TRICHOTILLOMANIA

What should you know?
Just Stop Pulling!

What's Wrong With You?
Impulse Control Disorder Not Elsewhere Classified

Obsessive-Compulsive Spectrum Disorder classification? DSM V
A. Recurrent pulling out of one's hair resulting in *noticeable hair loss*.

B. An increasing sense of *tension* immediately before pulling out the hair or when attempting to resist the behavior.

C. *Pleasure, gratification, or relief* when pulling out the hair.

**Note:** DSM Criteria A-C
D. The disturbance is not better accounted for by another mental disorder and is not due to a general medical condition (e.g., a dermatological condition).

E. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
Historically .05% (Schachter, 1961)

3.4% of females and 1.5% of college males

Approximately 9% to 13% pull hair

True rates? .6% generally accepted estimate

.6% = 1.8 million in the US alone
Children about equal
In adulthood, women predominate
Why fewer men?
Easier to hide the evidence
Can more easily shave their heads
Higher baseline anxiety levels?
Puberty and associated neuroendocrine changes.

Premenstrual exacerbation (20%) implicates hormones (gonadotropin).

Birth control (progestin) may slightly improve symptoms in some individuals.
Childhood bimodal pattern with a peak in young childhood (baby trich), and again in adolescence.

Most published data suggests 13 years as mean age of onset.

Community sampling across ages suggests 16 years.
Three conceptual types:
1. Transient – Children before ages 7-8 yrs

Not always benign
Children are more likely to pull hair from another person, pets, or dolls.

Children more often an automatic pulling style.

Speaks to tactile and extraction sensation
Conceptual types:
2. Focused –
Dominate for about 25%
**Conceptual types:**

Automatic Type

Dominate for about 75%

Categorization conceptually convenient, but less 1%
Body areas:

- Scalp - 75%
- Eyelashes - 53%
- Eyebrows - 42%
- Pubic area - 17% - 50%
- Beard/face - 10%
- Arm - 10%
- Mustache - 7%
- Leg - 7%
- Chest - 3%
- Abdomen - 2%
RITUALS

- Tactile stimulation of lips or face.
- A need to pull in a particular manner.
- Ritualistically placing, saving, or discarding hairs.
- Twirling, rolling, or examining the hair.
- Hairs that don’t feel right (i.e. coarse).
- Hairs that don’t look right (i.e. color).
- Compelled to achieve an absolutely even hairline.
- Need to extract an intact hair bulb.
- Need to bite or mince the hair or bulb
- Swallowing hair (trichophagy).
Trichobezoars (hairballs) - intestinal obstruction or perforation

The presence of trichophagy should always be assessed as part of a TTM evaluation. Treatment often requires surgical removal.
Secrecy from friends, family, spouse.
Reduced self-esteem (RSES scores).
Scolding and shaming from parents may contribute to isolation.
Peer teasing not uncommon during childhood; has been associated with later life symptoms of depression.
Secrecy and hiding the evidence

Wigs, hats, elaborate hairstyles, and creative cosmetics.

Hats, avoidance of water, wind, active sports, etc.

Limited social interactions such as dating, for fear of being “found out”.

INTERFERENCE
INTERFERENCE

Avoidance - sports, dancing, swimming, beach, etc

Intimate relationships.

Annual physical examinations.

Avoidance of brightly lit areas

Often sit with their back against the wall to avoid discovery.
Body Focused Repetitive Disorders (BFRD) occur with greater frequency in those who pull out hair:

- Nail biting
- Skin picking
- Thumb sucking
- Knuckle cracking
- Nose picking
<table>
<thead>
<tr>
<th>Disorder</th>
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<tbody>
<tr>
<td>Depression</td>
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<tr>
<td>Generalized Anxiety Disorder</td>
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<td>Simple Phobia</td>
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<td>Alcohol Abuse</td>
<td>19</td>
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<tr>
<td>Substance Abuse</td>
<td>16</td>
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<tr>
<td>Obsessive Compulsive Disorder</td>
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<tr>
<td>Social Phobia</td>
<td>11</td>
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<tr>
<td>Eating Disorders</td>
<td>11</td>
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</tbody>
</table>
Why? What would cause hair pulling?

Innate complex grooming behavior (complex motor program) inappropriately triggered by stress?

Hairpulling in animals is thought to occur as a self-soothing behavior

Displacement activity in response to conflict.
THEORY

Analogs in animals?

- Psychogenic alopecia in cats
- Acral lick dermatitis in dogs
- Flank biting in horses.
- Whisker barbering in mice
- Psychogenic feather picking (birds)
Dysregulation of neurotransmitters serotonin and dopamine.

Imaging suggests the frontal-basal ganglia pathway is of particular importance.

More frequently occurring within families, suggesting genetic factors contribute.
Two mutations in genetic marker SLITRK1 have been implicated.

This gene is thought to play an important role in the formation of neuronal connections.
Stimulus Regulation:

Mechanisms providing nervous system homeostasis

Hair-pulling externally provides the needed regulation at either end of a continuum of arousal.
Hair pulling is likely to have behavioral origins. Begins and is maintained through principles of operant conditioning that leads to classical conditioning over time. Which is correct? It is likely that multiple factors play a role in the emergence and maintenance of trichotillomania.
A. Recurrent pulling out of one's hair resulting in *noticeable hair loss*.

B. An increasing sense of *tension* immediately before pulling out the hair or when attempting to resist the behavior.

C. *Pleasure, gratification, or relief* when pulling out the hair.
Common Barriers:

- Embarrassment - Secrecy
- Rarely realize hair-pulling is common.
- Unaware effective treatments exist
- Dissemination of behavioral treatment
- Often tried to quit, but limited success
TREATMENT

Keys to treatment:

- Empathy and understanding
- Credibility through knowledgeable assessment
- Emphasize that treatment progress is not linear
- Motivational approach
Historically, TTM was considered refractory to treatment.

However, with the emergence of Cognitive Behavioral (CBT) and Habit Reversal Training (HRT), behavioral treatment for trichotillomania became available (Azrin & Nunn, 1973, 1977). Considered a first line treatment of choice when available. Dissemination of treatment.
Pharmacological:

Tricyclics:
- Clomipramine (varies ≈40%)
- Desipramine

SSRIs:
- Fluoxetine (no difference from placebo)

Augmentation of SSRIs
- Olanzapine (Atypical Antipsychotic)
- Inositol (Carbohydrate)
- Naltrexone (Opioid Antagonist)
Pharmacology:

Glutamate Modulator:
- N-acetylcysteine (NAC): 56% improvement

Opiod Agonist:
- Naltrexone: 50% experienced reduction

D2 Dopamine Agonist:
- Aripiprazole: 11 out of 12 sig improvement

Lithium - 8 out of 10 experienced reductions

Always important to consider side effect profiles
RESOURCES

Treatment guide for clinicians:
- http://www.trich.org/treatment/resources-articles.html

Review:
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Books:
- Trichotillomania: Stein, et al.
- Treating Trichotillomania: Franklin and Tolin
- The Hairpulling Problem: Fred Penzel
- Help for Hairpullers: Nancy Keuthen
- Trichotillomania: ACT Enhanced Behavior Therapy Approach: Woods and Twohig
- Tic Disorders, Trichotillomania, and other Repetitive behaviors: Woods and Miltenberger