Is worry a thought control strategy relevant to obsessive-compulsive disorder?

Thomas A. Fergus, Kevin D. Wu [*]

Northern Illinois University, United States

ABSTRACT

Thought control strategies are implicated in the development and maintenance of obsessive-compulsive disorder (OCD). Regarding one strategy – worry – extant data provide equivocal conclusions as to its relevance to OCD. The current study examined whether worry is an OCD-relevant thought control strategy using data from a large ($N = 376$) nonclinical sample. This investigation tested whether worry interacted with obsessive beliefs (perfectionism/certainty; responsibility/threat estimation; importance/control of thoughts) to predict the occurrence of ego-dystonic intrusive thoughts. As expected, worry did interact with obsessive beliefs to predict more reported intrusions. Contrary to expectations, worry interacted with all three assessed belief dimensions. These results provide support for conceptualizing worry as an OCD-relevant thought control strategy, which has both conceptual and therapeutic implications.

© 2009 Elsevier Ltd. All rights reserved.

Clark and Rhyno (2005) defined intrusive thoughts as "any distinct, identifiable cognitive event that is unwanted, unintended, and recurrent. It interrupts the flow of thought, interferes with task performance, is associated with negative affect, and is difficult to control" (p. 4). Intrusive thoughts are common, experienced by 80–99% of nonclinical individuals (Belloch, Morillo, Lucero, Cabedo, & Carrió, 2004). Their ubiquity has provided researchers with the opportunity to gain greater insight into related phenomena such as obsessions, which are conceptualized as extreme variants of intrusive thoughts (Clark & Rhyno, 2005).

Obsessions represent a core symptom of obsessive-compulsive disorder (OCD) (American Psychiatric Association [APA], 2000), and are believed to be distinguished from intrusive thoughts based on associated severity and distress. Clark (2004) noted that obsessions are more frequent, time-consuming, and are perceived as more uncharacteristic of the self (i.e., ego-dystonic) than intrusive thoughts. Despite these differences, however, intrusive thoughts and obsessions are similar in content, underlying beliefs, and thought control strategies (Clark & O'Connor, 2005; Purdon & Clark, 1999). In fact, their close association has led to models in which obsessions develop from intrusions.

1. Development of obsessions

Dysfunctional beliefs are central to the development and maintenance of obsessions (Rachman, 1997; Salkovskis, 1985).

Cognitive models posit that maladaptive cognitions explain why intrusive thoughts develop into obsessions. The Obsessive Compulsive Cognitions Working Group (OCCWG) delineated three sets of core cognitions believed to underlie the formation of obsessions: perfectionism and certainty (PC), responsibility and the overestimation of threat (RT), and the importance and control of thoughts (ICT). PC represents the belief that perfect performance standards exist and that attaining these standards can aid in reducing the distress associated with uncertainty surrounding future outcomes. RT represents beliefs involving misperceptions as to the probability and severity of negative outcomes. ICT represents the belief that having intrusive thoughts reveals an underlying desire for that content to actually occur, and therefore is similar to the construct of thought-action fusion. An inability to control intrusive thoughts is seen as a further shortcoming to be corrected (OCCWG, 1997). When an intrusive thought is interpreted in the context of these beliefs, that thought typically increases in intensity. That is, an intrusive thought (e.g., *I left the door unlocked*) by itself may be dismissible; however, in the context of a relevant dysfunctional belief (e.g., *I am responsible if something bad happens*) that same intrusive thought is more likely to cause distress.

2. Thought control strategies

To ameliorate this distress, some individuals engage in thought control strategies, which are seen as a way to rid oneself of a distressing thought. However, they actually impede the emotional processing of the thought and lead to its greater accessibility into consciousness (Clark, 2004). Using a thought control strategy thus may lead to greater frequency of and preoccupation with an

* Corresponding author at: PM 311, Department of Psychology, Northern Illinois University, DeKalb, IL 60115, United States. Tel.: +1 815 753 1605.
E-mail address: kevinwu@niu.edu (K.D. Wu).

intrusive thought, while also strengthening associated underlying beliefs (PC, RT, ICT). Consequently, this behavior is believed to prompt greater distress from intrusive thoughts and plays a prominent role in the development of obsessions (Purdon & Clark, 1999).

Relevant to such strategies, worry is defined as "an attempt to engage in mental problem-solving on an issue whose outcome is uncertain but contains the possibility of one or more negative outcomes" (Borkovec, Robinson, Pruzinsky, & Depree, 1983, p. 10). One reason why individuals appear to worry is because of its perceived ability to provide a distraction from more emotionally distressing topics (Borkovec & Roemer, 1995). Although perceived as beneficial, worry actually functions as a form of cognitive avoidance and impedes the emotional processing of events (Borkovec, Alcaine, & Behar, 2004; Foa & Kozak, 1986). For example, participants instructed to worry about events from a film reported more intrusive images related to that film than did participants given other instructions (e.g., imagine the events; Butler, Wells, & Dewick, 1995; Wells & Papageorgiou, 1995). The extant literature thus supports the conceptualization of worry as a thought control strategy with deleterious effects.

3. Worry as an OCD-relevant thought control strategy

Conversely, the available data provide equivocal conclusions regarding the use and consequence of worry as a thought control strategy in relation to OCD. On one hand, McKay and Greisberg (2002) found that the use of worry as a thought control strategy was significantly related to OCD symptoms in a nonclinical sample. Others have suggested that worry is an OCD-specific thought control strategy, with OCD patients endorsing worry significantly more than both nonclinical and non-OCD anxious controls (Abramowitz, Whiteside, Kalsy, & Tolin, 2003; Amir, Cashman, & Foa, 1997). Conversely, Belloch, Morillo, and Garcia-Soriano (2009) assert that worry is neither OCD-specific nor even OCD-relevant as a thought control strategy, on the basis that OCD patients did not endorse using worry significantly more than nonclinical, depressed, or non-OCD anxious controls. Wells (2005) similarly concluded that "worry does not appear to be associated with an increase in obsessional symptoms" (p. 126). This issue requires further study.

4. Rationale and aims of the current study

Our primary aim was to further investigate whether worry is an OCD-relevant thought control strategy, because of both conceptual and therapeutic implications. First, if worry was a relevant strategy within OCD, it would provide one explanation for why it is seen so frequently in individuals with OCD (e.g., Abramowitz & Foa, 1998). Second, such findings might signify a need for OCD treatment to incorporate strategies that specifically have been shown effective for reducing the use of worry as a counter-productive response. This is not typically done. A secondary aim of the current study was to investigate Purdon and Clark's (1999) assertion that underlying beliefs associated with intrusive thoughts might be important factors in determining the type of thought control strategy that is used. Findings from Fergus and Wu (in press) indicated that worry is more relevant to the OCD dysfunctional beliefs of PC and RT than to ICT, which suggests that worry may be implemented as a control strategy only when specific types of cognitions are prominent (i.e., PC and RT).

An assumption of cognitive models of OCD provides the framework for testing whether worry is an OCD-relevant thought control strategy (see Clark & O'Connor, 2005). That is, cognitive models of OCD predict that individuals will engage in thought control strategies when they hold dysfunctional beliefs about

intrusive thoughts. Because these strategies are believed to arise, in part, due to the presence of dysfunctional beliefs, they should show significant relations with dysfunctional beliefs. Relevant to the current study, Fergus and Wu (in press) found that worry was in fact correlated significantly with PC, RT, and ICT (rs ranged from .28 to .50). Further, thought control strategies have the paradoxical effect of increasing the frequency of intrusive thoughts; increased frequency is believed to be a factor in the etiology of obsessions. However, if both dysfunctional beliefs and thought control strategies are important in the development of obsessions, the combination of these factors should increase the number of experienced intrusions. Whether worry ought to be viewed as an OCD-relevant thought control strategy thus can be tested by examining whether it interacts with dysfunctional beliefs to predict the frequency of intrusive thoughts. If it does, this would support Borkovec et al.'s (2004) cognitive avoidance theory of worry, which holds that worry prohibits emotional processing of intrusive thoughts and consequently increases the frequency of intrusions.

Most studies examining the use of worry as a thought control strategy in relation to OCD have used mean-level between-groups comparisons; however, we used a dimensional approach. The design is supported by data suggesting that both OCD dysfunctional beliefs and worry are non-taxonic in nature (Olatunji, Williams, Haslam, Abramowitz, & Tolin, 2008; Ruscio, Borkovec, & Ruscio, 2001). Dimensional approaches allow for the study of large, nonclinical samples, which provide the advantage of adequate statistical power for detecting interaction effects (Cohen, Cohen, West, & Aiken, 2003). Although examining OCD-related phenomena in clinical samples remains important, much of the data on intrusive thoughts has been collected with nonclinical samples (Clark & Rhyno, 2005). These data suggest that nonclinical individuals commonly experience intrusive thoughts and that they utilize a wide variety of thought control strategies in an attempt to rid themselves of these intrusions (Belloch et al., 2004).

5. Predictions

Based on the (a) functions and consequences of thought control strategies in relation to intrusive thoughts, (b) cognitive avoidance theory of worry, and (c) proposed effects of the combination of dysfunctional beliefs and thought control strategies on intrusive thoughts, we predicted that dysfunctional beliefs would interact with worry to predict frequency of intrusive thoughts. We expected this finding to hold only for PC and RT, based on previous data suggesting that worry was more relevant to PC and RT than to ICT (Fergus & Wu, in press).

6. Methods

6.1. Participants

The sample consisted of 376 undergraduate students recruited through introductory psychology courses at a Midwestern U.S. University. Students received partial course credit for participation. The mean age of the sample was 19.6 years (SD = 3.3); the majority were female (54.8%) and Caucasian (65.7%).

6.2. Measures

6.2.1. Obsessional Intrusions Inventory – Revised (ROII; Purdon & Clark, 1993, 1994)

The ROII is a 52-item measure that assesses the frequency of unwanted ego-dystonic intrusive thoughts of dirt, contamination, sex, and violence. The measure asks respondents to indicate the degree to which they have experienced each intrusion using a 7-