The relationship between experiential avoidance and the severity of trichotillomania in a nonreferred sample

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Abstract

In this study 436 adults, who reported being diagnosed with trichotillomania (TTM), completed an anonymous survey examining the relationship between experiential avoidance (i.e., escape from or avoidance of unwanted thoughts or emotions) and TTM severity. Results showed a significant positive correlation between measures of experiential avoidance and TTM severity, indicating that more experientially avoidant individuals tended to exhibit more severe TTM. Subsequent analyses found that persons who scored higher on a measure of experiential avoidance reported more frequent and intense urges to pull, were less able to control their urges, and experienced more pulling-related distress than persons who were not experientially avoidant. Conversely, results also showed that individuals who were more experientially avoidant were no more likely to actually pull and were no less successful in actually stopping themselves from pulling than non-avoidant individuals. The results of this study suggest that experiential avoidance may be an important issue in understanding and possibly treating some persons with TTM.

Keywords: Trichotillomania; Experiential avoidance; Acceptance and commitment therapy

1. Introduction

According to the DSM-IV (American Psychiatric Association, 1994), a person can be diagnosed with trichotillomania (TTM) if he or she (1) chronically pulls hair from
the body, which results in significant hair loss, (2) experiences an increasing sense of tension immediately preceding pulling or during attempts to avoid pulling, (3) experiences pleasure or tension relief as a result of pulling, and (4) does not have another condition that better explains the pulling. TTM appears to be more common in women (Miltenberger, Rapp, & Long, 2001), and prevalence estimates of TTM suggest that between 0.6% (Christenson, Pyle, & Mitchell, 1991) and 3% (Woods, Miltenberger, & Flach, 1996) of the population engages in clinically significant hairpulling.

A number of possible complications can arise from TTM. Physically, pulling can result in repetitive movement injuries, scalp bleeding or irritation, dental damage from chewing pulled hair, and the formation of trichobezoars (hair balls) from eating pulled hair (Keuthen, Stein, & Christenson, 2001). Psychologically, persons with TTM often experience embarrassment, guilt, shame, interpersonal difficulties, low self-esteem, and feelings of unattractiveness. Likewise, they are more likely to receive diagnoses of mood or anxiety disorders than the general population (Schlosser, Black, Blum, & Goldstein, 1994; Townsley-Stemberger, Thomas, Mansueto, & Carter, 2000).

The etiology of TTM is unclear, but a number of different explanatory models have been proposed including ethological models (e.g., Bordnick, Thyer, & Ritchie, 1994), neurobiological models (e.g., Stein & Hollander, 1992), and behavioral models (e.g., Mansueto, Townsley-Stemberger, Thomas, & Golomb, 1997; Penzel, 2003). Central to many of these models is the importance of emotional variables or stressful events in the exacerbation of TTM. For example, within the context of an ethological model, Moon-Fanelli, Dodman, and O’Sullivan (1999) note that problematic repetitive licking in dogs worsens when the animal experiences increased periods of stress. Likewise, Diefenbach, Mouton-Odom, and Stanley (2002) state that negative emotions such as anxiety, tension, boredom, and sadness immediately precede pulling episodes. Further, Diefenbach et al. report that the immediate consequences of pulling tend to involve the temporary reduction of these experiences. The Diefenbach et al. study, and others like it (e.g., Stanley, Bordon, Mouton, & Breckenridge, 1995; Woods & Miltenberger, 1996; Woods et al., 1996) suggest that hair pulling associated with TTM may function to escape from or avoid aversive private experiences, and that temporary reductions in such experiences maintain the behavior through a negative reinforcement cycle.

This process of using seemingly maladaptive behaviors (e.g., hair pulling or drug use) to avoid or alter unpleasant private psychological experiences, such as anxiety, an urge to pull, or distressing thoughts, has been labeled “experiential avoidance” and is believed to be central to many DSM-IV diagnoses (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Paradoxically, Hayes et al. (1996) state that although the strategy of experiential avoidance is temporarily effective, it can have the unintended long term effect of increasing the frequency of, and struggle with, the very event the person is trying to avoid. For example, studies on thought suppression have demonstrated that attempting to suppress unwanted thoughts results in an increase in the frequency of those thoughts (Koster, Rassin, Crombez, & Naring, 2003).
In contrast to the effects of experiential avoidance, Hayes et al. (1996) suggest that psychological acceptance (i.e., experiential willingness) of unpleasant private experiences is essential to healthy psychological functioning. Following these implications, the current study seeks to determine if a relationship exists between the severity of TTM and global measures of experiential avoidance. It is hypothesized that there is a significant positive correlation between trait measures of experiential avoidance and the severity of TTM—those who are more experientially avoidant will tend to exhibit more severe TTM.

2. Methods

2.1. Participants

To be eligible for this study, participants had to be at least 18 years of age and had to report having been diagnosed with TTM. Participants were not excluded for any other reason. The surveys were anonymous with the results sent to the experimenter via anonymous email.

A total of 763 responses to an online survey were received in a continuous 6 month period. Of these, 436 were used in the analysis. The remaining 327 were omitted because the participants did not answer all of the questions, did not meet the necessary requirements for participation, or completed and sent multiple surveys. Multiple surveys were identified as two or more surveys sent within one minute of each other by a user who reported the same age, gender, ethnicity, marital status, and annual income. Of the 436 surveys used in this study, 24 participants were male and 409 were female. Ninety-one percent of the participants were Caucasian, 1.8% Latino, 1.8% African American, 1.6% Asian, 1.6% Multi-racial, 1.4% “other,” and 0.5% Native American. The median reported income was $30,000–$39,000. The participants ranged in age from 18 to 63 (M = 31.8, SD = 12.3). Hair was reported to be most commonly pulled from the head (84.3%) and nearly all participants reported attempts to stop pulling at one time in their life (96.7%).

2.2. Materials

Links to the survey were posted on the second author’s website and the Trichotillomania Learning Center, Inc. website (www.trich.org) from May 2002 through September 2002. The on-line survey consisted of demographic questions, questions regarding diagnosis of TTM, the Massachusetts General Hospital Hairpulling Scale, and the Acceptance and Action Questionnaire. At the beginning of the survey, participants were informed of the study’s requirements and that submission of the survey represented consent to participate.

Massachusetts General Hospital Hairpulling Scale (MGH-HS; Keuthen et al., 1995). The MGH-HS is a 7-item self-report instrument that measures the severity of TTM. The items are rated on a 5-point scale (0 = low severity; 4 = high severity) regarding the frequency and intensity of the urge to pull, the ability to control the
urges, the frequency of actual pulling, success in attempts to resist pulling, control over the pulling, and distress associated with pulling. The seven items are summed to produce a total score ranging from 0 to 28. A high overall score indicates more severe TTM and a low overall score indicates less severe TTM. The mean score on the MGH-HS is 15.6, which was obtained from a clinical sample of 119 persons with TTM. The MGH-HS has adequate internal consistency, \( \alpha = 0.89 \) (Keuthen et al., 1995) and good test-retest reliability, \( r = 0.97 \) (O’Sullivan et al., 1995). The MGH-HS also has strong convergent validity with other measures of pulling severity, and divergent validity with other measures of psychiatric impairment such as depression and anxiety (O’Sullivan et al., 1995).

**Acceptance and Action Questionnaire.** The AAQ is a 9-item questionnaire designed to measure experiential avoidance (Hayes et al., in press), which is defined as a person’s resistance to being in contact with private events, such as thoughts, memories, or emotions, as well as attempts to alter such events. The items in this questionnaire are rated by the participant on a 7-point likert scale (1 = “never true”; 7 = “always true”). Four items are reverse-scored and the nine items are summed to yield a total score ranging from 9 to 63. Higher scores on the AAQ indicate immobility and a high level of experiential avoidance, whereas low scores indicate action and acceptance. Examples of items on the questionnaire include, “When I feel depressed or anxious, I am unable to take care of my responsibilities,” and “Anxiety is bad.” The mean score in non-clinical populations is 30–31 and 38–40 in clinical populations. Moderate internal consistency (\( \alpha = 0.70 \)) was found for the AAQ in a clinical sample of 460 counseling center patients (Hayes et al., in press). The AAQ has high concurrent validity with measures of depression (BDI; BDI-II; Dykstra & Follette, 1998), anxiety (BAI; Toarmino, Pistorello, & Hayes, 1997), general psychopathology (BSI; Batten, Follette, & Aban, 2001), and symptoms of trauma (TSI; Batten et al., 2001).

### 3. Results

The mean AAQ score obtained in the present study was 38.1 (SD = 7.5), indicating that the sample scored in the instrument’s clinical range. The mean MGH-HS score was 17.2 (SD = 4.23), indicating moderate levels of pulling severity in the surveyed sample.

To determine the relationship between TTM severity and experiential avoidance, a Pearson’s \( r \) correlation with correction for attenuation (Hunter & Schmidt, 1990) was calculated between the MGH-HS total score and the AAQ. Results showed a significant correlation between the AAQ and MGH-HS, \( r(436) = 0.24, p < 0.01 \), suggesting that increasing experiential avoidance is positively related to an increasing severity of TTM.

Given that the primary hypothesis was supported, it was decided to further explore the relationships between experiential avoidance and TTM. This was accomplished by comparing those with high and low AAQ scores on the individual items of the MGH-HS, using a series of independent samples \( t \)-tests. To obtain the
high and low AAQ responders, a Z-score transformation was done on the AAQ data. Those with Z-scores \( \geq +1 \) were labeled “avoidant \((N=74)\),” and those with Z-scores \( \leq -1.0 \) were labeled “non-avoidant \((N=71)\).” To account for the large number of comparisons, a Bonferroni \( t \) correction was used and the subsequent alpha level was set at \( p = 0.007 \). Table 1 summarizes the findings. Results showed a significant difference between the avoidant and non-avoidant groups in terms of the frequency, intensity, and controllability of the urges. Specifically, the experientially avoidant group had more frequent urges, more intense urges, and reported less ability to control the urges. Likewise, the experientially avoidant group reported more pulling-related distress than the group that was more accepting of private experiences. This difference in urge frequency, however, did not translate into differences with respect to actual pulling. The two groups did not differ on self-reported pulling frequency, attempts to resist pulling, or control over pulling.

4. Discussion

Based on preliminary findings regarding the phenomenology of TTM (e.g., Diefenbach et al., 2002), it was hypothesized that TTM may be a form of experiential avoidance. As a result, it was predicted that a measure of experiential avoidance would be positively correlated with a measure of TTM severity. The present study confirmed this hypothesis and further examined the relationships between TTM and experiential avoidance. Exploratory analyses on individual items of the MGH-HS showed that persons who tended to engage in experiential avoidance also
experienced greater frequency and intensity of urges, greater struggle with urges to pull, and increased distress associated with pulling, in comparison to those who tended to be more experientially accepting. Although the reasons for these findings are unclear, the paradoxical effect of experiencing more frequent and intense urges in relation to high experiential avoidance is consistent with literature on thought suppression (Purdon & Clark, 2000), which has found that attempts to suppress unwanted thoughts often results in an increased frequency of that thought.

Given the aforementioned data, the view that hair pulling in TTM may function as experiential avoidance seems to have some support. However, the aforementioned findings only pertained to the urge to pull, and not the pulling itself. Indeed, the current study failed to discover a relationship between experiential avoidance and the frequency of pulling, attempts to resist pulling, and control over pulling. If pulling were functioning as an experientially avoidant behavior, one might expect persons who are more experientially avoidant to engage in more pulling. Therefore, the negative findings in the present study would appear to cast doubt on the role of experiential avoidance in TTM. However, such a conclusion would be premature for three reasons. First, because of the stringent alpha level used in the multiple comparisons, the difference between the two groups with respect to pulling frequency was not significant. However, there was still a moderate effect size, with the high avoiders actually reporting higher pulling frequency. Second, it is unclear from the MGH-HS whether intensity or duration of pulling differed between the groups, as the MGH-HS only measures pulling frequency. Third, it is not clear that the etiology of TTM is unitary. Some have suggested that hairpulling actually occurs in two forms, automatic and focused (Christenson & Crow, 1996), and that persons with TTM often experience both types simultaneously. Automatic pulling refers to a motor habit pattern that has little to do with emotional states, and often occurs outside of the person’s awareness. In contrast, focused pulling seems to be much more intentional, and related to private emotional experiences. Thus, perhaps experiential avoidance is more related to focused pulling, but is unrelated to automatic pulling. Using this framework, the current findings are logical in that experiential avoidance is related to the MGH-HS items dealing with the unpleasant private experiences, but appear unrelated to items measuring the pulling behavior, which is also measuring automatic pulling (a type of pulling thought to be unrelated to experiential avoidance).

Despite the potentially contradictory findings and possible explanations, findings from the current study are consistent with the experiential avoidance theory and thus provide some potentially interesting avenues for clinical intervention. Hayes, Strosahl, and Wilson (1999) suggest experiential avoidance can be treated by creating a therapeutic context that supports contact with aversive private experiences and decreases the literal meaning of language. In this therapy, termed “Acceptance and Commitment Therapy (ACT),” participants are encouraged to discard their experientially avoidant behaviors, experience the breaking down of detrimental cognitive relationships between stimuli (termed cognitive defusion), and to experience both pleasant and unpleasant private experiences while moving behavior
in a valued direction. Although this procedure has never been attempted in a randomized controlled fashion in persons with TTM, preliminary research in the second author’s lab has demonstrated initial success in using the procedure to reduce pulling and promote hair regrowth (Twohig & Woods, in press).

These clinical implications notwithstanding, the present study has limitations that must be addressed in future research. First, the correlational nature of the design precludes causal statements on the relationship between acceptance and TTM. To ascertain causation, future research should examine the question from an experimental standpoint. Second, the AAQ is a more global, distal measure. Perhaps future research in the area could examine the relationship between TTM and experiential avoidance using more state specific measures. A third limitation involves the absence of mood and anxiety measures, which have been found to correlate with both experiential avoidance and hair pulling severity. It may be helpful to control for these constructs in future research. Fourth, although it is believed that TTM is more common in females (e.g., Penzel, 2003), the present sample was 95% female, and may not be representative of males with TTM. Finally, the online nature of the survey poses certain methodological concerns. Although focused efforts were made to include only those who reported being diagnosed with TTM and to eliminate obvious replication of subjects, it is unclear if participants were actually diagnosed with the disorder. Likewise it is possible that some individuals participated and simply created false data. These problems are concerning, and could be corrected in future research, but the facts remain that TTM is relatively rare, its affected population private, and it is difficult and expensive to obtain the large samples needed for correlational research. The present method offers an efficient method to collect such data. Despite these limitations, findings from this study offer researchers an additional topic of exploration and may spur clinicians to examine the utility of acceptance-based techniques in clinical practice.

References


