Clinical Psychology Review 32 (2012) 618–629

Contents lists available at SciVerse ScienceDirect

Clinical Psychology Review

How related are hair pulling disorder (trichotillomania) and skin picking disorder? A review of evidence for comorbidity, similarities and shared etiology

Ivar Snorrason *, Emily L. Belleau, Douglas W. Woods

Department of Psychology, University of Wisconsin-Milwaukee, Garland Hall, 2441 Harford Avenue, Milwaukee, WI, USA

HIGHLIGHTS

- Hair pulling disorder (HPD) and Skin picking disorder (SPD) co-occur more often than chance would predict.
- HPD and SPD have substantial similarities in clinical characteristics and have overlapping risk factors.
- The two disorders likely share etiology and should be categorized together in the DSM-5.

ARTICLE INFO

Article history:
Received 8 July 2011
Revised 15 May 2012
Accepted 16 May 2012
Available online 20 July 2012

Keywords:
Pathological skin picking
Trichotillomania
Hair pulling disorder
Body focused repetitive behaviors
Grooming disorders
Comorbidity

ABSTRACT

Hair pulling disorder (HPD; trichotillomania) and skin picking disorder (SPD) are relatively common and potentially severe psychiatric conditions that have received limited empirical attention. Researchers are increasingly recognizing the similarities and co-occurrence of HPD and SPD, and several authors have suggested that the two disorders should be categorized together in the DSM-5. In the present article, we critically examined the evidence for comorbidity of HPD and SPD, and reviewed a diverse literature pertaining to shared risk factors and similarities in clinical characteristics. Evidence suggests that the two disorders co-occur more often than can be expected by chance, have substantial similarities in a variety of clinical characteristics (e.g., symptom presentation and course of illness) and may have some distal risk factors in common (e.g., genetic vulnerabilities). Implications for classification in the DSM-5, clinical management and research on etiology were discussed.

Contents

1. Introduction . . . 619
2. Definitions . . . 619
   2.1. Hair pulling disorder (trichotillomania) . . . 619
   2.2. Skin picking disorder . . . 619
3. Comorbidity . . . 620
4. Similarities and differences in clinical characteristics . . . 620
   4.1. Symptom presentation . . . 620
   4.2. Phenomenology . . . 621
      4.2.1. Affective experiences . . . 621
      4.2.2. Dissociation . . . 621
      4.2.3. Automaticity . . . 621
   4.3. General demographics . . . 621
   4.4. Age at onset . . . 622
   4.5. Course of illness . . . 622
   4.6. Response to treatment . . . 622
   4.7. Relation with other psychopathology . . . 622
      4.7.1. Common axis I disorders . . . 622
      4.7.2. Axis II disorders . . . 622

* Corresponding author at: University of Wisconsin-Milwaukee, Department of Psychology, 2441 East Hartford Avenue, Milwaukee, WI 53201, USA. Tel.: +1 414 335 5919.
E-mail address: ivarsnorrason@gmail.com (I. Snorrason).

0272-7358/$ – see front matter
doi:10.1016/j.cpr.2012.05.008

4.7.3. Obsessive compulsive disorder (OCD) . . . 622
4.7.4. Body dysmorphic disorder (BDD) . . . 623
4.7.5. Body focused repetitive behaviors (BFRB) . . . 623
5. Shared risk factors . . . 623
5.1. Familiality . . . 623
5.2. Genetic risk factors . . . 624
5.3. Neural substrates . . . 624
5.4. Neurocognitive deficits . . . 625
5.5. Temperamental antecedents . . . 625
5.6. Environmental risk factors . . . 625
5.6.1. Under-stimulated environment . . . 625
5.6.2. Trauma . . . 625
6. Discussion . . . 626
6.1. What is the nature of the relationship between HPD and SPD? . . . 626
6.2. Future directions . . . 626
6.3. Implications for research and practice . . . 626
References . . . 627

1. Introduction

Hair pulling disorder (HPD; trichotillomania) and skin picking disorder (SPD; also known as neurotic/psychogenic excoriation and pathological skin picking) are characterized by recurrent and excessive hair pulling and skin picking, respectively. Both conditions have been described in the medical literature for more than a century (Hallopeau, 1989; Wilson, 1875) but have received limited empirical attention. Mounting evidence shows significant morbidity associated with HPD and SPD; including functional impairment, severe emotional distress, disfigurement and medical complications (Arnold et al., 1998; Diefenbach, Tolin, Hannan, Crocetto, & Worhunsky, 2005; Flessner & Woods, 2006; Franklin et al., 2008; Lewin et al., 2009; Morales-Fuentes, Camacho-Maya, Coll-Clemente, & Vázquez-Minero, 2010; O'Sullivan, Phillips, Keuthen, & Wilhelm, 1999; Odlaug & Grant, 2008a; Odlaug, Kim, & Grant, 2010; Soriano et al., 1996; Tucker, Woods, Flessner, Franklin, & Franklin, 2011; Wetterneck, Woods, Norberg, & Begotka, 2006; Wilhelm et al., 1999; Woods, Flessner, et al., 2006). Nonetheless, little is known about the etiology of these disorders, and there is a lack of consensus about how to conceptualize or categorize them.

Currently, HPD (trichotillomania) is classified as an impulse control disorder in the fourth edition of the *Diagnostic and Statistical Manual for Mental Disorders* (DSM-IV), but SPD lacks its own diagnostic category. In the last two decades, researchers and clinicians increasingly have recognized the similarities and co-occurrence of HPD and SPD (Penzel, 2003), and several authors have suggested that the two disorders should be classified in the same class of disorders in the next edition of the DSM (Bohne, Keuthen, & Wilhelm, 2005; Hoppe, Ipser, Lochner, Thomas, & Stein, 2010; Stein, Chamberlain, & Fineberg, 2006; Stein et al., 2010; Teng, Woods, Twohig, & Marcks, 2002). Moreover, an APA work group (Stein et al., 2010) has provided a preliminary recommendation that SPD should have its own diagnostic category in the DSM-5, and that the two disorders should optimally be classified under the overall category of body focused repetitive behavior disorders (BFRBD). It is thus timely to review the existing literature with respect to the nature and the extent of the relationship between HPD and SPD. Greater understanding of the relationship not only informs nosological decisions, it can also have implications for clinical management and guide research on the etiology of both disorders.

The aim of the present review was to investigate the relationship between HPD and SPD through three lines of inquiry. First, we reviewed studies examining whether co-occurrence of the disorders exceeds chance levels (i.e., whether the two disorders are comorbid). Because co-occurrence of psychiatric conditions can result from various methodological reasons (e.g., Klein & Riso, 1993; Neale & Kendler, 1995), we critically examined existing studies with the aim of ruling out methodological artifacts. Second, we reviewed a diverse literature pertaining to similarities and differences in clinical characteristics. The current conceptualization of psychiatric disorders (APA, 2000) is based on the assumption that a group of individuals demonstrating similar clinical characteristics (e.g., similar symptom presentation and course of illness) represent a distinct diagnostic entity that reflects common etiology (Robins & Guze, 1970). Likewise, if two syndromes present a highly similar clinical picture, they could share etiological mechanisms. Thus, our second aim was to compare HPD and SPD on a variety of clinical characteristics including symptom presentation, phenomenology, general demographics, age of onset, course of illness, response to treatment and relation with other psychopathology. In our third line of inquiry we examined evidence for shared underlying risk factors including familiality, genetic vulnerabilities, neural abnormalities, neurocognitive deficits, temperamental traits and environmental stressors. Throughout the review we tried to identify methodological limitations and gaps in the literature.

2. Definitions

2.1. Hair pulling disorder (trichotillomania)

HPD involves excessive and recurrent pulling out hairs from the scalp, eyebrows, eyelids, pubic area, legs or other parts of the body. In DSM-IV (APA, 2000), HPD is defined as recurrent hair pulling that is not better accounted for by another mental disorder (e.g., delusions) or medical condition (e.g., dermatological problem), and results in noticeable hair loss and significant distress or functional impairment. Additional criteria include increased arousal before pulling or when the behavior is resisted, and pleasure, gratification or relief when hair is pulled out. Recently, a work group formed by the APA recommended these additional criteria be deleted because many sufferers of clinically significant hair pulling fail to report these experiences (Stein et al., 2010).

2.2. Skin picking disorder

SPD is characterized by excessive and recurrent picking or scratching of the skin on the face, extremities or other parts of the body. People with SPD tend to pick at scabs, acne or other irregularities on the skin. The APA work group (Stein et al., 2010) suggested the following definition of SPD for DSM-5: recurrent skin picking that results in skin lesion(s) and clinically significant distress or functional impairment, but is not restricted to the symptoms of another mental