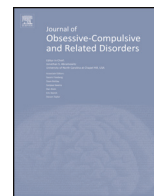




ELSEVIER

Contents lists available at ScienceDirect

Journal of Obsessive-Compulsive and Related Disorders

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

Short communication

Children's obsessive compulsive symptoms and fear-potentiated startle responses



Jessica L. Borelli ^{a,*}, Sarah K. Ruiz ^b, Michael J. Crowley ^c, Linda C. Mayes ^c,
Andres De los Reyes ^d, Adam B. Lewin ^e

^a Department of Psychology, Pomona College, 647 N. College Way, Claremont, CA 91711, USA

^b Institute of Child Development, University of Minnesota, 51 East River Parkway, Minneapolis, MN 55455, USA

^c Yale Child Study Center, 230 South Frontage Road, New Haven, CT 06511, USA

^d University of Maryland, Biology/Psychology Building, College Park, MD 20742 USA

^e Psychology Department, University of South Florida, 4202 East Fowler Ave, PCD 4118G, Tampa, FL 33620-7200 USA

ARTICLE INFO

Article history:

Received 12 March 2015

Received in revised form

23 June 2015

Accepted 24 June 2015

Available online 30 June 2015

Keywords:

Obsessive compulsive disorder

Children

Emotion

Startle

Context-insensitivity

ABSTRACT

Although clinical observations suggest that youth with obsessive compulsive disorder (OCD) are unable to down-regulate physiological fear responses in innocuous situations, to date no studies have directly addressed this question. In this report we lay the groundwork for future investigation of the emotion regulation processes of youth with obsessive compulsive (OC) symptoms. Using a non-clinical community sample of school-aged children, we evaluated the association between parent-reported child OC symptoms and children's startle responses to experimental conditions with differing levels of threat. Children with higher OC symptoms evidenced signs of context insensitivity in their startle response and greater subjective distress. Specifically, greater OC symptoms were associated with higher startle magnitude during baseline and safe conditions, but lower startle magnitude during threat. Our findings have important implications for the conceptualization and assessment of emotion regulation difficulties among children displaying OC symptoms.

© 2015 Elsevier Inc. All rights reserved.

1. Introduction

Obsessive Compulsive Disorder (OCD) is characterized by a broad set of cognitions and behaviors leading to significant impairment and distress (American Psychiatric Association [APA], 2013). OCD affects 1–2% of children and adolescents (Chabane et al., 2005; Zohar, 1999), is associated with wide-ranging impairments (Piacentini, Bergman, Keller, & McCracken, 2003), and when left untreated often persists into adulthood (Micali et al., 2010). Obsessions are distressing repetitive thoughts and images; compulsions are repetitive behaviors or mental activities used to reduce the distress caused by the obsessions (American Psychiatric Association, 2013). The most commonly reported obsessions in children are intrusive thoughts about contamination or violent images, whereas the most commonly reported compulsions by children include ritualistic washing and checking, as well as repeating, counting, ordering, and hoarding (Carter & Pollock, 2000; Libby, Reynolds, Derisley, & Clark, 2004; Riddle et al., 1990).

2. Emotion regulation and OCD

Consistent with a developmental psychopathology framework (e.g., Cicchetti & Rogosch, 2002), examining risk for the development of clinically significant problems such as OCD is crucial for understanding developmental pathways for these problems. This perspective highlights the importance of studying community samples of youth in order to understand pathways to typical and pathological development, as well as to identify risk factors (Grados, Labuda, Riddle, & Walkup, 1997).

Emotion regulation, though understudied in reference to OCD, may inform understanding of the development of symptoms of the condition. Emotion regulation is a process through which individuals modify the type or strength of their emotional response through conscious and unconscious processes to fit environmental demands (Aldao, Nolen-Hoeksema, & Schweizer, 2010; Diamond & Aspinwall, 2003). Emotion regulation requires effective recognition and understanding of emotional experiences, as well as context-appropriate management of emotional expression (Bargh & Williams, 2007). Emotion and its regulation manifest in multiple domains, including behavioral expression, physiological arousal, subjective experience, and cognitive evaluations of the situation (Adrian, Zeman, & Veits, 2011; Gross, 2003). Because emotion

* Corresponding author.

E-mail address: Jessica.borelli@pomona.edu (J.L. Borelli).

bears upon these multiple domains, multiple indicators of emotional response are necessary to achieve a more complete understanding of individuals' emotional experience (Adrian et al., 2011).

Difficulty regulating emotions is theorized to place individuals at risk for developing psychopathology (Cicchetti, Ackerman, & Izard, 1995). Youth with OCD likely have difficulties regulating emotion. Obsessive thoughts may be related to strong emotions—the fact that individuals with OCD go to great lengths to block out thoughts suggests an intolerance of or difficulty regulating emotions. The same can be said about compulsions—difficulty tolerating emotional states may lead to an urgent need to act in order to avoid the intensity of negative emotions (Robinson & Freeston, 2014). Preliminary evidence shows children with OCD have lower parent-reported emotion regulatory skills (Jacob, Morelen, Suveg, Brown Jacobsen & Whiteside, 2012), suggesting that studies examining other indicators of emotional dysregulation (e.g., physiological indicators, child-reported indicators) as a correlate of obsessive compulsive (OC) symptoms are sorely needed. Finding evidence that OC symptoms and other indicators of dysregulation are associated concurrently can then pave the way for studies that have the potential to identify whether emotional dysregulation causes, is a consequence of, or is a non-causal correlate of OCD-related problems (Aldao et al., 2010). A first step in this direction would be to examine whether evidence of dysregulation is concurrently associated with OC symptoms among a community sample of children.

3. Hypervigilant threat detection in children with OC or anxiety symptoms

Researchers have discussed the central role that hypervigilance towards threat plays in creating and maintaining OCD symptoms. Phenotypically, the symptoms appear inherently focused on threat-detection processes—for instance, obsessions usually pertain to threat (contamination, injury, social exclusion), whereas compulsions are aimed at removing the threat (Boyer & Liénard, 2006, 2008). Only recently, however, have researchers explored the association between OCD and threat detection experimentally, with findings suggesting that adults with OCD selectively process threat cues (Bar-Haim, Lamy, Pergamin, Bakermans-Kranenburg, & van Ijzendoorn, 2007; Grillon, 2002) and demonstrate hypervigilance towards potential threats (Armstrong, Sarawgi, & Olatunji, 2012; Bar-Haim et al., 2007; Barrett & Healy, 2003; Summerfeldt & Endler, 1998; Tata, Leibowitz, Prunty, Cameron, & Pickering, 1996). These observations have yet to be thoroughly extended to children: Only a single published study of threat detection among children with OCD exists, with findings suggesting that as compared to a healthy control groups, children with OCD evidence higher threat appraisals related to OCD-relevant threat and overestimate the harm probability and severity of negative life events (Barrett & Healy, 2003). Though preliminary, this study suggests that children with OCD process threatening information differently from healthy children. Specifically, threat processing among OCD patients may take the form of a hypervigilance of such a magnitude that physiologically, these patients may be unable to distinguish between threat and non-threat contexts.

Hypervigilance towards threat may have implications for individuals' emotions. That is, people who cannot disengage from threat likely have difficulty relinquishing fear and relaxing, even when there is no apparent threat in the environment to evoke a fear-based response. This hypervigilance toward threat could then lead to an emotional response that is context-insensitive, or more specifically, a way of responding emotionally that does not reap the benefits of safety cues.

4. Measuring emotional reactions to threat: the startle paradigm

The fear-potentiated startle reflex is a response to a surprising or aversive stimulus delivered through auditory, tactile, and visual media measured using the eye blink reflex (Grillon, 2002). The fear-potentiated startle paradigm allows for the comparison of startle response across conditions, affording an assessment of differences in emotion regulation. The paradigm enables measurement of startle response during conditions of baseline, threat, and safety. Because the fear-potentiated startle paradigm involves threat anticipation (Grillon, 2002) it may be an ideal paradigm for assessing emotion regulation in individuals at risk for OCD.

The results of prior research support a link between startle response and OC symptoms, with findings suggesting that adults with OCD demonstrate elevated baseline startle responses as compared to healthy control participants (Grillon, 2002; Kumari, Kaviani, Raven, Gray, & Checkley, 2001). Combined with the argument that children with OCD struggle to use safety context cues to regulate their emotions (Piacentini, Langley, & Roblek, 2007), these findings lead us to predict that youths' greater OC symptomatology will be related to a lesser differentiation in magnitude in startle response to conditions of threat versus safety.

5. The present study

We examine the association between children's parent-reported OC symptoms and their emotion regulation in response to simulated threat using a potentiated startle paradigm. We focus on middle childhood (8–12 year olds) because it is a relatively understudied age range with respect to OC-related pathology and because building developmental models of the disorder requires understanding correlates of its symptoms across developmental phases (Farrell & Barrett, 2006). Further, conducting these tests among youth younger than 8 might result in additional challenges, such as difficulty reporting on subjective states as well as difficulty completing a threat paradigm.

Consistent with assertion that OCD is associated with difficulty in judging the likelihood of threat as well as difficulty disengaging from threat (Kumari et al., 2001), we expect that greater child OC symptoms will be associated with poorer child emotion regulation. We operationalize poorer emotion regulation as the failure to make use of context cues to modulate physiological emotion reactivity. We anticipate that children who have more OC symptoms will react as though under threat even when context cues connote the absence of threat (or safety). To evaluate this prediction, we examine children's startle response during three separate conditions of the fear-potentiated startle paradigm involving levels of threat: a baseline assessment (no threat present), the safe condition (context cues indicate no threat will occur), and the threat condition (context cues indicate the possibility of a threat). Further, we assess children's self-reported emotion following the startle paradigm as a broad indicator of overall negative emotion experienced in response to the entire paradigm.

We hypothesize that greater OC symptoms will be associated with greater startle magnitude during the baseline and safety conditions, but not during threat (Hypothesis One). Second, we expect as children's OC symptoms increase, their subjective emotional experience following the startle paradigm will become increasingly negative, which we operationalize as a positive association between OC symptoms and self-reported negative emotion in response to the paradigm (Hypothesis Two). In order to examine the associations between OC symptoms and emotion above and beyond related constructs, such as anxiety and fearful temperament, we measure these and include them as covariates

Download English Version:

<https://daneshyari.com/en/article/912232>

Download Persian Version:

<https://daneshyari.com/article/912232>

[Daneshyari.com](https://daneshyari.com)