



## Responsibility, metacognition and unrealistic pessimism in obsessive-compulsive disorder

Helen Niemeyer<sup>a,\*</sup>, Steffen Moritz<sup>b,1</sup>, Reinhard Pietrowsky<sup>a</sup>

<sup>a</sup> Heinrich-Heine-University, Institute for Experimental Psychology, Department of Clinical Psychology, Universitätsstraße 1, 40225 Düsseldorf, Germany

<sup>b</sup> University Medical Center Hamburg-Eppendorf, Department of Psychiatry and Psychotherapy, Martinistraße 52, 20246 Hamburg, Germany

### ARTICLE INFO

#### Article history:

Received 8 June 2012

Received in revised form

15 December 2012

Accepted 2 January 2013

Available online 11 January 2013

#### Keywords:

Obsessive-compulsive disorder

Responsibility

Metacognition

Overestimation of threat

Unrealistic optimism

### ABSTRACT

Cognitive models stress the importance of cognitive belief domains (CBD) for the pathogenesis of obsessive-compulsive disorder (OCD). However, the relative contribution of responsibility and metacognition – core aspects of CBD – to OC symptoms is not fully understood yet. Furthermore, two subcomponents of overestimation of threat (OET), *overestimation of the personal probability* (unrealistic pessimism) and *overestimation of the general risk of negative events*, require clarification. First, we investigated the relative contribution of responsibility and metacognition to OC symptoms. Second, we hypothesized that OCD patients overestimate the personal risk and display unrealistic pessimism. Thirty-four OCD patients and 34 healthy controls completed the *Obsessive Beliefs Questionnaire* (OBQ) and the *Unrealistic Optimism Questionnaire* (UO). Responsibility significantly predicted obsessive symptoms after controlling for metacognition. In contrast to previous findings, responsibility is not fully explained by metacognition. Finally, our results confirm unrealistic pessimism in OCD, even after controlling for depression.

© 2013 Elsevier Inc. All rights reserved.

### 1. Introduction

Cognitive theories of obsessive-compulsive disorder (OCD) stress the importance of cognitive and metacognitive belief domains (Rachman, 1997; Salkovskis, 1985, 1989; Wells, 2009). A large body of literature have demonstrated the importance of an inflated sense of responsibility (Salkovskis et al., 2000; Shafran, Thordarson, & Rachman, 1996; Smari & Holmsteinsson, 2001; Steketee, Frost, & Cohen, 1998) as well as the relevance of metacognition (Amir, Cashman, & Foa, 1997; Emmelkamp & Aardema, 1999; Solem, Myers, Fisher, Vogel, & Wells, 2010; Wells & Papageorgiou, 1998). In recent studies metacognition significantly predicted inflated responsibility (Gwilliam, Wells, & Cartwright-Hatton, 2004; Myers & Wells, 2005) but not vice versa. It is currently unresolved whether responsibility is merely a by-product of metacognition with no additional contribution to OC symptoms (Wells, 1997, 2009), or has predictive value in its own right.

Overestimation of threat (OET) is another prominent cognitive bias discussed as being relevant for OCD. It is closely related to responsibility: both load on the same factor in the Obsessive Beliefs Questionnaire (OBQ-44; Obsessive-Compulsive Cognitions

Working Group (OCCWG, 2005). OET is a complex construct comprising a number of independent components, which require systematic study of their individual contributions to obsessive symptoms. Recently, our group (Moritz & Jelinek, 2009; Moritz & Pohl, 2006, 2009) applied the unrealistic optimism paradigm (Weinstein, 1982) to OCD to shed light on the relevance of two subcomponents for OCD, namely the overestimation of the personal and the objective incidence probability of negative events. This paradigm is well suited to help to clarify whether OCD patients are especially prone to a biased perception of their personal incidence probability. It can be used to investigate whether subjects display a bias towards enhanced subjective vulnerability, whether they have indeed experienced negative events in the past more often, or whether they merely or additionally overestimate the severity of harm (Moritz & Jelinek, 2009; Moritz & Pohl, 2009). Unrealistic optimism arises from the overestimation of the subjective likelihood for positive events to happen to oneself, while at the same time the personal risk for negative events is underestimated. The reverse response pattern, labeled as unrealistic pessimism, might be an important component of OET. The UO paradigm goes beyond present questionnaires for OET which do not differentiate between these important components. Our group (Moritz & Jelinek, 2009; Moritz & Pohl, 2006, 2009) found that patients with OCD overestimated their *personal* risk for negative events compared to healthy controls, but not the *objective* probability of threat. Since results are not fully consistent across studies, further clarification

\* Corresponding author. Tel.: +49 211 81 12272; fax: +49 211 81 14261.

E-mail address: [helen.niemeyer@hhu.de](mailto:helen.niemeyer@hhu.de) (H. Niemeyer).

<sup>1</sup> HN and SM have equally contributed and split first authorship.

of unrealistic pessimism in OCD is necessary. Furthermore, its relationship with responsibility and metacognition awaits examination.

### 1.1. Inflated responsibility and metacognition

Responsibility is considered to be a core cognitive belief domain for the development and maintenance of OCD (Salkovskis & Forrester, 2002). It has been defined by Salkovskis, Forrester, and Richards (1998, p. 285) as “the belief that one has power which is pivotal to bring about or prevent subjectively crucial negative outcomes. These outcomes are perceived as essential to prevent. They may be actual, that is having consequences in the real world, and/or at a more moral level”. Cognitive models, predicated on Beck’s (1976) cognitive theory, posit that obsessions and compulsions arise from specific dysfunctional beliefs. Individuals with OCD interpret intrusions, which are common phenomena (Rachman & De Silva, 1978; Salkovskis & Harrison, 1984), misleadingly as indicating an inflated responsibility for preventing the harm the intrusive thought implied. This responsibility appraisal leads to intense fear and tension and urges the individual to conduct neutralizing behavior with the aim of averting the negative consequences. A reduction of discomfort after neutralizing and the ascribed importance lead to the maintenance of compulsions and avoidance, thus consolidating the dysfunctional belief of an inflated responsibility (Salkovskis, 1991, 1996; Salkovskis & Forrester, 2002).

Beliefs about thoughts and thinking processes are referred to as metacognitive beliefs (Purdon & Clark, 2002). Metacognition is defined as any knowledge or cognitive process that is involved in the appraisal, monitoring or control of cognition (Flavell, 1979). A closely related concept that can also be defined as a subset of the general concept of metacognition is thought-action fusion (TAF; Rachman, 1997; Shafran, Thordarson, & Rachman, 1996). It denotes that thoughts can cause events or are equivalent to the actions they concern. In patients with OCD, intrusions activate certain dysfunctional metacognitions, for example “If I think about something, bad it will happen” (thought-action fusion). Subjects with OCD interpret intrusions as overly important and dangerous or threatening. Wells’ explicit metacognitive theory of OCD (Wells & Matthews, 1994) was built on this earlier metacognitive perspective by Rachman and Shafran and is part of his generic metacognitive Self-Regulatory Executive Function Model (S-REF; Wells, 2009; Wells & Matthews, 1994). According to Wells (2009), metacognition can be subdivided into three domains: beliefs about the uncontrollability of thoughts, beliefs about their meaning and importance, and beliefs about the need to perform rituals. This metacognitive appraisal activates metacognitive beliefs about rituals, and as a consequence compulsions and neutralizing behavior are implemented as attempts to control one’s thoughts. The negative appraisal of the intrusions and the dysfunctional control strategies invoked in turn enhance their recurrence. Thus, the appraisal of one’s own thoughts determines the focus of attention as well as the personal reaction to the thoughts (Wells, 2009).

The exact relationship between responsibility and metacognition is controversial and unclear. In Wells’ S-REF-model metacognition is explicitly elaborated and distinguished from responsibility. According to this model, metacognition causes inflated responsibility (Wells, 2009; Wells & Matthews, 1994). However, in Salkovskis’ cognitive model of OCD, metacognitions are not explicitly mentioned, but are rather defined as subtypes of responsibility (Salkovskis, 1989, 1996; Salkovskis & Forrester, 2002; Salkovskis, Shafran, Rachman, & Freeston, 1999). It is important to note that responsibility within the context of the appraisal model shows much resemblance to the construct of

metacognition, as the interpretation of intrusive cognitions is a central part of the appraisal model of OCD. Due to this conceptualization the Responsibility Interpretations Questionnaire (RIQ; Salkovskis et al., 2000), for example, assesses interpretations of inflated responsibility regarding intrusive thoughts through items about thought control (e.g., “I must regain control of my thoughts”) and items about responsibility.

Whether inflated responsibility is a contributing or causal factor in dysfunctional metacognitions, or whether it is itself a consequence or by-product of metacognition is an unresolved question. Experimental designs used the manipulation of metacognitive beliefs (thought-action fusion; Rassin, Merckelbach, Muris, & Spaan, 1999) and cognitive beliefs about responsibility and danger (Arntz, Voncken, & Goosen, 2007), all of which evoked intrusions and neutralizing behavior. However, Coles, Pietrefesa, Schofield, and Cook (2008) found only a modest prediction of metacognition for distress caused by obsessive symptoms. Myers, Fisher, and Wells (2009a, 2009b) could show in two studies that only TAF predicted OC symptoms significantly, but not the responsibility/overestimation of threat and the importance of thoughts/control of thoughts subscales (Myers et al., 2009b) of the Obsessive Beliefs Questionnaire (OBQ-44; OCCWG, 2003). Gwilliam et al. (2004), Myers and Wells (2005) and Myers, Fisher, and Wells (2008) found that metacognition significantly predicted OCD when responsibility was controlled, whereas the association between responsibility and obsessive symptoms was not significant after controlling for metacognition. However, some of the questionnaires aimed to measure responsibility like the Responsibility Appraisal Questionnaire (RAQ2; Rachman, Thordarson, Shafran, & Woody, 1995) or the Responsibility Attitude Scale (RAS; Salkovskis et al., 2000) include items measuring TAF and thus might overlap with metacognition.

### 1.2. Unrealistic pessimism as component of OET

A related cognitive belief domain to responsibility and metacognition is OET. Responsibility and OET both loaded on the same factor in a factor analytic study (OCCWG, 2005). Furthermore, Rachman (2002) argued that high perceived responsibility in combination with high perceived probability of harm and perceived seriousness of harm might determine the intensity and duration of compulsive checking. Moreover, he states that elevated responsibility leads to increased perception of danger, and that intense checking will enhance responsibility in turn. Also, metacognitive dimensions are likely to be implicated in threat monitoring, as they may be responsible for predisposing individuals to engage in monitoring for negative stimuli (Sica, Steketee, Ghisi, Chiri, & Franceschini, 2007). Responsibility concerns and metacognitions might be particularly related to personal vulnerability and overestimation of the severity of the consequences of events. Both might increase subjective vulnerability, and vice versa. However, no studies about possible associations to responsibility and metacognition have been conducted yet, and further research is necessary to shed light on this.

OET is a multidimensional construct, according to Salkovskis’ cognitive model for OCD (Salkovskis & Wahl, 2003; Sookman & Pinard, 2002). It consists of several components, including overestimation of the objective risk, a perceived enhanced personal vulnerability, and dysfunctional coping strategies. Most of the questionnaires tapping OET do not contain subscales for its different components. As our group (Moritz & Jelinek, 2009) pointed out, the *overestimation of threat* subscale of the OBQ-44 (OCCWG, 2003) covers a variety of different components: *general overestimation of threat*, *overestimation due to prior experiences* and *overestimation of the personal vulnerability*. A more detailed

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات