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Sudden gains in exposure therapy for obsessive-compulsive disorder

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ABSTRACT

Prior research in the treatment of depression and anxiety has demonstrated that a sudden reduction in symptoms between two consecutive sessions (sudden gain) is related to lower post-treatment symptom severity (e.g. Hofmann, Schulz, Meuret, Moscovitch, & Suvak, 2006; Tang & DeRubeis, 1999). However, only one study has examined sudden gains in the treatment of obsessive compulsive disorder (OCD). In that study, one-third of the patients with OCD experienced a sudden gain (Aderka et al., 2012). Further, patients who had a sudden gain had lower clinician-rated OCD symptom severity post-treatment (Aderka et al., 2012). In replication, the current study examined the frequency, characteristics, and clinical impact of sudden gains in 27 OCD patients during exposure and response prevention (ERP) therapy. Fifty two percent of patients experienced a sudden gain. The mean magnitude of a sudden gain represented, on average, 61.4% of total symptom reduction. Following treatment, individuals who had experienced a sudden gain were rated as less severe on the clinical global impression scale, but they did not experience a greater reduction in OCD symptoms (pre-to post-treatment) than those without a sudden gain. None of the pre-treatment characteristics tested were found to significantly predict whether a patient would have a sudden gain. Additional research examining predictors of, and patterns of, change in OCD symptoms is warranted.

A sudden decline in symptoms between two consecutive sessions, termed a *sudden gain,* was first observed in the treatment of depression (Tang & DeRubeis, 1999). Tang and DeRubeis found that sudden gains occurred in more than 50% of patients during cognitive behavioral therapy for depression, and that individuals with a sudden gain had greater symptom reduction than those without (1999). These findings suggest that sudden gains are relatively common and that experiencing a sudden gain may increase the likelihood of treatment response. Sudden gains might signify a grasp of the treatment model or enhance treatment alliance, thereby increasing engagement in therapy and subsequent symptom reduction (Tang & DeRubeis, 1999). Since this initial study, several other studies have examined the occurrence and impact of sudden gains in the treatment of depression. (Hardy et al., 2005; Kelly, Roberts, & Ciesla, 2005; Tang, DeRubeis, Beberman, & Pham, 2005; Vittengl, Clark, & Jarrett, 2005). In addition, some researchers have examined pre-treatment differences between those with and without a sudden gain (Hardy et al., 2005; Kelly et al., 2005; Tang & DeRubeis, 1999). However, consistent pre-treatment predictors of sudden gains remain elusive.

Researchers have also discovered sudden gains in the treatment of anxiety disorders. The first study to assess sudden gains in social anxiety found that they occurred in 18% of patients and accounted for 50.27% of overall symptom improvement (Hofmann et al., 2006). Sudden gains have been found in 34.5% of patients in psychodynamic therapy for generalized anxiety disorder (Present et al., 2008), 43.3% of patients in group CBT for panic disorder (Clerkin, Teachman, & Smith-Janik, 2008), 52% of patients in prolonged exposure therapy for post traumatic stress disorder (PTSD; Doane, Feeny, & Zoellner, 2010; Kelly, Rizvi, Monson, & Resick, 2009), and transdiagnostic group CBT for anxiety disorders (Norton, Klenck, & Barrera, 2010). Many, but not all, of these studies found that those with sudden gains had better outcomes post treatment than those without (Clerkin et al., 2008; Doane et al., 2010; Hofmann et al., 2006). A recent meta-analysis on sudden gains in anxiety and depression found a moderate effect of sudden gains on treatment outcome (Hedge's $g = 6.2$, SE $= 0.09$), with greater effect sizes in CBT than other therapies (Aderka, Nickerson, Bøe, & Hofmann, 2012).

Review of the literature revealed only one study that examined

Abbreviations: OCSCI, Obsessive Compulsive Session Change Index; OCI, Obsessive Compulsive Inventory; Y-BOCS, Yale-Brown Obsessive Compulsive Scale; BDI-II, Beck Depression Inventory- II; CGI, Clinical Global Impression Scale.

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sudden gains in the treatment of obsessive compulsive disorder (OCD). Aderka, Nickerson, Bøe, and Hofmann (2012) explored this phenomenon in cognitive therapy, exposure therapy, and each therapy in combination with fluvoxamine. Using the Yale- Brown Obsessive Compulsive Scale (Y-BOCS; Goodman, Price, Rasmussen, Mazure, Delgado, et al., 1989; Goodman, Price, Rasmussen, Mazure, Fleischmann, et al., 1989), sudden gains were found in 34.1% of individuals and represented 65.5% of total symptom reduction. Patients with a sudden gain had lower OCD symptoms but not lower depression post-treatment and at follow-up assessment. The number and timing of sudden gains experienced in each treatment group was not significantly different. Furthermore, no pre-treatment measures or demographic characteristics were found to predict the occurrence of a gain.

The study presented herein examined sudden gains during exposure and response prevention (ERP) for OCD to conceptually replicate and extend the findings of Aderka, Nickerson, et al. (2012). Given the results found in the prior study, we predicted that 30–40% of OCD patients would experience a sudden gain, and the magnitude of the gain would represent 60–70% of total symptom reduction. In prior studies, the same measure was used to assess both sudden gains and symptom reduction from pre to post-treatment. We attempted to disentangle these two variables by using different assessments to measure sudden gains and overall symptom reduction. Further, we compared the presence of a sudden gain to reductions in both clinician-rated and self-reported measures of OCD, and clinician-rated global impression of severity post -treatment. Since depressive symptoms are extremely common in OCD and were examined in Aderka, Anholt, et al. (2012) and Aderka, Nickerson, et al. (2012), we also compared depressive symptom reduction in those with and without a sudden gain. We hypothesized that those with a sudden gain would experience greater reductions in OCD and depressive symptoms, and have a lower clinical global impression (CGI) of severity post-treatment than those without. Additionally, we explored whether different pre-treatment characteristics would predict the occurrence of a sudden gain. Consistent with the results found by Aderka, Nickerson, et al. (2012), we hypothesized that the pretreatment variables examined in the prior study (gender, age, marital status, comorbidity, severity of OCD symptoms) would not predict a sudden gain, but that medication status, duration of OCD, and duration of anxiety would predict the occurrence of a sudden gain.

1. Method

1.1. Participants

Participants included 27 Caucasian patients (14 females) between 18 and 66 years old ($M = 32.3$, $SD = 13.8$) who completed at least 14 sessions of ERP for OCD. All participants were diagnosed with primary OCD according to DSM-IV and DSM-V criteria prior to treatment (Anxiety Disorders Interview Schedule; Brown & Barlow, 2014; DiNardo, Brown, & Barlow, 1994). Participants were only included if they completed at least 14 sessions of ERP. Out of the 48 people that were offered treatment, 11 refused treatment, and 10 dropped out before completing 14 sessions. This left 27 patients who completed at least 14 sessions and were included in the study. Out of 27 patients, 4 did not complete post-treatment assessments, leaving 23 patients in analyses of symptom reduction pre-to post-treatment. In our sample, 52% had at least one comorbid diagnosis (N = 14), and 26% had more than one comorbid diagnosis (N = 7). Comorbidities included major depression (N = 9), social anxiety disorder (N = 8), panic disorder (N = 2), and generalized anxiety disorder (N = 1). Fifty five percent of the sample reported taking psychotropic medication during treatment (N = 15).

1.2. Measures of OCD severity

Two questionnaires were used to measure self-reported OCD symptom severity. The Obsessive Compulsive Session Change Index (OCSCI) is a brief measure that was used at each session to identify sudden gains (Collins & Coles, 2016), and the Obsessive Compulsive Inventory (OCI) is a longer measure that was used to measure OCD symptom severity at pre and post-treatment in a more comprehensive manner.

The OCSCI is a 5-item self-report measure of OCD symptoms designed for repeated assessment (Collins & Coles, 2016). Items 1 to 4 (OCSCI-severity) assess time and interference/distress of obsessions and compulsions. Items are rated from 0 to 4 (higher numbers = greater severity). Item 5 assesses perceived improvement since beginning treatment from 0 (notably better) to 4 (notably worse). Sudden gains were measured using the OCSCI-severity score. In our sample, the OCSCI-severity score had strong reliability (Cronbach's alpha = 0.71-0.87 in 16 administrations) and convergent validity with the OCI ($r = 0.46$).

The OCI is a 42-item self-report measure of OCD severity (Foa, Kozak, Salkovskis, Coles, & Amir, 1998). OCD symptom frequency and distress are rated from 0 to 4 with higher scores indicating increased frequency (OCI-F) and greater distress (OCI-D). The OCI has high concurrent and discriminative validity (Foa et al., 1998). In our sample, the internal consistency of the OCI was excellent (Cronbach's alpha = 0.92-0.99 for OCI-F and OCI-D). Since the OCI-D and OCI-F were highly correlated in our sample ($r = 0.96$), only the OCI-D was examined.

The Yale-Brown Obsessive Compulsive Scale (Y-BOCS) was used to measure clinician rated OCD severity at pre-and post-treatment. The Y-BOCS is a clinician-rated, 10-item structured interview assessing the severity of obsessions and compulsions (Goodman, Price, Rasmussen, Mazure, Fleischmann, et al., 1989). Each item is rated 0–4 with higher scores indicating greater severity of obsessions and compulsions. The Y-BOCS has been repeatedly shown to correlate with other measures of OCD symptoms (Deacon & Abramowitz, 2005; Goodman, Price, Rasmussen, Mazure, Delgado, et al., 1989; Woody, Steketee, & Chambless, 1995). In our sample, the Y-BOCS demonstrated good internal consistency (Cronbach's alpha of 0.87 at pre-treatment, 0.91 at post-treatment).

1.3. Measure of depression severity

The Beck Depression Inventory- II (BDI-II) was used to measure self-reported depression at pre and post-treatment. The BDI-II is a 21 item self-report measure of depressive symptoms over the prior two weeks (Beck, Steer, & Brown, 1996). Items are rated from 0 to 3, with higher scores signifying greater severity. The BDI-II has demonstrated good convergent validity with other measures of depression (Beck et al., 1996). In our sample, the internal consistency was excellent at pre- and post-treatment (Cronbach's alpha = 0.92, 0.94, respectively).

1.4. Clinical global impression of severity

The Clinical Global Impressions – Severity of Illness Scale (CGI-S) was used to gather a clinician-rated global impression of the client's illness severity including OCD symptom severity, impairment, and distress, as well as distress and impairment resulting from related problems (e.g. depression). The CGI-S is a clinical interview assessing severity across mental health concerns, and is frequently used in psychopharmacology and psychotherapy efficacy studies (Guy, 1976). The CGI-S interview results in a single rating of severity. Scores range from 1 (not ill) to 7 (severely ill). CGI-S ratings have been shown to correlate highly with Y-BOCS