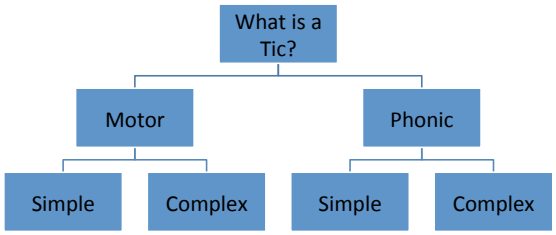
Chronic Tic Disorders



Motor tics

Simple - sudden brief, meaningless movements

- Eye blinking, eye movements, grimace, mouth movements, head jerks, shoulder shrugs

Complex - slower, longer, more "purposeful"

- Multiple simple tics occurring in an orchestrated pattern, facial gestures, touching objects or self, hand gestures, gyrating or bending, dystonic postures, copropraxia (obscene gestures)

Phonic Tics

Simple - sudden meaningless sounds or noises

- Throat clearing, coughing, sniffing, spitting, animal noises, grunting, hissing, sucking, other simple sounds

Complex - sudden, more "meaningful" utterances

- Syllables, words, phrases ("shut up", "stop that")
- Coprolalia (obscene, aggressive words)
- Palilalia (echo self)
- Echolalia (echo others)

Operational Definition

- Tourette's Disorder
  A. Both multiple motor and one or more vocal tics that have been present at some time during the illness, although not necessarily concurrently
  B. The tics may wax and wane in frequency but have persisted for more than 1 year since first tic onset
  C. Onset is before age 18 years
  D. The disturbance is not attributable to a substance or other medical condition

Operational Definition

- Persistent (Chronic) Motor or Vocal Tic Disorder
  A. Single or multiple motor or vocal tics that have been present at some time during the illness, but not both motor and vocal
  B. The tics may wax and wane in frequency but have persisted for more than 1 year since first tic onset
  C. Onset is before age 18 years
  D. The disturbance is not attributable to a substance or other medical condition
  E. Criteria have never been met for Tourette's disorder

Prevalence

- Tourette's is around 0.77% of children, 0.05% of adults
- Less severe Persistent Tic Disorder may be up to 2-3% for children
- Many more males than females diagnosed
  - 2-5:1 ratio seen

Tourette's Disorder

- Typical age of onset is 5-6 years old
  - Often starts with simple facial tics, then progresses to more complex and motor tics
- Associated with very high levels of comorbid disorders and symptoms

Tic Frequency

- 97.7% Simple motor tics
  - 43.2% Eyes
  - 43.2% Mouth
  - 34.1% Facial
- 75.0% Simple vocal tics
- 13.6% Coprolalia

Tourette's & Comorbidity

- Obsessions and compulsions – 50%
- Depression – 41%
- Attentional problems, hyperactivity – 50-75%
- Learning disabilities – 51%
- Panic attacks – 13%

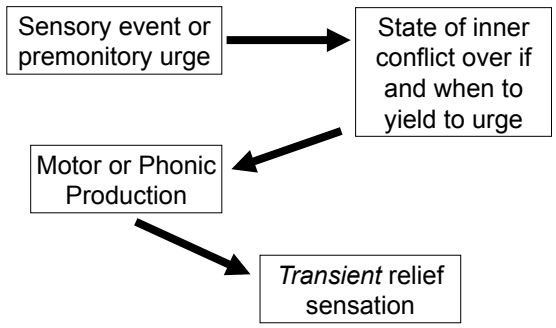
What Causes Tics?

- Appears to be an irregularity of the neurotransmitters dopamine and serotonin
- There is no "cure," but symptoms tend to decrease after adolescence in most people
- Treatment options include drugs and therapy
  - Anticonvulsants and neuroleptics are useful for some, but have very negative side effects

Can't They Control It?

- Short answer: No
- Control and severity waxes and wanes over the day
- Best analogy for most people is a sneeze
  - You can feel it coming on, can hold it off for a little while, but ultimately you have to let it out
  - The longer most people hold it in, the greater the severity when it is let out

How a Tic Happens



Tourette's Related Problems

- Lowered overall quality of life
- Academic problems
- Impaired social interactions
- Number of home-life impairments
  - Increased marital difficulties, substance abuse, family conflict, and parenting frustration

Tourette's Related Problems

- 88% of those with tics report a negative impact on their daily functioning
- Higher unemployment rates and lowered income as adults
- Self-esteem and social anxiety
- Physical damage

Common Triggers for Tics

- Being upset or anxious
- Watching TV
- Being alone
- Social gatherings
- Stressful life events
- Hearing others cough
- Talking about tics

Pharmacology for Tics

- Pharmacology is very frequently used, as few people are trained in behavioral treatments
- Antipsychotics are often the first line, but usually fail to eliminate the tics and can cause
  - Sedation
  - Weight gain
  - Cognitive dulling
  - Tardive dyskinesia or parkinsonism

Pharmacology for Tics

- Surprisingly few RCTs on various antipsychotics for tic control
- Clonidine (an α2 adrenergic agonist and imidazoline receptor agonist) is also frequently used, primarily in ADHD/TS

Therapy for Tics

- Gold-standard treatment is Cognitive-Behavioral Intervention for Tics
- Effect sizes of .7-.8 found in meta-analyses
- Long-lasting effects, low drop-out rates, no negative side effects

CBIT Outline

- Psychoeducation
- Habit Reversal Training
- Functional Intervention
- Reward System
- Relaxation Training

CBIT Psychoeducation

- Phenomenology of tics
- Prevalence of tics
- Natural history of tics
- Common comorbids
- Causes of tics
- Psychosocial impairments

Habit Reversal Training

- Most well-researched method to date
- Three critical components
  - Awareness training
  - Competing response training
  - Social support

Awareness Training

- Involves making clients more aware of when and where the tic is most likely to occur
- First step is a complete operational definition of the tic(s)
  - Describe where it occurs, what it looks like, typical location(s), typical mood state(s)

Awareness Training

- Then, any environmental functions of the behavior need to be identified
  - Socially mediated positive reinforcement
    - Gaining attention
  - Socially mediated negative reinforcement
    - Escaping from unwanted situations/actions
  - Automatic reinforcement
    - Physical/emotional changes that happen from behavior

Awareness Training

- For homework, clients are to keep an ongoing log of all tics
- Typically includes severity, duration, triggers, emotions, sensations, thoughts, location

Competing Response Training

- In this phase, you teach and practice doing behaviors that are physically incompatible with the tic
- Ultimate goal is to desensitize client to the "urges" that often occur, as well as continue to raise awareness

Competing Response Training

- CRT is very similar to doing EX/RP for OCD – it's all about prevention of typical responses and letting discomfort naturally dissipate
- May need to get highly creative to develop appropriate competing responses

Competing Response Training

- Typically begins by doing "practice" phase where spend 30 minutes a day practicing tic and doing CRs
- Identify the most problematic tic to target first

Competing Response Practice

1) Based on prior operational definitions, you begin the tic
2) Start the tic, but do not complete it
3) Do CR immediately
4) Hold the CR for 1 minute or until urge goes away, whichever is longer
5) Rinse and repeat

Social Support

- Involves bringing loved ones and family members into the therapy process to:
  - Provide positive feedback when the individual engages in competing responses
  - Cue the person to employ these strategies
  - Provide encouragement and reminders when the individual is in a "trigger" situation

Session Breakdown for HRT

- Session 1 - Interview
- Session 2 - Awareness training
- Session 3 – Competing Response Training
- Session 4 – CR Generalization

Session 1 - Interview

- Functional assessment of tics
- Assessment of comorbid issues
- Establish ongoing assessment plan
- Discuss treatment outline

Yale Global Tic Severity Scale

Ever	Current	Age of onset [In Years]	The patient has experienced, or others have noticed, involuntary and apparently purposeless bouts of:	Ver
			-eye movements.	
			eye blinking, squinting, a quick turning of the eyes, rolling of the eyes to one side, or opening eyes wide very briefly.	
			eye gestures such as looking surprised or quizzical, or looking to one side for a brief period of time, as if s/he heard a noise.	
			-nose, mouth, tongue movements, or facial grimacing.	
			nose twitching, biting the tongue, chewing on the lip or licking the lip, lip pouting, teeth baring, or teeth grinding.	
			broadening the nostrils as if smelling something, smiling, or other gestures involving the mouth, holding funny expressions, or sticking out the tongue.	
			-head jerks/movements.	
			touching the shoulder with the chin or lifting the chin up.	
			throwing the head back, as if to get hair out of the eyes.	
			-shoulder jerks/movements.	
			jerking a shoulder.	
			shrugging the shoulder as if to say "I don't know."	
			-arm or hand movements.	
			quickly flexing the arms or extending them, nail biting, poking with fingers, or popping knuckles.	
			passing hand through the hair in a combing like fashion, or touching objects or others, pinching, or counting with fingers for no purpose, or writing tics, such as writing over and over the same letter or word, or pulling back on the pencil while writing.	
			-leg, foot or toe movements.	
			kicking, skipping, knee-bending, flexing or extension of the ankles; shaking, stomping or tapping the foot.	
			taking a step forward and two steps backward, squatting, or deep knee-bending.	

Session 2 - Awareness training

- Provide rationale for awareness training
- Get detailed description of tics
- Discuss "warning signs" of tics, establish 1-3
- Therapist simulates tic, client has to acknowledge tic

Session 2 - Awareness training

- Repeat process with warning signs
- Homework is to do self-monitoring of tic behavior for the next week

Session 3 – Competing Response Training

- Review monitoring HW
- Choose a competing response
- Clinician models CR
- Address concerns about CR
  - Situations it will not possible, worries about it feeling uncomfortable

Session 3 – Competing Response Training

- Teach client the CR
- Social support training
  - Identify support person
  - Have client demonstrate CR
  - Have support person praise (based on therapist modeling)
- Homework is to practice CR for 20-30 minutes daily and continue self-monitoring

Session 4 – CR Generalization

- Review HW, troubleshoot as needed
- Assess self-monitoring data
- Review CR to ensure it's being done correctly
- Ask support person about any problems

Session 4 – CR Generalization

- Introduce use of CR outside of practice
- Determine how support person(s) will let client know when to do the CR (if they don't catch it themselves)
- Practice in session
- Homework – continue self-monitoring and practice, implement general CR use

Sessions 5+

- Review and troubleshoot progress using CR and practicing
- Repeat awareness and CR process for other BFRBs
- Space sessions out to provide contact as needed

CBIT Function-Based Interventions

- Assessment of antecedents and consequences associated with increase in tics
- Work to develop strategies to reduce tics based on assessment

Functional Strategies

- Minimize or eliminate tic exacerbating situations when possible
- Remove potentially reinforcing consequences to the tic in tic exacerbating situations
- When entering tic-prone situations, the patient should be reminded to use HRT procedures

Functional Strategies

- For tic-prone situations that are not easily modifiable, teach patient strategies to minimize the impact of that situation
  - Teaching relaxation strategies for high stress situations
  - Teaching cognitive restructuring
  - Teaching scheduled activity or breaks
- Minimize the impact of the tics on the child
  - Educate peers, teachers and relatives about the child's condition

OCRD Homework #4

- Get into groups of 3-4
- Decide how each of you will do a low- to mid-level fear exposure over the next 3 hours
- Be back at the assigned time, ready to discuss what you did and the results

Media Critique #4