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Moral foundations and obsessive-compulsive symptoms: A preliminary examination

Linda L. Kang, Wade C. Rowatt, Thomas A. Fergus *

Department of Psychology and Neuroscience, Baylor University, United States

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ABSTRACT

Research suggests a link between morality and obsessive-compulsive symptoms. However, morality is best conceptualized as a multidimensional construct and it remains unclear which moral domains are most relevant to these symptoms. In this two-part study, we examined which moral domains represented in moral foundations theory (harm/care, fairness/reciprocity, ingroup/loyalty, authority/respect, and purity/sanctity) clustered strongest with obsessive-compulsive symptoms. In Study 1, a sample of 577 American adults completed self-report measures of the moral foundations and obsessive-compulsive symptoms. Study 1 results found that purity/sanctity shared the most robust association with obsessive-compulsive symptoms. Study 2 extended Study 1 results by examining associations between the moral foundations and in vivo reactions to an intrusive thought following a thought-induction task among a sample of 177 undergraduate students who endorsed belief in God or a higher power. Study 2 results found that purity/sanctity shared the most robust association with a desire to neutralize following the thought-induction task. The present results indicate that purity/sanctity is the moral domain most relevant to obsessive-compulsive symptoms. Clinical implications, limitations, and future directions are discussed.

1. Introduction

Cognitive-behavioral models of obsessive-compulsive disorder (OCD) propose that obsessions develop when common, unwanted, intrusive thoughts are appraised as unacceptable, important, or threatening (Clark, 2004). Neutralizing efforts are often used to mitigate distress surrounding negatively appraised intrusive thoughts. Although they temporarily relieve distress, neutralizing efforts do not allow individuals to learn that their misappraisals of intrusive thoughts are unrealistic. Moreover, neutralizing efforts can increase the frequency of intrusive thoughts by serving as cues for the thoughts. As a result, neutralizing efforts lead to greater preoccupation with intrusive thoughts, strengthen misappraisals, and increase distress (Clark, 2004).

Within cognitive-behavioral models, the misappraisal of intrusive thoughts purportedly occurs, at least in part, as the result of obsessive beliefs (Clark, 2004). The Obsessive Compulsive Cognitions Working Group (OCCWG) initially put forth six beliefs, including overestimation of threat, inflated responsibility, overimportance of thoughts, need to control thoughts, intolerance of uncertainty, and perfectionism (OCCWG, 2001). The OCCWG (2005) later combined those six beliefs into three sets of beliefs, which were responsibility/threat, importance/control of thoughts, and perfectionism/certainty. Research has since suggested that responsibility and threat may be best represented as separate beliefs, thus leading to four obsessive beliefs (Moulding et al., 2011). In support of their purported importance to OCD, research has found that the obsessive beliefs prospectively predict obsessive-compulsive symptoms (Abramowitz, Khandker, Nelson, Deacon, & Rygwall, 2006).

Researchers have proposed that appraising intrusive thoughts as violating one's sense of self is central to OCD (Clark, 2004). For example, Clark (2004) stated that "unwanted intrusive thoughts or obsessions are interpreted as threats to a positive view of the self because they defy internalized standards of moral purity and social approval" (p. 139). The term *sensitive* self-domain has been used to describe a life domain that is important to an individual's positive self-view and, yet, the individual feels incompetent in the respective domain (Doron & Kyrios, 2005). According to Doron and Kyrios (2005), individuals with sensitive self-domains may be especially likely to interpret intrusive thoughts about failing in these domains as personally significant. These intrusive thoughts can consequently threaten self-concept, lead to anxiety and maladaptive appraisals, and, ultimately, obsessive-compulsive symptoms.

Consistent with Doron and Kyrios (2005) proposal, obsessive-compulsive symptoms have been shown to be associated with

* Corresponding author.
E-mail address: Thomas_Fergus@baylor.edu (T.A. Fergus).

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sensitivity of self domains (Doron, Kyrios, & Moulding, 2007). Domains assessed by Doron et al. (2007) included morality, job competence, scholastic competence, and social acceptability. Among those domains, subsequent research has found that the morality domain is especially relevant for furthering our understanding of obsessive-compulsive symptoms. More precisely, Doron, Moulding, Kyrios, and Nedeljkovic (2008) found that obsessive-compulsive symptoms were seen at heightened levels among patients with OCD who had sensitivity in the morality domain. However, heightened obsessive-compulsive symptoms were *not* seen among participants who had sensitivity in the other domains. Such findings align with speculations that individuals with OCD often strive for moral perfectionism, in which one must strive to always be morally virtuous in thought and action (Rachman, 1997). Doron et al. (2008) also found that sensitivity in the morality domain clustered with one particular obsessive-compulsive symptom dimension (i.e., contamination concerns). Subsequent research has found that sensitivity in the morality domain may in fact have a causal role in relation to contamination concerns (Doron, Sar-El, & Mikulincer, 2012). Overall, extant research underscores a link between morality and obsessive-compulsive symptoms.

Morality is best conceptualized as a multidimensional construct (Haidt & Graham, 2007). Yet, it is currently unknown which aspects of morality are most important to obsessive-compulsive symptoms. According to moral foundations theory, morality can be divided into five domains: (a) harm/care, which includes sensitivity to suffering and cruelty; (b) fairness/reciprocity, which focuses on concerns about justice; (c) ingroup/loyalty, which involves cooperating with and trusting one's ingroup; (d) authority/respect, which focuses on valuing obedience and duty; and (e) purity/sanctity, which includes disgust for both biological contaminants and those who cannot overcome their base impulses (Haidt & Graham, 2007). Given proposals that understanding how negative self-views related to morality may advance our conceptualization and treatment of OCD (Doron et al., 2008), an important next step is to explicate specific domains of morality that are most relevant to obsessive-compulsive symptoms.

Obsessive-compulsive symptoms seem best conceptualized as four core dimensions, labeled contamination, responsibility for harm, unacceptable thoughts, and symmetry (Abramowitz et al., 2010). There is reason to believe that harm/care and purity/sanctity may cluster with certain obsessive-compulsive symptoms. For example, the moral foundation of harm/care is inherently linked to concerns about harming other individuals (Graham et al., 2011) and, thus, valuing it may contribute to responsibility for harm. Additionally, valuing the moral foundation of purity/sanctity may contribute to contamination concerns. In fact, Smith, Aquino, Koleva, and Graham (2014) stated that purity/sanctity "…is evoked to protect against physical and spiritual contamination and contagion" (p. 1555). Purity/sanctity also may contribute to the unacceptable thoughts symptom dimension, as this moral domain purportedly extends to purity of the mind (Graham et al., 2011). Valuing these respective moral domains might relate to vigilance for signs of potential failure in relation to the domain, thereby leading to misappraisals of intrusive thoughts and exacerbating obsessive-compulsive symptoms (Doron & Kyrios, 2005).

Religiosity may be important to account for when considering whether the introduced morality domains relate to obsessive-compulsive symptoms. For example, religious texts make multiple references to the importance of not harming others and purity (Graham & Haidt, 2010). In addition, religious service attendance and purity/sanctity positively correlate (Graham et al., 2011; Koleva, Graham, Iyer, Ditto, & Haidt, 2012). Religiosity is linked to OCD as well, with Abramowitz, Deacon, Woods, and Tolin (2004) finding that highly religious Protestant students reported heightened obsessive-compulsive symptoms.

Fear of sin and fear of God are two additional obsessive-compulsive symptoms linked to religiosity, with these two symptoms encompassing what is commonly referred to as *scrupulosity* (Abramowitz, Huppert, Cohen, Tolin, & Cahill, 2002). Scrupulosity is a presentation of OCD that involves a specific focus on morality and religion (Abramowitz & Jacoby, 2014). Abramowitz and Jacoby's (2014) cognitive-behavioral model of scrupulosity proposes that religious individuals misinterpret intrusive thoughts as especially meaningful or significant, thereby exacerbating fear of sin and fear of God. Although speculative, valuing morality domains of harm/care and purity/sanctity may make it more likely for individuals to misinterpret intrusive thoughts, thereby contributing to the escalation of fear of sin and fear of God.

Two studies sought to provide a preliminary examination of relations between moral foundations and obsessive-compulsive symptoms. Both studies used nonclinical samples, with Study 1 using a community sample of adults recruited through the internet and Study 2 using a sample of religious undergraduate students. Although it remains important to examine obsessive-compulsive symptoms among carefully diagnosed patients, taxometric studies indicate that obsessive-compulsive symptoms are continuous (Olatunji, Williams, Haslam, Abramowitz, & Tolin, 2008). Their dimensionality indicates that differences in obsessive-compulsive symptoms are best conceptualized quantitatively rather than qualitatively. Meaning, the qualities (e.g., thematic content) of obsessive-compulsive symptoms among nonclinical and clinical respondents appear similar and differences across these respondents relate to symptom severity (Abramowitz et al., 2014). As reviewed by Abramowitz et al. (2014), nonclinical samples generally show a full severity range of obsessive-compulsive symptom scores and a sizable number of respondents in those samples report experiencing an elevated severity of symptoms. Instead of only analyzing data from respondents reporting experiencing elevated obsessive-compulsive symptoms, data from all participants were analyzed in both studies to minimize data loss and increase statistical power (Cohen, Cohen, West, & Aiken, 2003). Overall, the extant literature supports nonclinical samples as being a useful method for better understanding obsessive-compulsive symptoms (Abramowitz et al., 2014).

Study 1 investigated if harm/care and purity/sanctity were associated with obsessive-compulsive symptoms. Study 1 used a combination of zero-order correlations and multiple regression analyses. We hypothesized that harm/care would cluster with responsibility for harm, whereas purity/sanctity would cluster with contamination and unacceptable thoughts. Analyses examining associations with fear of sin and fear of God were considered exploratory. As outlined above, both obsessive beliefs and religiosity are important covariates to account for when examining the link between moral domains and obsessive-compulsive symptoms. Negative affect was included as an additional covariate because of its central importance within cognitive-behavioral models of OCD (Clark, 2004). Multiple regression analyses followed the zero-order correlation analyses in Study 1 to examine if observed raw associations between the moral domains and obsessive-compulsive symptoms were attributable to shared variance with religiosity, negative affect, and obsessive beliefs. Study 1 findings were used to inform our predictions for a second study that examined whether the moral domains relate to in vivo reactions to an intrusive thought evoked through a thought-induction task.