Journal of Obsessive-Compulsive and Related Disorders 3 (2014) 243–248

Contents lists available at ScienceDirect

Journal of Obsessive-Compulsive and Related Disorders

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

Short communication

Emotion regulation and obsessive–compulsive symptoms: A further examination of associations

Thomas A. Fergus [a,*], Joseph R. Bardeen [b]

[a] Department of Psychology & Neuroscience, Baylor University, Waco, TX 76798, United States
[b] University of Mississippi Medical Center, Jackson, MS, United States

ARTICLE INFO

Article history:
Received 8 April 2014
Received in revised form
29 May 2014
Accepted 2 June 2014
Available online 10 June 2014

Keywords:
Emotion regulation
Emotional clarity
Expressive suppression
Impulse control
Obsessive–compulsive disorder (OCD)

ABSTRACT

Despite the potential transdiagnostic importance of emotion regulation, there has been a lack of research examining emotion regulation in the context of obsessive–compulsive disorder (OCD). We examined associations between facets of emotion regulation corresponding to two contemporary models of emotion regulation and obsessive–compulsive symptoms in a community sample of adults ($N=372$). The targeted facets of emotion regulation included cognitive reappraisal, expressive suppression, nonacceptance of emotional responses, difficulty engaging in goal-directed behavior, impulse control difficulties, lack of awareness of emotions, limited access to strategies for emotion regulation, and lack of emotional clarity. Results from hierarchical regressions showed that expressive suppression, impulse control difficulties, and emotional clarity were the only facets of emotion regulation that shared unique associations with each obsessive–compulsive symptom dimension. These associations were not better accounted for by general distress. Conceptual and clinical implications are discussed.

1. Introduction

Studies consistently find robust associations between emotion regulation and psychological symptoms (Aldao, Nolen-Hoeksema, & Schweizer, 2010). Although emotion regulation is broadly related to various symptoms, it is a multidimensional construct (Gratz & Roemer, 2004). One implication of its multidimensionality is that specific facets of emotion regulation might share especially strong relations with certain symptom types (Bardeen & Fergus, 2014; Rusch, Westermann, & Lincoln, 2012; Tull, Rodman, & Roemer, 2008). To date, there has been a lack of research examining emotion regulation in the context of obsessive–compulsive disorder (OCD). In one of the few studies to address this gap in the literature, Stern, Nota, Heimberg, Holaway, and Coles (2014) found that obsessive–compulsive symptoms were related to a poor understanding of, and negative reactivity to, emotions. Stern et al. speculated that a motivation to avoid emotions might underlie OCD, in that compulsions may be used to reduce emotional distress engendered by intrusive thoughts that are perceived as uncontrollable.

According to Gross's (1998) process model, "*emotion regulation* refers to the process by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions" (p. 275; emphasis in original). Gross and John (2003) developed the Emotion Regulation Questionnaire (ERQ) to assess for the emotion regulation strategies of cognitive reappraisal and expressive suppression. Cognitive reappraisal refers to altering the emotional impact of an emotion-eliciting event via reinterpreting the event and expressive suppression refers to inhibiting emotion-expressive behavior (Gross & John, 2003).

Another model of emotion regulation that has received substantial empirical attention was developed by Gratz and Roemer (2004). Gratz and Roemer asserted that effective emotion regulation involves the identification and understanding of emotions, acceptance of emotions, perceived access to effective emotion regulation strategies, and the ability to continue to purse goal-directed behavior and inhibit impulsive behaviors when experiencing negative emotions. Gratz and Roemer developed the Difficulties in Emotion Regulation Scale (DERS) to assess these six facets of emotion regulation. In the only known study to target relations between the DERS and OCD, de la Cruz et al. (2013) found that impulse control difficulties, limited access to strategies for emotion regulation, and a lack of emotional clarity were the only DERS scales related to two indices of obsessive–compulsive symptoms.

In the present study, we sought to extend Stern et al.'s (2014) and de la Cruz et al.'s (2013) studies in the following ways. First, we assessed emotion regulation using both the ERQ and DERS. Stern et al. raised the possibility that emotional avoidance, perhaps

* Corresponding author. Tel.: +1 254 710 2651; fax: +1 254 710 3033.
E-mail address: Thomas_Fergus@baylor.edu (T.A. Fergus).

http://dx.doi.org/10.1016/j.jocrd.2014.06.001
2211-3649/

through the use of suppression, could be especially relevant to OCD. The ERQ, with its expressive suppression scale, can help clarify relations between suppression and obsessive–compulsive symptoms. Stern et al. and de la Cruz et al. did not include the ERQ in their studies. Interestingly, Gratz and Roemer (2004) asserted that the subjective appraisal of one's ability to effectively regulate emotional distress may be more relevant to symptoms than the use of specific emotion regulation strategies. As noted, de la Cruz et al. found that the limited access to strategies scale of the DERS, a measure of one's perception of their ability to effectively regulate emotions, shared a robust relation with obsessive–compulsive symptoms. It is thus possible that the perceived ability to effectively regulate emotions is more relevant to obsessive–compulsive symptoms than is expressive suppression.

Second, we sought to improve upon the noted studies by providing a more comprehensive assessment of obsessive–compulsive symptoms. For example, de la Cruz et al. (2013) assessed obsessive–compulsive symptoms using a total score. However, because OCD is heterogeneous, it is important to understand potentially distinct correlates of its symptom dimensions (Mataix-Cols, Rosario-Campos, & Leckman, 2005). Stern et al. (2014) partially addressed this limitation by examining obsessive–compulsive symptom dimensions but their findings were limited by the particular measure that was used (i.e., Obsessive–Compulsive Inventory; Foa, Kozak, Salkovskis, Coles, & Amir, 1998). The measure used by Stern et al. is not based on current structural findings and does not account for the idiosyncratic nature of obsessive–compulsive symptoms (Abramowitz et al., 2010). Abramowitz et al. developed the Dimensional Obsessive Compulsive Scale (DOCS) to address such limitations of prior measures and the DOCS assesses for the empirically-supported obsessive–compulsive symptom dimensions of contamination, responsibility for harm, unacceptable thoughts, and symmetry.

In the present study, we expected that the expressive suppression scale of the ERQ and all the DERS scales would significantly positively correlate with obsessive–compulsive symptoms. We further expected that cognitive reappraisal would significantly negatively correlate with obsessive–compulsive symptoms. Significant correlations between all the DERS scales and obsessive–compulsive symptoms were expected in this study because our sample was substantially larger than the sample of 60 respondents used by de la Cruz et al. (2013). We thus anticipated having the statistical power necessary to find significant small to moderate sized correlations between the DERS and obsessive–compulsive symptoms.

We also examined the incremental contribution of the ERQ and DERS scales to obsessive–compulsive symptoms. We predicted that the DERS scales pertaining to difficulties inhibiting impulsive behaviors when experiencing negative emotions and a lack of emotional clarity would share unique variance with obsessive–compulsive symptoms. These two DERS scales were found to share robust associations with obsessive–compulsive symptoms by de la Cruz et al. (2013). Stern et al. (2014) speculation that suppression is especially relevant to OCD is suggestive that the expressive suppression scale of the ERQ would share unique variance with obsessive–compulsive symptoms. Alternatively, Gratz and Roemer's (2004) assertion that the perceived access to emotion regulation strategies may be important for understanding psychological outcomes suggests that the ERQ scales may not share unique variance with obsessive–compulsive symptoms when accounting for the DERS scale assessing this facet of emotion regulation. Negative affect was included as a covariate to address Stern et al.'s noted limitation of not accounting for the contribution of general distress.

The above predictions were based on treating obsessive–compulsive symptoms as a unidimensional construct. Our third aim was to examine whether the same facets of emotion regulation were relevant to each obsessive–compulsive symptom dimension or whether there existed differential relations with contamination, responsibility for harm, unacceptable thoughts, and symmetry. These symptom dimension analyses were considered exploratory.

2. Method

2.1. Participants

The sample consisted of 372 community adults recruited via the Internet. The sample was 58.6% female and had an average age of 32.9 years ($SD = 10.9$; range from 18 to 71). With regard to racial/ethnic identification, 78.0% of the sample self-identified as White, 7.0% as Black or African–American, 6.7% as Asian, 4.0% as multi-racial, 3.5% as Hispanic or Latino, and .8% as Native American.

2.2. Measures

2.2.1. Emotion Regulation Questionnaire (ERQ)

The ERQ (Gross & John, 2003) is a 10-item self-report measure that consists of six items assessing cognitive reappraisal and four items assessing expressive suppression. Items are rated on a 7-point scale (ranging from 1 to 7). The cognitive reappraisal and expressive suppression items saliently load on two separate factors (Gross & John, 2003). The cognitive reappraisal (Cronbach's αs ranging from .75 to .82) and expressive suppression (αs ranging from .68 to.76) scales have tended to show adequate internal consistency (Gross & John, 2003). The cognitive reappraisal (rs ranging from $-.25$ to $-.50$) and expressive suppression (rs ranging from .28 to .46) scales share small to moderate correlations with the DERS scales (Ehring & Quack, 2010). These correlations are larger in magnitude than those between either the cognitive reappraisal ($r = .11$) or expressive suppression ($r = -.09$) scale and a divergent construct (e.g., social desirability; Gross & John, 2003).

2.2.2. Difficulties in Emotion Regulation Scale (DERS)

The Difficulties in Emotion Regulation Scale (Gratz & Roemer, 2004) is a 36-item self-report measure that assesses the nonacceptance of emotional responses (nonacceptance), difficulty engaging in goal-directed behavior (goals), impulse control difficulties (impulse), lack of awareness of emotions (awareness), limited access to strategies for effective emotion regulation (strategies), and lack of emotional clarity (clarity). Items are rated on a 5-point scale (ranging from 1 to 5). The items comprising each of the DERS scales saliently load on a separate factor from the items comprising the other five DERS scales (Bardeen, Fergus, & Orcutt, 2012; Gratz & Roemer, 2004). Bardeen et al. recommend not including the awareness items in the calculation of a total scale score due to psychometric limitations of these items. However, given that we did not use a total score in this study and others have expressed interest in relations between the awareness scale and obsessive–compulsive symptoms (de la Cruz et al., 2013), we included the awareness scale in this study. The DERS scales (αs ranging from .80 to .89) have been found to show adequate internal consistency and share moderate to strong correlations (rs ranging from .32 to .69 in magnitude) with measures assessing variables related to emotion regulation (Gratz & Roemer, 2004). These correlations are larger in magnitude than those between the DERS scales and a divergent construct (e.g., delinquency, rs ranging from $-.01$ to .22; Neumann, van Lier, Gratz, & Koot, 2010).

2.2.3. The Dimensional Obsessive–Compulsive Scale (DOCS)

The DOCS (Abramowitz et al., 2010) is a 20-item measure that assesses the severity of obsessive–compulsive symptoms using a 5-point scale (ranging from 0 to 4). The four DOCS scales are contamination, responsibility for harm, unacceptable thoughts, and symmetry. Each DOCS scale assesses for five aspects of each symptom dimension. These aspects are the amount of time occupied by intrusive thoughts and neutralizing behavior, engagement in avoidance behavior, associated distress, interference in daily living, and attempts to control intrusive thoughts and refrain from engaging in neutralizing behavior. The items comprising each DOCS scale saliently load on a separate factor from the items comprising the other three DOCS scales (Abramowitz et al., 2010). The DOCS scales (αs ranging from to .83 to .96) have been found to show adequate internal consistency and share moderate to strong (rs ranging from .39 to .88) correlations with other measures assessing the corresponding obsessive–compulsive symptom dimension (Abramowitz et al., 2010). These correlations are larger in magnitude than those between the DOCS scales and other symptoms (e.g., social anxiety, rs ranging from .06 to .34; Abramowitz et al., 2010).