Trichotillomania in the United States: An epidemiologic study of patient characteristics, comorbidities, and treatment patterns

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To the Editor:

Trichotillomania is a self-induced hair loss disorder that occurs because of repetitive pulling leading to significant hair loss [1]. The prevalence of trichotillomania has not been well-established. However, a recent study estimated a prevalence of 1.7% in the United States (U.S.), [2]. Epidemiological studies on trichotillomania are limited, emphasizing the need for larger-scale studies. Our study aims to present patient characteristics, treatment patterns, and comorbidities among individuals seen for trichotillomania in ambulatory clinics in the U.S. from 2006 to 2016.

This study evaluated the National Ambulatory Medical Care Survey (NAMCS) from the years of 2006 to 2016. The National Ambulatory Medical Care Survey is a nationwide survey conducted annually by the Centers for Disease Control and Prevention (CDC) and reports nationally representative data of ambulatory visits across the U.S. We conducted a cross-sectional, population-based analysis of data from the study years. The dataset provides visit weights which are derived from a multi-step calculation that incorporates probability of visit selection, adjustment for nonresponse, ratio adjustment, and weight smoothing. For our analysis, trichotillomania was identified utilizing *International Classification of Diseases*, 9th Revision, Clinical Modification (ICD-9) codes from the years 2006 to 2015 and *International Classification of Diseases*, 10th Revision, Clinical Modification (ICD-10) codes for the year 2016. Specifically, our analysis identified trichotillomania by the diagnosis codes of 312.39 (ICD-9) and F63.3 (ICD-10). Further, we extracted data on associated conditions and medications linked to visits for trichotillomania.

There were 680,402 (95% confidence interval (CI) 399,957-960,847) weighted visits for trichotillomania over the study period (**Table 1**). The mean age of patients seen for trichotillomania was 28±17.5 years. Individuals less than 21 years old comprised most visits (46%). Females comprised 63% of all outpatient visits for trichotillomania. The majority of visits were for white patients (70%), followed by Hispanic patients (20%). Patients with trichotillomania were more likely to be seen by psychiatrists (P<0.001) than by primary care physicians (PCP) and dermatologists. Specifically, 58% of visits were conducted by a psychiatrist, 30% by a PCP, and 5% by a dermatologist.

Associated diagnoses included obsessive compulsive disorder (OCD), (100%), depression (41.6%), and schizophrenia (16.8%). Individuals seen for trichotillomania were nearly seven times more likely to have depression than patients without the diagnosis (P<0.001, **Table 1**). Treatments for

Table 1. *Sociodemographics and multivariate logistic regression of National Ambulatory Medical Care Survey visits by individuals with trichotillomania [312.39 (ICD-9) and F63.3 (ICD-10)].*

	Variable	Estimated Total Visits (%)	OR[a]	95% CI[b]	P value
Total					
Sex					
	Male	252269 (37)	0.83	(0.25-2.80)	0.766
	Female	428133 (63)	Reference	-	-
Age, categorized (years)					
	<21	312756 (46)	Reference	-	-
	21-40	138656 (20)	0.49	(0.13-1.82)	0.289
	41-60	204515 (30)	0.47	(0.12-1.89)	0.293
	61-80	24475 (4)	0.06	(0.007-0.48)	0.008*
	≥81	0	-	-	-
Race					
	Hispanic	138406 (20)	0.54	(0.169-1.72)	0.300
	Black	13723 (2)	0.20	(0.036-1.11)	0.065
	Asian/ Pacific Islander	52666 (8)	2.04	(0.248-16.82)	0.506
	American Indian/ Alaska Native	0	-	-	-
	White	475607 (70)	Reference	-	-
Provider					
	Dermatology	31441 (5)	2.73	(0.45-16.5)	0.272
	Psychiatry	391966 (58)	31.47	(10.1-98.3)	<0.001*
	Primary Care	205447 (30)	Reference	-	-
Depression					
	Yes	283236 (41.6)	6.97	(2.25-21.64)	0.001*
	No	397166 (58.4)	Reference	-	-

[a]Odds Ratio, [b]Confidence Interval, *significance P≤0.05.

trichotillomania included selective-serotonin reuptake inhibitors (SSRIs, 61.7%), topical corticosteroids (TCS, 14.3%), and stimulants (13.5%, **Table 2**).

Our findings showed that trichotillomania affects young individuals in the U.S. Nearly half of individuals seen for trichotillomania were under the age of 21. This is similar to a recent study by Grant et al., which reported the highest prevalence to be among those younger than 30 years of age [2]. We found a preponderance of trichotillomania visits among females. Although past studies have supported this finding [3,4], a more recent study found no differences based on gender [2]. Notably, our data reports number of visits for trichotillomania, not disease prevalence. Therefore, females may seek care for trichotillomania at higher rates than males owing to more severe social impairment caused by hair loss [4].

Studies have suggested that trichotillomania is highly associated with elevated rates of psychological disorders [5]. The top three most associated conditions included OCD, depression, and schizophrenia. Remarkably, all patients seen for trichotillomania suffered from OCD. Of note, disease

Table 2. *Prescribed medications for National Ambulatory Medical Care Survey visits in individuals diagnosed with trichotillomania [312.39 (ICD-9) and F63.3 (ICD-10)].*

Medication[a]	Frequency (%)
Selective Serotonin Reuptake Inhibitors (SSRIs)	420,147 (61.7)
Topical corticosteroids[b]	97,586 (14.3)
Stimulants	92,068 (13.5)
Benzodiazepines	41,413 (6)
Antipsychotics	38,564 (5.7)

[a]Top medications were considered when trichotillomania was diagnosed in addition to any other diagnoses.
[b]TCS generic medications include: clobetasol, fluocinonide, triamcinolone, betamethasone, hydrocortisone, dexamethasone

severity among those seeking care for their hair loss may be more severe and thus these individuals are more likely to have associated psychiatric disorders such as OCD. Overall, our findings magnify the burden of concomitant OCD among patients with trichotillomania.

Regarding associated treatments, SSRIs were the most prescribed treatment for trichotillomania (**Table 2**). Generally, management of trichotillomania incorporates both psychotherapy and pharmacotherapy [6]. Psychotherapy such as habit reversal therapy is considered first-line therapy. Although no first-line pharmacotherapy has been established, it may be necessary for the treatment of associated anxiety, depression, and/or OCD symptoms [6]. Given the rates of comorbid psychiatric disease among patients seen for trichotillomania, SSRIs were likely prescribed to treat both trichotillomania and these psychiatric comorbidities. The second most common prescribed treatments were topical corticosteroids, which were likely aimed to reduce localized itch in patients with trichotillomania [6].

This study showed that, although trichotillomania affects both sexes and all races, the majority of visits for trichotillomania were for white females. Psychiatry, primary care, and dermatology were the three specialties most likely to care for patients with trichotillomania. Selective-serotonin reuptake inhibitors are the most prescribed medication for trichotillomania in the U.S. Trichotillomania patients tend to experience high rates of comorbid psychiatric conditions such as OCD, depression, and schizophrenia. Our findings highlight the importance of collaboration among dermatologists, primary care physicians, and psychiatrists in managing this complex patient population.

Potential conflicts of interest

April W. Armstrong has served as a research investigator and/or scientific advisor to AbbVie, ASLAN, BI, BMS, EPI, Incyte, Leo, UCB, Janssen, Lilly, Novartis, Ortho Dermatologics, Sun, Dermavant, Dermira, Sanofi, Regeneron, Pfizer, and Modmed. The remaining authors state no conflicts of interest.

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