DSM IV Definition of Trichotillomania (TTM)

A. Recurrent hairpulling with noticeable hair loss
B. Tension before pulling or when attempting to resist
C. Pleasure, gratification, or relief when pulling
D. Not better accounted for by another disorder and not due to a general medical condition
E. Clinically significant distress/functional impairment

Gender Distribution/Age of Onset

- Predominately females, especially in clinical samples
- Onset typically between ages 9 – 13
- “Baby TTM” – onset between ages 18 months – 4 yrs

Pulling Sites in Adults & Kids

<table>
<thead>
<tr>
<th></th>
<th>CA-TIP</th>
<th>TIP-A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scalp</td>
<td>85%</td>
<td>79%</td>
</tr>
<tr>
<td>Eyebrows</td>
<td>52%</td>
<td>65%</td>
</tr>
<tr>
<td>Eyelashes</td>
<td>38%</td>
<td>59%</td>
</tr>
<tr>
<td>Pubic</td>
<td>27%</td>
<td>59%</td>
</tr>
<tr>
<td>Legs</td>
<td>18%</td>
<td>30%</td>
</tr>
<tr>
<td>Arm</td>
<td>9%</td>
<td>17%</td>
</tr>
<tr>
<td>&gt; 1 Pulling Sites</td>
<td>58%</td>
<td>93%</td>
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Trichotillomania: Appetitive Behavior?

“I occasionally go into a ‘trance’ on my legs, where I can spend hours and hours, just sitting on the bathroom counter, plucking and plucking... Chewing the hair is a big part of it for me... the thicker the hair, the better to chew. It is a part of the ritual. I also prefer lashes to chew because of the texture... There is not a day that goes by that I don’t imagine what it would feel like to just start pulling... every hair out of my head. I feel that pulling is addictive and The monster tells me that it would feel sooo good, and I would be sooo relaxed afterwards... and it would make all my troubles go away.”

TTM is associated with:

- increased affective distress
- interpersonal conflict
- social isolation
- medical conditions (skin infections, GI sx, carpel tunnel) (Franklin et al., 2008; Hajcak et al., 2006; Tolin et al., 2007; Woods et al., 2006)

- Trichobezoars: Don’t forget to ask about whether they’re eating the hair...
Assessment & Treatment

Assessment Strategies

• **Symptom Assessment**
  - Trichotillomania Scale for Children (TSC; Tolin et al., 2008)
    - Parent version
    - Child version
  - NIMH-TIS/TSS (Swedo et al., 1989)
  - Massachusetts General Hospital Hairpulling Scale (MGH; Keuthen et al., 1995; 2007)
    - Severity
    - Resistance and Control
    - Direct Observation
    - Product Recording

• **Functional Assessment**
  - Self-Monitoring
  - Functional assessment interviews
    - ABCs
  - Focused vs. Automatic Pulling
    - Milwaukee Inventory for Subtypes of Trichotillomania-Adult (MIST-A; Flessner et al., 2008)
    - Milwaukee Inventory for Styles of Trichotillomania-Child (MIST-C; Flessner et al., 2007)
Cognitive-Behavioral Model of TTM

Pulling is a function of antecedents and consequences

- **Antecedents:**
  - Visual, tactile, affective, cognitive, environmental

- **Consequences:**
  - Positive emotional state
  - Pleasurable sensations
  - Affect regulation, beliefs about pulling

Functional analysis will facilitate development of interventions

Treatment may target various inputs to the system

Treatment Implications from Model

- **Automatic pulling**
  - Identify antecedents that likely trigger pulling
  - Heighten awareness of pulling episodes
  - Provide strategies to stop behavior when recognized
  - Make pulling more difficult
  - Manipulate establishing operations of automatic reinforcers

- **Focused pulling**
  - Train skills to cope with or reduce aversive urge, emotion, or cognition (i.e., relaxation training, cognitive restructuring)
  - Target the context supporting experiential avoidance
Core TTM Treatment Elements

- Psychoeducation
- Self-monitoring/awareness training
- Stimulus control
- Competing response/habit reversal
- Addressing internal antecedents and affect-regulation functions
  - Relaxation/stress management
  - Cognitive restructuring as needed
  - Acceptance-based Procedures in Adults

Self-Monitoring

- Time
- Triggering Events
- Thoughts
- Feelings
- Facilitates functional analysis
- Provides evidence of progress
- Measurement reactivity

Stimulus Control Interventions

- Work with patient to develop different strategies to make pulling more difficult
- Keep following points in mind…
  - Minimize or eliminate contact with situations or instruments that exacerbate pulling
  - Provide alternative tactile stimulation or activities for hands
  - When entering pulling-prone situations, the patient should be reminded to use HRT procedures
  - For pulling-prone situations that are not easily modifiable
    - Use stimuli that prompt awareness
    - Make pulling areas open to public access
Habit Reversal Training

- Increase awareness of pulling behaviors
- Engage in competing behavior
- Use competing behavior at progressively earlier stages in the pulling cycle
- Social Support
  - Kids vs. adults

Habit Reversal: Awareness Training

- Purpose
  - Help client discriminate episodes of behavior
- Three techniques
  - Response Description
  - Early Warning
  - Response Detection
- Necessary level of awareness is unclear

Habit Reversal: Competing Response

- Purpose
  - Replace target with incompatible behavior
- Engage in CR for 1 minute when....
  - Target behavior occurs
  - "Warning sign" occurs
- Necessary level of compliance/competence is unclear
Choosing the Competing Response

- Three rules when choosing CR
  - Incompatible w/ pulling
  - Less socially noticeable/interfering than the pulling
  - Patient can do CR for the required duration across multiple situations
- Choosing a CR should be a mutual decision b/w patient and therapist

Habit Reversal: Social Support

- Purpose
  - Reinforce and prompt use of competing response
  - Significant others prompt use of CR
  - Significant others praise correct use of CR

RCT for Pediatric TTM: Design

<table>
<thead>
<tr>
<th>CBT</th>
<th>MAC</th>
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<td>N = 12</td>
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8 Week Treatment Phase

- MAC participants receive open CBT
- 8 week maintenance phase for CBT participants

6 month Naturalistic Follow-up Phase
RCT for Pediatric TTM: Key Inclusion and Exclusion Criteria

- Ages 7-17 inclusive with primary TTM
- IQ > 80
- Not receiving concomitant pharmacotherapy
- Not diagnosed with pervasive developmental disorders, bipolar illness, thought disorder, or other primary disorder

RCT Sample Description (N=24)

- Age in years: 12.5 (2.7)
- Age of onset: 8.9 (3.2)
- % Adolescents: 67%
- % Female: 67%
- % Caucasian: 75%

RCT Pulling Sites (% Endorsing)

- Scalp: 79%
- Eyelashes: 42%
- Eyebrows: 25%
- Pubic: 8%
- Arm/Leg: 4%
- % Multiple sites: 33%
Primary Dependent Measure: NIMH-TSS

NIMH Trichotillomania Severity Scale (NIMH-TSS; Swedo et al., 1989) interview evaluates:

- Time spent pulling (on average per day last week, yesterday?)
- Attempts to resist?
- Success resisting?
- How much does it bother you?
- Interference with daily life?

BT and MAC Outcomes (LOCF on Week 40)

Caveats & Qualifiers...

- Small sample size
- With larger sample one might investigate specific predictors of treatment response
- A promising start…
But Was Running Against MAC Really a Fair Test?

CBT for Child & Adolescent TTM: NIMH R01 @ Penn (PI: Franklin, M.)

- BT
  N = 30
- PSC
  N = 30

8 Week Treatment Phase

- PSC participants receive open BT
- 8 week maintenance phase for BT participants

6 month Naturalistic Follow-up Phase

The Child/Adolescent OCD, Tics, Trichotillomania and Anxiety Group (COTTAGE)

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