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Stressful life events and material deprivation in hoarding disorder

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ABSTRACT

Traumatic life events and early material deprivation have been identified as potential environmental risk factors for the development of pathological hoarding behavior, but the evidence so far is preliminary and confounded by the presence of comorbid obsessive–compulsive disorder (OCD). This study retrospectively examined the occurrence of traumatic/stressful life events and material deprivation in four well-characterized groups: hoarding disorder without comorbid OCD (HD; $n = 24$), hoarding disorder with comorbid OCD (HD + OCD; $n = 20$), OCD without hoarding symptoms (OCD; $n = 17$), and non-clinical controls (Control; $n = 20$). Participants completed clinician and self-administered measures of hoarding, OCD, depression, psychological adjustment, and traumatic experience. Semi-structured interviews were undertaken to assess the temporal relation between traumatic/stressful life events and the onset and worsening of hoarding symptoms, and to determine the level of material deprivation. Although rates of post-traumatic stress disorder were comparable across all three clinical groups, hoarders (regardless of the presence of comorbid OCD) reported greater exposure to a range of traumatic and stressful life events compared to the two non-hoarding groups. Results remained unchanged after controlling for age, gender, education level, depression, and obsessive–compulsive symptoms. The total number of traumatic life events correlated significantly with the severity of hoarding but not of obsessive–compulsive symptoms. About half (52%) of hoarding individuals linked the onset of hoarding difficulties to stressful life circumstances, although this was significantly less common among those reporting early childhood onset of hoarding behavior. There was no link between levels of material deprivation and hoarding. Results support a link between trauma, life stress and hoarding, which may help to inform the conceptualization and treatment of hoarding disorder, but await confirmation in a representative epidemiological sample and using a longitudinal design.

1. Introduction

The human desire to collect and save is not uncommon: indeed, from an evolutionary perspective, the tendency to collect or hoard possessions could be adaptive, by ensuring survival when resources become scarce (Grisham & Barlow, 2005). However, when hoarding behavior is taken to extreme lengths, the resultant consequences can significantly interfere with many aspects of private, social, and occupational life. For example, degree of clutter can impede the completion of household chores and lead to relationship conflict, embarrassment, social withdrawal and the inability to work (Frost & Hartl, 1996). At its most severe, hoarding can pose serious risks to health and safety, such as falling, fire, and sanitation problems, which are especially common among older people (Frost, Steketee, & Williams, 2000; Steketee, Frost, & Kim, 2001).

Hoarding can be a symptom of multiple organic and mental disorders (Pertusa et al., 2010; Steketee & Frost, 2003). Although hoarding is commonly associated with obsessive–compulsive disorder (OCD), it is not directly mentioned in DSM IV-TR or ICD-10 as a symptom of OCD. In DSM IV-TR, hoarding is listed as one of the 8 current criteria for obsessive–compulsive personality disorder (OCPD). In the description of the differential diagnosis between OCPD and OCD, DSM IV-TR states that '*a diagnosis of OCD should be considered especially when hoarding is extreme (e.g., accumulated stacks of worthless objects present a fire hazard and make it difficult for others to walk through the house)*' (p. 728). Thus, DSM IV-TR assumes that, when severe, hoarding can be a symptom of OCD. Of note, this was not the case in any of the previous editions of the DSM (Mataix-Cols et al., 2010). Most of the studies published in the last two decades have considered hoarding a symptom – or symptom dimension – of OCD, and hoarding is included in most structured interviews and questionnaires of OCD symptoms, such as the Yale-

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Brown Obsessive Compulsive Scale (Y-BOCS; Goodman et al., 1989) and the *Obsessive–Compulsive Inventory-Revised* (OCI-R; Foa et al., 2002), among others.

Despite the common assumption that hoarding is a symptom of OCD, there is an increasing body of evidence supporting the separation of hoarding from OCD (Mataix-Cols et al., 2010; Pertusa et al., 2010; Rachman, Elliott, Shafran, & Radomsky, 2009; Saxena, 2008). First, a substantial number of individuals with severe hoarding do not display other OCD symptoms (Pertusa et al., 2008; Samuels et al., 2008). Second, although fears of losing personally important or valuable things resemble 'obsessions' and urges to save items and excessive acquisition resemble 'compulsions,' there are a number of important phenomenological differences between hoarding and prototypical OCD symptoms (Mataix-Cols et al., 2010; Rachman et al., 2009). Third, correlational studies (Abramowitz, Wheaton, & Storch, 2008; Grisham, Frost, Steketee, Kim, & Hood, 2006; Olatunji, Williams, Haslam, Abramowitz, & Tolin, 2008; Wu & Watson, 2005) have shown that correlations between hoarding and prototypical OCD symptoms are in the small to moderate range, comparable to correlations with measures of anxiety and depression. By contrast, prototypical OCD symptoms show stronger inter-correlations. Fourth, unlike typical OCD symptoms, hoarding symptoms worsen over each decade of life (Ayers, Saxena, Golshan, & Wetherell, 2009; Grisham et al., 2006); distress and disability often appear late in the course of the syndrome and are usually linked to the intervention of third parties like relatives or local authorities. Fifth, there are important differences between hoarding and OCD in terms of hypothesized underlying cognitive-behavioral processes (Frost & Hartl, 1996; Steketee & Frost, 2003). Sixth, hoarding symptoms may have a distinct neural substrate to that of OCD (An et al., 2009; Saxena et al., 2004; Tolin, Kiehl, Worhunsky, Book, & Maltby, 2009). Finally, hoarding symptoms tend to be less responsive to evidence-based treatments for OCD, including exposure and response prevention as well as serotonin reuptake inhibitors (see Pertusa et al., 2010 for a comprehensive review). These converging sources of evidence have led to the proposal of a new diagnostic entity, sometimes referred to as 'Compulsive Hoarding Syndrome' (Saxena & Maidment, 2004) or, more recently, 'hoarding disorder', with its own provisional diagnostic criteria (American Psychiatric Association, 2010; Mataix-Cols et al., 2010).

Although research into the etiology of hoarding disorder is still in its infancy, both genetic and specific environmental factors are thought to play a role (Iervolino et al., 2009). It is currently unclear what these unique environmental risk factors are, but there is preliminary evidence that traumatic life events may be common in this clinical group and, in some cases, temporally linked with the onset of hoarding problems. Investigating the relation between life events and the onset and development of hoarding may help inform the clinical conceptualization of hoarding disorder, and lead to more effective treatments. In a study by Hartl, Duffany, Allen, Steketee, and Frost (2005), hoarding individuals ($n = 26$, 8 of whom were diagnosed with comorbid OCD) reported a greater frequency and number of different types of traumatic events (especially experiencing something taken by force, being physically rough-handled, and forced sexual activity) compared to a control group of 36 non-hoarding participants. Another study by Cromer, Schmidt, and Murphy (2007) replicated and extended these findings in a large OCD sample ($n = 180$). Participants were classified as hoarders if they scored in the top 25% of the *Saving Inventory-Revised* (SI-R; Frost, Steketee, & Grisham, 2004) and reported hoarding as their predominant OCD symptom). Hoarders ($n = 43$) reported more traumatic life events than either the non-hoarding OCD group ($n = 51$) or a mixed sample of individuals not meeting either definition ($n = 86$). Furthermore, the experience of traumatic life events among hoarders correlated with the severity of hoarding symptoms after controlling for age, age of OCD onset, OCD symptoms, and mood and anxiety comorbidity. This suggests that trauma may be associated with hoarding above and beyond the link between trauma and OCD (Cromer et al., 2007). However, to fully test this hypothesis, studies assessing individuals with 'pure hoarding' (that is, without comorbid OCD) are needed.

The literature also suggests that in some cases, there may be a direct self-reported temporal relation between traumatic life events and the onset of hoarding behavior, although the results so far are mixed. Grisham et al. (2006) found that 55% of 51 hoarders (it is unknown how many of whom also had OCD) had experienced a stressful life event (either positive or negative) at the onset of hoarding symptoms, whereas others described the development of difficulties in terms of a slow, steady progression. Interestingly, individuals who reported no stressful life event at the time of symptom onset showed a significantly earlier age of onset than those who did, perhaps suggesting a heterogeneous etiology and course of hoarding, with childhood onset suggestive of a more characterological phenomenon, and later onset associated more directly with stress-related events. In a study by Pertusa et al. (2008), hoarding was reportedly triggered or worsened by a traumatic event in 11% of hoarders without OCD, compared to 24% of hoarders with OCD, although this difference between groups was not statistically significant. By contrast, in a study of 18 elderly hoarders including 3 participants with comorbid OCD, no one reported a life event as a cause or trigger of hoarding symptoms (Ayers et al., 2009). Participants were asked to recall two major life events during each decade, but those events reported were considered neutral rather than traumatic (e.g., going to school, joining the military). Discrepancies between studies may reflect methodological differences with regard to definition and identification of stressful life events and eliciting links between life experience and hoarding symptoms.

Although common lore suggests that hoarding could be linked to material deprivation, the limited available data do not support this. Frost and Gross (1993) found that 28% of hoarders reported having experienced material deprivation, and many sufferers considered this a cause of their hoarding behavior. However, no differences were found between hoarders and non-hoarders in their responses to the question 'When you were young, was there a period of time when you had very little money?', nor were there any differences in how 'impoverished' or 'well-off' they described their childhood. In a further study by Seedat and Stein (2002), only 2 out of 15 individuals cited material deprivation as having contributed to hoarding symptoms, suggesting that this may be a relevant factor only in a minority of cases. However, given the limited amount of research to date, further exploration of the relationship between material deprivation and hoarding is warranted.

The purpose of this study was to further investigate the relation between hoarding, traumatic (or generally stressful) life events, and material deprivation, controlling for the presence of OCD. To this end, we recruited samples of hoarding disorder without comorbid OCD (HD), hoarding disorder with comorbid OCD (HD + OCD), OCD without hoarding symptoms (OCD) and non-clinical controls (Control). We hypothesized that hoarders (regardless of the presence of comorbid OCD) would report a greater lifetime frequency of traumatic events when compared to OCD participants without hoarding symptoms and non-clinical controls, but no greater frequency of material deprivation. We further predicted that traumatic and stressful life events would be temporally linked to the onset of hoarding problems in a substantial proportion of cases.

2. Materials and methods

2.1. Participants

Eighty-one participants were recruited for this study, pertaining to the following groups: hoarding disorder without comorbid