Journal of Psychiatric Research 47 (2013) 1462–1468

Contents lists available at SciVerse ScienceDirect

Journal of Psychiatric Research

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

An examination of low distress tolerance and life stressors as factors underlying obsessions

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ARTICLE INFO

Article history:
Received 6 March 2013
Received in revised form
25 June 2013
Accepted 27 June 2013

Keywords:
Emotion regulation
OCD
Obsessions
Distress tolerance
Longitudinal
Stressful events

ABSTRACT

A growing body of research has linked poor distress tolerance (DT) to obsessions, but not other OC symptom domains. However, limited research has been conducted with clinical samples. Further, there is a dearth of research regarding the moderating influence of DT on the contribution of stress to OC symptoms. In Study 1, we sought to test the specificity of the link between poor DT and greater obsessions relative to other OC symptom domains in a clinical sample. In Study 2, we conducted a longitudinal investigation with a non-clinical sample examining DT and daily stressors in the prediction of daily obsessions. For Study 1, 22 outpatients with an OCD diagnosis and 37 healthy controls completed measures of DT, depression, and OC symptoms. For Study 2, 102 undergraduates completed measures of DT at baseline and daily assessments of OC symptoms and stressors twice weekly for one-month. In Study 1, OCD diagnosis was not a significant predictor of DT, though greater obsessions, but not other OC symptoms, were uniquely associated with lower DT. In Study 2, lower baseline DT predicted greater daily obsessions among those experiencing greater daily negative life events, though this relationship was absent among those with elevated DT. The specific association between DT and obsessions was replicated in a clinical sample. Further, results suggest that low DT increases obsessions in the context of life stress.

1. Introduction

Obsessive–Compulsive Disorder (OCD) is a heterogeneous condition characterized by severe impairment (Torres et al., 2006). There is evidence to suggest that the various OCD subtypes differ in terms of their maintaining factors and demonstrate distinct patterns of neural activation (Mataix-Cols et al., 2004; McKay et al., 2004). Some researchers have argued that more attention needs to be given to the distinct subtypes of OCD if we are to improve our treatments for the disorder (Sookman et al., 2005).

Evidence has accumulated linking low distress tolerance to chronic, intrusive unwanted thoughts (i.e., obsessions). Distress tolerance (DT), a facet of emotion regulation, is conceptualized as an individual difference variable reflecting the capacity to experience and tolerate aversive emotional states (Leyro et al., 2010). In a series of studies using non-clinical samples, Cougle et al. (2011) found lower DT to be concurrently and prospectively predictive of obsessions, but not other OC symptoms (e.g., washing, checking, ordering), after controlling for negative affect. Furthermore, in a separate non-clinical sample, greater obsessions, but not other OC symptoms, was associated with lower DT indexed using in-vivo and behavioral measures (Cougle et al., in press). In another investigation utilizing a non-clinical sample, DT was also uniquely associated with obsessions, even after controlling for negative affect and pathological worry (Cougle et al., 2012). Only one study known to the authors measured DT in a clinical OCD sample. Hezel et al. (2012) found individuals with OCD to have lower DT than a healthy control group, but they did not control for co-occurring depressive symptoms, which have also been linked to low DT and obsessions (Magidson et al., 2013; Ricciardi and McNally, 1995). Finally, they did not examine different OC symptoms with a validated measure, precluding analyses of the relationship between DT and obsessions specifically.

Indirect evidence for the role of DT in obsessions comes from a recent treatment study for obsessions. The authors found stress management training (SMT) to be as effective as cognitive therapy in the treatment of obsessions, though SMT was previously found to be minimally effective for OCD patient groups with diverse symptom presentations (e.g., washing, checking, obsessing, ordering) (Whittal et al., 2010). This suggests that SMT's efficacy may be limited to OCD patients with symptom presentations primarily characterized by obsessions (Lindsay et al., 1997; Simpson et al., 2008). The SMT intervention was predicated on the idea that

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http://dx.doi.org/10.1016/j.jpsychires.2013.06.019

obsessions worsen under conditions of negative affect and stress (Horowitz, 1985). SMT teaches patients skills to cope with stress and it is possible that SMT increased patients' abilities to tolerate negative emotions and reduced obsessions through this pathway, whereas these abilities may not be as relevant to other OC presentations in which overt compulsions are dominant.

There are a number of gaps in the research on DT and obsessions that should be addressed. First, the majority of extant studies have used non-clinical samples. Research is needed to establish a link between poor DT and obsessions in clinical samples. Although one study measured DT in a clinical OCD sample, the authors did not control for co-occurring depressive symptoms nor did they examine different OC symptoms with a validated measure (Hezel et al., 2012).

Second, because stressors are known to increase unwanted, distressing intrusive thoughts, it is important to examine the potential context-sensitivity of DT (Leyro et al., 2010). Specifically, it may be that low DT contributes to greater obsessions largely in the context of life stress. Stress-induced intrusive thoughts may provide the 'raw material' that becomes obsessions in individuals with low DT, whereas individuals more tolerant of distress may be more resilient to such stress-related intrusions. Prospective studies that examine daily obsessions and life stressors are necessary to clarify the role of DT in the prediction of symptoms.

The following two studies were conducted to address the aforementioned gaps in the literature. Specifically, both studies aimed to more rigorously test the cross-sectional and prospective relationship between obsessions and DT in clinical and non-clinical samples after accounting for relevant covariates (i.e., depressive symptoms, life stressors). In Study 1, we sought to test the specificity of the link between poor DT and greater obsessions relative to other symptom domains in a clinical OCD sample. Additionally, we controlled for co-morbid depressive symptoms and used a self-report measure of OC symptoms to examine relations between DT and specific OC symptoms. We predicted that after controlling for co-occurring depressive symptoms, DT would be uniquely associated with obsessions but not OCD diagnosis. In Study 2, we conducted a longitudinal investigation in an unselected student sample examining DT and daily stressful events in the prediction of daily obsessions. A non-clinical sample was selected because a broad range of OC symptom scores was needed to test our hypotheses that would be less likely to be found in a clinical OCD sample (see Huppert et al., 2005). Further, prior research has demonstrated that obsessions do occur in nonclinical individuals (Rachman & de Silva, 1978). We sought to clarify the role of DT and its potential interaction with daily stressful events in the prediction of daily obsessions. Given that the occurrence of stressors has been linked to increased intrusive thoughts, it is important to ensure that the relationship between DT and obsessions is not accounted for by the presence of co-occurring stressors. Further, we sought to investigate the hypothesis that low DT may predispose individuals to obsessions when they experience more intrusive thoughts (i.e., under conditions of stress). We predicted that (1) lower DT would be concurrently related to greater obsessions, even after controlling for number of stressors in the past month, and (2) baseline DT would interact with daily stressful events such that stressors would be more impactful in creating obsessions for individuals with low DT relative to those with high DT.

2. Study 1 methods

2.1. Participants

The sample in this study consisted of 22 adult OCD outpatients receiving psychological services at an outpatient anxiety clinic and 37 individuals with no diagnoses sampled from the community (see Table 1). In the OCD group, co-morbidities included major depressive disorder ($N = 6$), social anxiety disorder ($N = 8$), generalized anxiety disorder ($N = 7$), and posttraumatic stress disorder ($N = 2$). The no-diagnosis sample was not recruited specifically for this study, but was composed of individuals presenting for various studies who did not meet criteria for any Axis I or Axis II diagnoses.

In the present sample, participants' ages ranged from 18 to 76 ($M = 36.92$, $SD = 17.30$). The sample was evenly distributed across gender (female = 51.7%). All participants agreed to participate in the IRB-approved research. The procedure consisted of first completing the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) (First et al., 1995) administered by clinical psychology graduate students. All graduate students completed a SCID-I training course, and diagnoses were confirmed on a weekly basis with a Ph.D. level supervisor. Similar training procedures have been used in other laboratory projects (Timpano and Schmidt, 2013) and resulted in high inter-rater reliability. Primary diagnoses were determined based upon the individual's self-reported reason for seeking treatment as well as the results of the SCID. After the SCID, participants completed self-report measures (Table 2).

2.2. Self-report measures

2.2.1. Obsessive Compulsive Inventory – Revised (OCIR)

The OCIR is an 18-item self-report questionnaire of common OCD symptoms (Foa et al., 2002). It is made up of six subscales related to symptom categories of OCD: obsessions, washing, checking, ordering, neutralizing, and hoarding. Prior work indicates that the subscales of the OCIR are valid measures of OCD subtypes (Huppert et al., 2007); thus, subscales were used for that purpose in the present investigation. The neutralizing and hoarding subscales were excluded from analyses because of psychometric limitations of the neutralizing subscale and evidence suggesting that hoarding be considered separately from OCD (Wu and Watson, 2003; Huppert et al., 2007; Mataix-Cols et al., 2010; Pertusa et al., 2010). Further, there is some evidence that the hoarding subscale of the OCI-R does not have a latent dimensional structure (Olatunji et al., 2008), whereas other measures of hoarding symptoms were found to have a latent dimensional structure (Timpano et al., 2013), suggesting that the OCI-R hoarding subscale has psychometric limitations. In the present sample, the OCIR had excellent internal consistency across the subscales (α's = .91–.95).

2.2.2. Distress Tolerance Scale (DTS)

The DTS is a 15-item self-report questionnaire designed to measure individual differences in the ability to experience and

Table 1
Study 1: Descriptives between groups.

Variable	OCD ($n = 22$) *M* or %	Comparison ($n = 37$) *M* or %
Age	28.00	42.46
BDI	25.86	7.12
DTS	2.78	3.62
OCIR Check	7.23	1.08
OCIR Obsess	7.48	.89
OCIR Order	8.30	1.03
OCIR Wash	6.73	.62
Gender (Female)	70.0%	40.5%
Race (Minority)	26.1%	35.1%
Married	26.1%	24.3%
MDD Diagnosis	26.1%	0.0%

Note. OCD = Obsessive–Compulsive Disorder. BDI = Beck Depression Inventory – II. DTS = Distress Tolerance Scale. OCIR = Obsessive Compulsive Inventory – Revised.