. Results indicate that the good outcome cases showed more self-compassion, more rejecting anger, and a higher quality of therapist-patient interaction, compared to poorer outcome cases. For good outcome cases, emotional processing predicted 18% of symptom change at the end of treatment, which was not found for poor outcome cases. These results are discussed within the framework of an integrative understanding of emotional processing as an underlying mechanism of change in COP, and perhaps in other effective therapy approaches for PDs.

Key-Words: Emotional Processing; Interaction Process; Personality Disorders; Clarification-Oriented Psychotherapy; Therapist Intervention; Sequential Model; Process-outcome
Emotional Processing, Interaction Process and Outcome in Clarification-Oriented Psychotherapy for Personality Disorders: A Process-Outcome Analysis

Introduction

Whereas psychotherapies for Personality Disorders tend to be effective, there is still little evidence how and why these effects are produced. Comparison between bona fide psychotherapies did not confirm the superiority of any specific form of treatment, particularly when controlling for researcher’s allegiance (Budge et al., 2013). A current challenge in the field of PDs treatment research is to investigate the underlying mechanisms of change (Smith et al., 2006; Clarkin & Levy, 2006), in the aim of a detailed and parsimonious understanding of how and why these treatments work (Kazdin, 2009).

There is emerging agreement that the core issue with PDs is a disturbance with self-concept, along with problematic interpersonal behaviors (Clarkin, 2012; Livesley, 2001). Even though the specific treatment targets might be quite different for the range of theoretical approaches (Clarkin, 2012; Livesley, 2012), several inter-related mechanisms of change have been identified, such as the quality of insight (Johansson et al., 2010), mentalizing (Dimaggio et al., 2013) and emotional processing (McMain et al., 2010). From an integrative viewpoint, it is assumed that these processes cut across various approaches to therapy, although there might be functions specifically associated with change for a given form of therapy (Levy et al., 2006) or certain patient characteristics (Clarkin, 2012; Critchfield, 2012).

Emotional processing denotes the progressive awareness, working-through, regulation and integration of emotions experienced by the individual (Greenberg & Pascual-Leone, 2006). Moreover, disturbance to emotional processing is often regarded as at the core of PDs (McMain et al., 2010; Dimaggio et al., 2013) and emotional change is seen a key process to accelerate symptom reduction (Magnavita, 2006). In addition to interpersonal problems, patients with PD tend to present with impoverished affective experiences (Dimaggio et al.,
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2012), with alexithymic features (Joyce et al., 2013; but see also Nicolo et al., 2011) and have problems with recognizing and communicating emotions (Domes, Schulze & Herpertz, 2011). Change in alexithymia was related with outcome (Ogrodniczuk, Joyce & Piper, 2013) in a clinical sample where over 30% met criteria for PDs. Therefore, the study on emotional processing as a correlate of change for patients with PD undergoing treatment is promising.

In line with the aforementioned definition, emotional processing involves a variety of aspects, such as down regulating the intensity of emotion, the construction of new meaning related to emotion and emotional transformation aimed at changing emotion with emotion (Greenberg & Pascual-Leone, 2006; Greenberg, 2002). So far, treatment research has mostly focused on down regulating the intensity of emotion, (e.g., Neacsiu, Rizvi & Linehan, 2010; McMain et al., 2013). No research on PDs has focused on the transformation process perspective, studying how emotion changes emotion in the therapy hour, and how such a process is linked with in-session interaction and outcome.

**Humanistic-experiential psychotherapies for personality disorders**

To date, evidence on the efficacy of humanistic-experiential treatments for patients with PD is inconclusive. Whereas the classical client-centered model (Rogers, 1951) has shown insufficient outcome and process qualities with regard to the treatment of this patient population (e.g., Cottraux et al., 2009), emotion-focused therapy, by integrating techniques from client-centered and Gestalt therapy into a process-directive approach (Greenberg, 2002; Greenberg & Paivio, 1997), has suggested specific treatment adaptations for patients with PDs (Pos & Greenberg, 2012; Pos, 2014). Based on the earlier writings in emotion-focused therapy (Greenberg et al., 1993; Greenberg & Paivio, 1997), focusing (Gendlin, 1981) and interpersonal-experiential psychotherapy (van Kessel & Lietaer, 1998), clarification-oriented psychotherapy (COP; Sachse, 1998; 2003; 2004) has developed as a specifically adapted integrative model for the treatment of patients with PD (Sachse et al., 2011). Evidence is
mixed with regard to therapeutic outcome of COP, with one study suggesting less than optimal efficacy of COP compared to schema-therapy (Bamelis et al., 2014), and others suggesting effects are similar to those of other therapies for PDs (e.g., Sachse et al., 2011). Nevertheless, it remains one of the most often practiced treatments for PDs in European psychotherapy rooms (and in German, in particular). Therefore, more research is needed in order to better understand this approach to therapy.

In a nutshell, COP assumes that patients with PD present with two internal executive systems, (a) an authentic action and (b) a strategic (nontransparent) action system (Sachse, 2003; Sachse et al., 2011). This distinction is used to explain patient problems in the domains of self-concept and interpersonal behaviors (Livesley, 2012). The authentic action system includes the person’s adaptive access to healthy need satisfaction. These authentic actions are based on motives, which is consistent with what is discussed in the interpersonal literature on case formulation of motives as underlying a behavior (i.e., c.f. Plan Analysis as applied to PD; see Kramer, Berthoud, Keller, & Caspar, 2014). The idea of an authentic action system is also consistent with the notion of a progressive wish, as discussed in case formulations based on a Core Conflictual Relationship Themes (see Dimaggio, 2012, for how this has been applied to PDs).

In contrast, the strategic action system encompasses the so-called interactional maneuvers (or “games”) using indirect means as proxy for need satisfaction, leaving the person fundamentally dissatisfied with his or her interactions and thereby creating personal problems. Interpersonal maneuvers involve an external (i.e., interpersonal) focus, for example a patient presenting to others as a strong invincible person (consistent with the typical self-image of patients with narcissistic PD; see Ronningstam & Weinberg, 2013) or as a particularly seductive and charming person (consistent with the typical self-image of patients with histrionic PD). Even so, at the same time at this interpersonal posturing, patients are
often neglecting the focus on their inner experiences, which is an key issue for COP. This difference between the two action systems is the core of the case formulation made for each patient, in the sense of tailoring down generic intervention principles in idiosyncratic terms to each patient (see Critchfield, 2012). As such each type of behavior calls for specific therapist interventions. The core therapeutic technique of COP, the clarification process, involves increasing a patient’s awareness of emotion, cognition, wishes, motives and expectations underlying his or her interactional maneuvers. The COP-approach uses the results of an idiosyncratic case formulation and puts them into structured therapeutic action.

In this context, it is expected that patients and therapists contribute to the depth of this clarification process in a mutually responsive way, step by step. Such a process, in line with process-experiential literature (Greenberg et al., 1993; Sachse & Elliott, 2002; Sachse, 2003) and earlier research (e.g., Sachse, 1993; 1992), entails a patient’s moderate emotional arousal, the construction of new meaning, and for the therapist to gently guide the patient to underlying core processes, -- an intervention consistent with process-directiveness. Core processes are driven by assumptions which may concern the self or the self in interaction with others, such as “I am fundamentally noxious for the relationship” or “Nobody is interested in what I have to say.” These assumptions are directly linked with their biographical origins and the authentic action system (i.e., motives and needs for attachment, acceptance and boundaries). The patient's shame- or fear-related concerns, as in the examples given, are at the center of the clarification process (Sachse & Langens, 2014). Such effective working through seems only feasible when a prolonged focus onto the internal experience is possible. For this reason, interactional maneuvers need to be attenuated (which requires approximately 10 to 15 sessions; Sachse et al., 2011) before working through core fear or shame. Summing up, an effective COP working phase – where the actual change is supposed to take place - requires that the therapist build an efficient case formulation, understanding, responsive process-
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directiveness, and the process of deepening affect. Furthermore, it requires that the patient comes to use a lower frequency of interactional maneuvers and develops a higher level of trust into the therapist, as well as work directly on core internal concerns of fear or shame. All these components define together the quality of the interaction, and are believed to contribute to good outcomes.

There is emerging data on COP for patients with PDs. In a process-outcome study of patients presenting with PDs, where schema-focused therapy was compared to COP and treatment as usual, Arntz and colleagues (2012) examined patient’s word-use during spontaneous speech. The results showed that after treatment, patients in both active treatments changed their use of emotion-related word categories, for example they began using more positive emotion words, fewer negative emotion words, as well as fewer negations. Decreases in the latter two categories were the strongest predictors of symptom change at the end of treatment (Arntz et al., 2012). However, this study did not assess the quality of the interaction as possibly contributing to process and outcome variables (Stiles, Honos-Webb, & Surko, 1998). Therefore, in such process-outcome analyses, it seems important to assess the quality of the dyadic interaction, in addition to patient emotion process.

Transformation of fear and shame as mechanism of clarification-oriented psychotherapy

Emotional processing is operationalized from a transformation perspective, using a sequential model (Pascual-Leone & Greenberg, 2007). This sequential model is based on the basic difference between primary (adaptive vs. maladaptive) emotions and secondary/instrumental emotions according to Greenberg and Paivio (1997). In the step-by-step resolution of emotional states, this model starts from a non-differentiated, highly aroused, and poorly integrated secondary emotion (global distress), is differentiated into primary maladaptive fear and/or shame, and then eventually into primary and adaptive emotional
processes of self-acceptance and the emergence of agency in which individuals identify and fully experience healthy and productive emotion (Figure 1). Thus, affective-meaning states related to fear or shame are conceptualized here as core maladaptive emotions and represent an early (incomplete) stage of emotion resolution. This model has been validated in the context of emotion-focused therapy (Greenberg, 2002; Pascual-Leone & Greenberg, 2007; Pascual-Leone, 2009) and psychodynamic psychotherapy (Kramer, Pascual-Leone, Despland, & de Roten, in press), and has been applied to a case study in the treatment of personality disorders (Berthoud, Kramer, Caspar, & Pascual-Leone, in press). Taking the initial affective-meaning state of global distress as starting point, Pascual-Leone and Greenberg (2007) showed that in-session emotional progressions were sequential in nature and this order was associated with positive session-outcomes for patients with depression and unresolved interpersonal trauma. The model (shown in Figure 1) can be divided into three different phases of emotion change: (1) early expressions of distress (i.e., global distress, maladaptive fear, shame and rejecting anger) serve as markers of patient arousal and engagement and are the early "stepping-stones" in a sequence towards more productive emotional processing. Next, (2) an intermediate level of processing represent the cognitive “meaning” correlates of maladaptive shame or fear, namely a core negative self-evaluation, (i.e., a sense of being unworthy, or unlovable) and some unmet existential need (i.e., an unmet need for closeness, independency, intimacy, understanding and respect). Finally, (3) advanced meaning making (i.e., hurt or grief, assertive anger, self-compassion) represent the most adaptive emotions and the deepest level of processing. So far, no studies have used this model for process-outcome research of PDs.

The current study proposes to analyze emotional processing in COP for patients presenting with PDs, by taking into account the quality of interaction, and relating these critical variables to outcome. Such research would help to (a) understand the core
mechanisms of change involved in clarification-oriented psychotherapy, as practiced in a naturalistic environment; (b) show the relevance of emotion transformation as a concept relevant to helping patients with PDs; and (c) ultimately, contribute to the discussion of integrative psychotherapy regarding specific in-session markers for emotion transformation as predictors of therapeutic outcome.

Hypotheses

Our hypotheses for the present study concerned the treatment of PDs using COP, by focusing on an arbitrarily chosen session during the working phase of therapy, where the core changes are supposed to take place. We hypothesized that (1) the working phase sessions will have a higher frequency of advanced meaning making components (i.e., states of primary assertive anger, hurt/grief, or self-compassion) among good outcome cases, as compared to poor outcome cases. (2) The presence of fear or shame in the second part of these active sessions (i.e., from minute 20 until the end of the session) is predicted by the quality of interaction in the first part of the same session (i.e., from minute zero until 20 of the session).

Method

Participants

Patients. A total of $N = 39$ patients participated in this naturalistic trial. They were self-referred patients consulting at a German-speaking Consultation Center specialized in the treatment of Personality Disorders. All participants met criteria on the SCID-II for at least one PD. The main PD diagnosis was defined as the disorder which had the greatest number of above-threshold criteria met by each patient. In our sample these included narcissistic (19 patients; 49% of the total sample), histrionic (15; 38%); obsessive-compulsive (3; 8%) and borderline (2; 5%). In addition to the main PD diagnosis, comorbidity often occurred with either an axis I or a second axis II disorder. In total, $n = 30$ of these patients (77%) also presented with co-morbid disorders on axis I on the DSM-IV: 15 (38% of the total sample)
presented with major depression, 10 (26%) presented with substance abuse, 5 (13%) with somatoform disorder, 3 (8%) with generalized anxiety disorder and 1 (3%) presented with post-traumatic stress disorder. Patients presenting with psychosis or bipolar disorder were excluded from the sample. Moreover, on axis II, 10 patients (26%) presented with an additional co-morbid personality disorder: 4 (10%) with histrionic, and 2 (5%) each with narcissistic, dependent and avoidant personality disorders. DSM-IV-diagnoses (APA, 1994) were established by trained researcher-clinicians using the Structured Clinical Interview for DSM-IV (SCID; First, Spitzer, Williams, & Gibbon, 2004) for axes I and II of the DSM-IV.

The mean age of the sample was 37.59 years ($SD = 9.10$; range = 22 - 60) and about half were female ($n = 19$; 49%). All patients gave written informed consent for their data to be used for research. The patients were selected from a larger dataset, within a naturalistic trial; selection criteria for cases in our process-outcome analysis were (a) diagnostic inclusion and exclusion criteria (see above), (b) complete record of outcome data (pre/post assessments). From a total of $N = 80$ patients considered for analysis, 20 were excluded due to failure to meet criteria ‘a’, while 21 more were excluded due to failure to meet criteria ‘b’.

Therapists. The therapists ($N = 27$) were psychologists and psychotherapists in training according to German federal law. For the entire sample, 1 therapist treated 3 patients, 10 therapists treated 2 patients each, and 16 therapists treated 1 patient each. Therapists had 2 to 4 years of clinical experience, and three years of training in the COP model. Therapists did not have access to research data until the full dataset was collected.

Treatment

Clarification-oriented psychotherapy (COP) is a development of client-centred psychotherapy, and represents a specific adaptation to the treatment of patients presenting with PDs, with a particular focus on the reduction of interpersonal manoeuvres and the clarification of a network of underlying assumptions, emotions and motives (see introduction;
Sachse, 1998, 2003; Sachse et al., 2011). Thus, the COP model fosters a patient’s personally relevant and valid representation of his or her internal determinants (i.e., emotions, cognitions, motivations, needs) related to interactional problems. As such the treatment promotes active transformation of these internal experiences. A manual describing the stages and specific techniques involved in COP for PD (Sachse, Sachse, & Fasbender, 2011) was the basis of therapists' training in the present study. All therapies were supervised by the model developers. Treatments lasted between 45 and 99 weekly sessions with a mean of 61.85 sessions (SD = 10.80).

**Instruments**

**Symptom Check List SCL-90-R** (Derogatis, 1994). This questionnaire consists of 90 items addressing various somatic and psychological signs of distress. These items are scored using a Likert-type scale from 0 (not at all) to 4 (very much). Our study used the Global Severity Index (GSI, score ranging from 0 to 4), which is a mean rated over all symptoms. Clinical cut-off score is .80. The German version yielded satisfactory validation coefficients (see Franke, 1995). Cronbach’s alpha for this sample was .92. Mean GSI at intake for the entire sample was 1.12 (SD = .69; ranging from .15 to 2.83), at discharge .68 (SD = .64; ranging from 0.02 to 1.85; pre-post effects: \( t(1, 38) = 4.52; p = .00; d = .66 \)).

**Beck Depression Inventory-II** (BDI-II; Beck, Steer, & Brown, 1996). The German version of the BDI-II was used (for validation coefficients see Hautzinger et al., 1995). This self-report measure assesses depressive symptoms using 21 items. The intensity of each symptom is rated on a four point Likert-type scale (0-3). The sum score of all items is computed, with the clinical cut-off of 10 for mild depression. Internal consistency (Cronbach’s alpha) for the scale for this sample was .87. Mean BDI at intake for the entire sample was 19.47 (SD = 12.53; ranging from 1 to 48), at discharge 13.32 (SD = 10.18; ranging from 1 to 30; pre-post effects: \( t(1, 37) = 4.29; p = .00; d = .54 \)).
Classification of Affective-Meaning States (CAMS; Pascual-Leone & Greenberg, 2005). The CAMS is an observer-based rating system for the process-assessment of distinct emotions in therapy sessions, developed based on emotion-focused theory (i.e., Greenberg, 2002; Greenberg & Paivio, 1997). The CAMS assesses 10 affective-meaning states on 9 different levels of emotion resolution, ranging from the least to the most resolved (see Figure 1): (1) Global distress, (2) Fear/shame, (3) Rejecting anger, (4) Negative evaluation, (5) Need, (6) Relief, (7) Hurt/grief, (8a) Assertive anger, (8b) self-soothing, and (9) Acceptance/agency. In addition, two non-specific codes were also used for coding integrity: mixed/uncodable and end code. A manual (Pascual-Leone & Greenberg, 2005) guides the rater to effectively give codes based on a moment-by-moment analysis of audio-/video-recordings. Raters were blind to one another’s coding on the CAMS, to treatment outcomes of cases they were coding, and research hypotheses. Reliability was conducted using ratings for a sub-sample of 13 cases (a 33% reliability sample) following the method described by Pascual-Leone (2009). The results for inter-rater reliability on the distinct emotion categories were excellent (Mean Cohen's $\kappa = .93$; SD = .12, ranging between .66 and 1.00).

Processing-Content-Relationship Scale (Bearbeitungs-, Inhalts- Beziehungsskalen (BIBS; Sachse, Schülken, Sachse & Leisch, 2011; Kramer & Sachse, 2013) is an observer-rated instrument which assesses the quality of the therapeutic interaction according to the COP-model (Sachse, 2003). Each of the 54 items is rated on a Likert-type scale, ranging from 0 to 6. Global ratings are made for both patient's and therapist’s processes that occur during 10 minutes using video-/audio- recordings of a mid-session segment (between minutes 10 and 20). On this scale, higher scores always reflect better interaction quality. Because the rating of therapist interaction is dependent from the patient rating (Kramer & Sachse, 2013), the BIBS can be thought of as an instrument for taking into account what Stiles and colleagues (1998) called therapist responsiveness. The validation study (Sachse et al., 2011) showed good...
reliability coefficients (κ varied between .72 and .85; Intra-Class Correlation coefficients (ICC (2, 1)) varied between .69 and .83). From the patient’s perspective, three sub-scales are defined (content, process, and relationship). An example of interactional maneuvers (as part of the relationship sub-scale) is, “The patient tries to control the relationship.” From the therapist’s perspective, six sub-scales are defined (relationship, understanding, process directivity, treatment of patient’s avoidance, treatment of interactional maneuvers, treatment of schemes). An example of process-directivity is “The therapist guides the patient’s process in a constructive fashion.” Cronbach’s alpha for our sample (all items together) was α = .95. In total, 15 cases were rated by two raters independently (out of three total raters for this study rating the BIBS), which represents a 38% of reliability sample and the level of reliability was good (Mean ICC (1, 2) = .92; SD = .05; range between .82 and .98). The overall mean of the quality of the patient interaction was 3.64 (SD = 1.22) and the quality of the therapist interaction was 3.04 (SD = 0.78).

Procedure

**Forming comparison groups.** After the completion of treatment, the reliable clinical change index (Jacobson & Truax, 1991) of pre-post change on the GSI was computed for each case, categorizing all patients into two sub-groups: (1) RCI change > 1.96; (2) RCI change < 1.96. This cut-off is used in psychotherapy research (Jacobson & Truax, 1991) and is used here to divide the sample *a posteriori* into two outcome groups; *n* = 18 good outcome cases (RCI change > 1.96) and *n* = 21 poor outcome cases (RCI change < 1.96).

**Patients per therapist per group.** The nesting of patients per therapist and per group is relevant for determining therapists’ influence on the hypothesized process-outcome (Baldwin, Wampold & Imel, 2007) and was as follows: Among good outcome cases, a total of 16 therapists treated the 18 patients (1 therapist treated 3 patients, another 15 treated 1 each), while among poor outcome cases, a total of 16 therapists treated the 21 patients (5
therapists treated 2 patients, another 11 therapists treated 1 each). Among the 10 therapists who had 2 patients in total, five therapists had one patient in each group.

**Session selection.** All psychotherapy sessions were audio-recorded, and a single session from the working phase was chosen for analysis for each therapy case. Previous process-analyses (Sachse & Elliott, 2002) suggested that the use of the same session number across cases, to be defined in an arbitrary manner, is representative of the processes under examination. Following this rationale, session 25 was selected to for analysis, as an arbitrarily chosen session representative of the working phase in COP. Only one session was chosen to address the main process to outcome hypotheses of between-group differences.

**Raters and training.** Two raters were involved in the ratings of emotional processing (Classification of Affective Meaning States; CAMS). One rater was a senior researcher, the other a PhD-level student, and both had over two years of extensive training in using the coding system involving about 40 hours of actual rater training on specifically prepared material stemming from the original studies where the CAMS has been developed (i.e., different from the material used in the present study). For the scale of interaction quality (BIBS), three raters were involved, one was a PhD-level student and psychotherapist, another was a senior researcher, and the third was a developer of the scale. All three had previous extensive training in the rating of the BIBS which lasted 2 years (40 hours in total). All training cases for the BIBS were different from the cases included in the present study.

**Procedures for coding emotion.** The current study applied continuous cross-classification ratings, which means that for each session analyzed, a code on the CAMS was given at all times throughout the entire session. Because there were no specific hypotheses depending on the length of time intervals as variable, we standardized, in a second step, the length of each emotion event. In order to do this, all raw CAMS codes were recoded taking the presence of a minimum of one minute per code as a threshold for occurrence. The specific
codes of negative evaluation and existential need were an exception to this rule, those codes were introduced into the analyses based on their frequency in the raw ratings given their rating criteria necessarily imply shorter statements. Identical procedures for coding emotion were used by Kramer, Pascual-Leone, Despland and de Roten (in press).

**Statistical analyses**

For results to be meaningful, preliminary analyses first demonstrated between-group comparability for a series of baseline variables. The quality of the interaction was compared between the two groups, by using two MANOVAs (one on the patient, and one on the therapist, sub-scales of the BIBS). In order to control for the therapist effects on these between-group differences, a two-level Hierarchical Linear Model (HLM; Bryk & Raudenbush, 1987) was computed, where the patients were on level 1 and the therapists on level 2 (Note: a third group was added for all HLM computations for the 5 therapists who treated one patient in each group; Level 1: $\gamma_{ij} = \beta_{0j}*(patient) + \beta_{1j} + \epsilon$; Level 2: $\beta_{0j} = \gamma_{00} + \mu_{0j}$; $\beta_{1i} = \gamma_{10} + \gamma_{11}*(group) + u_{ij}$).

In order to test hypothesis 1, which stated that in good outcome cases, there would be a higher frequency of advanced meaning making components compared to poor outcome cases, we conducted a series of $t$-tests (between-group comparisons) for the presence for each emotion category. Again, in order to control for the possible influence of the therapist factor on the between-group effects, we conducted a series of additional two-level HLMs (see formula above). In order to corroborate the importance of advanced meaning making components (i.e., assertive anger, grief, self-compassion) in the analyzed sessions, we tested if their presence would predict symptom change at the end of treatment, using linear regression.

Hypothesis 2 postulated that emotional processing in the second part of the session (starting at 20 minutes of the session) is predicted by the quality of interaction in the first part of the same session (in the first 20 minutes). In order to make a choice between the model
predictors with regard to BIBS sub-scales predicting an in-session presence of fear or shame, a series of Pearson correlations were performed as preliminary analyses. Based on these, a regression model predicting the occurrence of fear or shame was performed.

We controlled for the number of tests done for each hypothesis, using Bonferroni’s correction.

**Results**

**Preliminary analyses**

The two groups were shown to be equivalent on several key variables. When comparing the two groups with regard to socio-demographic variables, no difference was found on gender ($\chi^2 = 1.29; p = .34$), age ($t(1, 37) = 0.27; p = .79$) and length of psychotherapy ($t(1, 37) = 0.02; p = .98$). Also concerning the level of symptom severity at intake, no difference was found (BDI: $t(1, 37) = 1.27; p = .17$; GSI: $t(1, 37) = 1.39; p = .21$), which was corroborated by the equivalence in terms of diagnostic information across the two samples, for the main diagnosis ($\chi^2 = 5.34; p = .15$) and the number of co-morbid conditions ($t(1, 37) = 1.25; p = .22$). When considering the number of CAMS-codes given per session, they ranged between 16 and 20, this too was comparable across groups ($t(1, 37) = 1.09; p = .28$). Therefore, we consider both groups as equivalent on a number of key variables at intake. As expected by design, the groups differed on the BDI and GSI scores at discharge (BDI: $t(1, 37) = 2.13; p = .04; d = .68$; GSI: $t(1, 37) = 3.78; p = .00+; d = 1.20$).

The test of the quality of interaction yielded the following results using the BIBS. First a MANOVA on the quality of the patient's sub-scores differentiated the good outcome cases from the poor outcome cases: $F(4, 34) = 4.14; p = .01$: the good outcome cases presented with greater quality of patient's interaction (Mean = 4.08 (SD = 1.09)), when compared with the poor outcome cases (3.26 (1.21)). Second, a MANOVA on the quality of therapists’ interaction did not differentiate the two groups: $F(6, 32) = 1.18; p = .34$ (good outcome: 2.99
The HLM model controlling for the therapist influence yielded comparable results as found by the MANOVA: HLM showed a significant group-effect on the quality of the patient's interaction only (Coefficient = 0.31; SE = 0.14; \( t \)-ratio (25) = 2.16; \( p \) = .04), but no effect was found when the HLM-model was computed for the quality of the therapist interaction.

**In-session frequencies of affective-meaning states**

The between-group comparisons yielded two significant differences for the affective-meaning states: rejecting anger (\( t(1, 37) = -1.98; p = .05; d = 0.63 \)) and self-compassion (\( t(1, 37) = -2.28; p = .03; d = 0.73 \)). Both categories presented with higher frequencies in good outcome cases, when compared to poor outcome cases. No other category was significant, when controlling for the number of tests made. The HLM models included the influence of the therapist on these effects. For rejecting anger, a significant between-group effect was found (Coefficient = 0.39; SE = 0.16; \( t \)-ratio (25) = 2.50; \( p \) = .02), as was for self-compassion (Coefficient = 0.79; SE = 0.37; \( t \)-ratio (25) = 2.11; \( p \) = .04); so between-group effects related to emotion categories resisted the influence of the therapist variable. No other category presented between-group differences in these multi-level analyses, which is consistent with the results from the \( t \)-tests shown in Table 1. These analyses were re-run, using the main PD diagnosis - and also, in a separate analysis, the length of each treatment – each as co-variates, and results were identical. Therefore, we may conclude that the specific PD category and length of treatment did not affect this pattern of results and it was meaningful to examine all these patients and therapies together in the same analysis.

A linear regression model showed that the advanced meaning making components predicted the variance on change on the BDI scores for the good outcome cases (\( t(1, 17) = 1.88; p = .05 \)); the aggregated score of all advanced meaning making components predicted 18% of the change on the BDI. This effect was not found in the poor outcome group.
Predicting affective-meaning states using the quality of interaction

In order to test the second hypothesis which related early-in-session therapist and patient interaction processes to the late-in-session core maladaptive emotions of fear and/or shame, exploratory Pearson's correlations were first conducted. (For exploratory purposes, we have also included the category of negative self-evaluation, which in theory is understood to be embedded in the maladaptive emotional experiences of fear and/or shame; Pascual-Leone & Greenberg, 2005). Three variables from the patient interaction (content $r = .51$; relationship, $r = .39$; and interactional maneuvers, $r = .51$) and one therapist variable (process directivity $r = .47$) were linked with the presence of fear or shame. Two therapist process variables (understanding, $r = .34$, and process directivity, $r = .37$) were related to negative self-evaluation (all $p$’s < .05). No other process variable was related to shame/fear or negative self-evaluation.

These variables were entered in two separate linear regression models and the results are presented in Table 2. Both models were significant, when taking into account the number of tests made. The presence of fear or shame (in the second part of session 25) was predicted by the patient's quality of content, relationship and absence of interactional maneuvers, as well as the therapist's process directivity together (measured in the first part of session 25); these variables explained 31% of the variance of core maladaptive fear or shame. Similarly, the presence of negative evaluation was predicted by both a therapist's understanding and process directivity; these variables explained 17% of the variance of the fear or shame-underlying the cognitive component of negative self-evaluation.

Discussion

The present study extended the sequential model of emotional processing to clarification-oriented psychotherapy (COP), a humanistic-experiential treatment for Personality Disorders (PDs). This was done in a naturalistic environment, reflecting the
clinical practice of COP in European countries. The results partially confirmed our hypotheses and in doing so, generally lend support to the importance of emotional processing as potential mechanism of change in the treatments of Personality Disorders.

**Linking specific emotions to outcome in personality disorders**

Our results suggest that emotional processing is qualitatively different in the working phase of clarification-oriented psychotherapy in patients who will eventually enjoy significant symptom reduction, as compared to patients presenting with little or no symptom change. The productive therapy process is characterized by in-session experiences of specific emotions: self-compassion and rejecting anger. The former is one of the advanced meaning making components described by Pascual-Leone and Greenberg’s (2007) sequential model and was predicted by the hypotheses. Thus, the working phase of good outcome cases are characterized by meaning-construction in the form of self-compassion (i.e., towards one’s own existential needs and wishes for care, protection and self-soothing, positive self-talk or enacting a compassionate other). This productive process represents the emergence of an adaptive process of self-caring, often otherwise missing from the emotional repertoire of people suffering with PDs. Interestingly, self-compassion as described in this way is also contingent on a certain level of emotional awareness, which may speak to the basic effort of a clarification-oriented therapy.

The other significant finding of rejecting anger, however, was unanticipated by our hypotheses because it is considered a characteristic of early expressions of distress (see Figure 1) and therefore not usually considered characteristic of good outcome cases. Rejecting anger denotes a reactive emotional expression, where the person wants to get rid of a particular content (by accusing or blaming the other person, or by being very harsh with oneself). Such an emotional reaction is generally characterized by high arousal and low personal meaning (Pascual-Leone & Greenberg, 2007; Pascual-Leone et al., 2012), which is why it is usually
considered part of the early aspects of a sequential process. Moreover, rejecting anger is qualitatively different from assertive anger, a primary and adaptive response to obstacles thwarting the individual’s goals, or a healthy response to intrusion, or injustice (Oatley & Johnson-Laird, 1987; Pascual-Leone & Greenberg, 2005). Even so, the model building research of Pascual-Leone and Greenberg (2007) showed rejecting anger to be indicative of good process sessions during single sessions from the working phase of treatment. Although, rejecting anger is understood to be a stepping-stone toward healthy progress, it remains unanticipated that this should also emerge as a predictor of good final outcomes of treatment.

Upon closer consideration, however, the finding may be related to the unique characteristics of our treatment population. Rejecting anger as part of productive process might be particularly specific to patients with narcissistic and histrionic PDs. Such expressions of anger are well-known in the literature on narcissistic PD (Dimaggio & Attina, 2012; Ronningstam & Weinberg, 2013) as part of problems related to self-concept and grandiosity, but also in the tendency toward harsh self-criticism and even suicidality (Ronningstam & Weinberg, 2013). We understand these problems as expressions of rejecting anger in the daily life of these patients. Paradoxically, these patients tend to actively avoid the full expression of this type of anger in the therapy hour in order to maintain a positive self-image. Therefore, it seems an important transition to inviting these “real” emotional states into the therapy room. The expression of rejecting anger at some point in treatment seems productive for these patients, even though this particular emotion category may have a reactive, under-regulated, unelaborated character (Pascual-Leone et al., 2013). In short, our results show that patients who present with such poorly articulated anger in the working phase enjoy better outcomes: we may speculate that they progressively move, with the help of a responsive therapist, from this state towards a deeper, more differentiated and idiosyncratic form of anger, for example related to asserting boundaries and healthy forms of entitlement.
On another note, neither hurt, grief nor assertive anger emerged as specific characteristics of good process in COP, and this contrasts with observations in the context of emotion-focused therapy (Pascual-Leone & Greenberg, 2007) or short-term dynamic psychotherapy (Kramer et al., in press). The absence of findings here might be attributable to specific techniques used in COP, which focus on the undoing of fear, shame, and negative self-evaluations. The experiential access of specific primary adaptive emotions, such as grief and assertive anger, as part of the transformation process, might be less central in a treatment using COP. Alternatively, we also cannot rule out that the lack of observed grief or assertive anger processes in our good outcome cases might be related to the specific patient population: good therapy process for these patients may not entail access to the full range of primary emotions.

**The role of the therapist and patient interaction quality**

Core maladaptive emotions of fear or shame are central in the working-phase of COP. Our results indicated that fear or shame in the second part of the session were predicted by a series of patient interaction processes: early on in a session, both trust the patient had in the therapist and the relative absence of interactional maneuvers, seem to have prepared the stage for the experience of fear or shame later in the session. In addition, the therapist may have facilitated patient’s fear or shame, by using process directivity. Process directivity, or process guidance, is a specific experiential technique (Greenberg et al., 1993) and adapted in COP to the treatment of PDs (Sachse et al., 2011). It essentially involves the therapist gently guiding the patient to his or her core affect or pain, and towards the use of an internalized perspective, from one moment to the next. Process directivity has shown effects on further productive process and outcome (Sachse, 1992; Sachse & Elliott, 2002). We may add that for patients with PD, it seems particularly helpful when working towards the emergence of core fear or
shame. Because such emotions are central to several PDs (Dimaggio & Attina, 2012; Sachse et al., 2011), their facilitation may actually be important for any treatment of PDs.

The quality of a therapist’s understanding of the patient's core issues and conveying this to the patient, as well as therapist’s use of process direction, again, predicted the patient’s disclosing of core negative self-evaluations. This represents a pivotal step for evolving towards productive emotions. It can therefore be hypothesized that the treatment of PDs involves indirect therapist contributions to outcome (e.g. therapist process directivity) and direct patient’s contributions to outcome (e.g., patient’s process of self-compassion). Such a formulation is consistent, using different concepts and measures, with the conclusions drawn by Johansson and colleagues (2010) on a sample undergoing psychodynamic psychotherapy presenting with a variety of PDs. In their study, a therapist’s use of transference interpretations was only indirectly linked with outcome, via the actual patient’s in-session process in terms of increased insight. These results are also consistent with the interactional notion of therapist responsiveness developed in psychotherapy research (Stiles et al., 1998). This concept implies that outcome effects are the products of complex moment-by-moment adjustments in the dialogue between a therapist’s interventions and the patient’s emotional processes, and not the simple ballistic consequences of therapist interventions. Therapist moment-by-moment adjustment to a patient’s readiness for change seems central in this regard, where the therapist aims to responds in a way that is within the patient’s zone of proximal development (see Leiman & Stiles, 2001; Pascual-Leone, 2009).

Limitations and perspectives

There are a number of limitations to the present process-outcome study. While a naturalistic process-outcome study may not allow one to create randomized controls, it reflects treatment as delivered in the community. The nesting of the patients within the therapists was not optimal (i.e., there were many therapists who only treated one patient),
thus, the results from the HLM must be interpreted with caution. There was no post-session assessment (self-reports by patient or therapist) which would be a different avenue of assessing the quality of an actual session. We did not use a disorder-specific outcome measure, which is a limitation related to the naturalistic setting. Finally, we also did not analyze a second session, earlier or later in the same therapy, which could have allowed one to track the transformation processes over time.

Despite these limitations, this study contributes to the few emerging studies on emotional processing as potential mechanism of change in psychotherapy for PDs. A unique contribution of this paper is that we adopted the notion of emotion transformation, using the sequential model of emotional processing, and used validated process method – all of which are rather new to PD treatment research. Another strength of this study is the examination of the therapist and patient interaction, which considers the concept of therapist responsiveness and is a promising direction for the psychotherapy research of PDs. Ultimately, the broad conceptualization of emotion transformation, as measured in-session, helps to understand which in-session emotional changes, on a minute-by-minute basis, might be predictive of ultimate symptom change.

Therapists working with PD patients are well advised to use moment-by-moment (micro-) direction of the in-session process, preparing step-by-step the stage for the emergence of a patient’s core fear or shame. Once these emotional states are experienced, it is advised to explore and undo their embodied meanings (i.e., negative self-evaluations). This work should contribute to softening a patient’s attitude towards the self and toward others. Fostering anger might be a different avenue of emotion transformation, as suggested by the sequential model. The expression of an otherwise poorly differentiated, rejecting anger within an empathic and welcoming environment might help the patients with PD to dissolve their anger, or to make use of it in a more productive way.
References


processes, alliance, and treatment outcome in borderline personality disorder.

*Psychotherapy Research, 23*, 658-673.


Table 1

Between-group comparisons on affective-meaning states

<table>
<thead>
<tr>
<th>Variables</th>
<th>Good $(n = 18)$</th>
<th>Poor $(n = 21)$</th>
<th>$t_{(1, 37)}$</th>
<th>$p$</th>
<th>$d$</th>
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</thead>
<tbody>
<tr>
<td>Early expressions of distress</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global Distress</td>
<td>6.00 (5.93)</td>
<td>9.80 (7.93)</td>
<td>1.76</td>
<td>.08</td>
<td>0.54</td>
</tr>
<tr>
<td>Fear / Shame</td>
<td>5.32 (5.93)</td>
<td>4.35 (5.71)</td>
<td>-0.52</td>
<td>.61</td>
<td>0.17</td>
</tr>
<tr>
<td>Rejecting Anger</td>
<td>1.26 (2.42)</td>
<td>0.15 (0.67)</td>
<td>-1.98</td>
<td>.05*</td>
<td>0.63</td>
</tr>
<tr>
<td>Intermediate level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative evaluation</td>
<td>0.84 (1.26)</td>
<td>0.60 (1.10)</td>
<td>-0.64</td>
<td>.53</td>
<td>0.20</td>
</tr>
<tr>
<td>Existential Need</td>
<td>0.95 (1.39)</td>
<td>0.40 (0.82)</td>
<td>-1.50</td>
<td>.14</td>
<td>0.49</td>
</tr>
<tr>
<td>Advanced Meaning Making</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relief</td>
<td>0.26 (0.56)</td>
<td>0.15 (0.37)</td>
<td>-0.75</td>
<td>.46</td>
<td>0.23</td>
</tr>
<tr>
<td>Hurt / Grief</td>
<td>1.84 (2.65)</td>
<td>1.00 (2.29)</td>
<td>-1.06</td>
<td>.30</td>
<td>0.34</td>
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<tr>
<td>Assertive Anger</td>
<td>0.79 (2.07)</td>
<td>0.10 (0.30)</td>
<td>-1.47</td>
<td>.15</td>
<td>0.47</td>
</tr>
<tr>
<td>Self-Compassion</td>
<td>1.42 (2.14)</td>
<td>0.30 (0.47)</td>
<td>-2.28</td>
<td>.03*</td>
<td>0.73</td>
</tr>
<tr>
<td>Acceptance</td>
<td>0.47 (1.61)</td>
<td>0.05 (0.22)</td>
<td>-1.17</td>
<td>.25</td>
<td>0.37</td>
</tr>
</tbody>
</table>

Note. * $p < .05$; Bonferroni’s correction applied $p < .01/10$. ** $p < .01$. 
Table 2

Early in-session process predictors of late in-session affective-meaning states \((N = 39)\)

<table>
<thead>
<tr>
<th>Model</th>
<th>(R^2)</th>
<th>B</th>
<th>SE</th>
<th>(\beta)</th>
<th>(t)</th>
<th>(p)-value</th>
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</thead>
<tbody>
<tr>
<td>Predicting Fear/Shame</td>
<td>.31</td>
<td></td>
<td></td>
<td>.52</td>
<td>1.47</td>
<td>.01</td>
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<tr>
<td>Pt. Content</td>
<td>.19</td>
<td>.13</td>
<td></td>
<td>.39</td>
<td>1.46</td>
<td>.04</td>
</tr>
<tr>
<td>Pt. Relationship</td>
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<td>.27</td>
<td></td>
<td>-.51</td>
<td>1.79</td>
<td>.04</td>
</tr>
<tr>
<td>Pt. Maneuvers</td>
<td>.37</td>
<td>.21</td>
<td></td>
<td>.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Th. Guidance</td>
<td>.02</td>
<td>.05</td>
<td></td>
<td>.06</td>
<td>0.29</td>
<td></td>
</tr>
<tr>
<td>Predicting Neg. Eval.</td>
<td>.17</td>
<td></td>
<td></td>
<td>.09</td>
<td>.25</td>
<td>.04</td>
</tr>
<tr>
<td>Th. Understanding</td>
<td>.01</td>
<td>.05</td>
<td></td>
<td>.01</td>
<td>.85</td>
<td></td>
</tr>
<tr>
<td>Th. Guidance</td>
<td>.01</td>
<td>.02</td>
<td></td>
<td>.32</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. Pt: Patient; Th: Therapist; All predictors measured on the BIBS (Beziehungs- Inhalts- Bearbeitungsskalen) between minute 10 and 20 of session 25. All affective-meaning states measured on a one-minute basis using the CAMS (Classification of Affective-Meaning States) for this particular analysis only started at minute 20 into session 25.*
Figure 1. Sequential model of emotional processing

(adapted with permission from Pascual-Leone & Greenberg, 2007).

Start

Global Distress

Rejecting Anger • Fear / Shame

Need • Negative Evaluation

Assertive Anger or Self-Compassion • Grief / Hurt

Acceptance and Agency

Low Degree of Emotional Processing

High Degree of Emotional Processing

Early Expressions of Distress

Advanced Meaning-Making