Journal of Affective Disorders 205 (2016) 344–350

Contents lists available at ScienceDirect

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad

Research paper

Anxiety sensitivity and family accommodation in obsessive-compulsive disorder

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ARTICLE INFO

Article history:
Received 6 May 2016
Received in revised form
24 June 2016
Accepted 14 August 2016
Available online 17 August 2016

Keywords:
Anxiety
Sensitivity
Family
Accommodation
OCD
Impairment

ABSTRACT

Background: Although anxiety sensitivity (AS) presents in adults with obsessive-compulsive disorder (OCD), it has received minimal empirical attention. There are postulated connections between AS and family accommodation, but this relationship has yet to be formally examined. Methods: The present study included 58 adults with OCD who completed a clinician-rated measure of OCD symptom severity, as well as self-report measures assessing AS, family variables, impairment, and co-occurring psychopathology. Results: Participants' AS moderately correlated with family accommodation, family functioning, and depression, while strongly correlating with anxiety symptoms. The Fear of Cognitive Dyscontrol AS subscale moderately correlated with multiple domains of functional impairment, and predicted family accommodation beyond the effects of OCD symptom severity. Family accommodation mediated the relationship between the Fear of Cognitive Dyscontrol AS subscale and functional impairment. Limitations: The study was cross-sectional in nature, limiting the ability to establish directionality and causation. The sample was also limited to adults with OCD and their own symptomology, necessitating further investigations of these constructs in pediatric samples and psychopathology in the caregivers/relatives. Conclusions: These findings highlight the importance of considering fears regarding the loss of mental control within the context of family accommodation in OCD when evaluating functional impairment.

1. Introduction

Anxiety sensitivity is characterized by a fear of feelings and sensations related to anxiety (Reiss et al., 1986), resulting in a negative interpretation of otherwise innocuous symptoms (e.g., quickened breathing, increased heart rate). Specifically, these anxiety-related sensations serve as potential signals for impending, harmful events, which could entail physical (e.g., heart attack), social (e.g., others may witness these symptoms), and/or psychological consequences (e.g., going "crazy;" Taylor, 2014). Anxiety sensitivity has historically been investigated within the context of anxiety disorders, with a particular focus on panic disorder due to its role in the pathogenesis and maintenance of core symptoms (McNally, 2002; Schmidt et al., 1997). However, there has been relatively minimal examination of anxiety sensitivity in obsessive-compulsive disorder (OCD). Given that OCD fits poorly into models incorporating distress/fear disorders and anxiety sensitivity (Naragon-Gainey, 2010), anxiety sensitivity in OCD may be phenomenologically different from its presentation in classical anxiety disorders. Moreover, as emerging research has identified a moderate negative association between anxiety sensitivity and extinction learning in OCD (McGuire et al., 2016), further investigation of anxiety sensitivity in OCD is warranted to better understand the factors influencing its presentation.

When considering the few prior examinations of anxiety sensitivity in OCD, a positive correlation between obsessive-compulsive symptom severity and anxiety sensitivity has been generally observed in clinical (Calamari et al., 2008; Norton et al., 2005) and non-clinical (Keough et al., 2010; Sexton et al., 2003) samples. When conducting more detailed investigations, differential relationships between certain anxiety sensitivity subtypes and OCD

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http://dx.doi.org/10.1016/j.jad.2016.08.024
0165-0327/

symptom clusters have been found. Some studies identified different correlations between anxiety sensitivity and certain OCD symptom clusters (Calamari et al., 2008; David et al., 2009; Raines et al., 2015b; Wheaton et al., 2012), such as the recurrent link between physical symptoms of anxiety sensitivity and contamination-based OCD fears (Cisler et al., 2007; Wheaton et al., 2012), whereas other studies have failed to detect these relationships (Calamari et al., 1999). Furthermore, specific components of anxiety sensitivity, such as cognitive (McLaughlin et al., 2007; Osman et al., 2010; Raines et al., 2015b) and physical concerns (Cisler et al., 2007; McWilliams et al., 2007; Osman et al., 2010), have demonstrated unique associations with obsessive-compulsive symptom severity and the ability to predict diagnoses of OCD (McLaughlin et al., 2007). However, there has been considerable heterogeneity in terms of the methodological procedures and samples used across the studies, making it difficult to interpret the varied findings (Robinson and Freeston, 2014). Consequently, it is imperative to conduct more nuanced investigations of anxiety sensitivity in OCD to clarify its phenomenology and impact.

In particular, anxiety sensitivity has been linked to higher levels of functional impairment in adult OCD (Storch et al., 2014), highlighting the importance of identifying variables that may relate to increased anxiety sensitivity. Specifically, the relationship between anxiety sensitivity and OCD-related functional impairment was mediated by obsessive-compulsive symptom severity; this suggests that increases in anxiety sensitivity contribute to higher levels of OCD symptom severity and ultimately result in heightened impairment. Storch and colleagues postulate that higher anxiety sensitivity can make it more difficult to resist/control obsessive-compulsive symptoms, resulting in rituals and avoidance in an effort to avoid anxiogenic triggers. For instance, when an individual with OCD experiences a contamination obsession (e.g., “my hands are dirty”) and attempts to resist a contamination compulsion (e.g., washing hands), the individual experiences increased anxiogenic triggers (e.g., heart rate, stomach tension). Accordingly, the individual with higher anxiety sensitivity will be more inclined to reduce these anxiogenic symptoms, and thus engage in compulsive rituals and/or avoidance to minimize these symptoms. Thus, it is likely that this intolerance of anxiety-related sensations is likely to decrease compliance with exposure-based treatment (Pence et al., 2010), which would contribute to symptom exacerbation and impairment.

Given the distress and impairment experienced by individuals with OCD presenting with greater anxiety sensitivity, relatives and caregivers may likely engage in family accommodation in an attempt to mitigate these negative experiences (Calvocoressi et al., 1999; Storch et al., 2010a). Family accommodation refers to a myriad of behaviors (e.g., engaging in compulsions, facilitating avoidance, modifying schedules) performed to alleviate OCD-related distress in the short-term (Calvocoressi et al., 1995; Wu et al., 2016a). Specifically, if individuals present with elevated concerns about anxiety-related sensations, they may seek outside sources to help carry out tasks and reduce the obsessional distress quickly. By observing heightened reactions to anxiogenic triggers, relatives may be more prone to intervene and provide accommodations to help attenuate the anxiety. Although likely a catalyst for family accommodation in patients with OCD, there have been no formal evaluations of this relationship. Comparatively, in a study examining elevated social anxiety in adults, anxiety sensitivity predicted symptom accommodation beyond the contributions of social anxiety symptom severity (Joogoolsingh et al., 2015). These findings suggest that higher levels of anxiety sensitivity uniquely explain increased levels of accommodation.

Meanwhile, other studies have focused on the impact of anxiety sensitivity in the relative/caregiver and its impact on symptom maintenance and family accommodation. In these examinations, higher anxiety sensitivity in the caregiver was associated with family engagement in OCD symptoms and distress experienced by the caregivers due to accommodations (Cosentino et al., 2015). These findings reflect a caregiver's own inability to tolerate observing their child's anxiety, resulting in increased accommodations to attenuate the discomfort. Additionally, there exists a concurrent hesitance due to the conflict between these behaviors and the goals of exposure therapy (Rudy et al., 2014), resulting in a cycle of continued distress. Collectively, given the deleterious effects of family accommodation in OCD on family functioning, treatment outcome, and familial burden (Albert et al., 2010; Amir et al., 2000; Calvocoressi et al., 1995; Ferrao et al., 2006; Lebowitz et al., 2016; Lebowitz et al., 2012), it is particularly important to investigate variables that may contribute to higher levels of accommodation.

In summary, anxiety sensitivity is an important construct in OCD phenomenology that is understudied. There are theoretical and practical implications for the relationship between anxiety sensitivity and family accommodation. However, to date, there have been no formal evaluations of the relationship between the patient's anxiety sensitivity and family accommodation in OCD. This study seeks to fill this gap in the literature by elucidating its presentation and relationship with pertinent variables. Specifically, this study aims to: (1) determine correlations between the patient's anxiety sensitivity and variables of interest (e.g., OCD symptom severity, family variables, comorbid psychopathology), (2) examine the level of impairment related to anxiety sensitivity, (3) investigate whether anxiety sensitivity predicts family accommodation above and beyond the effects of OCD symptom severity, and (4) explore a mediation model between anxiety sensitivity, family accommodation, and impairment. By clarifying these relationships, the findings are hoped to better inform the underlying mechanisms and help formulate more targeted interventions.

2. Method

2.1. Sample characteristics and procedures

A total of 58 adults with OCD participated in the present study. The mean age was 33.05 years ($SD=15.13$), with 55% ($n=33$) of the sample being female. The majority of participants ($n=57$) were Caucasian and never married/single ($n=32$; 55%), though a sizable portion were married ($n=21$; 35%). Most participants graduated from high school ($n=17$; 29%), with almost half of the sample completing partial ($n=12$; 21%) or full college education ($n=14$; 24%).

All participants presented to an outpatient psychiatric clinic in the Southeastern United States seeking specialized services for OCD. Patients were approached at their initial intake at the clinic about their potential interest in participating in the study. Interested participants were provided with an informed consent document, and study procedures commenced immediately after receiving signed consent. The measure assessing obsessive-compulsive symptom severity was the only clinician-rated measure, and all other measures (e.g., anxiety sensitivity, family accommodation, family functioning, functional impairment, anxiety, depression) were completed as self-report questionnaires by the participant. All measures were completed within a week of each other. For more detailed information on the study sample and procedures, please see Wu et al. (2016b).

2.2. Measures

Yale-Brown Obsessive Compulsive Scale (Y-BOCS; Goodman et al., 1989a, 1989b). The Y-BOCS is a semi-structured, clinician-administered interview that assesses the presence and severity of