THERAPIST VARIABILITY IN THE TASK/GOAL DIMENSION OF THE EARLY WORKING ALLIANCE PREDICTS OUTCOME IN EXPOSURE AND RESPONSE PREVENTION TREATMENT FOR OBSESSIVE-COMPULSIVE DISORDER

Kristen Hagen, Stian Solem, Håvard Berg Opstad, Patrick A. Vogel, Leif Edward Ottesen Kennair, Gerd Kvale, and Bjarne Hansen

Abstract

Objective: The importance of a strong working alliance is assumed to be important in exposure and response prevention (ERP) treatment of obsessive-compulsive disorder (OCD). During the first sessions, the therapist aims to achieve agreement with the patient on the tasks and goals of therapy by formulating a treatment plan. The aims of the study were to explore the predictive role of therapist- and patient variability in the early working alliance when using ERP for OCD.

Method: A total of 13 therapists gave individual ERP treatment to 44 outpatients with OCD. The working alliance was measured after the second or third session with patient rated Working Alliance Inventory-Short (WAI-S). We used two subscales from the WAI-S (agreement on tasks/goals and therapeutic bond). Treatment outcome was measured using the Yale-Brown Obsessive Compulsive Scale. Therapist variability in the working alliance was estimated by calculating each therapist’s mean WAI-S scores and calculating how much each therapist’s mean deviated from the grand means. Patient variability was estimated by calculating each patient’s score for the two WAI-S components and how much this deviated from their therapist’s mean score on these factors.

Results: Therapist variability in the task/goal dimension of the alliance predicted treatment outcome, while patient variability in the alliance did not. Therapeutic bond was not related to outcome.

Conclusions: Therapists’ ability to establish agreement on tasks and goals of treatment in the first couple of therapy sessions could be vital in treating OCD with ERP. Further studies investigating the relationship between patient and therapist variability in the working alliance and treatment outcome using larger samples are needed.

Key words: obsessive-compulsive disorder, alliance, outcome, ERP

Declaration of interest: none

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1. Introduction

Exposure and response prevention (ERP) has been established as a highly efficacious treatment for obsessive-compulsive disorder (OCD; Rosal-Álcazar et al. 2008, Øst et al. 2015). Although OCD is heterogeneous regarding thought content and strength of appraisals, it can be quite homogeneous in terms of response to ERP (Solem et al. 2015). However, only half of patients report minimal or no symptoms by the end of ERP (Fisher and Wells 2005). In addition, refusal rates around 25%-30% and dropout rates of 28% have been reported (Kozak et al. 2000). Identifying factors associated with therapeutic outcome and developing interventions to address them may be one way to maximize the effects of ERP.

Effective psychotherapy is assumed to be characterized by a good therapeutic alliance between patient and therapist (Cris-Christoph et al. 2013). The therapeutic alliance has been defined as the degree to which the therapy dyad is engaged in collaborative, purposeful work (Baldwin et al. 2007, Bordin 1979, Hatcher and Barends 2006). Moderate, but consistent effect sizes have been obtained in meta-analyses examining validity of the alliance to predict treatment outcomes from psychological treatments in general (Flückiger et al. 2012, Horvath et al. 2011, Horvath and Symonds 1991, Martin et al. 2000).

More specifically, a few studies have addressed the role of the alliance in predicting outcome in OCD. Rabavilas et al. (1979) found that participants’ ratings of therapists’ respect, understanding and interest towards them were related to treatment outcome. Hoogduin and colleagues (1989) found that alliance, as
rated by the therapists, predicted treatment outcome. A Dutch adaptation of the Relationship Inventory has also been found to predict treatment outcome (Keijsers et al. 1994). The results of these studies are consistent with the results of a study by Vogel and colleagues (2006) where the bond dimension of the Helping Alliance Questionnaire predicted treatment outcome in OCD patients.

In a study by Maher et al. (2012) they found that working alliance predicted treatment outcome through its impact on patient adherence. Working alliance measures aspects such as the patient’s attitudes to ERP, the goals agreed upon by the patient and the therapist, and patients’ trust in the therapist. They further argue that therapists should take time to understand the patients’ symptoms and carefully explain treatment strategies and goals before starting exposure based treatment.

To summarize, five studies have found predictive validity of the working alliance. However, in a recent study by Wheaton and colleagues (2016) only the task dimension of the Working Alliance Inventory- Short Revised (WAI-SR; Hatcher and Gillaspy 2006) was related to outcome, while the goal and bond components were not. The finding may suggest that this particular aspect of the therapeutic alliance is the most central for ERP, and this may be related to a better adherence to the treatment.

According to Baldwin et al. (2007) the overall correlation between the alliance and outcome does not provide information about the relative importance of patient and therapist variability in the alliance and may therefore be misleading. The between-therapist (therapist variability) component reflects the degree to which the quality of the therapeutic alliance is attributable to the therapist. The within-therapist (patient variability) component reflects both the patient’s ability to form a therapeutic relationship with the therapist (Zuroff et al. 2010). To understand the relationship between alliance and outcome, it may therefore be useful to separate therapist- and patient variability. Therapist variability can be assessed by comparing therapists who on average form stronger alliances with therapists who on average form weaker alliances. Patient variability can be assessed by comparing patients’ rating of the working alliance with their therapist’s average alliance scores (Baldwin et al. 2007).

In the study by Baldwin et al. (2007) which assessed a heterogeneous sample of psychiatric outpatients, the relative importance of patient and therapist variability in the alliance was explored. They found that therapist variability in the alliance was related to outcome, while patient variability was not. This can be interpreted as suggesting that it may be useful to focus on the therapists’ contribution to the working alliance, and that the patients’ contribution is less important for outcome. In a meta-analysis by Del Re et al. (2012) they replicated the findings from Baldwin et al. (2007), as the results indicated that therapist variability in the alliance predicted treatment outcome. The results were significant even after controlling for Axis II diagnosis, research design, rater of alliance and instrument of measuring alliance and outcome. The meta-analysis also replicated the finding that patient variability was unrelated to treatment outcome. These findings suggest that patients’ contribution to the alliance may be unrelated to the outcome of the therapy. The implication of the study is that therapists differ significantly in their ability to form alliances with patients and this therapist capacity is related to treatment outcome (Del Re et al. 2012).

To our knowledge, no studies have assessed the predictive role of therapist- and patient variability in the early working alliance when treating OCD with ERP. The importance of a strong working alliance is assumed to be essential for ERP. During the first couple of sessions in ERP the therapist aims to agree with the patient on the tasks and goals of therapy by formulating a case-conceptualization, presenting the treatment rationale, creating the exposure hierarchy, and introducing rules for ritual prevention. These elements fit neatly with the task/goal component of the working alliance. The relative importance of the working alliance established during the first couple of sessions could be assessed before patients have started exposure treatment. This would be the first study, using a specific treatment for a specific disorder, which addresses the predictive effect of therapist and patient variability in the working alliance as measured early in therapy. Based on previous results from Baldwin et al. (2007) and the meta-analysis by Crits-Christoph et al. (2013), we hypothesize that therapist variability in the task/goal dimension is related to treatment outcome of ERP for OCD. We also hypothesize that patient variability in the task/goal or the bond dimension of the WAI-S is related to treatment outcome. If the hypotheses are supported, they may indicate that more focus should be directed to the therapists’ contribution to the establishment of the early working alliance in ERP for OCD.

2. Method

2.1. Participants

The criteria of inclusion in the study were: having an obsessive-compulsive disorder diagnosis according to the DSM-IV, a Yale-Brown Obsessive Compulsive Scale (Y-BOCS; Goodman et al. 1989a, 1989b) score of 16 or above, illness duration of more than one year, and a global assessment of functioning (GAF; APA 1984) score above 50. They were not included if they had received ERP treatment during the last six months. Patients on a stable dose of selective serotonin-reuptake inhibitors (SSRI) were allowed. All participants had signed a written informed consent, which had been approved by the Regional Ethics Committee for research with human subjects.

Eighty-five patients were referred and forty-nine outpatients met the inclusion criteria and started treatment. Four patients dropped out of the treatment, and one did not complete the WAI-S. The analysis was conducted using 44 treatment completers (90%). Twenty-seven clients were assessed according to DSM-IV criteria using the structured clinical interview (First et al. 1995) while 22 were assessed with the Anxiety Disorders Interview Schedule (Brown et al. 1994). Trained raters conducted the diagnostic interviews. All assessments and sessions were audio- or videotaped. Sixteen randomly chosen videos of diagnostic assessment were checked with inter-rater analysis using competent independent raters. The agreement rate for the obsessive-compulsive disorder diagnosis was 100%. Patient characteristics are summarized in table 1.

2.2. Therapists

A total of 13 therapists delivered the manual based treatment. Six were professional therapists (mainly psychologists) and seven were students. Only therapists who completed at least two treatments were included in the trial. Therapists’
average caseload was 3.38. All therapists had been trained in using the manual by the authors of this study. In addition, a total of 60 hours of group supervision and approximately 30 hours of individual supervision were given to the graduate psychology students over the course of three semesters. Before starting treatment, the graduate students were given a didactic introduction to the treatment of OCD. The clinical graduate students attended two-hour weekly group supervision. The main content of the supervision involved the students presenting their treatment, discussions of certain relevant topics (i.e. insight, disgust, prolonged exposure etc.), and showing video recordings of the treatment (Solem et al. 2009).

The second group of therapists, the professional therapists, all had prior training and experience with the treatment manual. In addition, before being included in the study they had to complete a 32-hour long training program supervised by the second author. All therapists also received one hour of supervision after the second session of every therapy. Further supervision was available when requested by the therapists.

2.3. Treatment

Treatment was based on the manual developed by Kozak and Foa (1997). In the first session, the therapist formulated a case-conceptualization, presented the treatment rationale, and instructed the patient to self-monitor their rituals as a homework assignment. The second session involved creating the exposure hierarchy and introducing rules for ritual prevention. Session 3 and the remaining sessions were similar in structure, consisting mainly of checking homework assignments, 60 minutes with in vivo and imaginary in-session exposure delivered in a sequence specified by the hierarchy (reaching the top of the hierarchy after six sessions of exposure), and agreeing on homework assignments. Homework assignments involved repeating exposure exercises used during sessions or designing additional exposure exercises more suited for the patients’ home environment. When the treatment was approaching termination, the focus turned to relapse prevention. Relapse prevention consisted of planning future exposure exercises, anticipating possible psychosocial stressors, and how to cope with these, as well as developing a contingency plan in case of increased distress. The mean number of sessions was 15.44 (SD = 3.81).

2.4. Measures

2.4.1. Obsessive-compulsive symptoms

The Y-BOCS interview (Goodman et al. 1989a, 1989b) was used as the primary measure of treatment outcome. Excellent inter-rater reliability, and moderate to good internal consistency has been reported (Goodman et al. 1989b, Woody et al. 1995). Five obsession and five compulsion items are assessed on a 0-4 rating scale. The items involve assessing time spent on obsessing and compulsive rituals, social- and work disturbance due to the OCD, discomfort when obsessions arise or compulsions are hindered, resistance to obsessions and compulsive behaviour, and the feeling of control. Twenty randomly selected videotapes of Y-BOCS interviews were assessed by a competent independent rater. The inter-rater reliability score was .97.

2.4.2. Therapist and patient variability in the working alliance

The Working Alliance Inventory-Short (WAI-S; Tracey and Kokotovic 1989) is a 12-item self-report measure using a seven-point Likert scale. WAI-S is a short form of the Working Alliance Inventory (WAI; Horvath and Greenberg 1989). WAI-S measures the three aspects of the working alliance that may be described as bond (e.g. “I feel that the therapist appreciates me”), task (e.g. “I believe we are working with my problem is correct”), and goal (e.g. “The therapist and I are working towards mutually agreed upon goals”).

A factor analytic study has suggested a two-factor structure of the working alliance in patients undergoing treatment: the bond dimension and the combined task/goal dimension (Andrusyna et al. 2001, Hatcher and Barends 1996). The inventory has been shown to possess acceptable construct validity and high internal consistency (Tracey and Kokotovic 1989). The WAI-S was completed by the patients after the second session, but in some instances it was filled out in the beginning of the third session. The internal reliability as measured with the Cronbach’s alpha was satisfactory (.84 for the task/goal dimension and .78 for the bond dimension). Therapist variability in the working alliance was estimated by calculating each therapist’s mean WAI-S score and calculating how much each therapist’s mean deviated from the WAI-S grand mean. Patient variability was estimated by calculating each patient’s score for the two WAI-S components and how much this deviated from their therapist’s mean score. A simple description of these calculations could be illustrated with an example. A therapist with a mean alliance score of 5.0 for his/her treatments would have a therapist variability score of -1 if the grand mean for the working alliance scale was 6.0. Similarly, if the therapist’s patients had alliance scores of 4.0, 5.0, and 6.0., then their patient variability scores would be -1, 0, and +1 respectively.

3. Results

3.1 Preliminary analyses

The changes obtained on the Y-BOCS indicated that the ERP treatment was very effective for the treatment completers (n = 44) as suggested by the large effect size (d = 3.19). A summary of the participants’ characteristics is shown in Table 1. The results indicated that the patients in general experienced a strong working alliance; WAI-S task/goal (M=6.28, SD=0.68), WAI-S Bond (M=5.77, SD=1.04), WAI-S total (M=6.11, SD=.70).

3.2 Correlational analyses

There were significant correlations between the WAI-S task/goal and Y-BOCS post-treatment scores (r = -.360, n =44, p =.016). Similarly, there were no significant correlations between WAI-S bond and Y-BOCS post-treatment scores (r = -.247, n =44, p =.107).

Table 3 shows the Pearson correlation coefficients between the patient and therapist variability and the Y-BOCS post-treatment scores, and the inter-correlations between the various predictor variables. Therapist variability in the task/goal dimension was significantly correlated with Y-BOCS posttreatment scores. Patient variability in the working alliance was not significantly related to treatment outcome.
predictor. Neither therapist- nor patient variability of the bond dimension of the working alliance was found to be related to outcome. The results replicated the significant therapist variability findings from the study by Baldwin et al. (2007), and the meta-analysis by Del Re et al. (2012), which also found that therapist variability and not patient variability is related to treatment outcome. Our study extended their findings by demonstrating these results using a two-factor solution of the WAI-S in a well-defined group of patients undergoing a manual based treatment program for OCD. The finding that therapist variability in the task/goal component is related to outcome may a result of the importance of the therapist in the process of forming a strong working alliance, which may increase the patients’ likelihood to agree with their therapists on tasks and goals of therapy, which may affect outcome of the therapy (Wampold et al. 2006). These factors may be of extra importance for exposure based therapy. It could also be that therapist variability in the task/goal dimension is related to between-session exposure tasks completed by the patient. Related research has also shown that understanding the treatment rationale is correlated with homework exercises (Abramowitz et al. 2002) which adds to the notion of the importance of the therapists’ behaviours in the first couple of sessions.

The therapist variability in the early working alliance was found to be related to treatment outcome. Patient variability of the task/goal was not a significant predictor. Neither therapist- nor patient variability of the bond dimension of the working alliance was found to be related to outcome. The results replicated the significant therapist variability findings from the study by Baldwin et al. (2007), and the meta-analysis by Del Re et al. (2012), which also found that therapist variability and not patient variability is related to treatment outcome. Our study extended their findings by demonstrating these results using a two-factor solution of the WAI-S in a well-defined group of patients undergoing a manual based treatment program for OCD.

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4. Discussion

The task/goal dimension of the early working alliance was found to be related to OCD-symptoms at the end of ERP treatment. The findings are in line with a recent study by Wheaton and colleagues (2016) who found that only the task component of the working alliance in the WAI-SR was significantly related to the outcome of ERP, when working alliance were measured after second session, as in our study. The bond dimension was, however, not related to the outcome. The results are in contrast with findings from Vogel et al. (2006) who found that the bond component of the bond dimension of the Helping Alliance Questionnaire were related to outcome of ERP for OCD. The task/goal component is clearly addressed by the therapist during the first two sessions of ERP which could make the timing of measurement of this component more suitable compared to the bond dimension which may require more therapist-patient contacts before reaching a reliable level.

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4.1. Limitations

This study is limited by the relatively small sample size and a low caseload per therapist, which could limit the generalizability of the results. In addition, even though our study used an early measure of alliance, it is still possible that early symptom improvement influenced the results, although such analyses have produced mixed results (e.g. Baldwin et al. 2007). A few of the participants filled out the WAI-S at session three, and those were not analysed separately. Another

### Table 1. Patient characteristics of the treatment completers

<table>
<thead>
<tr>
<th>Patient characteristics</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographics</strong></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>33.25 (12.65)</td>
</tr>
<tr>
<td>Female gender</td>
<td>65.9% (29)</td>
</tr>
<tr>
<td>Unmarried</td>
<td>43.2% (19)</td>
</tr>
<tr>
<td><strong>Employment status</strong></td>
<td></td>
</tr>
<tr>
<td>Currently working full time</td>
<td>20.5% (9)</td>
</tr>
<tr>
<td>Working part time</td>
<td>9.1% (4)</td>
</tr>
<tr>
<td>Currently studying</td>
<td>22.7% (10)</td>
</tr>
<tr>
<td>Unemployed/social benefits</td>
<td>47.7% (21)</td>
</tr>
<tr>
<td><strong>OCD-subtype</strong></td>
<td></td>
</tr>
<tr>
<td>Washing</td>
<td>31.8% (14)</td>
</tr>
<tr>
<td>Checking</td>
<td>22.7% (10)</td>
</tr>
<tr>
<td>Mental rituals</td>
<td>25.0% (11)</td>
</tr>
<tr>
<td>Washing and checking</td>
<td>18.2% (8)</td>
</tr>
<tr>
<td>Hoarding</td>
<td>2.3% (1)</td>
</tr>
<tr>
<td><strong>Comorbidity</strong></td>
<td></td>
</tr>
<tr>
<td>Anxiety disorder</td>
<td>38.6% (17)</td>
</tr>
<tr>
<td>Depressive disorder</td>
<td>34.1% (15)</td>
</tr>
</tbody>
</table>

Note. OCD = Obsessive-Compulsive Disorder.
importance of considering both therapist- and patient variability. Consequently, the total correlations, which are crude averages, may provide misleading results. It is recommended that future studies control for factors such as the therapist's clinical experience, of supervision given. In addition, studies on ERP for designs whenever possible, to permit the separation of between-therapist and within-therapist effects.

4.2 Implications

The finding that therapist, and not patient, variability in working alliance are related to outcome, suggests that it could be beneficial attending to the therapists' ability to form a strong agreement with the patient on the tasks and goals of the therapy. A specific treatment for a specific disorder such as ERP for OCD may achieve strong alliances since the treatment is designed for the patients' problems and the therapists are trained in dealing with these. Previous research (e.g. Kazdin and Krouse 1983) has shown that differences in styles of presenting the treatment rationale (e.g. references to scientific research, describing previous successful case exemplars) can lead to different treatment expectancies, and the rationale can have immediate and delayed effects on behaviours such as self-efficacy (Ahmed and Westra 2009). It might be advantageous for therapists to attend to their presentation of the rationale and planning of the treatment hierarchy as well as how this might influence their early contributions to the working alliance. When patients report weaker working alliances, the therapists could find supervision helpful to reflect on their interventions. Therapists could be trained in improving ability to form working alliances (Crits-Christoph et al. 2006), and assessment of task and goal may be implemented as a benchmark to determine whether the therapy is “on course”. Such benchmarks have been successfully implemented in other studies (e.g. Lambert et al. 2003). In respect to future research on the predictive role of the alliance, the results underline the importance of considering both therapist- and patient variability. Consequently, the total correlations, which are crude averages, may provide misleading results. It is recommended that future studies control for factors such as the therapist's clinical experience, workload, therapist's personality profiles, and amount of supervision given. In addition, studies on ERP for OCD may profit to include multiple therapists in their designs whenever possible, to permit the separation of between-therapist and within-therapist effects.

4.3 Conclusions

The study indicated that the therapists’ behaviour in the first couple of sessions seem to be of utmost importance in order to socialise and persuade the patient to partake in the treatment. Future studies should replicate the study with larger number of therapists and higher case-load per therapist. Future study should also analyze the quality of these sessions and their early contributions to the working alliance. When patients report weaker working alliances, the therapists could find supervision helpful to reflect on their interventions. Therapists could be trained in improving ability to form working alliances (Crits-Christoph et al. 2006), and assessment of task and goal may be implemented as a benchmark to determine whether the therapy is “on course”. Such benchmarks have been successfully implemented in other studies (e.g. Lambert et al. 2003). In respect to future research on the predictive role of the alliance, the results underline the importance of considering both therapist- and patient variability. Consequently, the total correlations, which are crude averages, may provide misleading results.

References

Andrusyna TP, Tang TZ, DeRubeis RJ, Luborsky L (2001). The


