

Running head: AGREEABLENESS IN BORDERLINE PERSONALITY DISORDER

The Role of Interactional Agreeableness in Responsive Treatments for Patients with
Borderline Personality Disorder

Pauline Zufferey, Franz Caspar, & Ueli Kramer

All correspondence concerning this article should be addressed to Pauline Zufferey, Centre Hospitalier du Valais Romand, Route de Morgins 10, CH-1870 Monthey, Switzerland, ph. +41-76- 444 33 34; e-mail : pauline.zufferey@hopitalvs.ch

This study was supported by the SNSF grant 100014-134562 (Dr. Kramer). The authors report not having any conflict of interest.

Abstract

Patients with Borderline Personality Disorder (BPD) present with variable levels of agreeableness. It has been shown that agreeableness had an impact on therapy process and outcome. This was particularly relevant for patients in Dialectical Behavioral Therapy (DBT), but not for patients in a General Psychiatric Management (GPM; Hirsh, Quilty, Bagby & McMain, 2012). The goal of the present study was to test whether agreeableness affects the therapeutic alliance and outcome assessed after brief treatment for BPD, and whether this link is moderated therapist responsiveness.

The original outcome study (Kramer, Kolly et al., 2014) – from which the present data are extracted (N = 60) - compared two types of brief interventions in a 10-sessions treatment for BPD: a GPM-based treatment and the same treatment supplemented with the Motive-Oriented Therapeutic Relationship (MOTR), based on Plan Analysis case conceptualizations (PA; Caspar, 1995), as operationalization of therapist responsiveness. In order to measure interactional agreeableness in the present study, we used the qualitative information in all Plan Analyses and re-rated all items on a 7-point Likert scale. Inter-rater reliability was excellent.

The results showed that there was a significant link between agreeableness and outcome for the GPM condition, but not for the MOTR condition. No links between agreeableness and the therapeutic alliance were found in both conditions.

We may conclude the MOTR enables to suppress the influences of the patient's initial characteristics (i.e., high or low agreeableness) on the therapeutic results and this over the course of the first few sessions. These results are interpreted as an empirical demonstration of the responsiveness effect described in the psychotherapy research literature.

Key-Words: Agreeableness; Borderline Personality Disorder; Therapist Responsiveness; Motive-Oriented Therapeutic Relationship; Psychiatric Treatment

INTRODUCTION

The patient's interpersonal capacities are a central aspect in psychotherapy for borderline personality disorder (BPD). In particular, patient's agreeableness has been studied as predictor of symptom change in different treatment forms for patients with BPD (Hirsh, Quilty, Bagby & McMain, 2012). Agreeableness, together with neuroticism, extraversion, openness to experience and conscientiousness, is a personality trait as part of the Big Five personality conceptualization (Costa & McCrae, 1992; Graziano & Tobin, 2002, 2009) and was defined as «tendencies towards interpersonal concern, empathy, trust and compliance» (Hirsh et al., 2012, p. 618).

Patients with BPD were described as particularly low on agreeableness and high on neuroticism (Clarkin, Hull, Cantor, & Sanderson, 1993; Morey & Znarani, 2000; Trull, Widiger, Lynam, & Costa, 2003; Wilberg, Urnes, Friis, Pederson, & Karterud, 1999; Znarani, 2005). It remains an open question what the interactional, or behavioral, correlates of agreeableness in BPD are. The interpersonal literature based on the circumplex model addressed this question referring to the factor-analytic approach used for the five-factor model of personality (Benjamin, 2003; Benjamin & Critchfield, 2010; Kiesler, 1996). The method of Structural Analysis of Social Behaviour (SASB) has been used and studies found that patients with BPD have observable interpersonal behaviors involving control, domination and aggression (Benjamin & Critchfield, 2010; Ruiz, Pincus & Bedics, 1999; Stern, Herron, Primavera & Kakuma, 1997), all considered antidotes of interactional agreeableness. Drapeau and Perry (2009) applied the Core Conflictual Relationship Themes (CCRT) method to session transcripts and showed that patients with BPD, compared with those without BPD, had more wishes to be distant, to be hurt, to hurt others, and others were seen as bad and controlling. Puschner, Bauer, Horowitz and Kordy (2005) noted that too hostile patients (as measured by the self-reported Inventory of Interpersonal Problems) were characterized by a poor therapeutic

alliance in the beginning of treatment. More generally, we know that interactional hostility in psychotherapeutic process predicts poorer treatment outcome (Henry, Schacht & Strupp, 1986, 1990; Anderson, Knochloch-Fedders, Stiles, Ordonez & Heckman, 2011).

The agreeableness concept as trait does not allow taking into account each individual's personalized and dynamic ways of agreeable interactions and degrees thereof. For example, a patient with BPD may present in a particularly seductive or intriguing way in order to receive attention from her therapist, or may also express compassion when the therapist admits that his being late is caused by an urgency. This more interactional perspective is consistent with Zanarini's model of the hyperbolic temperament in BPD (Zanarini & Frankenburg, 2007) where the authors assume that BPD is characterized by internal core pain which is expressed in various interactions in particularly maladaptive ways. The present study aims at understanding the patient's agreeableness in the context of therapist responsiveness – the fact that therapist behavior is affected by patient's processes and manifestations –, and it aims at linking agreeableness to symptom change and the therapeutic alliance in a brief treatment for BPD. We aim at taking into account the interactional heterogeneity of the agreeableness phenomenon and will argue in favor of a qualitative – individualized – operationalization of agreeableness.

Hirsh et al. (2012) have studied trait agreeableness as predictor of the development of the therapeutic alliance over the course of two one-year long treatments (General or Good Psychiatric Management, GPM, and Dialectical-Behavior Therapy, DBT). The results revealed that trait agreeableness, as measured by the Five-Factor personality inventory, predicted the evolution of the therapeutic alliance over the course of treatment. Treatment condition functioned as a moderator of this link; for the more agreeable patients, the related slope of the development of the therapeutic alliance was steeper in DBT than in GPM. This result was interpreted as reflecting the particularly warm, genuine and validating therapist attitude associated with DBT, which may be particularly helpful for those patients with BPD who are

more agreeable. Finally, the mediation model reveals an indirect relationship between the trait agreeableness and outcome, mediated by the progression of the therapeutic alliance over time in DBT. Whereas this study was an important step in understanding the role of trait agreeableness as predictor of process and outcome, the progression of the therapeutic alliance was not documented in a session-by-session fashion, and agreeableness was measured as a trait variable by using a self-report questionnaire. Assessing the alliance session by session would take into account the intra-patient variability of the alliance, and assessing agreeableness from a more dynamic – individualized – perspective might be clinically relevant.

Whereas Hirsh et al. (2012) assumed agreeableness as a stable personality trait, it may also be understood as dynamic feature which may be elicited – or «enacted» - in specific interpersonal encounters, based on the patient's inner interpersonal «working models» of attachment (Bowlby, 1979). In order to optimally reflect the interactional dynamics of agreeableness, which might take different forms for each individual patient, we argue that a qualitative approach is warranted. It might not be sufficient to ask the patient to self-report his/her degree of agreeable stance – ultimately measuring only his/her *representation* of the interactional agreeableness, rather than the agreeableness in action itself (Glass & Arnkoff, 1997; Nisbett & Wilson, 1977). To capture this, it is necessary to observe his/her actual interactional – more or less agreeable – strategies in therapy sessions, as the patient interacts with the therapist.

In order to address these problems, the present study will use a qualitative idiographic case conceptualization method, the Plan Analysis (Caspar, 1995) as a basis for assessing interactional agreeableness. In order to distinguish between the agreeableness according to this qualitative conceptualization from the static personality trait, we will refer to *interactional agreeableness* in our study. Grawe (1980) and Caspar (1989, 1995, 2007) developed an integrative case formulation method called Plan Analysis. Plan Analysis enables, by adopting

an instrumental perspective on the idiographic motivational underpinnings of (non-verbal and verbal, interpersonal and intrapsychic) behaviors and experiences, the therapist to develop case formulations; they are commonly used as a basis for custom-tailoring therapist interventions. Interventions based on such a plananalytic formulation may be integrated in a variety of treatment models, however they all respect the principle of the Motive-Oriented Therapeutic Relationship (MOTR). For example, a patient may present in session with intense and devaluating criticism of the person of the therapist; such a behavior may serve the underlying Plan of trying to test the therapist whether he will remain considerate (or whether he will criticize the patient and «set boundaries» in an authoritative fashion), serving an aim, paradoxically, of remaining attached to the therapist and at the same time of presenting as a «special person», or avoiding presenting as weak. A therapist using MOTR may address the patient's underlying motive, either explicitly or implicitly, by conveying the message that in this therapy relationship, all aspects of the patient's personality are welcome and he may feel «special» to some extent. Note that the therapist avoids reacting to the behavioral aspects, which are considered unhelpful in the present example. Motive oriented interventions aim at responding to the hypothetical, unproblematic motivational basis of problematic (i.e., hostile criticism) behavior, satisfying these motives and thus rendering the problematic behavioral means unnecessary. After all, the patient gets what is in line with his or her motives without using the problematic behavior. If MOTR is successfully used, such behavior should therefore cease or at least become less frequent or intense in the process (Caspar, 2007). Dimaggio et al. (2016), in the context of Metacognitive Interpersonal Therapy (MIT), applied an intervention principle which may partially overlap with MOTR, aiming at building an individual case formulation). These authors observed a reduction in number of personality disorder criteria for global symptomatology and an improvement in emotion regulation over the course of treatment.

It was shown in an early study (Grawe, Caspar & Ambühl, 1990) for a sample with mixed diagnoses, predominantly depression and anxiety disorders, that in a treatment condition emphasizing responsiveness based on Plan Analysis and Motive Oriented Therapeutic Relationship (MOTR), patient variables assessed at intake that were significant predictors for outcome in other conditions were unrelated with outcome. This effect was called the «responsiveness effect» - the therapist adjusts his/her intervention type or style to the patient's emerging process characteristics (Stiles, Honos-Webb & Surko, 1998) - and explained by the therapist adjusting intervention to the patient which may have «washed out» (Kramer & Stiles, 2015, p. 287) the strong predictive links between patient intake characteristics and outcome in the less responsive control conditions. Responsiveness has been also operationalized by Crits-Christoph et al. (2010) as the accuracy of intervention. The authors found that high levels of interpersonal accuracy was associated with better outcomes for the patients in interpersonal therapy. We assume that patient's interactional agreeableness might function as such a predictor for treatments of BPD, and such predictive effects might be washed out (in a positive sense) by responsive (motive-oriented) therapist interventions

We would expect a different picture for the relationship between interactional agreeableness and the evolution of the therapeutic alliance. A process-outcome analysis of a randomized controlled trial (Kramer, Flückiger et al., 2014) examined the moderating role of therapist responsiveness (operationalized by MOTR; Caspar, 2007) on the link between session-by-session alliance and outcome for patients with BPD. This study described stronger alliance-outcome links for treatments with the responsive component, compared to treatments without.

Therefore, our study hypotheses were as follows:

- (1) Responsiveness effect: The relationship between interactional agreeableness and outcome is significant only for the treatment without a responsive component (i.e.,

GPM); the same relationship is not significant in the treatment with the responsive component (i.e., MOTR).

- (2) Effect on the alliance evolution: Interactional agreeableness predicts the evolution of the therapeutic alliance, measured session-by-session across short-term treatment. Because of the in-session focus on the construction of a productive therapeutic relationship, we assume that this effect is greater in responsive treatments (i.e., MOTR), compared to comparison treatments.

METHODS

Participants

Participants of the present qualitative study were $N = 60$ outpatients presenting with Borderline Personality Disorder (BPD). The criteria of inclusion of the original study were an age between 18 and 65 years and a DSM-IV BPD diagnosis. In order to increase the external validity of the trial, minimal exclusion criteria were formulated. These criteria were the presence of a DSM-IV psychotic disorder, mental retardation and substance abuse as primary diagnosis.

For the present study, the $N = 60$ completer patients in the original study by Kramer, Kolly et al. (2014) were included. This study originally randomized $N = 85$ patients with BPD to two conditions, both lasting 10 sessions: (1) a short version of a psychiatric treatment according to the Good Psychiatric Management model (GPM; Gunderson & Links, 2008; completers: $n = 29$) and (2) the same treatment supplemented with the individualized case conceptualization based on the Plan Analysis and the use of the motive-oriented therapeutic relationship (GPM with MOTR; Caspar, 2007; completers: $n = 31$). For the present process-outcome analysis, we selected only completers of the 10-session treatment. Table 1 displays the descriptive statistics of the sample.

Clinical and Research Procedures

Both treatments comprised a 10-sessions phase of psychiatric assessment and initial treatment. When it was necessary, a longer therapy was offered to the participants (Kramer, Stulz, Berthoud, Caspar, Marquet, Kolly, et al., 2017); this later treatment phase was not taken into account for the present research. All diagnoses were made using the Structured Clinical Interviews for DSM-IV. Reliability of psychiatric diagnoses was tested and revealed excellent (Kramer, Kolly et al., 2014). Both treatment conditions were carried out at an outpatient university psychiatry clinic. The local ethics board and the research committee of the university have approved the research protocol (clearance number 254/08). Under the legislation, patients did not pay for treatment. The outcome study has demonstrated excellent adherence coefficients for both conditions, according to both treatment models (GPM and the individualized MOTR component; Kramer et al., 2014); note that adherence to GPM principles was excellent in both conditions, but, as predicted, adherence to the MOTR principle was significantly higher in MOTR condition, compared to the standard condition in which the principles had not been conveyed nor were they expected to act in line with them. . Supplementary information can be found in the outcome study (Kramer, Kolly et al., 2014), including the description of co-morbid conditions which are not detailed here to save space.

Measures

Outcome Questionnaire – 45 (OQ-45; Lambert et al., 2004), is a self-report questionnaire consisting of 45 items the purpose of which is to assess results generated from psychotherapy. This instrument comprises a global score and three subscale scores: symptomatic level, interpersonal relationships and social role. The different items are evaluated on a Likert-type scale from 1 (never) to 4 (always). It is possible to calculate a total sum score and scores per subscale. This instrument was administered at admission and at release. Cronbach's alpha for the sample was $\alpha = 0.94$.

Working Alliance Inventory – short form (WAI-short version; Horvarth & Greenberg, 1989), is a self-report questionnaire, consisting of 12 items the purpose of which is to evaluate the different aspects of therapeutic alliance, the link between patient and therapist and the concordance on therapy collaboration (goals and tasks). The items are evaluated on a Likert-type scale from 1 (never) to 7 (always). An overall sum score is computed. At the end of every 10 sessions, this instrument was administered to the patient. Cronbach's alpha for this sample was $\alpha = 0.92$.

Interactional agreeableness scale. For this study, we developed the “Plan Analysis – Agreeableness Scale” (PA-AS), based on a qualitative operationalization of interactional agreeableness. Plan Analysis is an idiographic method of case conceptualization describing instrumental links between behaviors, experiences on the one hand and underlying, hierarchically ordered, Plans; each Plan -most are expected to be non-conscious - is composed of a means and an aim, also called the motive (Caspar, 1995). As a first step, the intake session served as information for the establishment of the patient's individual Plan Analysis (PA) depicted as a two-dimensional structure. Each Plan Structure may encompass between 20 and 30 idiographically formulated Plans. Every Plan of the structure is related to both on the hierarchically lower and upper Plans, and instrumental links are depicted. To facilitate the extraction of information related to interactional agreeableness, a seven-level Likert-type scale was constructed with prototypical examples of Plans for each level. The PA-AS ranges between «1» (hostile or not agreeable at all) and «7» (very agreeable; see Table 2). Then each singular Plan from all Plan Analyses of the $N = 60$ patients has been coded on this scale, in an independent fashion, despite their semantic links within one Plan structure. Inter-rater reliability for the PA was reported by the original study by Kramer, Kolly et al. (2014): A total of randomly selected 10% ($n = 6$) of the PA were examined by two raters independently and interrater agreement was good. Total mean correspondence was 65% ($SD = 2.91$; range

between 62-71). For the purpose of testing the inter-rater reliability of the PA-AS, a second researcher coded $N = 13$ PA randomly selected among the 60 coded by the main researcher (22% reliability sample). The average intra-class correlation was .83 ($SD = 0.12$, range: 0.51 – 0.97), therefore, the reliability of the PA-AS was excellent in the present study.

Impact Message Inventory (IMI-R; Kiesler & Schmidt, 2006) is a self-report questionnaire, consisting of 64 items the purpose of which is to evaluate the interpersonal behaviors by measuring the attitudes that the considered individual provoked by his interlocutor. It is possible to calculate scores for the 8 subscales of the questionnaire: Dominant, Submissive, Hostile-dominant, Friendly-submissive, Hostile, Friendly, Hostile-submissive and Friendly-dominant. The research has validated that the IMI octant and factor scales have satisfactory internal consistencies and an adequate circumplex structure (Gallo, Smith & Cox, 2006). The items are evaluated on a Likert-type scale from 1 (not at all) to 4 (very much so). For this study, all intake sessions ($N = 60$; 100% of the sample) were hetero-assessed by a researcher, meaning that the stimulus was the patient's interpersonal behavior on video, which was coded by the researcher in terms of impact message on the researcher. The choice of coding the first session is justified by the fact that for the elaboration of PA it is precisely this session that has been used. Reliability of the IMI was established: an independent researcher coded again $N = 20$ intake sessions selected randomly among the 60 coded (33% reliability sample). The intra-class correlation between the two coders for the 8 subscales varied between .84 et .99 ($M = 0.90$, $SD = 0.04$), therefore, the reliability of the IMI was excellent in the present study.

Statistical Analyses

In order to establish between-group equivalence on a number of indices, t -tests and χ^2 analyses were run. In order to demonstrate external validity of the Plan Analysis–Agreeableness Scale (PA-AS), we conducted a series of bivariate Pearson's correlations

between the PA-AS score and the 8 sub-scales of the Impact Message Inventory (IMI-R). In order to test the first hypothesis stating that interactional agreeableness predicted outcome only in the GPM condition and not in the GPM plus MOTR condition, we ran two separate analyses. Firstly, we ran an ANOVA testing the main and interaction effects (2-way interaction condition*agreeableness predicting outcome). Secondly, if justified, we used regression analyses for each treatment group (stratified approach), predicting symptom level (total score of OQ-45) at session 10 into treatment, by the PA-AS score. These analyses controlled for the symptom level (total score of OQ-45) at intake. In order to test the second hypothesis, stating interactional agreeableness predicted the therapeutic alliance only in the GPM plus MOTR condition and not in the GPM condition, we ran two distinct analyses. Firstly, we assumed that the alliance mean (rated by the patient) over the 10 sessions of treatment represented the accurate measure of the therapeutic collaboration and used a linear regression model, then we assumed that the alliance session-by-session progression (rated by the patient) over the 10 sessions of treatment represented the accurate measure of the therapeutic collaboration and used hierarchical linear modeling. For the latter, a two-level Hierarchical Linear Model (HLM; Bryk & Raudenbush, 1987) was used. The dependent variable was the therapeutic alliance (patient assessment), fixed factors were PA-AS and the condition, on level 1 were the sessions, on level 2 the patients (Level 1: $\gamma_{ij} = \beta_{0j} * (\text{session}) + \beta_{1j} + \varepsilon$; Level 2: $\beta_{0j} = \gamma_{00} + \mu_{0j}$; $\beta_{1j} = \gamma_{10} + \gamma_{11} * (\text{PA-AS})(\text{condition}) + u_{1j}$). For this computation, HLM7 was used, for all other statistical analyses, spss22 was used.

RESULTS

Preliminary analyses

The analyses testing the between-group effects, comparing the GPM and GPM & MOTR conditions, revealed no difference on any variables before therapy, except for gender ($\chi^2 = 6.54, p = .01$; marital status presented with borderline significance, but above the alpha-

level threshold at .05). Therefore, we considered the gender variable in the subsequent analyses.

In order to demonstrate the external validity of the PA-AS, the individual results of the 8 IMI subscales have been correlated with the agreeableness means. The PA-AS mean score correlated positively with Friendly ($r = .50, p < .01$), Friendly-dominant ($r = .66, p < .01$) and Friendly-submissive ($r = .55, p < .01$), negatively with Hostile ($r = -.45, p < .01$) and Hostile-submissive ($r = -.65, p < .01$), but did not correlate significantly with Submissive ($r = -.06, p = .62$), Dominant ($r = -.13, p = .33$), and Hostile-dominant ($r = .12, p = .38$; all $Ns = 60$).

Interactional agreeableness and symptom level at the end of treatment

The first hypothesis assumed that interactional agreeableness predicted the symptom level at discharge (i.e., the more the patient is agreeable, the more he/she benefits from therapy) and that this effect is only significant for the patients assigned to the GPM condition, compared to the GPM plus MOTR condition (where this effect was washed out by the explicit use of responsive interventions). The results of the ANOVA showed significant main effects both for condition ($F(1, 59) = 4.38, p = .00+$) and interactional agreeableness ($F(1, 59) = 7.48, p = .01$), as well as a marginally significant interaction term ($F(1, 59) = 3.51, p = .06$). Therefore, a stratified approach to data analysis (condition by condition) is marginally justified. The linear regression showed that for the GPM plus MOTR condition, agreeableness did not predict significantly the OQ-45 total score at the end of the therapy ($B = -5.89, t(28) = -0.66, p = .51$, controlling for the level of symptoms at intake). The inverse was true for the GPM-only condition ($B = -34.72, t(26) = -2.86, p = .01$, controlling for the level of symptoms at intake). For both conditions, the gender variable did not have an impact on these results (MOTR: $B = 12.44, t(28) = 1.32, p = .20$; GPM: $B = -6.23, t(26) = -0.53, p = .60$).

Interactional agreeableness and the therapeutic alliance

Because of missing data ($n = 8$) with regard to the therapeutic alliance, the second hypothesis was tested on a sub-sample of $n = 52$ patients. The aim of this linear regression analysis was to study the influence of interactional agreeableness on the patient rating of the therapeutic alliance. For both groups, the influence of agreeableness on the mean alliance was not significant (MOTR: $B = 5.13$, $t(28) = 1.22$, $p = .23$; GPM: $B = -2.19$, $t(26) = -0.27$, $p = .79$). Again, for both groups, the gender variable did not impact these results (MOTR: $B = -1.20$, $t(28) = -0.27$, $p = .79$; GPM: $B = -6.94$, $t(26) = -0.84$, $p = .41$). Similarly, when examining the slope of the alliance progression in a two-level HLM analysis, we did not find an effect of neither PA-AS nor the condition on the session-by-session progression of the therapeutic alliance (coefficient for PA-AS: 0.36 (SE = 0.40), $t(50) = 0.91$, $p = .37$; coefficient for condition: 0.05 (SE = 0.44), $t(50) = 0.11$, $p = .91$).

DISCUSSION

The present study examined the role of interactional agreeableness, as operationalized using a qualitative idiographic approach (i.e., Plan Analysis), on symptom change and the therapeutic alliance. Two versions of General Psychiatric Management (GPM) were analyzed: a 10-session version and the same version augmented with the motive-oriented therapeutic relationship (Caspar, 2007). The latter represents an operationalization of the responsiveness principle in psychotherapy, particularly central in treatment for patients with BPD (McMain et al., 2015).

The responsiveness effect

The first hypothesis was supported: the relationship between interactional agreeableness and symptom change turned out to be not significant in the treatment with the responsive component (motive-oriented therapeutic relationship; MOTR). In contrast, the relationship between interactional agreeableness and symptom change was significant only

for the standard treatment (the treatment without the explicit responsive component). These observations are partially in contradiction with the results found by Hirsh et al. (2012), but they are in line with the study by Grawe et al. (1990) which compared treatments putting in place individualization of the therapy with other interventions that did not. Whereas Hirsh et al. (2012) studied longer versions of therapy and did not find a link with outcome in their GPM condition, the present study focused only on 10 sessions which may be more affected by interactional agreeableness dynamics, explaining the link between agreeableness and outcome for our GPM condition. Even though the diagnoses included were different than in our study, Grawe et al. (1990) discovered that patients' variables at the beginning of the therapy are only weakly correlated with outcome of an individualized treatment. This is explained by the ability of the therapist to adapt flexibly to the patients thus compensating for effects otherwise found for intake patient variables (Kramer & Stiles, 2015). Interactional agreeableness – and its negation in the specific form of interactional hostility – might be a particularly critical patient characteristic for those with BPD (Zanarini, 2005) and is, as demonstrated here, particularly prone to be affected by the responsiveness effect. Furthermore, countertransference could be a major source of lack of appropriate responsiveness which could affect outcome. Indeed, it was noted that therapists facing patients with BPD may present with inadequate, overwhelmed and overinvolved countertransference (Colli et al., 2014). For Colli et al. (2014), these types of therapist emotional reactions could cause emotional disattunement possibly resulting to standoff and treatment cessation.

To the best of our knowledge, our study is the first to reproduce the results of Grawe et al. (1990): the flexibility of the therapist to adapt to the patients, conceptualized in our study by MOTR, enables to suppress the influence of the initial patient agreeableness on the therapeutic outcome. The clinical implications of such an observation are important. In fact, our results may show that the individualization of the treatment enables to neutralize – and

constructively use – the otherwise negative effects of interactional hostility. In particular in clinical situations where the therapist may experience negative reactions to interactional hostility (i.e., in the sense of negative counter-transferential reaction), individualized understanding and intervention may help to use constructively otherwise toxic therapeutic interactions (Wolf, Goldfried & Muran, 2017). These authors have argued that such transformation may be a promising explanation of the power of the therapist factor in psychotherapy. Individualized methods seems particularly useful in psychotherapy for patients with personality disorders (Livesley, Dimaggio & Clarkin, 2016), and in particular for patients with BPD, where the therapist usually has to face patients demonstrating great emotional and interpersonal instability, along with a higher base-rate of interpersonal hostility (Zanarini, 2005). What is more, research on therapy process (Henry, Schacht & Strupp, 1986) suggests that relational hostility can have strong detrimental effects on outcome (Benjamin & Critchfield, 2010) and should be the focus of individualized case formulations for this disorder.

More generally, the present study provides exploratory construct validity of the concept of (dynamic) interactional agreeableness, as opposed to (static) trait agreeableness. Whereas both approaches seem to describe similar underlying constructs, the method of assessment is much more detailed and closer to the actual interactional phenomenon, due to its individualization and qualitative methodology, in our operationalization of agreeableness. We found that interactional agreeableness related with IMI-third-person-assessments in octants related to friendliness and hostility, as expected, but PA-AS remained unaffected by the dominance dimension of the interpersonal circumplex, thus validating the unique relevance for the affiliation dimension of interactional agreeableness in BPD. It might be useful to consider such individualized methodology for other concepts related to personality and personality disorders.

Interactional agreeableness and the evolution of the alliance

Our results suggest also that interactional agreeableness does not have any influence on the therapeutic alliance evaluated by the patients, for both conditions in our study.

Firstly, these results are consistent with the findings of Hirsh et al. (2012). These authors demonstrated a link between the agreeableness and the therapeutic alliance only for the DBT condition. The psychiatric treatment seems to work independently of the therapeutic alliance or remains unaffected by what common alliance questionnaires seem to measure. Secondly, our results are in accordance with those of Kramer, Kolly, et al. (2014) who observed that the level of the patient's therapeutic alliance was unaffected by the responsiveness variable. The patients assigned to the MOTR perceived the therapeutic relationship in similar ways as the patients in the GPM condition. One may argue that the patients were not aware of the implicit therapist interactions based on the underlying motives (Kramer, Kolly et al., 2014). We may also hypothesize that the 10 sessions of the treatment might be a too short period to affect the patient perception of the therapeutic alliance by the use of a case conceptualization. In some sense for patients with BPD, the therapeutic alliance may either be a highly versatile, moment-by-moment phenomenon based on their mental states oscillations (Levy, Beeney, Wasserman & Clarkin, 2010), or represent the patient's very global appreciation of a therapy being sufficiently «helpful», an assessment that may only emerge after several months of treatment (Gunderson & Links, 2008). This line of argument might explain why our session-based assessment over 10 weeks of the alliance remains unaffected by interactional agreeableness, but more research into session-by-session alliance fluctuations is necessary in order to understand its underlying determinants better.

Limitations and perspectives

The present study has a number of limitations. The PA-AS has only been used in our study and it is desirable to validate the scale with other samples. Nonetheless, it is worth recalling that the interrater reliability was good to excellent for all stages of the assessments and first validation data with the IMI were compelling. We decided to use the mean of the interactional agreeableness of the patients for the statistical analysis: this could be problematic as a mid-scale mean can hide rare events of hostility of the patients, which might have a powerful impact on the therapeutic collaboration and outcome. Consequently, it would be interesting to replicate the study by using the standard deviation. What is more, the selection of completers for the present process-outcome study may be introducing biases: patients who completed the treatment may present with higher agreeableness than patients who dropped out. However, feasibility of the process-outcome study (in particular access to outcome data and access to the reliable individual Plan Analysis) was only guaranteed in the completer sample. Therefore, we must accept that this bias may have affected the results, both in terms of outcome and the therapeutic alliance scores.

Given that the PA-AS was conceived in a linear manner, the correct rating of some information might be challenging. For example, a sarcastic tone of voice hidden behind a seemingly accommodating behavior might create problems in terms of rating. In our analyses, we took into account both non-verbal and verbal levels of communication. In fact, the Plan Analysis approach itself (Caspar, 1995) allows to circumvent this potential pitfall: such divergent information between tone of voice and content is taken into account by a formulation as a consequence of different and possibly conflicting Plans. Hence, we are confident in the clinical validity of the rating of interactional agreeableness and initial construct validity was presented here.

As our study uses the data of the research of Kramer, Kolly et al., (2014), the limitations noted by these authors also apply also here. In addition, the sample is rather small

for an actual initial study of a new assessment scale. Also, we did not use dynamic data, but only analyzed interpersonal agreeableness qualitatively based on the intake interview.

We did not find an impact of interactional agreeableness on the therapeutic alliance evaluated by the patients. An interesting direction for further research development would be to consider the impact of interactional agreeableness on the long-term course of treatment. Furthermore, it might be interesting to study alliance patterns – types of alliance progression over a longer period of treatment: more agreeable patients may present with a steadier increase of the alliance, and less agreeable, hostile patients may present with a more chaotic pattern of change. It would also be worth to measure not just the alliance but the process of its ruptures and repair within the sessions. Safran, Muran and Proskurov (2009, p.220) note «*that the alliance appears to be dynamic, and fluctuations in the alliance (i.e., ruptures and resolutions) appear to be important change-related events in the therapy process*». Linking interactional agreeableness with attachment patterns may be a timely research question and may help understand more of the underpinnings of problematic relating in BPD. It might also be interesting to test the moderating role of therapist responsiveness in other treatment forms, for example in dialectical-behavior therapy (Hirsh et al., 2012): for the skills group component, a recent qualitative analysis by Keller, Page, de Roten, Despland, Caspar and Kramer (2017) showed moderate to low averages of MOTR over treatment, but a great variance with regard to the therapist adjusting to the individual patient in the therapy group setting.

Conclusions

The results of the present study indicated that a responsive therapist may be able to suppress the influence of the BPD patient's initial interactional agreeableness – or lack thereof in the specific form of interactional hostility – on the therapeutic results, and this in only in a few sessions. This finding highlights the value of an individualized intervention for the

treatment of patients with BPD where interactional instability is part of the daily problems. In addition, interactional agreeableness, according to our qualitative assessment, was unrelated to the mean and the session-by-session progression of the therapeutic alliance, which was independent from the responsive treatment component.

REFERENCES

- Anderson, T., Knobloch-Fedders, L. M., Stiles, W. B., Ordoñez, T., & Heckman, B. D. (2012). The power of subtle interpersonal hostility in psychodynamic psychotherapy: A speech acts analysis. *Psychotherapy Research, 22*, 348-362.
- Benjamin, L. S. (2003). *Interpersonal diagnosis and treatment of personality disorders*. Second Edition. New York: Guilford Press.
- Benjamin, L. S., & Critchfield, K. L. (2010). An interpersonal perspective on therapy alliances and techniques. In J. C. Muran & J. P. Barber (Eds.), *The therapeutic alliance: An evidence-based guide to practice* (pp. 97–122). New York, NY : Guilford Press.
- Bowlby, J. (1979). *The making and breaking of affectional bonds*. London: Tavistock Publications.
- Bryk, A. S., & Raudenbush, S. W. (1987). Application of Hierarchical Linear Models to Assessing Change. *Psychological Bulletin, 101*, 147-158.
- Caspar, F. (1989, 4th ed, 2018). *Beziehungen und Probleme verstehen. Eine Einführung in die psychotherapeutische Plananalyse*. Bern: Huber-Hogrefe, 1989.
- Caspar, F. (1995). *Plan Analysis. Toward optimizing psychotherapy*. Seattle: Hogrefe-Huber.
- Caspar, F. (2007). Plan Analysis. In T. D. Eells (Ed.), *Handbook of psychotherapy case formulations* (2nd edition, pp. 251 - 289). New York, NY: Guilford Press.
- Caspar, F., & Grosse Holtforth, M. (2009). Responsiveness – Eine entscheidende Prozessvariable in der Psychotherapie. *Zeitschrift für Klinische Psychologie und Psychotherapie, 38*, 61-69.
- Clarkin, J. F., Hull, J. W., Cantor, J., & Sanderson, C. (1993). Borderline personality disorder and personality traits: A comparison of SCID-II BPD and NEO-PI. *Psychological Assessment, 5*, 472-476.
- Costa, P. T., & McCrae, R. R. (1992). *Revised NEO personality inventory and NEO five-factor inventory professional manual*. Odessa, Florida: Psychological Assessment Resources.

- Crits-Christoph, P., Gibbons, M. B., Temes, C. M., Elkin, I., & Gallop, R. (2010). Interpersonal Accuracy of Interventions and the Outcome of Cognitive and Interpersonal Therapies for Depression. *Journal of Consulting and Clinical Psychology, 78*, 420-428.
- Dimaggio, G., Salvatore, G., MacBeth, A., Ottavi, P., Buonocore, L., & Popolo, R. (2017). Metacognitive Interpersonal Therapy for Personality Disorders: A Case Study Series. *Journal of Contemporary Psychotherapy, 47*, 11-21.
- Drapeau, M., & Perry, J. C. (2009). The Core Conflictual Relationship Themes (CCRT) in Borderline Personality Disorder. *Journal of Personality Disorders, 23*, 425-431.
- Gallo, L. C., Smith, T. W., & Cox, C. M. (2006). Socioeconomic status, psychosocial processes, and perceived health: An interpersonal perspective. *Annals of Behavioral Medicine, 31*, 109-119.
- Glass, C. R., & Arnkoff, D. B. (1997). Questionnaire methods of cognitive self-statement assessment. *Journal of Consulting and Clinical Psychology, 65*, 911-927.
- Grawe, K. (1980). The diagnostic-therapeutic function of group interaction in behavioral treatment groups. In K. Grawe (Ed.), *Verhaltenstherapie in Gruppen* (pp. 88– 223). München: Urban & Schwarzenberg.
- Grawe, K., Caspar, F., & Ambühl, H. (1990). Die Berner Therapievergleichsstudie: Wirkungsvergleich und differentielle Indikation. *Zeitschrift für Klinische Psychologie, 19*, 338-361.
- Graziano, W. G., & Tobin, R. M. (2002). Agreeableness: dimension of personality or social desirability artefact? *Journal of Personality, 70*, 695-727.
- Graziano, W. G., & Tobin, R. M. (2009). Agreeableness. In M. R. Leary & R. H. Hoyle (Eds.), *Handbook of individual differences in social behavior* (pp. 46-61). New York: Guilford Press.
- Gunderson, J. G., & Links, P. S. (2008). *Borderline Personality Disorder: A Clinical Guide*. Washington: American Psychiatric Publishing.

- Henry, W.P., Schacht, T.E., & Strupp, H.H. (1986). Structural Analysis of Social Behavior: Application to a study of interpersonal process in differential psychotherapy outcome. *Journal of Consulting and Clinical Psychology, 54*, 27-31.
- Henry, W. P., Schacht, T. E., & Strupp, H. H. (1990). Patient and therapist introject, interpersonal process, and differential therapy outcome. *Journal of Consulting and Clinical Psychology, 58*, 768-774.
- Hirsh, J. B., Quilty, L., Bagby M. R., & McMMain, S. F. (2012). The relationship between agreeableness and the development of the working alliance in patients with borderline personality disorder. *Journal of Personality Disorders, 26*, 616-627.
- Horvath, A. O., & Greenberg, L. S. (1989). Development and validation of the Working Alliance Inventory. *Journal of Counseling Psychology, 36*, 223–233.
- Keller, S., Page, D., de Roten, Y., Despland, J.-N., Caspar, F., & Kramer, U. (2017). Adaptation of the Motive-Oriented Therapeutic Relationship Scale to group setting in Dialectical-Behaviour Therapy for Borderline Personality Disorder. *Journal of Psychotherapy Integration, 27*(1), 47-58. Doi: 10.1037/int0000061.
- Kiesler, D. J. (1996). Contemporary interpersonal theory and research. Personality, Psychopathology and Psychotherapy. New York: John Wiley and Sons.
- Kiesler, D. J., & Schmidt, J. A. (2006). *The Impact Message Inventory-Circumplex (IMI-C) Manual : sampler set, manual, test booklet, scoring key, work sheets*. Redwood City, CA: Mind Garden.
- Kramer, U., Flückiger, C., Kolly, S., Caspar, F., Marquet, P., DesPland, J.-N., & de Roten, Y. (2014). Unpacking the effects of therapist responsiveness in borderline personality disorder: motive-oriented therapeutic relationship, patient in-session experience, and the therapeutic alliance. *Psychotherapy and Psychomatics, 83*, 386-387.

- Kramer, U., Kolly, S., Berthoud, L., Keller, S., Preisig, M., Caspar, F., Berger, T., de Roten, Y., Marquet, P., & Despland, J.-N. (2014). Effects of motive-oriented therapeutic relationship in a ten-session general psychiatric treatment of borderline personality disorder: a randomized controlled trial. *Psychotherapy and Psychomatics*, *83*, 176–186.
- Kramer, U., & Stiles, W. B. (2015). The responsiveness problem in psychotherapy: a review of proposed solutions. *Clinical Psychology: Science and Practice*, *22*, 276-294.
- Kramer, U., Stulz, N., Berthoud, L., Caspar, F., Marquet, P., Kolly, S., de Roten, Y., & Despland, J.-N. (2017). The shorter the better? A follow-up analysis of 10-session psychiatric treatment including the motive-oriented therapeutic relationship for borderline personality disorder. *Psychotherapy Research*. *27*(3), 362-370. doi: 10.1080/10503307.2015.1110635
- Lambert, M. J., Morton, J. J., Hatfield, D., Harmon, C., Hamilton, S., Reid, R. C., Shimokawa, K., Christoperson, C., & Burlingame, G. M. (2004). Administration and Scoring Manual for the Outcome Questionnaire-45. Orem, American Professional Credentialing Services.
- Levy, K. N., Beeney, J. E., Wasserman, R. H., & Clarkin, J. F. (2010). Conflict begets conflict: Executive control, mental state vacillations, and the therapeutic alliance in treatment of borderline personality disorder. *Psychotherapy Research*, *20*, 413-422.
- Livesley, W.J., Dimaggio, G. & Clarkin, J.F. (2016). *Integrated treatment for personality disorders. A modular approach*. New York: Guilford.
- McMain, S. F., Boritz, T. Z., & Leybman, M. J. (2015). Common strategies for cultivating a positive therapy relationship in the treatment of borderline personality disorder. *Journal of Psychotherapy Integration*, *25*, 20-29.
- Morey, L. C., & Zanarini, M. C. (2000). Borderline personality. Traits and disorder. *Journal of Abnormal Psychology*, *109*, 733-737.

- Nisbett, R., & Wilson, T. (1977). Telling more than you know: Verbal reports on mental processes. *Psychological Review*, *84*, 231-259.
- Puschner, B., Bauer, S., Horowitz, L. M., & Kordy, H. (2005). The relationship between interpersonal problems and the helping alliance. *Journal of Clinical Psychology*, *61*, 415-429.
- Ruiz, M. A., Pincus, A. L., & Bedics, J. B. (1999). Using the structural analysis of social behaviour (SASB) to differentiate young adults with borderline personality disorder features. *Journal of Personality Disorders*, *13*, 187-198.
- Stern, M. I., Herron, W. G., Primavera, L. H., & Kakuma, T. (1997). Interpersonal perceptions of depressed and borderline inpatients. *Journal of Clinical Psychology*, *53*, 41-49.
- Stiles, W. B. (2009). Responsiveness as an obstacle for psychotherapy outcome research: It's worse than you think. *Clinical Psychology: Science and Practice*, *16*, 86-91.
- Stiles, W. B., Honos-Webb, L., & Surko, M. (1998). Responsiveness in psychotherapy. *Clinical Psychology: Science and Practice*, *5*, 439-458. doi: 10.1111/j.1468-2850.1998.tb00166.x
- Trull, T. J., Widiger, T. A., Lyman, D. R., & Costa, P. T. (2003). Borderline personality disorder from the perspective of general personality functioning. *Journal of Abnormal Psychology*, *112*, 193-202.
- Wilberg, T., Urnes, O., Friis, S., Pederson, G., & Karterud, S. (1999). Borderline and avoidant personality disorders and the five-factor model of personality: A comparison between DSM-IV diagnoses and NEO-PI-R. *Journal of Personality Disorders*, *13*, 226-240.
- Wolf, A. W., Goldfriend, M. R., & Muran, J. C. (2017). Therapist negative reactions: How to transform toxic experiences. In L. G. Castonguay & C. E. Hill (Eds.), *How and why are some therapists better than others? Understanding therapist effects* (pp. 175-192). Washington: APA.

- Zanarini, M. C. (2005). The subsyndromal phenomenology of borderline personality disorder. In M. C. Zanarini (Ed.), *Borderline Personality Disorder* (pp. 19-40). New York: Taylor & Francis.
- Zanarini, M. C., Frankenburg, F. R., Hennen, J., Reich, D. B., & Silk, K. R. (2006). Prediction of the 10-year course of borderline personality disorder. *American Journal of Psychiatry*, *163*, 827-832.

Table 1

Characteristics of the patients as a function of group at baseline

Variables	Conditions		χ^2	p value
	GPM (G) (<i>n</i> = 29)	G & MOTR (<i>n</i> = 31)		
Female	24 (83)	16 (52)	6.54	.01
Marital status			6.06	.05
Never married	16 (55)	8 (26)		
Married	6 (21)	14 (45)		
Separated, divorced	7 (24)	9 (29)		
Employment			2.30	.51
Unemployed	24 (83)	21 (68)		
Protected activity	0	1 (3)		
Part-time	2 (7)	4 (13)		
Full-time	3 (10)	5 (16)		
Medication			0.83	.36
Yes	21 (72)	19 (61)		
Age, yearss	31.41±11.41	35.23±10.04	1.37 ¹	.36
Education, years	11.21±2.08	11.90±1.64	1.44 ¹	.07
BPD symptoms	6.86±1.38	6.71±1.44	-0.42 ¹	.96
Current axis I	1.86±0.83	1.90±1.19	0.16 ¹	.16
Current axis II	0.62±0.82	0.68±0.75	0.28 ¹	.64

Note. MOTR = Motive-Oriented Therapeutic Relationship; GPM = General Psychiatric Management

Values are expressed as numbers (with percentage in brackets) or as mean ± SD.

¹ These are *t* values and not χ^2 .

Table 2

Plan Analysis - Agreeableness Scale (PA-AS): Definitions of the levels and examples

	Definition	Examples
Level 7	Corresponds to the most agreeable Plans with a strong interpersonal component.	Show yourself agreeable, show yourself collaborating, be a good patient, be close, present yourself as a nice guy, cause the therapist to take charge of you
Level 6	Corresponds to very agreeable Plans but their interpersonal component is less evident than in level 7.	Make yourself accepted, be accommodating, show that you are someone good, show that you can trust, search the sympathy, show that you care for your sister
Level 5	Corresponds to Plans whose valence clearly indicates that they are upper than 4 but their agreeableness is not obvious.	Keep a positive image of you, make yourself help, get better, keep the control, find your place, drum up support
Level 4	Represents neutral Plans, that is, it is difficult to qualify them as agreeable or hostile.	Protect yourself, be normal, make yourself, discrete, show that your husband is responsible, show that your husband does not get well, show that your family life is normal
Level 3	Corresponds to Plans whose valence clearly indicates that they are upper than 4 but their hostility is not obvious .	Isolate yourself, avoid to enlist in, show that you are not responsible, keep boundaries, avoid frustration, make acting the other for you

Level 2	<p>Corresponds to very hostile Plans but their interpersonal component is less evident than in level 1.</p>	<p>Keep your distances, show yourself as difficult, show you as superior as the others, keep the others/the therapist at distance, show that it would be difficult with you, avoid being close</p>
Level 1	<p>Corresponds to the most hostile Plans with a strong interpersonal component</p>	<p>Scare the others/the therapist, show yourself as mean, control the therapeutic relationship, worry the therapist, shock the therapist, attack the others before they attack you</p>

Table 3

Linear regression for each group with the OQ-45 total score at the end of the therapy as dependent variable.

Motive-oriented therapeutic relationship (<i>n</i> = 31)				
	B	SD	t	p
Agreeableness mean	-5.89	8.92	-0.66	.51
Gender	12.44	9.40	1.32	.20
Good Psychiatric Management (<i>n</i> = 29)				
	B	SD	t	p
Agreeableness mean	-34.72	12.15	-2.86	.01
Gender	-6.23	11.68	-0.53	.60

Note. Symptom level at intake controlled for.

Table 4

Linear regression for each group with the mean of the WAI coded by the patient as dependent variable.

MOTR (<i>n</i> = 31)				
	B	SD	t	p
Agreeableness mean	5.13	4.21	1.22	.23
Gender	-1.20	4.44	-0.27	.79
GPM (<i>n</i> = 29)				
	B	SD	t	p
Agreeableness mean	-2.19	8.18	-0.27	.79
Gender	-6.94	8.31	-0.84	.41

Note. MOTR = Motive-Oriented Therapeutic Relationship; GPM = General Psychiatric Management