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# Therapist competence and therapeutic alliance are important in the treatment of health anxiety (hypochondriasis)

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ABSTRACT

The role of treatment delivery factors (i.e., therapist adherence, therapist competence, and therapeutic alliance) is rarely investigated in psychotherapeutic treatment for health anxiety. This study aimed to investigate the role of the assessment perspective for the evaluation of treatment delivery factors and their relevance for treatment outcome. Therapist adherence, therapist competence, and therapeutic alliance were evaluated by independent raters, therapists, patients, and supervisors in 68 treatments. Patients with severe health anxiety (hypochondriasis) were treated with cognitive therapy or exposure therapy. Treatment outcome was assessed with a standardized interview by independent diagnosticians. A multitrait–multimethod analysis revealed a large effect for the assessment perspective of therapist adherence, therapist competence, and therapeutic alliance. The rater perspective was the most important for the prediction of treatment outcome. Therapeutic alliance and therapist competence accounted for 6% of the variance of treatment outcome while therapist adherence was not associated with treatment outcome. Therapist competence was only indirectly associated with treatment outcome, mediated by therapeutic alliance. Both therapeutic alliance and therapist competence demonstrated to be important treatment delivery factors in psychotherapy for health anxiety. A stronger consideration of those processes during psychotherapy for health anxiety might be able to improve psychotherapy outcome.



## 1. Introduction

The conceptualizations of hypochondriasis (health anxiety) as an anxiety disorder led to effective psychotherapeutic treatment approaches which address disorder-specific cognitive as well as behavioral processes (Olatunji et al., 2009, 2014). The role of treatment delivery factors have rarely been investigated in psychotherapy for health anxiety. Important treatment delivery factors, which are also the focus of the current study, are therapist adherence, therapist competence, and therapeutic alliance (Dimidjian and Hollon, 2011).

*Therapist adherence* refers to the extent to which a therapist uses interventions as described in the treatment manual and *therapist competence* refers to the level of skill shown by the therapist in delivering the treatment and includes the consideration of and response to relevant contextual variables by the therapist (Waltz et al., 1993). Therapist competence is rarely investigated in psychotherapy research in general but was found to be significantly related to therapy outcome in a meta-analysis, at least for the treatment of depression ($r$=0.28; Webb et al., 2010). Moreover, several recent studies which addressed anxiety disorders also found significant relationships between therapist competence and therapy outcome ($r$=0.22–0.79; Westra et al., 2011; Ginzburg et al., 2012; Brown et al., 2013). On the other hand, some studies found no significant relationships between therapist competence and outcome in the treatment of anxiety disorders (e.g., Boswell et al., 2013; Huppert et al., 2001). However, inappropriate methodological approaches, like the evaluation of therapist competence with only one global item might be responsible for the heterogeneous findings in research (Simons et al., 2013; Webb et al., 2010; Weck et al., 2011a). There is no consistent evidence which supports that *therapist adherence* impacts therapy outcome (Baldwin and Imel, 2013; Webb et al., 2010).

*Therapeutic alliance* was described as the collaborative and affective bond between therapist and patient (Luborsky, 1984) and was investigated frequently in psychotherapy research (Wiseman and Tishby, 2014). Therapeutic alliance was consistently found to have a significant impact on therapy outcome in meta-analyses ($r$=0.22–0.28; Horvath et al., 2011; Martin et al., 2000).

An important methodological aspect of evaluating process variables is the perspective from which the assessment was made. For the assessment of therapist adherence and competence, only

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poor concordance was found among the view of independent raters, therapist's self-rating, and the supervisor's perspective (e.g., Chevron and Rounsaville, 1983; Carrol et al., 1998; Dennhag et al., 2012; Martino et al., 2009). Also, patients' and therapists' views of the therapeutic alliance were found to be only moderately correlated in a meta-analysis of 53 studies (Tryon et al., 2007). No significant differences between varying perspectives (patient vs. therapist vs. observer) were found for the alliance–outcome relationship (Horvath et al., 2011). Regarding competence, there is some evidence that the competence–outcome relationship is stronger for the supervisor perspective in comparison to the rater or therapist perspectives (Chevron and Rounsaville, 1983).

Therapist competence and therapeutic alliance are closely related constructs (see Sharpless and Barber, 2007). Therapeutic competence can be seen as a precondition for a good therapeutic alliance. Only when the therapist is able to deliver the treatment competently, can a good therapeutic alliance be formed. Therefore, the therapeutic alliance can be considered as an important mediator for the relationship between therapist competence and treatment outcome. Some studies support this perspective and found that therapeutic alliance mediates the relationship between competence and outcome (e.g., Barber et al., 1996; Despland et al., 2009; Weck et al., 2015).

In the current study, we evaluated therapist adherence, therapist competence, and therapeutic alliance in the treatment of health anxiety. Therein, we considered two treatment approaches (i.e., cognitive therapy and exposure therapy) and four assessment perspectives (i.e., independent raters, therapists, supervisors, and patients). The first aim of our study was to evaluate the extent of method effects, attributable to the assessment of process variables by different perspectives. Based on previous studies, we expected a large method effect using a multitrait–multimethod (MTMM) approach (Hypothesis 1). The second aim was to investigate the roles of therapist adherence, therapist competence, and therapeutic alliance on therapy outcome. We hypothesized that therapist adherence is not, while therapist competence and therapeutic alliance are significant predictors of therapy outcome (Hypothesis 2). Moreover, we hypothesized that the therapeutic alliance mediates the relationship between therapist competence and therapy outcome (Hypothesis 3).

## 2. Methods

### 2.1. Study design

The current study is a secondary analysis of a randomized controlled trial treating patients with hypochondriasis (Weck et al., 2014). The study was approved by the institutional review board and is registered under NCT01119469. The aim of the main study was to compare the efficacy of cognitive therapy (CT) and exposure therapy (ET). Patients were randomized to CT, ET, or a waiting list (WL). The primary outcome measure was the Yale–Brown Obsessive Compulsive Scale for Hypochondriasis (H-YBOCS; Weck et al., 2013), a standardized interview. Both treatments demonstrated their efficacy in comparison to the WL. No differences between ET and CT were found regarding the primary outcome measure (see Weck et al., 2014). In the current study all 68 patients who received a treatment (CT: 35; ET: 33) were considered for process analyses. For each patient, two videotapes ($N=136$) were selected for the evaluation of therapists' adherence and competence and therapeutic alliance.

**Table 1**
Characteristics of patients and therapists.

| | Cognitive therapy ($n=35$) | Exposure therapy ($n=33$) |
|---|---|---|
| Patients | | |
| Female (%) | 20 (57.14) | 18 (54.55) |
| Age (S.D.) | 38.14 (10.54) | 41.67 (12.52) |
| Qualification for university entrance (%) | 22 (62.86) | 26 (78.79) |
| At least one comorbid axis I disorder (%) | 18 (51.43) | 15 (45.45) |
| Therapists | | |
| Number of therapists | 17 | 17 |
| Female (%) | 13 (76.47) | 14 (82.35) |
| Age (S.D.) | 30.94 (4.01) | 30.35 (3.87) |
| Years of clinical experience (S.D.) | 3.24 (1.20) | 2.88 (1.32) |
| Licensed psychotherapists | 3 | 3 |

### 2.2. Participants

#### 2.2.1. Patients

Sociodemographic and comorbidity data for the 68 participants is presented in Table 1. No significant differences were found between patients receiving CT and ET regarding sex ($\chi^2_{(1)}=0.05$; $p=1.00$), age ($F_{(1,\ 65)}=1.58$; $p=0.21$), educational level ($\chi^2_{(1)}=1.64$; $p=0.28$), or the existence of a comorbid disorder ($\chi^2_{(1)}=0.24$; $p=0.64$). The most frequent comorbid disorders were anxiety disorders (33.82%) and affective disorders (17.65%).

#### 2.2.2. Therapists

The 68 patients were treated by 26 therapists. Most therapists treated patients in both treatment conditions. All therapists had a master's degree in clinical psychology and most were in ongoing psychotherapy training (see Table 1). All therapists were trained in a workshop for 24 h in the underlying treatment approach and received regular supervision by two licensed and experienced supervisors.

#### 2.2.3. Supervisors

Treatments were supervised by two licensed psychotherapists who have a Ph.D. and at least 8 years of clinical experience. They are experts in the administered treatments (e.g., publications on the treatments). Treatments were supervised at least once per month.

#### 2.2.4. Raters

Two female raters conducted process ratings of therapist adherence, competence, and therapeutic alliance. Both were master's level clinical psychologists (one was a licensed psychotherapist and one was in the last phase of psychotherapy training) who had 4 and 2 years of clinical experience after their master's degree, respectively. Both were trained in the treatment of health anxiety and had practical experience in treating patients with hypochondriasis. Raters completed a 20-h training course on how to use the process rating scales. Raters had no information about treatment outcome.

### 2.3. Treatments

Both treatment conditions included 12 regular sessions each lasting 50 min. An overview of both treatment contents is given in Table 2 and the interventions are described in detail in treatment manuals. A more detailed description of the interventions is given elsewhere (for CT: Weck, 2014; for ET: Weck et al., 2012).

### 2.4. Process measures

#### 2.4.1. Adherence assessment

Therapist adherence was evaluated by independent raters and therapists. On the basis of the CT and ET treatment manuals, we developed an adherence scale (AS) which allows the evaluation of the level of therapist adherence to the treatment manuals by independent raters (see also Weck et al., 2014). The scale includes 16 items altogether: (1) agenda, (2) time management, (3) use of materials, (4) reviewing homework, (5) setting homework, (6) giving information, (7) identification of safety behavior, (8) reduction of safety behavior, (9) giving a rationale for exposure, (10) establishing an anxiety hierarchy, (11) guided exposure, (12) development of an individual cognitive model, (13) attention-focused exercises, (14) behavioral experiments, (15) modification of automatic thoughts, and (16) relapse prevention. The items had a three-point rating scale format (0=not adherent, 1=partly adherent, and 2=adherent). Items 1–8 and 12–16 address therapist adherence in CT and Items 1–11 and 16 address therapist adherence in ET. In the current study, a good interrater reliability ($ICC_{(2,2)}=0.81$; $p<0.001$) was found for the AS.

Moreover, therapists evaluated their level of adherence to the treatment manual globally in every therapy session with the following item: “Please indicate how well you followed the treatment manual in the session today”. The response format was a seven-point rating scale ranging from 0 (“not adherent”) to 6 (“very adherent”).

#### 2.4.2. Competence assessment

Therapist competence was evaluated by independent raters, therapists, and supervisors. Therapist competence was evaluated by independent raters with the