

Comorbid Posttraumatic Stress Disorder and Trichotillomania

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Abstract

Objective: To examine rates of current posttraumatic stress disorder (PTSD) in adults with trichotillomania and further assess how PTSD impacts symptom severity and functionality.

Methods: 209 adults with trichotillomania completed a self-report form for PTSD. The survey was open between April 10, 2023, and May 11, 2023. Independent sample *t*-tests and Pearson χ^2 tests were used to analyze differences in symptom

severity and comorbidity presence between participants with and without co-occurring PTSD.

Results: Forty (19.1%) individuals with trichotillomania endorsed symptoms consistent with current PTSD. Participants with PTSD were significantly more likely to be male, to have a co-occurring alcohol use disorder, and to engage in various impulsive behaviors (gambling, sex, stealing, and eating). There were no significant associations between PTSD status and trichotillomania symptom severity.

Conclusion: PTSD is frequently comorbid with trichotillomania, and their co-occurrence enhances the risk for a range of impulsive behaviors. Future research should examine whether treating the core trauma in a subset of people with trichotillomania may address a range of co-occurring disorders.

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Trichotillomania is a psychiatric disorder characterized by persistent hair pulling, and research suggests that individuals with trichotillomania frequently suffer from 1 or more comorbid psychiatric disorders.^{1–3} Studies suggest that one of the more common comorbidities in individuals with trichotillomania is posttraumatic stress disorder (PTSD), but current and lifetime rates have varied considerably across studies. Schlosser and colleagues⁴ initially reported a lifetime prevalence rate of PTSD in 22 subjects with trichotillomania as being 22.7%. Tung and colleagues⁵ found that lifetime rates of PTSD were 9.9% in a sample of 187 adults with trichotillomania. A study by Houghton and colleagues⁶ with 85 people with trichotillomania found that 1.2% had current PTSD and 15.3% had lifetime PTSD. Lochner and colleagues⁷ found a lifetime rate of PTSD in participants with complex trichotillomania (*n* = 192) of 15%. A study by Gershuny and colleagues⁸ (*n* = 42 treatment-seeking individuals with trichotillomania) found that 19% had a lifetime diagnosis of PTSD. Additionally, the study speculated that in traumatized individuals, hair pulling may represent a form of coping vis-à-vis self-soothing or self-harm.⁸ A different study by Özten and colleagues⁹ of

23 trichotillomania patients and 37 healthy controls found that 30.5% of the trichotillomania group had current PTSD according to the Traumatic Stress Symptoms Scale and that longer duration of hair-pulling symptoms positively correlated with decreased PTSD symptoms. Özten et al⁹ postulated, similar to Gershuny and colleagues,⁸ that the development of trichotillomania symptoms may help people cope with intrusive thoughts related to trauma. To put these numbers into perspective, epidemiologic studies using *DSM-5* criteria have found that current and lifetime rates of PTSD in the United States are estimated to be approximately 4.7% and 6.1%–8.3%, respectively.¹⁰

The comorbidity with PTSD may have clinical importance. In the case of major depressive disorder, co-occurring PTSD was found to be associated with higher levels of impulsivity, self-destructive behaviors, and suicidality.^{11,12} A similar association has been found between trauma and impulsive behaviors such as impulsive eating, drug misuse, and sexual behavior.^{13–15}

Given that several previous studies show current PTSD rates varying from 1.2% to 30.5% and lifetime rates varying from 9.9% to 19%,^{4–9} our goal was to better understand the frequency of PTSD among people with

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Clinical Points

- Posttraumatic stress disorder (PTSD) is frequently comorbid with trichotillomania, and their co-occurrence enhances the risk for impulsive behaviors.
- Presence of comorbid PTSD was significantly associated with co-occurring alcohol use disorder as well as a range of impulsive/addictive behaviors.

trichotillomania and examine possible clinical associations between the 2 disorders in hopes of leading to more targeted treatment approaches for patients with trichotillomania and co-occurring PTSD. We hypothesized that there would be a greater prevalence of PTSD among subjects with trichotillomania than in the general population, and subjects with comorbid PTSD would have increased trichotillomania symptom severity, more impulsive behaviors, and more functional difficulties.

METHODS

This study consisted of an internet-based online survey given to adults in the community living with trichotillomania. The survey was open between April 10, 2023, and May 11, 2023, and used standardized self-report tools to assess for trichotillomania symptom severity and impairment, PTSD, dissociative experiences, and comorbid psychiatric diagnoses. The study and consent statement were approved by the Institutional Review Board of the University of Chicago. The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008.

Study Sample and Procedure

The study sample consisted of 209 adults recruited from the community via media advertisements and support websites. The study was described as gathering data on the clinical symptoms of trichotillomania and did not make any specific mention of assessing for PTSD. Inclusion criteria for the clinical sample were (1) *DSM-5* diagnosis of trichotillomania, (2) aged 18–65 years, (3) fluency in English, and (4) capable of providing informed consent. Subjects were excluded if they were unable to give informed consent or were unable to understand/undertake the study procedures. Participants who met the inclusion criteria were then required to view the Institutional Review Board–approved online informed consent page, at which point an individual could choose to participate in the survey or opt out. The survey asserted

that all information was confidential. Compensation was offered at the conclusion of the survey by random prize drawings. Participants were informed that those completing the survey would be entered into a prize drawing, whereby 15 people would be randomly chosen to receive a \$100 gift certificate. Only those individuals completing all measures were reported in the analyses.

Survey Components and Assessments

The online self-report survey collected data regarding demographic characteristics, along with questions regarding trichotillomania and previously diagnosed psychiatric comorbidities (participants were given a list of psychiatric disorders and asked to mark the ones with which they had been diagnosed). Each participant completed the following scales:

1. The Generic Body-Focused Repetitive Behavior (BFRB) Scale-8 is a reliable and valid global measure of symptom severity and impairment due to behaviors such as hair pulling.¹⁶ The Generic BFRB Scale-8 had very good internal consistency in the present study ($\alpha = 0.80$).
2. The Primary Care PTSD Screen¹⁷ has high reliability and validity compared to the gold-standard Clinician-Administered PTSD Scale¹⁸ for current PTSD. A score ≥ 5 indicates likely PTSD. The Primary Care PTSD Screen had excellent internal consistency in the present study ($\alpha = 0.92$).
3. A 5-point scale from 0 to 5 examining impairment due to hair pulling, with higher scores reflecting greater impairment.
4. The Dissociative Experiences Scale, which is a valid measure that captures dissociative experiences such as depersonalization, absorption, and amnesia.¹⁹ The scale had excellent internal consistency in the present study ($\alpha = 0.96$).

Additionally, each participant completed the self-report version of the Minnesota Impulsive Disorders Interview Version 2.0 (MIDI 2.0)^{20,21} to confirm trichotillomania diagnosis and to screen for the following potential comorbid disorders: pyromania, intermittent explosive disorder, kleptomania, compulsive buying, compulsive sexual behavior, and binge eating disorder.

Statistical Analysis

Following each survey's completion, quality checks were performed using REDCap, which automatically vetted responses for inclusion/exclusion criteria and checked for discrepancies. First, REDCap automatically kicked out users who had already completed the survey on a particular device. It also captured the time taken to complete the survey, and people who completed it in <10 minutes were flagged and then removed.

Table 1.

Characteristics of 209 Adults With Trichotillomania With and Without PTSD

Demographic	Trichotillomania (n = 169)	Trichotillomania plus PTSD (n = 40)	Statistic
Age, mean (SD), y	28.46 (6.95)	29.68 (5.81)	$t_{207} = -1.02, P = .31$
Sex, n (%)			$\chi^2_2 = 10.71, P = .005$
Male	36 (21.3)	16 (40.0)	
Female	133 (78.7)	23 (57.5)	
Intersex	0 (0)	1 (2.5)	
Race, n (%)			$\chi^2_4 = 7.16, P = .13$
White	130 (76.9)	32 (80.0)	
Black	8 (4.7)	5 (12.5)	
Asian	8 (4.7)	0 (0)	
Native American	4 (2.4)	0 (0)	
Other/mixed race	19 (11.4)	3 (7.5)	
Education, n (%)			$\chi^2_2 = 2.50, P = .29$
High school graduate or less	7 (4.1)	3 (7.5)	
At least some college	56 (33.1)	7 (17.5)	
College graduate or more	106 (62.7)	30 (75.0)	

Table 2.

Clinical Characteristics of 209 Adults With Trichotillomania With and Without PTSD

Clinical measure	Trichotillomania (n = 169)	Trichotillomania plus PTSD (n = 40)	Statistic
Generic BFRB Scale-8 scores, mean (SD)	17.1 (4.45)	17.2 (4.26)	$t_{207} = -1.07, P = .285$
Impairment (0 to 5), mean (SD)	3.34 (1.21)	3.28 (0.96)	$t_{207} = 0.33, P = .74$
Dissociative Experiences Scale, mean (SD)	30.57 (20.81)	48.0 (22.04)	$t_{190} = -4.78, P < .001$
Current comorbid psychiatric disorders			
Skin picking disorder	80 (46.8)	21 (52.3)	$\chi^2_1 = 0.35, P = .56$
Major depressive disorder	85 (49.7)	21 (52.3)	$\chi^2_1 = 0.063, P = .80$
Any anxiety disorder	109 (63.4)	27 (67.5)	$\chi^2_1 = 0.13, P = .72$
Obsessive-compulsive disorder	33 (19.3)	11 (27.5)	$\chi^2_1 = 1.24, P = .27$
Alcohol use disorder	8 (4.7)	6 (15.0)	$\chi^2_1 = 5.46, P = .02$
Substance use disorder	8 (4.7)	2 (5.0)	$\chi^2_1 = 0.005, P = .94$
Any eating disorder	23 (13.5)	8 (20.0)	$\chi^2_1 = 1.05, P = .31$
ADHD	56 (32.3)	11 (27.5)	$\chi^2_1 = 0.47, P = .49$
MIDI impulse control disorders ^a			
Buying disorder	17 (10.5)	24 (61.5)	$\chi^2_1 = 50.44, P < .001$
Kleptomania	2 (1.2)	5 (12.8)	$\chi^2_1 = 12.55, P < .001$
Gambling disorder	8 (4.9)	13 (33.3)	$\chi^2_1 = 27.09, P < .001$
Compulsive sex	17 (10.5)	18 (46.2)	$\chi^2_1 = 27.80, P < .001$
Binge eating disorder	15 (9.3)	13 (33.3)	$\chi^2_1 = 27.80, P < .001$
Intermittent explosive disorder	1 (0.6)	0 (0)	$\chi^2_1 = 0.24, P = .62$
Pyromania	2 (1.2)	0 (0)	$\chi^2_1 = 0.49, P = .49$

^aSample size for MIDI comorbidities is n = 162 for trichotillomania and n = 39 for trichotillomania plus PTSD due to missing data.

Abbreviations: ADHD = attention-deficit/hyperactivity disorder, BFRB = Body-Focused Repetitive Behavior, MIDI = Minnesota Impulsive Disorders Interview, PTSD = posttraumatic stress disorder.

Additionally, the data comparison module on REDCap was also used. Each response was reviewed individually to check for inconsistency or very bizarre responses. Once all survey responses had been vetted, the percentage of participants who met the screening threshold for PTSD was determined. Between-group differences were tested using the Pearson χ^2 for categorical variables and 2-

tailed independent sample t -tests for continuous variables. Demographics and current comorbid psychiatric diagnoses were presented as frequencies. Variables assessing the severity of hair pulling (Generic BFRB Scale-8 scores) were calculated as mean values accompanied by standard deviations. The level of significance for all statistical tests was set at .05.

RESULTS

A total of 209 adults with *DSM-5* trichotillomania (157 female [974.4%], mean age = 28.65 [SD = 6.73]) were included in the analysis. Of the 209 subjects, 40 (19.1%) met the screening threshold for current PTSD according to the Primary Care PTSD Screen. Demographic data are presented in Table 1. Participants with probable PTSD were significantly more likely to be male ($P = .005$).

Clinical characteristics are presented in Table 2. Mean scores on the Generic BFRB Scale-8 showed moderate severity of trichotillomania across all participants (mean = 17.08 [SD = 4.3]). There were no statistically significant differences in trichotillomania symptom severity between those with probable PTSD and those without ($P = .285$).

Frequencies of psychiatric comorbidities are presented in Table 2. For both groups, major depressive disorder, skin picking disorder, and anxiety disorders were the most common psychiatric comorbidities. Trichotillomania participants with probable PTSD were more likely to have comorbid alcohol use disorder (15.7% vs 4.7%) ($\chi^2_1 = 5.46$, $P = .02$). Trichotillomania participants with probable PTSD were also more likely to screen positive for the following impulse control disorders based on the MIDI: kleptomania (12.8% vs 1.2%), buying disorder (61.5% vs 10.5%), gambling disorder (33.3% vs 4.9%), compulsive sex (46.2% vs 10.5%), and binge eating disorder (33.3% vs 9.3%) (all $P < .001$).

Trichotillomania participants with probable PTSD scored higher on the Dissociative Experiences Scale (mean = 48.0 [SD = 22.04]) than participants without PTSD (mean = 30.58 [SD = 20.81]) ($t_{190} = -4.78$, $P < .0001$). Additionally, among trichotillomania participants with probable PTSD, scores on the Dissociative Experiences Scale were positively correlated with scores on the Generic BFRB Scale-8 ($r_{36} = 0.41$, $P < .001$).

DISCUSSION

This study adds to the limited literature regarding trichotillomania and comorbid PTSD, as it examined a self-rated assessment for PTSD and the possible influence of current PTSD on trichotillomania symptom severity and psychosocial functioning. Of the 209 participants in the study, almost 1 in 5 (19.1%) met the screening threshold for current PTSD, which is almost 4 times the rate reported in the general US population (4.7%). This finding of probable PTSD is also notably higher than previously reported in many studies⁵⁻⁷ (although considerably lower than the rate in 1 study⁹). One possibility for this discrepancy

may be the differences in screening methods used to diagnose PTSD in trichotillomania patients across the studies and whether the screens are clinician-administered or self-report. Past research has shown that self-report assessments of PTSD score are significantly higher on average than clinician-rated assessments.²²⁻²⁴ For example, Houghton et al⁶ utilized a clinician-based assessment of PTSD that yielded a current comorbidity rate of 1.6%, while Özten et al⁹ included a self-report PTSD assessment that revealed a current PTSD rate of 19.1% among the trichotillomania group. Future research is necessary to examine potential reasons for discrepancies of comorbid PTSD rates in trichotillomania patients. One potential next step would be to conduct studies that require trichotillomania participants to complete both a self-report and clinician-rated assessment of PTSD and thus provide deeper insight into the variation in rates of co-occurring PTSD.

On a clinical level, our study found that participants with probable PTSD were significantly more likely to be male. Interestingly, these demographic data contradict findings from previous studies in the general population that have reported higher rates of PTSD in females.²⁵ If males with trichotillomania are, for unknown reasons as of now, more susceptible to developing PTSD, future research may examine what biological or psychosocial factors may be unique to males with trichotillomania.

Additionally, the data showed that the presence of comorbid PTSD was significantly associated with co-occurring alcohol use disorder as well as a range of impulsive/addictive behaviors. It may be that the presence of PTSD makes people with trichotillomania more susceptible to using alcohol or the various behaviors as a means of temporarily reducing symptoms or that alcohol use and engagement in these behaviors may make someone with trichotillomania more susceptible to traumatic events. Without a better understanding of the temporal relationship of these disorders, however, any relationship is speculative. When formulating treatment plans for patients with trichotillomania and co-occurring PTSD, clinicians may want to screen for symptoms of impulsive behaviors generally.

Finally, there were no significant associations between PTSD status and trichotillomania symptom severity or impairment in daily function, despite past studies postulating that trauma may be associated with an increase in hair-pulling behavior in trichotillomania.^{6,7} These findings provide support for the notion that hair pulling may be independent from trauma and that they are each heterogeneous phenotypes of different etiologies. Additionally, while the data did not support a finding of any difference in impairment scores between the 2 groups, the presence

of probable PTSD was significantly associated with increased dissociative experiences, which may be of clinical utility when formulating treatment plans for patients.

This study has limitations that should be considered. First, the sample used in the study was largely white despite previous research suggesting that the prevalence of trichotillomania appears generally consistent across racial/ethnic groups.² Second, the study only captured current PTSD diagnoses. Assessment of lifetime PTSD is necessary to provide a clearer picture of the prevalence of PTSD in trichotillomania. Third, while the Primary Care PTSD Screen has good reliability and validity as a screening tool for PTSD compared to the gold-standard clinician-administered assessment, it is not the same as a formal clinician diagnosis, which could have affected the validity of our results, particularly with respect to the prevalence of PTSD among people with trichotillomania. Fourth, the cross-sectional nature of the study does not provide information regarding the directionality of the relationship between PTSD and trichotillomania. Future studies are necessary to examine whether treating the 2 disorders simultaneously or sequentially could possibly reduce the risk of developing the other. Furthermore, this study used a diagnosis of PTSD, but trauma, independent of PTSD, may be important to understand as having some relationship to hair pulling. Not all people who experience trauma develop PTSD, and it may be useful and clinically important for future research studies to specifically analyze the presence of any past trauma itself and its effect on people with trichotillomania. For example, a small study (n = 32) by Lochner and colleagues²⁶ found reports of childhood trauma in trichotillomania, but no one as an adult met criteria for PTSD. This more nuanced understanding of trauma may ultimately provide better clinical information as to whether trichotillomania is a response to past trauma. To assess for hair-pulling severity, the study used the Generic BFRB Scale-8 instead of a trichotillomania-specific scale, and thus, the results may generalize to all BFRBs but not capture the nuances of hair-pulling severity specifically. Finally, comorbidity for the study was collected via self-report and is arguably less valid compared to clinician assessments.

CONCLUSION

PTSD is frequently comorbid with trichotillomania, and when the 2 disorders co-occur, the risk for a range of impulsive behaviors is enhanced. Future research may wish to examine whether the assessment and treatment of comorbid conditions such as PTSD in trichotillomania

could therefore contribute to the reduction of impulsivity broadly in this population.

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References

- Christenson GA, Mackenzie TB, Mitchell JE. Characteristics of 60 adult chronic hair pullers. *Am J Psychiatry*. 1991;148(3):365–370.
- Grant JE, Dougherty DD, Chamberlain SR. Prevalence, gender correlates, and comorbidity of trichotillomania. *Psychiatry Res*. 2020;288:112948.
- Keuthen NJ, Curley EE, Scharf JM, et al. Predictors of comorbid obsessive-compulsive disorder and skin-picking disorder in trichotillomania. *Ann Clin Psychiatry*. 2016;28:280–288.
- Schlosser S, Black DW, Blum N, et al. The demography, phenomenology, and family history of 22 persons with compulsive hair pulling. *Ann Clin Psychiatry*. 1994;6(3):147–152.
- Tung ES, Tung MG, Altenburger EM, et al. The relationship between hair pulling style and quality of life. *Ann Clin Psychiatry*. 2014;26(3):193–198.
- Houghton DC, Maas J, Twohig MP, et al. Comorbidity and quality of life in adults with hair pulling disorder. *Psychiatry Res*. 2016;239:12–19.
- Lochner C, Keuthen NJ, Curley EE, et al. Comorbidity in trichotillomania (hair-pulling disorder): a cluster analytical approach. *Brain Behav*. 2019;9(12):e01456.
- Gershuny BS, Keuthen NJ, Gentes EL, et al. Current posttraumatic stress disorder and history of trauma in trichotillomania. *J Clin Psychol*. 2006;62(12):1521–1529.
- Özten E, Sayar GH, Eryilmaz G, et al. The relationship of psychological trauma with trichotillomania and skin picking. *Neuropsychiatr Dis Treat*. 2015;11:1203–1210.
- American Psychiatric Association. *Diagnostic Statistical Manual of Mental Disorders*. 5th ed. Text Revised; 2022.
- Oquendo M, Brent DA, Birmaher B, et al. Posttraumatic stress disorder comorbid with major depression: factors mediating the association with suicidal behavior. *Am J Psychiatry*. 2005;162(3):560–566.
- Lento RM, Carson-Wong A, Green JD, et al. Is suicidal behavior in mood disorders altered by comorbid PTSD? *Crisis*. 2019;40(1):62–66.
- Efrati Y, Goldman K, Levin K, et al. Early-life trauma, negative and positive life events, compulsive sexual behavior disorder and risky sexual action tendencies among young women with substance use disorder. *Addict Behav*. 2022;133:107379.
- Hoover LV, Yu HP, Duval ER, et al. Childhood trauma and food addiction: the role of emotion regulation difficulties and gender differences. *Appetite*. 2022;177:106137.
- Bhuptani PH, Orchowski LM, Forkus SR, et al. The impact of exposure to physical and sexual violence on opioid consequences among trauma-exposed individuals recruited from the community who use opioids. *Harm Reduct J*. 2023;20(1):167.

16. Moritz S, Gallinat C, Weidinger S, et al. The Generic BFRB Scale-8 (GBS-8): a transdiagnostic scale to measure the severity of body-focused repetitive behaviours. *Behav Cogn Psychother*. 2022;50(6):620–628.
17. Prins A, Bovin MJ, Smolenski DJ, et al. The Primary Care PTSD Screen for DSM-5 (PC-PTSD-5): development and evaluation within a veteran primary Care sample. *J Gen Intern Med*. 2016;31(10):1206–1211.
18. Weathers F.W., Blake D.D., Schnurr P.P., et al. The Clinician-Administered PTSD Scale for DSM-5 (CAPS-5). 2013. www.ptsd.va.gov
19. Bernstein EM, Putnam FW. Development, reliability, and validity of a dissociation scale. *J Nerv Ment Dis*. 1986;174(12):727–735.
20. Grant JE. *Impulse Control Disorders: A Clinician's Guide to Understanding and Treating Behavioral Addictions*. Norton and Company; 2008.
21. Chamberlain SR, Grant JE. Minnesota Impulse Disorders Interview (MIDI): validation of a structured diagnostic clinical interview for impulse control disorders in an enriched community sample. *Psychiatry Res*. 2018;265:279–283.
22. Bovin MJ, Marx BP, Weathers FW, et al. Psychometric properties of the PTSD checklist for diagnostic and statistical manual of mental disorders-fifth edition (PCL-5) in veterans. *Psychol Assess*. 2016;28(11):1379–1391.
23. Lee DJ, Weathers FW, Thompson-Hollands J, et al. Concordance in PTSD symptom change between DSM-5 versions of the clinician-administered PTSD scale (CAPS-5) and PTSD checklist (PCL-5). *Psychol Assess*. 2022;34(6):604–609.
24. Krüger-Gottschalk A, Ehring T, Knaevelsrud C, et al. Confirmatory factor analysis of the Clinician-Administered PTSD Scale (CAPS-5) based on DSM-5 vs. ICD-11 criteria. *Eur J Psychotraumatol*. 2022;13(1):2010995.
25. Lehavot K, Katon JG, Chen JA, et al. Post-traumatic stress disorder by gender and veteran status. *Am J Prev Med*. 2018;54(1):e1–e9.
26. Lochner C, Seedat S, Hemmings SMJ, et al. Dissociative experiences in obsessive-compulsive disorder and trichotillomania: clinical and genetic findings. *Compr Psychiatry*. 2004;45(5):384–391.