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Effectiveness of cognitive-behavioral group therapy for patients with hypochondriasis (health anxiety)

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ABSTRACT

Cognitive behavioral therapy (CBT) has been shown to be highly effective in the treatment of health anxiety. However, little is known about the effectiveness of group CBT in the treatment of health anxiety. The current study is the largest study that has investigated the effectiveness of combined individual and group CBT for patients with the diagnosis of hypochondriasis ($N = 80$). Therapy outcomes were evaluated by several questionnaires. Patients showed a large improvement on these primary outcome measures both post-treatment (Cohen's $d = 0.82–1.08$) and at a 12-month follow-up (Cohen's $d = 1.09–1.41$). Measures of general psychopathology and somatic symptoms showed significant improvements, with small to medium effect sizes. Patients with more elevated hypochondriacal characteristics at therapy intake showed a larger therapy improvement, accounting for 7–8% of the variance in therapy outcome. CBT group therapy has therefore been shown to be an appropriate and cost-effective treatment for health anxiety.

1. Introduction

Hypochondriasis (health anxiety) is characterized by the preoccupation with fears of having or the idea that one has a serious disease (American Psychiatric Association, 2000). In general medical samples, the weighted prevalence of the diagnosis of hypochondriasis is 2.95% (Weck, Richtberg, & Neng, 2014). Health anxiety is also frequently reported in the general population (e.g., Bleichhardt & Hiller, 2007). Health anxiety is a disturbing and persistent condition, which is associated with high costs for the health care system (Fink, Ørnbøl, & Christensen, 2010).

Cognitive-behavioral therapy (CBT) has been shown to be highly effective in the treatment of health anxiety. In a recent meta-analysis that considered the treatment of 1081 patients, high effect sizes (Hedge's $g = 0.95$) were found for CBT at post-treatment (Olatunji et al., 2014). However, effect sizes at follow-up were small (Hedge's $g = 0.35$). CBT produces improvements in anxiety, depression, and somatic symptoms, which often co-occur with health anxiety (Olatunji et al., 2014; Thomson & Page, 2007). CBT has demonstrated its superiority in comparison to psychodynamic psychotherapy (Sørensen, Birket-Smith, Wattar, Buemann, & Salkovskis, 2011) and can be delivered effectively via the Internet (Hedman et al., 2011, 2014).

In contrast to the growing empirical evidence about individual psychotherapy for health anxiety, there are only eight clinical studies, which treated altogether 192 patients with hypochondriasis in group settings (Avia et al., 1996; Bleichhardt, Timmer, & Rief, 2005; Bouman, 2002; Buwalda, Bouman, & van Duijn, 2006; Eilenberg, Kronstrand, Fink, & Frostholm, 2013; Hedman et al., 2010; Stern & Fernandez, 1991; Wattar et al., 2005). Sample sizes ranges from 6 (Stern & Fernandez, 1991) to 34 participants (Eilenberg et al., 2013). Most studies used a CBT approach (Stern & Fernandez, 1991; Bleichhardt et al., 2005; Wattar et al., 2005; Hedman et al., 2010), three studies used psychoeducation or problem solving (Avia et al., 1996; Bouman, 2002; Buwalda, Bouman, & van Duijn, 2007), and one used acceptance and commitment therapy (ACT; Eilenberg et al., 2013). Treatments included 6 (e.g., Bouman, 2002) to 23 (Wattar et al., 2005) sessions. Only two studies included a control condition. One smaller study ($N = 17$) used a waiting-list control group and found CBT significantly superior to the waiting-list

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(Avia et al., 1996). Buwalda et al. compared a psychoeducational treatment to problem solving and found no significant differences between the two treatments. The pre–post effect sizes (Hedges's *g*) for group CBT were large (*g* = 1.03–2.38). Moreover, psychoeducation (*g* = 1.01–1.21), problem solving (*g* = 0.54), and ACT (*g* = 1.01) demonstrated their effectiveness in the group setting, by medium to high pre–post effect sizes. Five studies reported a 6-month follow-up (Bouman, 2002; Buwalda et al., 2007; Eilenberg et al., 2013; Hedman et al., 2010; Stern & Fernandez, 1991) and three studies a 12-month follow-up (Avia et al., 1996; Bleichhardt et al., 2005; Wattar et al., 2005). Pre-follow-up effect sizes ranged from *g* = 0.28 (Wattar et al., 2005) to *g* = 1.72 (Hedman et al., 2010). Accordingly, six studies reported large (*g* > .80) pre-follow-up effect sizes (Avia et al., 1996; Bouman, 2002; Bleichhardt et al., 2005; Buwalda et al., 2007; Eilenberg et al., 2013; Hedman et al., 2010). Group therapy seems to be an appropriate and cost-effective treatment approach for patients with health anxiety. However, the empirical evidence for group therapy is limited by the number of studies and their small sample sizes. Moreover, most of the studies have considered only a 6-month follow-up period. This may be too short to be useful for the evaluation of long-term effects of the treatments.

The empirical evidence is also limited regarding reliable predictors of treatment outcomes in psychotherapy for health anxiety. For example, several studies found that hypochondriacal symptoms, anxiety symptoms, and somatic symptoms at intake are related to therapy outcome (Buwalda et al., 2007; Olde Hartman et al., 2009; Nakao, Shinozaki, Ahern, & Barsky, 2011; Olatunji et al., 2014). However, these findings are inconsistent; some studies have found that higher scores at intake lead to a better therapy outcome (Nakao et al., 2011; Olatunji et al., 2014), while other studies have found that higher scores at intake lead to a worse therapy outcome (Buwalda et al., 2007; Olde Hartman et al., 2009). Therefore, further research on the possible predictors of treatment outcome in health anxiety is necessary.

The aim of the current study was to investigate the effectiveness of a combined group and individual CBT in a large sample of patients with hypochondriasis. In order to study the long-term effects of the treatment, we decided upon a 12-month follow-up period. We hypothesized that group CBT leads to a large improvement on primary hypochondriacal measures (Hypothesis 1). We also expected to find maintenance of those effects at the 12-month follow-up (Hypothesis 2). Moreover, we hypothesized a significant reduction of general psychopathology and somatic symptoms during treatment time (Hypothesis 3). We hypothesized that the severity of patients' hypochondriacal symptoms at intake is a significant predictor for therapy outcome (Hypothesis 4).

2. Method

2.1. Study design

The study was conducted at the outpatient unit of the Department of Clinical Psychology and Psychotherapy at the University of Mainz (Germany). The outpatient unit offers ambulatory psychotherapy for patients with mental disorders. The clinicians use CBT and are paid by German health insurance. All participants were diagnosed by the International Diagnostic Checklists (IDCL; Hiller, Zaudig, & Mombour, 1996; Hiller, Zaudig, Mombour, & Bronisch, 1993). The inclusion criteria of the current study were (a) age of at least 18 years, (b) a primary diagnosis of hypochondriasis, and (c) fluency and literacy in German. Exclusion criteria were (a) a major medical illness (e.g., cancer), (b) serious suicidal ideation, and (c) the clinical diagnosis of substance addiction, schizophrenia, schizoaffective disorder, or bipolar disorders according to the IDCL. Patients' flow chart is shown in Fig. 1.

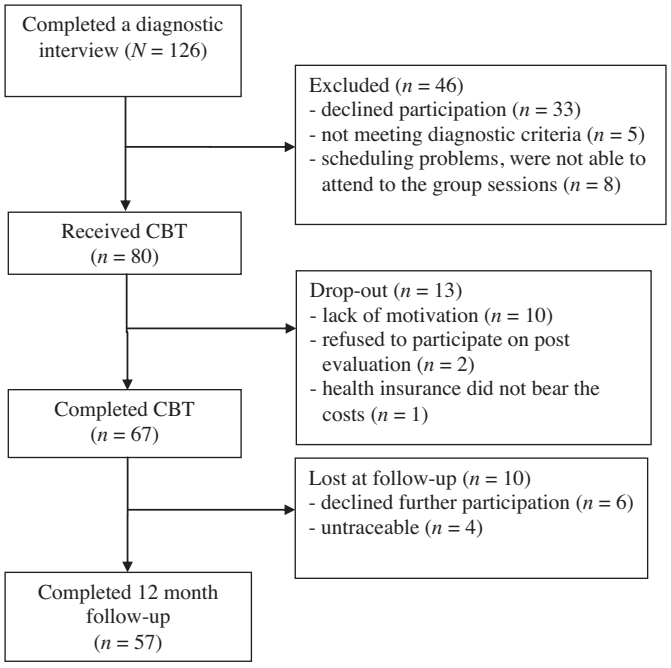

Fig. 1. Flowchart of participants. CBT, cognitive-behavioral therapy.

2.2. Participants

Eighty patients with the DSM-IV diagnosis of hypochondriasis participated in the current study. Patients were a mean of 37.06 (SD = 10.89) years old, and 47 (58.8%) were female. Sixty-seven (83.8%) were married or cohabiting, and 47 (58.8%) had at least 13 years of education. Patients had in mean 2.01 (SD = 0.84) additional co-morbid disorders, most often affective disorders (45.0%), or anxiety disorders (35.0%). Participants declared that they suffered from health anxiety for *M* = 10.98 years (SD = 9.04 years). Sixteen (20.0%) of the patients received antidepressant medication.

2.3. Measures

2.3.1. Illness attitudes scales (IAS; Kellner, 1986; German: Hiller and Rief, 2004)

The IAS is a questionnaire containing 27 items, which are evaluated on a 5-point Likert scale (ranging from 0 = "no" to 4 = "most of the time"). The IAS is an internationally well-established instrument for the assessment of hypochondriacal attributes (Sirri, Grandi, & Fava, 2008). An example item of the IAS is as follows: "Do you worry about your health?" Both the original and the German version of the IAS have proved to be highly reliable and valid (Höfling & Weck, 2013; Weck, Bleichhardt, & Hiller, 2009, 2010). In the current study, the Cronbach's α of the IAS was .87.

2.3.2. Cognitions about body and health questionnaire (CABAH; Rief, Hiller, & Margraf, 1998)

The CABAH assesses cognitions, which are relevant for the maintenance of health anxiety (e.g., "I'm healthy when I don't have any bodily sensations."). The response format of the CABAH is a 4-point Likert scale (ranging from 0 = "completely wrong" to 3 = "completely right"). In the current study, we used a 28-item version of the CABAH (items of *health habits* subscale were excluded because they failed to demonstrate their validity), which showed good reliability and validity (Rief et al., 1998). The Cronbach's α of the CABAH in the current study was α = .84.