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RUNNING HEAD: Follow-up of Motive-Oriented Relationship for Borderline Personality Disorder

The shorter the better? A follow-up analysis of 10-session psychiatric treatment including the motive-oriented therapeutic relationship for borderline personality disorder

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FOLLOW-UP OF MOTIVE-ORIENTED RELATIONSHIP FOR BORDERLINE  
PERSONALITY DISORDER

RUNNING HEAD: Follow-up of Motive-Oriented Relationship for Borderline Personality  
Disorder

The shorter the better? A follow-up analysis of 10-session psychiatric treatment including the  
motive-oriented therapeutic relationship for borderline personality disorder

**Abstract**

There is little research on short-term treatments for borderline personality disorder (BPD). While the core changes may occur only in long-term treatments, short-term treatments may enable the study of early generic processes of engagement in therapy and thus inform about effective treatment components. It was shown that a 10-session version of a psychiatric treatment was effective in reducing borderline symptoms at the end of this treatment (Kramer, Kolly et al., 2014). Also, it was demonstrated in a randomized design that adding the motive-oriented therapeutic relationship (MOTHER), following an individualized case formulation based on Plan Analysis, further increased general outcome after session 10 and had a positive effect on the early changes in self-esteem and alliance. The present study focuses on the follow-up period after this initial treatment, examining treatment density and outcomes after 6 months and service utilization after 12 months. Outcome was measured using the OQ-45. Results on a sub-sample of  $N = 40$  patients with available OQ-45 data at follow-up ( $n = 21$  for MOTHER-treatment,  $n = 19$  for comparison treatment) showed maintenance of gains over the follow-up period, which did not differ between both conditions. It appeared for this sample that MOTHER treatments, while using the same number of sessions, lasted more weeks (i.e., lower treatment density, defined as the number of sessions per week), when compared to the treatments without MOTHER. Density marginally predicted symptom reduction at follow-up. Patients in MOTHER-treatments had a greater likelihood of entering structured psychotherapy after the initial sessions than patients in the comparison group. These results are overall consistent with earlier studies on short-term treatments for BPD and underline the importance of individualizing interventions, by using case formulations that rely on idiographic methods and integrative concepts.

Key-Words: Follow-up; Outcome; Dosage; Service Utilization; Borderline Personality Disorder; Motive-Oriented Therapeutic Relationship; Plan Analysis; Psychiatric treatment

THE SHORTER THE BETTER? A FOLLOW-UP ANALYSIS OF 10-SESSION  
PSYCHIATRIC TREATMENT INCLUDING THE MOTIVE-ORIENTED THERAPEUTIC  
RELATIONSHIP FOR BORDERLINE PERSONALITY DISORDER

**Introduction**

Treatments for individuals with borderline personality disorder (BPD) tend to be long and intensive. Therefore, they tend to use a great amount of resources of the health system contributing to the high burden of disease BPD generates (Bender, Dolan, Skodol, Sanislow, Dyck, McGlashan, Shea, Zanarini, Oldham, & Gunderson, 2001; Samuels, 2011; Soeteman, Verheul, & Busschbach, 2008; van Asselt, Dirksen, Arntz, & Severens, 2007). More research is therefore necessary on differential aspects of the dose-effect relationship (Howard, Kopta, Krause, Merton, & Orlinsky, 1986) in treatments for BPD, which could contribute to the development of the most cost-effective strategies.

Whereas long-term psychosocial or psychotherapeutic approaches are generally cited as the state of the art treatment of BPD (Bartak, Soeteman, Verheul, & Busschbach, 2007; Stoffers, Völlm, Rucker, Timmer, Huband, & Lieb, 2012), short-term approaches should not be neglected for the treatment of specific and somewhat less far-reaching intervention goals (Sollberger, Gremaud-Heitz, Riemenschneider, Agarwalla, Benecke, Schwald, Küchenhoff, Walter, & Dammann, in press; Van den Bosch, Sinnaeve, & Nijs, 2013). Short treatments are located at the low end of the dose-effect relationship curve (Howard et al., 1986). One such specific intervention goal in early treatment stages is to foster the individual's engagement in a structured treatment plan, taking into account the patient's current motivational state and readiness to change. A short-term psychiatric treatment seems the ideal context to understand and promote patient engagement in treatment; it is also an ideal context for studying specificities of change at the low end of the dose-effect relationship. Engagement in treatment might be substantiated with a greater increase in collaboration from the first sessions on,

better indices of therapeutic alliance and fewer missed sessions. While focusing on e.g. 10 sessions does not imply that this amount of treatment will be sufficient to treat BPD, it represents an initial step within a structured treatment plan.

Density of treatment (i.e., the number of treatment sessions provided per time unit) seems to be an important feature of treatment dose, but it is often neglected in the discussion on dose-effect relationships in treatments for BPD. In a study on depression treatment, Reardon, Cukrowicz, Reeves and Joiner (2002) found treatment density – operationalized as the number of sessions provided per week –, to predict pre-to-post treatment symptom change. Until session 10, the higher the treatment density was, the better was the outcome. This relationship vanished in cases who attended more than 10 sessions. So far, to our knowledge, no study has examined treatment density in early therapy stages and its link to treatment outcome in BPD patients. Whereas early engagement in therapy is particularly difficult for patients with BPD, possibly due to problems related to oscillating mental states and problems in the therapeutic collaboration (Levy, Beeney, Wasserman, & Clarkin, 2010), it is also central for further treatment and change. Therapy engagement and initial change may be particularly positive if density is high: the patient comes to all sessions and demonstrates high engagement in therapy. Therefore, it seems important to test the general assumption that greater treatment density early in treatment is associated with more symptom alleviation.

APA guidelines (2001) suggest that effective treatment for BPD should offer what is useful and necessary for a patient, both from a psychotherapy stance and medical-pharmacological point of view. Gunderson and Links (2008; 2014) operationalized these criteria in a clinically meaningful psychiatric treatment (i.e., “good psychiatric management”, GPM) for change of central symptoms in BPD, with effects comparable to those of dialectical-behavioral therapy after one year of intervention (McMain, Links, Gnam, Guimond, Cardish, Korman & Streiner, 2009). These effects were maintained at the 2-year

follow-up (McMain, Guimond, Streiner, Cardish & Links, 2012). A short-term version of GPM, encompassing 10 sessions of treatment, has recently shown comparable effects over the first three months of treatment for initial change in general symptoms, as well as interpersonal and borderline problems (Kramer, Kolly, Berthoud, Keller, Preisig, Caspar, Berger, de Roten, Marquet, & Despland, 2014). These authors compared this short version of treatment to an enhanced one including the Plan Analysis (PA) and the individualized motive-oriented therapeutic relationship (MOTHER; Caspar, 2007). In this randomized controlled design, effects were significantly improved by the use of MOTHER on the level of psychological distress (Kramer, Kolly et al., 2014). In addition, it was shown that the therapeutic alliance, as rated by the therapist, increased more over the time of the engagement in treatment, compared to treatments where PA and MOTHER were not implemented (Kramer, Kolly, et al., 2014). These effects were shown to be related to increased self-esteem towards the end of treatment for patients who received the MOTHER component, compared to those who did not receive it, which predicted the initial symptom change after 10 sessions; it is hypothesized that a more intense and responsive therapeutic relationship is facilitated by this treatment component (Kramer, Flückiger, Kolly, Caspar, Marquet, Despland & de Roten, 2014).

Originally, MOTHER is derived from the principles of PA, an integrative case conceptualization defined by Grawe and Dzewas (Grawe, 1980; 1998) and Caspar (2007). PA proposes a methodology that helps to infer a hierarchical structure of Plans and motives, which are "behind" inter- and intrapersonal behaviors and experiences. Inferences are based on the patient's verbal and non-verbal behavior. The organizing principle is instrumentality: lower elements in the structure serve higher, guiding elements. Based on such a formulation of the case, MOTHER assumes that if a therapist satisfies the patient's underlying motives within the limits of the therapeutic relationship, or conveys adaptive means to the patient, without reinforcing problematic Plans, behaviors or experiences, it is no longer necessary for

the patient to use his/her problematic means to attain his/her motives or goals (Caspar, 2007). Since each patient is guided by different hypothetical Plans, the therapist's relationship offer must be constructed differently for each patient, in a fundamentally individualized and patient-responsive manner (Caspar, 2007). Idiographic formulations, therapist responsiveness and integrative treatment modules are highly recommended in the treatment of personality disorders (Bohus, Falkai, & Herpertz, 2012; Clarkin, 2012; Critchfield, 2012; Dimaggio, Salvatore, Fiore, Carcione, Nicolo, & Semerari; Gaebel & Falkai, 2009; Livesley, 2012). Another integrative case formulation proposed for patients with BPD was developed within the context of short-term Cognitive-Analytic Therapy (CAT; Ryle, 1997). What seems specific to the plananalytic approach is the dual focus on a) the formulation and b) the responsive relationship offer by the therapist.

Whereas the short-term effects of MOTHER in the early sessions of BPD treatment are beginning to be documented, it is unknown whether these effects are maintained over a longer period of time, whether MOTHER is associated with specific service utilization (e.g., number of visits in inpatient and crisis centers) in a longer-term perspective, and also what the role of treatment density is regarding treatment outcomes. Such information might help to assess in a differentiated way the clinical and health-economic relevance of adding an individualized formulation of patient's problems and relationship to a psychiatric or psychotherapeutic treatment very early in treatment.

The present study aimed at examining these research questions by analyzing the follow-up outcome data of the afore-mentioned randomized controlled trial which compared 10-session GPM plus MOTHER to GPM-only (Kramer, Kolly et al., 2014). Our hypotheses were as follows: firstly, we hypothesized that the effect of both versions of the treatment (10 session GPM plus MOTHER vs GPM-only) on psychological distress, which was found at the end of the initial treatment, is maintained over the 3- to 6-month follow-up period.



Furthermore, we expected that the treatment condition has a differential effect on psychological impairment at follow-up, with MOTHER outperforming GPM-only at 3 to 6 months after treatment termination. Secondly, we hypothesized that higher treatment density in early stages (first 10 sessions) facilitates greater alleviation of psychological distress at treatment termination and at 3- to 6-month follow-up. Thirdly, we expected MOTHER to be related to lower utilization of inpatient services and crisis interventions during the one year follow-up and to facilitate greater use of outpatient psychotherapy relative to GPM-only during that 12-month follow-up period.

## **Method**

### **Design**

The original study (Kramer, Kolly et al., 2014) used a randomized controlled design to test add-on effects of the motive-oriented therapeutic relationship, as an adjunctive treatment component to a 10-session version of an APA-informed psychiatric treatment (good psychiatric management; GPM; Gunderson & Links, 2014). In addition, patients included in a previous independent pilot study, also using a randomized controlled design and using identical procedures (Kramer, Berger, Kolly, Marquet, Preisig, de Roten, Despland, & Caspar, 2011) were included in the follow-up analysis. The present study represents a naturalistic follow-up describing the effects at 3 to 6 months after the end of the 10-session treatment for both samples taken together along with service utilization at the 12-month follow-up. The study was formally approved by the relevant Ethics Board (identifier 254/08) and research committee. The trial was registered at ClinicalTrial.gov (identifier NCT01896024).

### **Patients and therapists**

In total,  $N = 99$  patients with DSM-IV diagnosis of borderline personality disorder (BPD) were randomized in the two original studies (Kramer, Kolly et al., 2014; Kramer, Berger et al., 2011). In total,  $n = 68$  (69%) were female. The average age was 32.2 years (SD

= 10.6) and the ethnic composition represented the consulting psychiatric population in public European clinical services (85% Caucasian). Diagnoses were assessed using the Structured Clinical Interview for DSM-IV Axis II Disorders (Personality disorders; SCID-II; First, Spitzer, Williams, & Gibbons, 2004), along with the Mini Neuropsychiatric Interview for Axis I disorders (MINI; Lecrubier, Sheehan, Weiller, Amorim, Bonora, Harnet Sheehan, Janavs, & Dunbar, 1997). Details of each sample with regards to co-morbidities to the BPD diagnosis and satisfactory levels of reliability for these diagnoses were reported in the original studies (Kramer, Kolly et al., 2014; Kramer, Berger et al., 2011).

In total,  $N = 24$  therapists treated the patients included in the two studies. They all received an accurate training in the clinical procedures related to the psychiatric management of BPD in 10 sessions prior to the beginning of the study, and, for one condition, therapists received training in PA and MOTHER. All therapists had at least one year of residency in psychiatry (overall mean 2.5 years; see Kramer, Kolly et al., 2014 for more information about the therapists). Because more than half (54%) of the therapists had a small amount of cases each (in total,  $N = 13$  therapists had three or fewer cases in this trial), a systematic test of therapist effects was likely to produce unreliable results. This was evenly distributed between the two conditions.

### **Treatments**

*Condition 1: 10-session psychiatric treatment.* This short-term treatment is based on the principles of the general or good psychiatric management for BPD (GPM; Gunderson & Links, 2008; 2014). For the present study focusing on 10 sessions, a manual was developed which encompassed several therapist tasks: the establishment of a detailed psychiatric diagnosis, synthesis of the psychiatric anamnesis, establishment of treatment focus, enhancement of motivation, treatment of treatment-interfering problems and formulation of attachment-based core conflicts. In general, the manual describes one session per week,

although this may have been adapted to the individual patient. In addition, psychopharmacological treatment and short-term inpatient treatment was used as adjunct intervention.

*Condition 2: 10-session psychiatric treatment including MOTHER.* The second condition in the present add-on study used the same clinical procedures as in condition 1, with the only difference that a PA and MOTHER (Caspar, 2007) were implemented by the therapist. A case formulation based on the PA was drafted based on information from the intake session, by following the description provided above and by Caspar (2007). In all remaining sessions, the therapist was instructed to use the plananalytic conclusions in terms of the implementation of a motive-oriented therapeutic relationship (see above; Caspar, Grossmann, Unmüssig, & Schramm, 2005).

Therapist adherence to GPM was equally excellent in both conditions, whereas therapist adherence to MOTHER was significantly greater in the MOTHER condition than in the non-MOTHER condition ( $t(1, 59) = 10.62, p < .00+$ ; Kramer, Kolly et al., 2014), as expected by design.

### **Instrument**

*Outcome Questionnaire – 45.2 (OQ-45).* This widely-used and well-validated self-report questionnaire measures results from psychotherapy, by using 45 items. It encompasses a global score and three sub-scores measuring levels of psychological distress: symptomatic level, interpersonal relationships and social role (Lambert et al., 2004). These items may be rated on a Likert-scale ranging between 1 (never) and 4 (always). Cronbach's alpha of the present sample was .89 (pre-post-follow-up data combined).

### **Procedure**

For the present naturalistic follow-up analysis, data from all data points were used. During treatment, patients filled in the OQ-45 at intake (at the end of the first session), and at

discharge (at the end of the 10<sup>th</sup> session). During the follow-up period, patients were sent the OQ-45 by mail at 3 and at 6 months after their last session.

In order to assess service utilization of all patients during the 12-month follow-up period (between the day of the last session and 12 months later), the number of inpatient hospitalizations in psychiatric services was counted, as was the number of visits at emergency services. Because treatment continued for most patients beyond the 10 sessions of the study (70% in the study by Kramer, Kolly et al., 2014) and because psychotherapy is usually considered as the treatment choice for BPD (APA; 2001; Bartak, Soeteman, Verheul, & Busschbach, 2007; Gaebel & Falkai, 2009; Paris, 2005), the proportion of patients in psychotherapy (vs not in psychotherapy) during the follow-up period was assessed.

Finally, treatment density was operationalized by the ratio between the number of sessions and the number of weeks in treatment.

### **Statistical analyses**

We used repeated-measures ANOVA (rANOVA) to test the first hypothesis which claimed the maintenance of therapeutic benefits on the OQ-45 total score over the follow-up period. In order to test the second hypothesis which stated a superior effect of the MOTHER condition compared to the GPM-only condition at 6 month follow-up, we used ANCOVA controlling for OQ-45 intake scores to compare outcomes on the OQ-45 at follow-up. The third hypothesis, which claimed higher density in early treatment stages (first 10 sessions) to facilitate greater alleviation of psychological distress at treatment termination and at follow-up, was tested using multiple regression models controlling for OQ-45 intake scores. To compare the positively skewed distributions (i.e., zero-inflated) of the count outcomes on the number of inpatient days and crisis interventions during the 12-month follow-up between the two treatment conditions, we used zero-inflated negative binomial regression models. Finally,

the proportion of patients who engaged in outpatient psychotherapy during the first 12 months following termination was compared between the two treatment conditions using a  $\chi^2$ -test.

## Results

### Data preparation

Completeness of OQ-45 data for the present follow-up analyses was variable. Whereas at intake and discharge of the brief 10-session treatment program, 99 patients provided data in the OQ-45 (100% return rate), for the follow-up period, 23 patients filled in the OQ-45 after 3 months (23% return rate) and 30 patients after 6 months (30% return rate). Drop-out rates did not differ between treatment conditions at 3-month follow-up ( $\chi^2(1, N = 99) = 0.265, p = .61$ ) and at 6-month follow-up ( $\chi^2(1, N = 99) = 1.458, p = .28$ ). For this reason, both follow-up assessments were collapsed for statistical analyses (yielding a  $N = 40(40\%)$ ; MOTHER:  $n = 21$ ; GPM-only:  $n = 19$ ). Note that there were no between-group effects on intake variables when comparing patients who had data at follow-up to patients who did not have any data at follow-up (OQ-45 total score:  $M(\text{MOTHER}) = 99.83, M(\text{GPM-only}) = 92.07, t(97) = -1.61, p = .11$ ; age:  $t(97) = .08, p = .93$ ; gender:  $\chi^2(1) = .45, p = .50$ ). Also, OQ-45 total scores at discharge did not differ between patients with and without follow-up data, respectively ( $M(\text{MOTHER}) = 82.53, M(\text{GPM-only}) = 81.44, t(97) = 0.219, p = .83$ ). All other relevant variables at intake did not differ between the two groups for all patients randomized, as demonstrated by the initial outcome studies (Kramer, Berger et al., 2011; Kramer, Kolly et al., 2014).

Data on inpatient admissions (hospitalizations) and on outpatient crisis interventions during the first 12 months immediately following treatment termination was available for 87 patients (88%), the proportion of missing cases did not differ significantly between conditions ( $\chi^2(1) = 2.77, p = .10$ ). Data related to the use of outpatient psychotherapy (versus non-use of psychotherapy) during the initial 12 months after the initial 10-session treatment was

available for all 99 patients (100%). Information regarding treatment density (i.e., number of sessions per weeks in treatment) was available for all 99 patients (100%).

### **Naturalistic evolution of psychological distress after discharge: role of the motive-oriented therapeutic relationship**

The  $n = 40$  patients who responded to one or both of the follow-up assessments experienced a clear-cut reduction in overall psychological distress (OQ-45 total score) between intake and discharge ( $F(1, 39) = 20.18, p < .001$ ). Between discharge and the aggregated follow-up assessments 3 to 6 months after treatment termination, there was no significant change in psychological impairment ( $F(1, 39) = 0.90; p < .35$ ). Psychological distress at follow-up, however, was still significantly improved when compared to psychological impairment at intake ( $F(1, 39) = 12.06; p < .001$ ; Figure 1).

Whereas the level of psychological distress differed between the two conditions at treatment termination ( $F(1, 39) = 5.39; p = .03$ ) favoring the MOTHER condition, ANCOVA revealed no between-condition difference at follow-up ( $F(1, 39) = 1.07; p = .31$ ; see Figure 1).

### **Treatment density and outcomes**

The average number of sessions per patient did not differ between the MOTHER and the GPM-only conditions ( $M$  (MOTHER) = 8.90 vs  $M$  (GPM-only) = 9.30 sessions;  $t(38) = -0.56; p = .58$ ). However, patients in the MOTHER condition received their sessions during significantly more weeks than patients in the GPM-only condition ( $M$  (MOTHER) = 16.00 vs  $M$  (GPM-only) = 12.60 weeks;  $t(38) = 2.14; p = .04$ ). Thus, MOTHER patients were treated at a lower density (i.e., fewer sessions per week) than patients in the GPM-only condition ( $M$  (MOTHER) = 0.60 vs  $M$ (GPM-only) = 0.82;  $t(38) = -2.83; p = .01$ ;  $n = 99$  for these comparisons). This result refutes our second hypothesis in a surprising way.

Because this difference in treatment density between conditions was unexpected, for exploratory purposes, linear regression models were conducted in order to better understand the potential predictive role of treatment density for the level of and change in psychological distress in the present sample. Across both conditions ( $n = 40$ ), when controlling for OQ-45 total scores at intake and for treatment condition, lower treatment density marginally predicted lower OQ-45 total scores (i.e., better outcomes) at follow-up ( $p = .097$ ). Regarding OQ-45 total scores at discharge, no predictive effect was found for treatment density ( $p = .328$ ; see Table 1).

### **Service utilization during the 12 month follow-up**

The total number of days in inpatient treatment during the 12 month follow-up did not differ between the two groups ( $M(\text{MOTHER})$ : 11.14;  $M(\text{GPM-only})$ : 3.47; zero-inflated negative binomial model:  $B = 1.17$ , 95% CI = -0.79 to 3.13). Similar to the above, the total number of crisis consultations did not differ between the two groups (zero-inflated negative binomial model:  $B = 0.27$ , 95% CI = -0.70 to 1.23). When comparing the use of crisis consultation and inpatient treatment (vs non-use) for patients who responded to the follow-up measures, there was no significant effect: the fact of having responded to a follow-up data point did not affect service use.

The analysis of the proportion of patients who engaged in outpatient psychotherapy during the first 12 months after termination of study treatment showed a main effect of the MOTHER condition: the latter patients were more likely to pursue a psychotherapeutic treatment (60% of the patients;  $\chi^2(1) = 5.25$ ,  $p = .02$ ) than patients in the GPM-only condition (37% of the patients). One needs to add that when comparing the use of psychotherapy (vs non-use) for patients who responded to the follow-up measures, there was a significant effect: the patients who responded to the follow-up were more likely to engage in psychotherapy ( $\chi^2(1) = 27.55$ ,  $p = .00+$ ).

### **Discussion**

The present study examined the question whether adding an individualized case formulation to a short-term psychiatric treatment for borderline personality disorder (BPD) had an additive effect on treatment outcomes after this study treatment ended. The roles of treatment density and service utilization were also examined. We observed that after 10 sessions, patients reached a clinically significant decrease in psychological distress which was maintained over the following six months, irrespective of the treatment condition. This is an important finding, as maintenance of gains from month 3 until 9 after intake, after an initial treatment phase of 3 months, was observed in treatments based on the good psychiatric management model (McMain et al., 2009). By examining change in borderline symptoms over one year of treatment, the latter study observed a greater rate of change for the first 3 months (i.e., corresponding to roughly 10 sessions), when compared to the rates of change during the following 3 and 6 months. These observations are consistent with predictions of the negatively accelerated dose-effect curve (Howard et al., 1986) which hypothesizes that the effects of additional sessions decrease over time. In our study, the effect of the initial 3 months was maintained irrespective of the presence, nature or quality of the subsequent therapy phase (between months 3 and 9 after intake). Sustained contact with therapist over a number of weeks as response to the severity of patient's presenting problems, the quality of patient engagement, hopefulness, collaboration and readiness for change might all be generic aspects which explain the centrality of these initial changes. These components may all be explained by the notion of remoralization (Howard et al., 1986). Patient's sense of remoralization characterizes the first phase of treatment and its effects carry over into the further symptom evolution which make this initial part of treatment a pivotal moment for lasting change.



Whereas it was shown that an individualized method of conceptualizing the patient's presenting problem tended to increase this initial effect of patient engagement in the therapy process (Kramer, Kolly et al., 2014), the present study did not find such additional effects at follow-up (see Figure 1). However, after the initial 10-session treatment, patients entering psychotherapy are more frequent in the MOTHER condition, as compared to the GPM-only condition; no between-group effect was found with regard to the distributions of inpatient and crisis center use. It needs to be added that the patients who engaged in psychotherapy are more likely the ones who responded to the follow-up data points. Psychotherapy can be considered as the state of the art treatment for BPD (Bartak, Soeteman, Verheul, & Busschbach, 2007; Clarkin, 2012; Gaebel & Falkai, 2009; Paris, 2007) with a certain number of efficient treatment models (Stoffers, Völm, Rücker, Timmer, Huband, & Lieb, 2012), several with demonstrated long-term effects (e.g., Bateman & Fonagy, 2009; McMMain et al., 2012). Therefore, a pre-treatment module based on MOTHER-principles achieving to motivate 60% of the patients (as compared to 37% in the GPM-only condition) to enter structured psychotherapy, can be considered an important contribution to the mental health care of these patients and is consistent with recent developments based on stepped care (Paris, 2015). Treatments based on MOTHER may proactively actualize the patient's resources (Grawe, 1998; Kramer, Flückiger et al., 2014) and the patient may be seen as capable of mastering his/her problems by the use of adequately structured long-term treatment. The therapist's proposal of structured psychotherapy to a given patient may be related to the therapist's resourceful conceptualization of the patient's problems, based on the plananalytic case formulation.

Surprisingly, lower density of treatment, i.e., less therapy hours per week, were given in the MOTHER condition, when compared to the GPM-only condition. This density of the 10-session treatment tended to predict outcome after the 6-month follow-up: the fewer

sessions per week, the better the outcome. We may argue that MOTHER facilitates both a) a *less dense* treatment context, characterized with a flexible therapist stance with regard to patient regularity and maybe also regarding the patient's missing sessions (i.e., one session per week was prescribed), understood as part of the patient's work towards initial therapy goals related to engagement in treatment, and b) a *more intensive*, patient-centered responsive in-session interaction process (Kramer, Flückiger, et al., 2014). The latter study showed that MOTHER therapists and their patients showed greater alliance-outcome links, compared to their GPM-only counterparts: therapist in-session focusing on motives actualizes the patient's representations of both resources and problems and may lead to a more profound in-session relationship process (Grawe, 1998). Treatment density and relationship intensity both matter very early in treatment. Therefore, instead of saying "the shorter the better", as questioned in the title, we may state: pairing more intensive in-session relational process and lower treatment density seems to be better. A central caveat of our study is its small sample size and a limited return rate; the latter had a demonstrated impact on use of psychotherapy. However, should these hypotheses be confirmed in larger samples, it would help understand and shape better the idiographic qualities of the initial contact between a patient presenting with BPD and his/her therapist. Individualizing an initial contact tends to have specific positive repercussions on the levels of distress six months later, even when the patient does not meet with this therapist anymore.

These results on the role of MOTHER for service utilization, treatment density and outcome at follow-up have implications from a health-economic perspective. The latter are particularly important as regards to the actual treatment dosage (see also McMMain et al., 2012; Reardon et al., 2002). If smaller treatment densities and idiographically-shaped higher relationship intensities tend to be related with good outcome, ways of making therapy hours more intense, focused and on topic should be encouraged. A number of therapy models for

BPD, and personality disorders in general, tend to advocate direct and high-intensity treatment of relationship issues in the here and now of the interaction (Smith, Barrett, Benjamin, & Barber, 2006). When less density is more, in the context of an initial idiographic relationship offer, it needs to be noted that training in the MOTHER component takes a number of hours which should be considered in the optimizing of cost-benefit relationships. However, due to the integrative nature of the concepts, such training is well appreciated and fits well the psychotherapeutic and psychiatric practice of therapists from a number of therapy orientations. Adding such a training module might therefore be prioritized in treatment contexts where the initial engagement of patients with BPD is problematic (Bohus, Falkai, & Herpertz, 2012; Gaebel & Falkai, 2009).

Our study presents with a number of limitations. As mentioned, follow-up data were not available for all randomized individuals. We cannot rule out that patients with missing observations at follow-up failed to return their questionnaires because of a negative evolution during the follow-up period; the significant effect found for the use of psychotherapy as function of response at follow-up speaks to this problem. However, this effect was not found in the positively-skewed distributions of inpatient and crisis intervention service use. This is a naturalistic follow-up study, so treatment access after the treatment study (i.e., the 10 sessions) was unrestricted. In particular, psychotherapy may have affected outcomes at follow-up which was not controlled for in the results. We did not have a control group without treatment; the observed effects may be due to the natural course of recovery. Similarly, effects found in the present study, in particular related with treatment density, may be due to contextual variables (e.g., job constraints explaining the patient missing sessions) we did not control for. Because of a great number of therapists treating only three or fewer cases each, a hierarchical linear modeling including the formal test of therapist influences on the present results was not possible. Also, in order to keep this follow-up analysis as coherent,

parsimonious and feasible as possible, we decided to only analyze data from the OQ-45 which was the main outcome measure; information related to the levels of interpersonal and borderline problems in these patient samples may be found in the parent studies (e.g., Kramer, Kolly et al., 2014). The same argument has also led to the description of effects on the sole level of psychological distress, and not on the levels of the specific psychopathological indices, which lack in the present study.

The examination of long-term effects of short-term modules for specific treatment goals for individuals with BPD is an important task. We were able to demonstrate for a subsample of a randomized controlled trial that effects were maintained at follow-up, irrespective of the condition. The role of treatment density was examined and was linked with the idiographic formulation method – Plan Analysis and MOTHER - used in the study treatment. More research on different psychotherapeutic and psychiatric treatment forms is necessary to flesh out the specific contributions of treatment density and in-session relationship intensity in the context of treatments for BPD. Such study results may be examined from a health-economic perspective. Add-on and dismantling designs on established treatment packages and specific treatment modules should be encouraged in this context. Such research might help deepen the understanding of the effects of an integrated and differentiated practice facing individuals with personality disorders (Clarkin, 2012; Livesley, 2012).

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Table 1

Multiple Regression Analysis for Variables Predicting OQ-45 Total Scores at Discharge and Follow-Up ( $n = 40$ )

Variable	OQ-45 Total Score: Discharge				OQ-45 Total Score: Follow-up			
	<i>B</i>	<i>SE B</i>	$\beta$	<i>p</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>p</i>
OQ-45 Total	0.580	0.163	0.492	.001	0.809	0.189	0.559	<.001
Score:								
Intake								
Condition	-12.593	7.713	-0.242	.111	-1.679	8.950	-0.026	.852
Density	15.239	15.369	0.151	.328	30.362	17.833	0.244	.097
(Sessions								
per Week)								
$R^2$		.369				.437		
<i>F</i>		7.011		.001		9.317		<.001

Note. \*\* $p < .01$ . \*\*\* $p < .01$ .

Figure 1

OQ-45 Total Scores (*M*) at Intake, Discharge, and Follow-Up

