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Symptoms of health anxiety in obsessive–compulsive disorder: Relationship with treatment outcome and metacognition

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ABSTRACT

The study aimed to examine symptoms of health anxiety in relation to obsessive–compulsive disorder (OCD), the effect health anxiety has on OCD treatment outcome, and how OCD treatment affects health anxiety symptoms. Another objective of the study was to explore the role of metacognition in symptoms of health anxiety. A sample of 313 patients with a primary diagnosis of OCD and 382 community controls were compared on the Whiteley Index (WI), the Metacognitions Questionnaire, and the Yale–Brown Obsessive–Compulsive Scale. Results showed that 30.4% in the OCD sample scored above an established cut-off for health anxiety on the WI, significantly higher than in the control group. Furthermore, health anxiety did not have a significant effect on OCD treatment outcome. Health anxiety improved moderately following OCD treatment. Finally, symptoms of health anxiety were found to be moderately correlated with metacognition and improvement in health anxiety was associated with changes in metacognitive beliefs. Implications for treatment and future research are discussed.

1. Introduction

The prevalence of health anxiety has been shown to range from 5.7% in community samples (Sunderland, Newby, & Andrews, 2013), to 17.5% to 24.7% in medical settings (Tyrer et al., 2011). Findings on the prevalence of the extreme form of health anxiety i.e. hypochondriasis, in obsessive–compulsive disorder (OCD) are inconclusive, but the most recent and methodological robust studies suggest a prevalence rate of 10–17%, significantly higher than that in controls (Bienvenu et al., 2000; Fallon, Qureshi, Laje, & Klein, 2000; Jaisoorya, Janardhan Reddy, & Srinath, 2003; Savron et al., 1996). The relatively high prevalence rate, reluctance to accept referral to psychiatric clinics, and excessive health care utilization have made health anxiety a social concern both from a public health, and cost-effectiveness perspective (Greeven et al., 2007).

1.1. Similarities and differences between health anxiety and obsessive–compulsive disorder

The observation of overlapping features in health anxiety and OCD has resulted in an interest in how the two disorders are related (Savron et al., 1996). Some theorists indicate that health anxiety would be better categorized as part of the OCD spectrum disorders (Mataix-Cols, Pertusa, & Leckman, 2007). Health anxiety resembles OCD in that anxiety is evoked by reoccurring intrusive thoughts or ideas and reduced by ritualistic reassurance seeking and symptom checking (e.g. Warwick & Salkovskis, 1990). In both OCD and health anxiety individuals experience distressing intrusive repetitive thoughts that are difficult to resist and result in high levels of anxiety (Warwick & Salkovskis, 1990; Asmundson, Abramowitz, Richter, & Whedon, 2010). Furthermore, patients with OCD often fear illness (Savron et al., 1996) and one study found that a third of OCD patients had somatic obsessions (Rasmussen & Tsuang, 1986). Also, Wells & Papageorgiou (1998) found that health worry was a significant predictor of obsessional thoughts. In both disorders there is also evidence to suggest that beliefs regarding a specific need for certainty (Deacon & Abramowitz, 2008), a heighted sense of responsibility and over-appraisal of threat

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exists (Salkovskis & Warwick, 2001). Burgeoning evidence further suggests that anxiety sensitivity and disgust appear to exist and contribute to the development and maintenance of these disorders (Davey & Bond, 2006; Olatunji, Deacon, & Abramowitz, 2009).

Similarities also exist at a functional level between safety behaviors in health anxiety and compulsive behaviors in OCD, in that they both aim to ameliorate anxiety and urges (Taylor & Asmundson, 2004; Abramowitz & Moore, 2007) and restore a sense of well-being and a degree of certainty about the future. It has also been proposed that the shared psychological process in OCD and health anxiety may be the idea that some feared catastrophe will occur at some future time, for example, mass contamination in OCD or dying of cancer in health anxiety (Olatunji et al., 2009).

Other research has indicated that there is in fact a weak association between health anxious beliefs and obsessions (Savron et al., 1996) and that OCD does not share a close relationship to health anxiety (Starcevic, 2014). A key distinction between OCD and health anxiety lies in the difference in response to intrusive thoughts and the way such thoughts are evaluated. With OCD intrusive thoughts tend to be ego dystonic, and often are actively resisted. With health anxiety intrusive thoughts regarding illness tend to accepted as part of the self and generally are acted upon (Barsky et al., 1992). It has also been found that individuals with OCD have better insight into the irrationality of their fears than individuals with health anxiety (Neziroglu, McKay, & Yaryura-Tobias, 2000).

Previous studies have addressed OCD treatment effects when dealing with comorbid disorders, but the effect of comorbid health anxiety has never been examined. Also, studies have never addressed whether ERP for OCD affects health anxiety symptoms.

1.2. Cognitive and metacognitive models of health anxiety

Cognitive-behavioral therapy (CBT) is currently established as the leading treatment for health anxiety (Kroenke, 2007; Olatunji et al., 2014). Predominantly, CBT constitutes techniques helping patients recognize and modify erroneous beliefs about illness, such as "all bodily sensations are signs of serious illness" (Abramowitz, 2005). Furthermore, CBT attempts to eliminate behavioral responses considered as barriers to self-correction of faulty beliefs. Although CBT has shown superiority over waitlist controls it has not; demonstrated the same efficacy over non-specific therapies (Thomson & Page, 2007; Olatunji et al., 2014; Bouman, 2014), maintained gains after acute treatment phase (Olatunji et al., 2014), or demonstrated consistent active treatment ingredients or components of change (Bouman, 2014). Recently however, it has been suggested that psychopathology due to disturbance in metacognitions might necessitate a different understanding of health anxiety symptoms (Bailey & Wells, 2013). Metacognition is known as the appraisal of thought content or cognitive processes and is assumed to comprise knowledge (beliefs), processes, and strategies that appraise, monitor or control cognition (Wells, 2000). According to metacognitive theory, the cause of psychopathology is not to be found in the content of thought, but in the individual's metacognitions. Metacognition is thought to be particularly important for emotional distress in disorders characterized by uncontrollable cognition (Wells, 1995).

Extensive research has established that metacognition is an important factor in the development and maintenance of OCD (e.g. Gwilliam, Wells, & Cartwright-Hatton, 2004; Wells & Cartwright-Hatton, 2004; Purdon & Clark, 1999; Timpano, Rasmussen, Exner, Rief, & Wilhelm, 2014; Wells, 2009) and health anxiety (e.g. Bouman & Meijer, 1999; Wells & Hackmann, 1993). In two separate experimental studies attentional bias to health related threat was strongly associated with metacognitions (Kaur, Butow, & Sharpe, 2013; Kaur, Butow, & Thewes, 2011). Bailey and Wells (2013) identified that metacognition explained variance in health anxiety symptoms over and above established variables associated with this disorder, i.e. neuroticism, somatosensory amplification and illness cognition. In a community sample Barenbrügge, Glöckner-Rist, and Rist (2013) identified a strong association between positive and negative metacognitions and health anxiety. Clinically a number of studies have also identified that a change in metacognition is associated with symptom reduction in both OCD and health anxiety, when metacognition is targeted directly (Fisher & Wells, 2008; Rees & van Koesveld, 2008; Bailey & Wells, 2014) and not targeted directly (Buwalda, Bouman, & Van Duijn, 2008; Solem, Håland, Vogel, Hansen, & Wells, 2009). Despite the growing evidence for an association between metacognition and health anxiety generally, more research on metacognition and the treatment of health anxiety is warranted.

1.3. Aims and hypotheses of the current study

There are four aims of the present study. First, the intention is to examine health anxiety symptoms in patients with OCD. In light of previous research, the first hypothesis in this study will be: patients with OCD will report more symptoms of health anxiety than controls.

Previous studies have addressed treatment effects of several other coexisting mental disorders, but the effect of comorbid symptoms of health anxiety on OCD treatment outcome has never been examined. Also, studies have never addressed whether ERP treatment for OCD affects health anxiety symptoms. The second and third aims are thus more exploratory in nature.

The fourth and final purpose of the current study is to investigate whether metacognition is related to symptoms of health anxiety and if change in metacognitions is related to symptom reduction. Considering previous research suggesting that metacognition is related to, and plays an important role in health anxiety, we expect similar findings. Thus, our last hypothesis is that metacognition is related to health anxiety symptoms and that change in metacognitions is related to improvement in symptoms of health anxiety.

2. Method

2.1. Participants and procedure

The study was conducted in Norway, and included 313 patients with OCD, and 382 community controls. OCD patients were recruited mainly through referrals from general practitioners or psychiatric outpatient clinics. Whereas 216 of the patients were inpatients at St. Olav's Hospital in Trondheim, 32 were outpatients from a multisite study on exposure and response prevention for OCD, and 63 were outpatients at Sørlandet Hospital in Kristiansand (Håland et al., 2010). There were no significant differences on scores of health anxiety, $F(2,110)=.76$, $p=.47$, OCD, $F(2,292)=.49$, $p=.61$, or depression, $F(2,282)=.72$, $p=.49$ between participants from the three sites. This suggested that we could combine them into one large OCD sample. The main criterion for inclusion in the study was having a primary diagnosis of OCD. At St. Olav's Hospital, this was obtained with the Anxiety Disorder Interview Schedule (ADIS-IV; Brown, DiNardo, & Barlow, 1994), while the Structured Clinical Interview for DSM-IV (SCID-1; First, Spitzer, Gibbon, & Williams, 1995) was used at Sørlandet Hospital and in the multisite study. The same exclusion criteria (suicidality, psychosis, and current alcohol or drug abuse/dependence) were applied across patient groups. Furthermore, patients using anti-obsessional medication were encouraged to maintain stable dosage levels throughout treatment. The study was approved by a local ethics committee. A description of the patient sample's demographic information is presented in Controls which were recruited through social media where respondents were encouraged to respond to an internet survey consisting of the Yale–Brown Obsessive–Compulsive Scale-Self-Report (Y–BOCS-SR), the Whiteley Index (WI), and the Metacognitions Questionnaire (MCQ-30). Of the 453 participants responding to the invitation, 382 completed the WI, 326 the MCQ-30, and 280 the Y–BOCS. A description of the control sample's demographic information is provided in Table 1. Among the controls, 45.5% were full-time students, 43.5% in full-time jobs, and .2% were retired. Furthermore, 8.8% were either in part-time jobs or preoccupied with part-time studies.