Journal of Obsessive-Compulsive and Related Disorders 11 (2016) 91–95

Contents lists available at ScienceDirect

Journal of Obsessive-Compulsive and Related Disorders

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

Trauma and trichotillomania: A tenuous relationship

David C. Houghton[a,*], Abel S. Mathew[a], Michael P. Twohig[b], Stephen M. Saunders[c], Martin E. Franklin[d], Scott N. Compton[e], Angela M. Neal-Barnett[f], Douglas W. Woods[a,c]

[a] Texas A&M University, Department of Psychology, 4235 TAMU, College Station, TX 77843-4235, USA
[b] Utah State University, Department of Psychology, 2810 Old Main Hill, Logan, UT 84322-2810, USA
[c] Marquette University – Department of Psychology, 328E Cramer Hall, Milwaukee, WI 53233, USA
[d] University of Pennsylvania School of Medicine, Department of Psychiatry, 3535 Market Street, 66th Floor, Philadelphia, PA 19104, USA
[e] Duke University School of Medicine, Department of Psychiatry and Behavioral Sciences, DUMC 3527, Durham, NC 27710, USA
[f] Kent State University – Department of Psychological Sciences, 203 Kent Hall Addition, Kent, OH 44242, USA

ARTICLE INFO

Keywords:
Post-traumatic stress disorder
Hair pulling
Emotion regulation
Depression
Coping

ABSTRACT

Some have argued that hair pulling in trichotillomania (TTM) is triggered by traumatic events, but reliable evidence linking trauma to TTM is limited. However, research has shown that hair pulling is associated with emotion regulation, suggesting a connection between negative affect and TTM. We investigated the associations between trauma, negative affect, and hair pulling in a cross-sectional sample of treatment seeking adults with TTM (N=85). In the current study, participants' self-reported traumatic experiences were assessed during a structured clinical interview, and participants completed several measures of hair pulling severity, global TTM severity, depression, anxiety, experiential avoidance, and quality of life. Those who experienced trauma had more depressive symptoms, increased experiential avoidance, and greater global TTM severity. Although the presence of a trauma history was not related to the severity of hair pulling symptoms in the past week, depressive symptoms mediated the relationship between traumatic experiences and global TTM severity. These findings cast doubt on the notion that TTM is directly linked to trauma, but suggest that trauma leads to negative affect that individuals cope with through hair pulling. Implications for the conceptualization and treatment of TTM are discussed.

1. Introduction

Trichotillomania (TTM) is characterized by recurrent hair pulling resulting in psychosocial impairment (American Psychiatric Association, 2013). The onset and worsening of hair pulling symptoms are often precipitated by stressful or traumatic life events, as research indicates that 86% of persons report instances of violence occurring just prior to the onset of TTM (Boughn & Holdom, 2003). In addition, studies have found that persons with TTM report relatively high rates of lifetime traumatic experiences (76-91%) (Boughn & Holdom, 2003; Gershuny et al., 2006), have higher scores than healthy individuals on self-report scales measuring lifetime trauma severity (Lochner et al., 2002; Özten et al., 2015), and show abnormally high rates of lifetime posttraumatic stress disorder (PTSD) (e.g., 15.3%; Houghton et al., 2016).

An etiological link between trauma and TTM has been described within psychodynamic models of TTM, which propose that hair pulling is a manifestation of unconscious dynamic processes, including unresolved sexual conflicts, disordered attachment, and dissociation from traumatic memories (Flores, 2004; Greenberg & Sarner, 1965; Nakell, 2015). However, only anecdotal evidence exists for the notion that hair pulling is related to either unconscious processes, such as repression of traumatic memories, or attachment problems.

Moreover, a causal link between trauma and TTM is questionable for a number of reasons. First, despite the fact that rates of trauma and PTSD appear high in TTM samples (76-91%; Boughn & Holdom, 2003; Gershuny et al., 2006), rates of trauma prevalence vary significantly in community samples depending on assessment criteria (21.4-89.6%; Breslau, Davis, Andreski, & Peterson, 1991; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Perkonigg, Kessler, Storz, & Wittchen, 2000). Evidence also indicates that rates of trauma and PTSD are elevated in many psychiatric disorders, not just TTM (Kessler et al., 1995; Perkonigg et al., 2000). Second, childhood trauma has not been found to predict the development of TTM (Lochner et al., 2002); rather, only in *retrospective* reports do women with TTM report that traumatic events occurred concurrently with the onset of TTM symptoms (Boughn & Holdom, 2003). Thus, a causal relationship between trauma, trauma-related phenomena, and TTM has not been adequately

* Corresponding author.
E-mail address: davidhoughton@tamu.edu (D.C. Houghton).

http://dx.doi.org/10.1016/j.jocrd.2016.09.003
Received 28 March 2016; Received in revised form 28 July 2016; Accepted 23 September 2016
Available online 24 September 2016

demonstrated.

In contrast to the lack of evidence suggesting that trauma causes hair pulling, a growing body of research indicates that hair pulling serves to modulate aversive internal events, including but not limited to those brought on by trauma. Persons with TTM report that they experience reductions in boredom, anxiety, and tension through hair pulling (Diefenbach, Mouton-Odum, & Stanley, 2002; Diefenbach, Tolin, Meunier, & Worhunsky, 2008), and several studies have linked hair pulling to maladaptive emotion regulation strategies (Begotka, Woods, & Wetterneck, 2004; Houghton et al., 2014; Norberg, Wetterneck, Woods, & Conelea, 2007; Roberts, O'Connor, & Bélanger, 2013; Roberts, O'Connor, Aardema, & Bélanger, 2015; Shusterman, Feld, Baer, & Keuthen, 2009). Consistent with this, a significant number of people exposed to trauma develop depression and anxiety symptoms (Heim & Nemeroff, 2001; Shalev et al., 1998) and use maladaptive coping strategies such as avoidance of trauma-related stimuli and substance abuse (Littleton, Horsley, John, & Nelson, 2007; Ullman, Relyea, Peter-Hagene, & Vasquez, 2013).

Thus, hair pulling in TTM might function, in part, as a maladaptive coping strategy for the negative affective experiences caused by trauma. Indeed, one study found that PTSD symptoms were negatively correlated with TTM symptoms (Gershuny et al., 2006), suggesting that hair pulling modulated trauma-related problems. This notion is supported by research on obsessive-compulsive disorder (OCD), a condition similar in many ways to TTM (Phillips et al., 2010), which found that depression mediated the relationship between OCD symptoms and PTSD symptoms (Merrill, Gershuny, Baer, & Jenike, 2011). Another possibility is that traumatic experiences and PTSD lead to increased anxiety (i.e., fear of contextual stimuli associated with traumatic events), which is then modulated by hair pulling. As such, various negative sequelae caused by trauma could be related to TTM.

The present study used a sample of adults seeking treatment for TTM. The study had three aims. First, we examined the rate of trauma experiences of the sample. It was hypothesized that the sample would show trauma rates consistent with trauma rates found in previous samples with TTM. We also examined whether trauma experience in this sample was associated with symptom severity. We expected that those who had experienced trauma would have higher hair pulling severity, greater depression and/or anxiety, poorer life quality, and poorer emotion regulation strategies than those who had not experienced trauma. Additionally, we aimed to explore whether depressive and/or anxiety symptoms might act as the mechanism through which trauma affects TTM, which was tested through a mediation model. Given the lack of consistent findings of an association between trauma and TTM symptomology specifically, but also the findings of an association between negative affect and TTM, we predicted that we would find this indirect effect.

2. Methods

2.1. Participants

Participants in the current study were recruited for the purposes of a clinical trial of psychotherapy for TTM. Recruitment occurred through newspaper ads, flyers, website advertisements via the Trichotillomania Learning Center, and clinical referrals to a university based TTM specialty clinic. Inclusion criteria for the clinical trial included (a) current DSM-IV diagnosis of TTM, (b) score≥12 on the Massachusetts General Hospital Hairpulling Scale, (c) score≥85 on the Wechsler Test of Adult Reading (to eliminate the confound of intellectual disability from the clinical trial), (d) age 18–69 years, and (e) fluency in English. Exclusion criteria included (a) concurrent psychotherapy for any psychiatric condition and (b) a positive diagnosis of bipolar disorder, psychotic disorder, substance dependence (other than nicotine), or a primary mood or anxiety disorder with suicidal ideation. The exclusion of participants with some comorbid psychiatric conditions was conducted in order to maintain internal validity and ethical standards within the clinical trial. See Houghton et al. (2016) for a detailed description of the recruitment and screening process. In addition, because of safety concerns, those who ingested hair were required to see a physician before participating. Eighty-five participants (91.8% female; mean age=35.39) met all inclusion/exclusion criteria and received the baseline assessment battery. In terms of ethnic diversity, 1.2% identified as Hispanic or Latino, and 82.4% were White, 12.9% were African American, 1.2% Asian, and 3.5% multiple ethnicities or other.

2.2. Measures

Several standardized measures were used to obtain information on comorbid diagnoses, trauma history, TTM severity, and other indices of psychosocial functioning.

The *Structured Clinical Interview for DSM-IV Patient Version* (SCID-P; First, Spitzer, Gibbon, & Williams, 1996) was used to assess for the current and lifetime prevalence of other psychiatric disorders. The interview provides the rater with screening questions about symptoms of DSM-IV disorders and provides a scoring algorithm for DSM-IV diagnosis. With regard to trauma, participants are asked during the SCID-P to list traumatic experiences that have occurred in their lives before being screened for the presence of PTSD. Those who reported a traumatic event were coded accordingly in the current study (whether or not they met criteria for PTSD).

TTM severity was assessed using the *Massachusetts General Hospital Hair Pulling Scale* (MGH-HPS; Keuthen et al., 1995; O'Sullivan et al., 1995), the *Clinical Global Impressions – Severity Scale* (CGI-S; Guy, 1976), and the *National Institute of Mental Health Trichotillomania Severity Scale* (NIMH-TSS; Swedo et al., 1989). The CGI-S incorporates multiple facets of disorder severity (i.e., average pulling frequency, distress and impairment, need for social support) and yields an overall index of TTM severity, whereas the NIMH-TSS and MGH-HPS are sensitive to urges to pulling, pulling severity, and distress over pulling during the previous week.

The *Beck Anxiety Inventory* (BAI; Beck, Epstein, Brown, & Steer, 1988) and the *Beck Depression Inventory* (BDI; Beck, 1972) were used to assess symptoms of anxiety and depression, respectively. Both methods have been widely used and have been shown to have excellent reliability and validity (Beck et al., 1988; Beck, Steer, & Carbin, 1988; Fydrich, Dowdall, & Chambless, 1992).

The *Quality of Life Inventory* (QOLI; Frisch, Cornell, Villanueva, & Retzlaff, 1992) was used to assess quality of life. The QOLI is a 32-item self-report measure of life quality in 16 areas. The measure has adequate reliability and validity (Frisch et al., 1992).

2.3. Procedure

Two hundred and seventy-four persons contacted the TTM specialty clinic and were provided information about the study. If interested, callers were briefly screened for inclusion/exclusion criteria. Persons appearing to be eligible through the phone screen were scheduled for an in-person clinic screening, at which consent was obtained and inclusion/exclusion criteria were formally checked. Ninety-one individuals were selected to participate in the baseline protocol, but six participants did not meet inclusion criteria or failed to re-establish contact with the researchers, leaving a final sample size of 85. All measures were administered during the baseline or pre-treatment battery.

3. Results

3.1. Trauma experiences of sample

Table 1 shows the frequencies of different types of self-reported