ESSTS 2021
Habit Reversal Workshop
Part two – Habit Reversal Training

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MHH
Medizinische Hochschule Hannover
Part two – Habit Reversal Training

• How is a patient prepared for HRT?
• What is the basic idea behind Habit Reversal Training?
• What is the basic procedure?
• How does the treatment manual look like?
How is a patients prepared for HRT?
Psychoeducation

• The therapy of tic disorders should start with psychoeducation of the patient
• Regardless of whether the patient will receive HRT or will be treated with medication, or will not receive further treatment at all.
Psychoeducation

- The patient should be informed about:
  - What is a tic
  - Types of tics (e.g., vocal/motor, simple/complex)
  - Premonitory Urge
  - Diagnosis
  - Frequency and course of tic disorders
  - Causes of tic disorders
  - Comorbidities
  - Treatment options and alternatives
  - Appropriateness of treatment at all
Psychoeducation

• Specific information on CBIT/HRT:
  • Elements and treatment rationale
  • Prospects of success (30% reduction on average)
  • Importance of therapy motivation and cooperation
  • Clarify fears regarding therapy
  • Common concerns:
    • Rebound after suppression
    • HRT leads to new tics
    • Aggravation of tics by HRT
    → These concerns could not be proven true in studies!
Tourette patients’ misbelief of a tic rebound is due to overall difficulties in reliable tic rating.

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* \( p=0.001 \)

**Modified Rush Video Rating Scale (MRVS)**

**Premonitory Urge for Tics Scale (PUTS)**
What is the basic idea behind Habit Reversal Training?
Maintenance of Tics

Premonitory Urge → Tic → Relieve

Negative Reinforcement
Maintenance of Tics

Aim of HRT

Competing Response

- Premonitory Urge
- Relieve

Negative Reinforcement
Maintenance of Tics

Aim of HRT

Competing Response

Premonitory Urge

Relieve

Negativity

Reinforcement
What is the basic procedure?
Overview of HRT

Step 1: Tic Hierarchy

Step 2: Awareness Training

Step 3: Selection of a Competing Response

Step 4: Training of the Competing Response
Step 1: Tic Hierarchy

• In HRT, all tics are treated one after the other.
• For this purpose, the order of tics should be determined
  • this is done with the help of the tic hierarchy
    • Enumeration of all tics
    • Evaluation of the severity of each tic by the patient.
### Step 1: Tic Hierarchy

<table>
<thead>
<tr>
<th>Session number</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>Date</td>
<td>21.01.19</td>
<td>28.01.19</td>
<td>04.02.19</td>
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<table>
<thead>
<tr>
<th>Tic Label</th>
<th>Tic Severity</th>
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<tbody>
<tr>
<td>Head jerk</td>
<td>5 5 6</td>
</tr>
<tr>
<td>Sniffing</td>
<td>8 6 4</td>
</tr>
<tr>
<td>Coughing</td>
<td>7 5 7</td>
</tr>
<tr>
<td>Blinking</td>
<td>2 3 3</td>
</tr>
<tr>
<td>Grimassing</td>
<td>6 6 5</td>
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Tic severity on a 1-10 scale, 1= "barely present" - 10 = "barely tolerable".
Step 1: Tic Hierarchy

Which tic should you start with?

- Procedure 1: the most disturbing tic
- Procedure 2: the easiest tic to treat.
  - To be recognized by: Presence of a premonitory urge, suppressibility given, tic newer and less automated (more conscious).
- Tip: do not start with a blink tic
- The hierarchy can change every week and should be followed along
Step 2: Awareness Training

Self-Monitoring

Description of the Tic: Beginning + Sequence

Description of the Premonitory Urge

Awareness exercises for Tic and Premonitory Urge
Step 2: Awareness Training

- Self-Monitoring
- Description of the Tic: Beginning + Sequence
- Description of the Premonitory Urge
- Awareness exercises for Tic and Premonitory Urge
Step 2: Awareness Training

Description of the exact onset and sequence of each tic.

Very important: Identify first movement!
Step 2: Awareness Training

Self-Monitoring

Description of the Tic: Beginning + Sequence

Description of the Premonitory Urge

Awareness exercises for Tic and Premonitory Urge
Description of the Premonitory Urge

- Ticklish/itchy feeling
- Pressure in the brain or body
- Feeling agitated or tense
- Feeling that something is not "right"
- Feeling that something is not complete
- Energy in the body that wants to get out

Taken from the PUTS by Woods et al. 2005
Step 2: Awareness Training

- Self-Monitoring
- Description of the Tic: Beginning + Sequence
- Description of the Premonitory Urge
- Awareness exercises for Tic and Premonitory Urge
Awareness exercises for Tic and Premonitory Urge

• Procedure:
  • First Patient task: Raise the hand every time the tic comes
    • Therapist's task: if the patient catches a tic, praise him/her if the patient misses a tic, raise the hand
    • Meanwhile: Therapist and patient talk about everyday things.
  • Second Patient task: raise the hand as soon as the premonitory urge occurs.
  • The exercise continues for about 10 minutes, or until the patient manages to catch the tic almost every time (80%).
Overview of HRT

Step 1: Tic Hierarchy

Step 2: Awareness Training

Step 3: Selection of a Competing Response

Step 4: Training of the Competing Response
Step 3: Selection of a Competing Response

A competing response should meet the following criteria:

• be less conspicuous than the tic
• be socially acceptable (e.g., attract little attention)
• be easily integrated into everyday life
• be individually adapted to the patient
Step 3: Selection of a Competing Response

Variants of competing response described in detail:
1. Incompatible movement
   • Simultaneous execution of the tic impossible
2. Attenuated movement
   • Conscious, weakened "imitation" of the tic
3. Partial movement
   • For complex tics, or series of tics
   • Intentionally executed initial movement
Competing response for vocal tics

→ Reversal of the breathing pattern

<table>
<thead>
<tr>
<th></th>
<th>Mouth</th>
<th>Nose</th>
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<tbody>
<tr>
<td>Exhaling</td>
<td><strong>Tics:</strong> throat clearing, coughing, words</td>
<td><strong>Tics:</strong> Snorting, blowing nose.</td>
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<tr>
<td></td>
<td><strong>Competing response:</strong> Inhaling through the mouth and exhaling through the nose</td>
<td><strong>Competing response:</strong> Inhaling through the nose and exhaling through the mouth</td>
</tr>
<tr>
<td>Inhaling</td>
<td><strong>Tics:</strong> whooping, beeping.</td>
<td><strong>Tics:</strong> Sniffing, pulling up nose.</td>
</tr>
<tr>
<td></td>
<td><strong>Competing response:</strong> Exhaling through the mouth and inhaling through the nose</td>
<td><strong>Competing response:</strong> Exhaling through nose and inhale through mouth</td>
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Overview of HRT

Step 1: Tic Hierarchy

Step 2: Awareness Training

Step 3: Selection of a Competing Response

Step 4: Training of the Competing Response
Step 4: Training of the competing response

Step 1: Dry exercise
- Exercise of countermovement independent of tic
- Therapist can demonstrate the countermovement

**Tip:** Explain to patient that it is normal for the countermovement to feel "artificial" and "unnatural" at first. With practice, this feeling disappears.
Step 4: Training of the competing response

Step 2: Practice with the tic

• Patient should perform the competing response whenever the premonitory urge occurs, but no later than a the onset of the tic.
• It should be performed for at least one minute or until the premonitory urge subsides or disappears altogether.
• Exercise in session: analogous to awareness training, only with the competing response.

• Praise for successful exercise!!!
Recording the Tic, Premonitory Urge and Competing response

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of the Tic</th>
<th>Description of the tic</th>
<th>Premonitory Urge</th>
<th>Competing response</th>
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Homework: Practice makes perfect!

- From now on, the patient should always perform the competing response!
- Dedicated exercises should be regular, preferably daily, but at least 3-4 times a week.
  - One exercise should last about 30 minutes
  - Times for practicing should be firmly scheduled in the weekly calendar
  - Exercises should be done calmly, without disturbances and haste
  - Exercises should be done with increasing difficulty
  - Close people such as friends or family should be asked for support
How does the treatment manual look like?
CBIT: Comprehensive Behavioral Intervention for Tics
CBIT: Comprehensive Behavioral Intervention for Tics

- Short-term behavioral therapy with 8 sessions over 10 weeks.
- First 2 sessions as double sessions
- Sessions 1-6 weekly
- Sessions 7 and 8 biweekly
- Refresher sessions possible (monthly)
CBIT: further elements

- Functional Analysis
- Motivation building
- Resource activation
- Reward system
- Homework
Summary

• Psychoeducation is important and should always be done first.
• The core element of CBIT is HRT.
• HRT consists of: Awareness training and practice of competing response.
• Therapy success is achieved through regular, independent practice by the patient.

• The CBIT Manual can be consulted for more information.
HRT demonstration by D. Woods

https://www.youtube.com/watch?v=A--OxYXwBDk