

1

X This information in the presentation is based upon:

X **Managing Tourette Syndrome: A Behavioral Intervention for Children and Adults** by Douglas W. Woods, John C. Piacentini, and colleagues

X **CBIT Training**

X **These sessions are NOT official CBIT training**

This website has information about official training: <https://tourette.org/research-medical/behavioral-therapy-institute-cbit-trainings/>

2

2

1.

TOPICS

- Rationale for CBIT?
- Who is it a good fit for?
- Does it Work?
- Treatment Structure
- Tic Symptom Tracking/Selecting Tics to Target
- Functional Behavior Assessment
- Functional-Based Interventions

3

3



What is Comprehensive Behavior Intervention for Tics (CBIT)?

4

RATIONALE FOR CBIT

- X External environment can increase tics
 - o New
 - o Stimulating
- X Internal states can increase tics
 - o Anxiety
 - o Excitement

We cannot control the neurology, but we teach people to control their internal and external environments

5

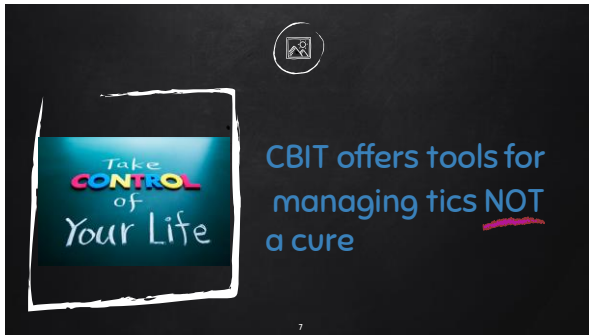
How CBIT works



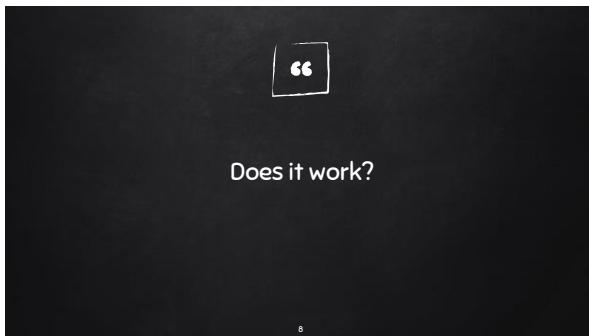
Figure out what makes tics worse
Find ways to **manage** those situations

Teach people how to manage tics

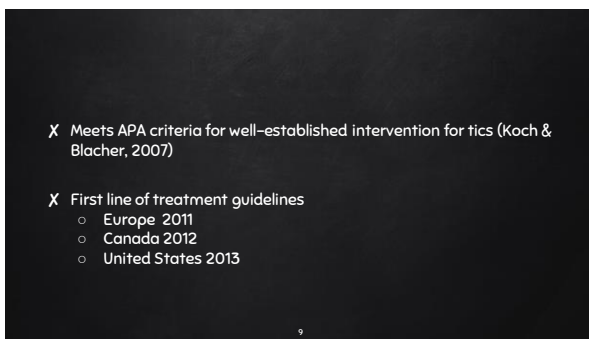
6



7



8



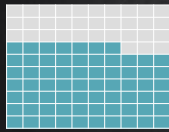
9

EVIDENCE FOR EFFECTIVENESS OF CBIT

- X Espil et al. (2022). Long-term outcomes of behavior therapy for youth with Tourette disorder. *Journal of the American Academy of Child & Adolescent Psychiatry*, 61(6), 764–771.
 - o 126 youth initial study; 80 completed long-term follow up 11+ years later

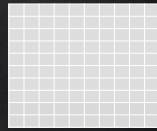
10

10



67%

Of those who initial responded with CBIT, demonstrated at least partial remission



0%

Of those in supportive therapy demonstrated at least partial remissions

11

Espil et al. (2022).

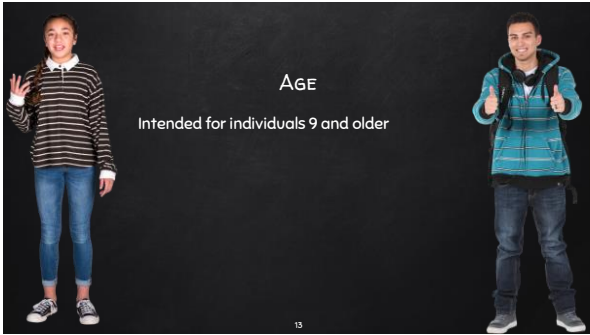
11

TREATMENT CONSIDERATIONS

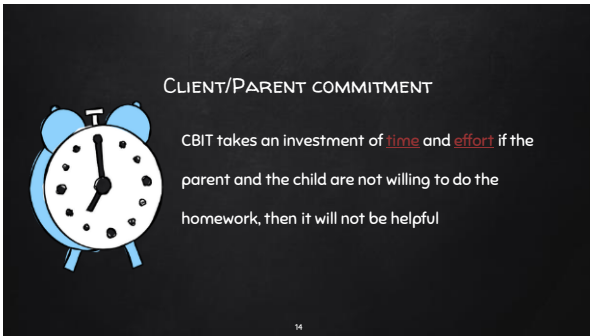
- X Age
- X Client commitment
- X Comorbidity
- X Clinician

12

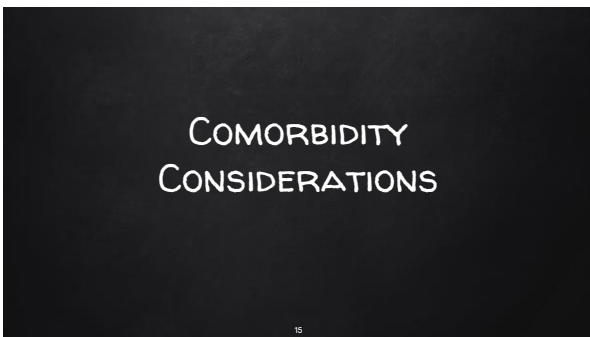
12



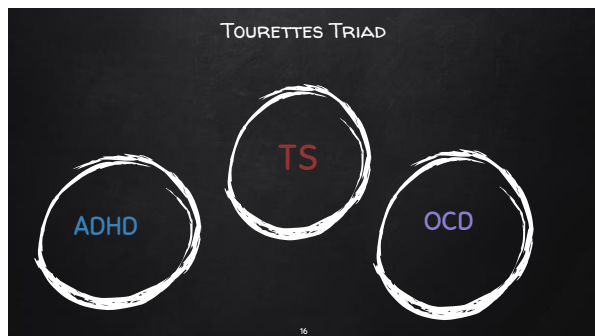
13



14



15



16

ADHD

X Can negatively impact treatment if ADHD symptoms are not managed

X Consider

- o Shorter more frequent sessions
- o Additional, separate parent sessions
- o Minimize distractors
- o Extra reinforcers

17

DIFFERENTIATING BETWEEN TICS AND OBSESSIONS/COMPULSIONS

<p>X OCD</p> <ul style="list-style-type: none"> o Specific cognitions <ul style="list-style-type: none"> ■ Something bad will happen if I don't engage in the behaviour o Physiological arousal 	<p>X Tics</p> <ul style="list-style-type: none"> o Vague sensory discomfort o No cognitions about something bad happening
---	---

18

OCD

X

Need to differentiate some tics from compulsions

X

OCD requires exposure prevention therapy (ERP)

19

19

OTHER Co-MORBIDITY CONSIDERATIONS

X

Developmental Disabilities

More direct

More rule specific

More reinforcers

More concrete reinforcers

X

Depression/ Anxiety

Treat depression before CBIT

If not secondary to tics, treat anxiety before CBIT

X

Anger

20%-30% of kids with TS have rage outbursts (intense, sudden, remorse after)

Typical support for children with anger

20

CLINICIAN QUALIFICATIONS

FAMILIAR WITH CBIT PRINCIPLES


FAMILIAR WITH TS PRESENTATION

FAMILIAR WITH COMORBIDITIES

21

21

7



X Treatment Structure

X Core Components of CBIT

22

22

1. Rationale for CBIT
2. Overall Structure
3. Psychoeducation
4. Create Tic Hierarchy
5. Create an Inconvenience Review
6. Behavioral Reward Program

23

23

OVERALL STRUCTURE CBIT

<p>X Core Elements</p> <ul style="list-style-type: none"> ○ Habit reversal therapy <ul style="list-style-type: none"> ■ Awareness ■ Premonitory urges ■ Competing response ○ Function-based assessment and intervention 	<p>X Additional Elements</p> <ul style="list-style-type: none"> ○ Psychoeducation ○ Relaxation training ○ Relapse prevention ○ Motivation <ul style="list-style-type: none"> ■ Rewards ■ Inconvenience
--	--

24

24

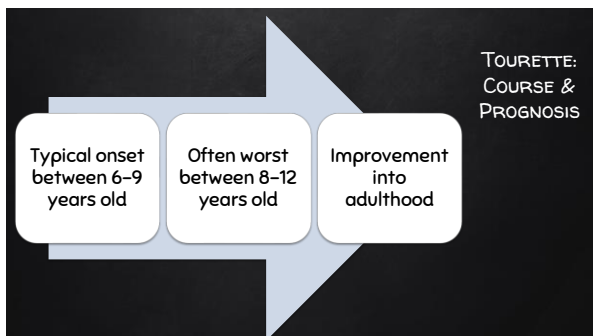
PSYCHOEDUCATION

- X Rationale
- X Diagnoses
- X Phenomenology
- X Natural history of tics
- X Social difficulties and co-morbidities
- X Genetics and neurological basis
- X Prevalence

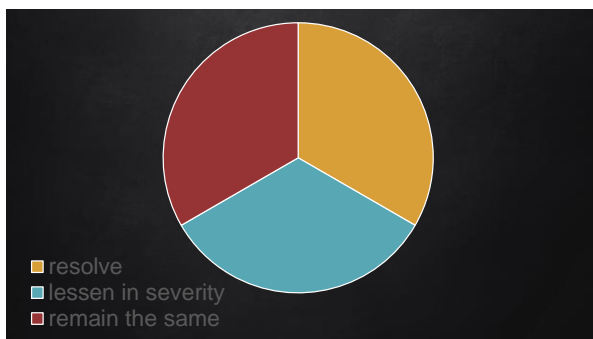


25

25




26




27

TIC HIERARCHY



- X List all tics
- X Rate severity on subjective units of distress scale (SUDS: 1-10)



28

28

TIC HIERARCHY


- X Use to choose order of tics addresses
- X Address weekly
- X Add to the list as necessary each week

29

29

INCONVENIENCE REVIEW

- X Have patients list all of the things they hate about tics
- X Use this as a motivator for the hard work that is required for habit reversal



30

30

BEHAVIORAL REWARD PROGRAM

X Rationale

- To motivate by rewarding EFFORT not SUCCESS

X Points for:

- Attending
- Participating in sessions
- Completing homework

31

31



Functional Behavior Assessment & Intervention

32

32

STEPS

1. Functional assessment
2. Developing interventions
3. Develop plan for implementing interventions

33

33

FUNCTIONAL BEHAVIOUR ASSESSMENT

- X Determine factors that make tics worse
 - o People
 - o Places
 - o Demands
 - o Situations
- X Through interview with parent and child

34

34

CAN CONTROL

CANNOT
CONTROL

CAN CONTROL

Antecedents

Behavior

Consequences

Places/situations
People
Activities
Internal experiences

TICS

Reinforcement
Positive (reward)
Negative (escape)
Punishment

35

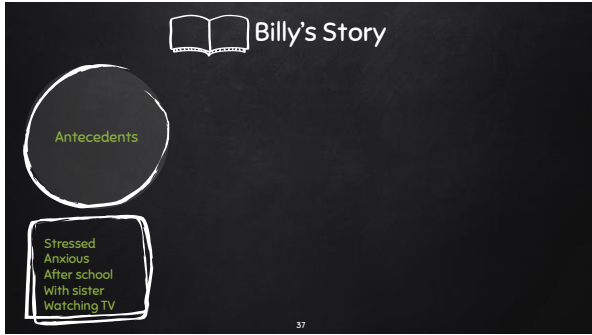
35

Billy's Story

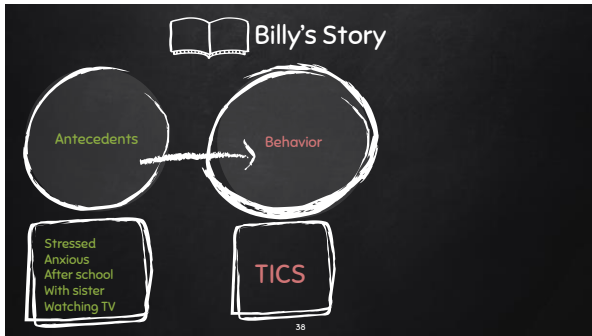


36

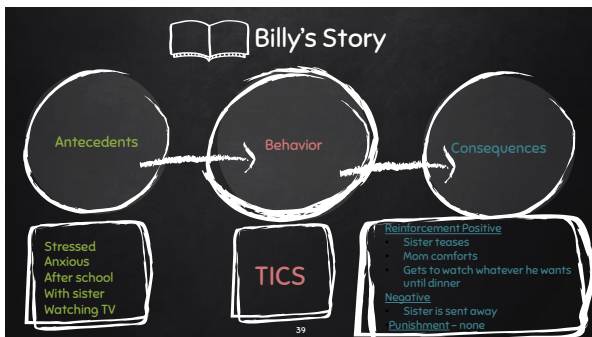
36



37



38



39

EXAMPLES ANTECEDENTS THAT AFFECT TICS

x Emotional states

- o Upset
- o Anxiety
- o Excitement

x Activities

- o Being alone
- o Being in groups
- o Watching TV
- o Talking about tics
- o Stressful life events

40

40

EXAMPLES OF CONSEQUENCES THAT CAN AFFECT TICS

x Increase

- o Adult reactions
 - Comfort
 - Attention
- o Escape
 - Leave the classroom
 - Get out of task at home
- o Peer attention
 - Positive or negative

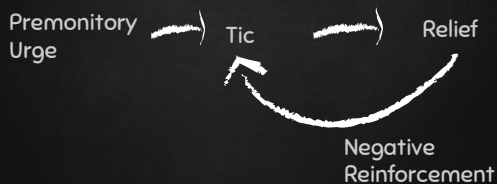
x Decrease

- o Avoid teasing
- o Avoid embarrassment
- o Increase positive participation
- o Avoid providing escapes from unpleasant tasks

41

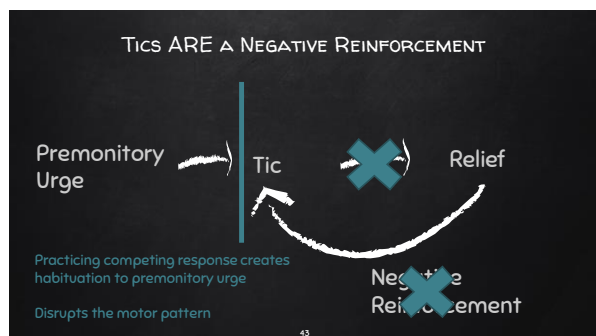
41

TICS **ARE** A NEGATIVE REINFORCEMENT



42

42



43

FUNCTIONAL BEHAVIORAL INTERVENTIONS

- X Helps to control the environment to manage tics
- X Remove reinforcing consequences
- X Minimize or avoid antecedents and exacerbating situations
- X When these situations are unavoidable
 - o Take scheduled breaks when possible
 - o Practice habit reversal
- X Educate teachers and others about tics

44

FUNCTION-BASED INTERVENTIONS FOR BILLY

Antecedents

- X Anxiety
 - o Teach relaxation strategies
- X Watching TV after school in den with sister
 - o Change setting/activity/ person

45

FUNCTION-BASED INTERVENTIONS FOR BILLY

Consequence Reinforcers

- x Sister teases
 - o Antecedent intervention addresses this
- x Mom comforts
 - o Mom does not comfort *at this time*
- x Billy gets to watch what he wants
 - o TV turned off and Billy practices tic management
- x Sister sent away
 - o Sister apologizes and stays

46

EXAMPLE INTERVENTIONS FOR ANTECEDENTS

- Bedtime**
 - Bedtime routines
 - Relaxation practice
- Car Rides**
 - Decrease safety risks (put on child safety locks, have child sit in middle seat)
 - Schedule car rides during low tic times when possible
 - Practice CR
- Classroom**
 - Preferred seating
- After School**
 - 15 minutes of down time before any demands
- Watching TV**
 - Limit time watching TV

47

EXAMPLE CONSEQUENCE INTERVENTIONS

<p>x Social Attention</p> <ul style="list-style-type: none"> o Do not tell the patient not to tic o Do not comfort patient during tics o Do not laugh at patient o Encourage peers not to react to tics 	<p>x Escape</p> <ul style="list-style-type: none"> o Do not ask patient to leave o Require homework/ seatwork completion o Remind to use CR o Must stay in room at bedtime
--	---

48

DEVELOP PLAN FOR IMPLEMENTATION

- X Discuss with parents when and how the intervention will be implemented
- X Discuss potential challenges and make plans for those
- X Provide any training/support necessary for parents to implement the intervention

49

49

RELAXATION TECHNIQUES

- x This is **NOT** part of competing response; it is used to manage anxiety
- x Diaphragmatic Breathing
- x Progressive Muscle Relaxation
- x More about this in session 2



50

50



Habit Reversal Training

51

51

AWARENESS TRAINING

X Rationale

- Cannot change behaviours we are unaware of

X Process

- Self-monitoring
- Response description
- Response detection
- Early warning (premonitory urge)

52

52

SELF-MONITORING

- X Necessary but not sufficient
- X Frequency
- X Day/time
- X Situation

53

53




WARNING

This can make it feel like it makes tics get worse because they are paying more attention to them

54

54



RESPONSE DETECTION

- X Have patient define tic in great detail
 - o All body parts involved, some are far away
 - o Order of movements
- o Sensations
- o Tic signals/premonitory urge

55

55

RESPONSE DETECTION & EARLY WARNING

Response Detection	Early Warning
X Therapist can simulate if necessary	X Patient identifies when they have the urge to tic
X Lift forefinger to acknowledge that they have engaged in a tic	
X Client practice with praise and correction	

56

56

CHOOSE A COMPETING RESPONSE

1. Incompatible with the tic or make it harder to do
2. Less noticeable and less interfering than the tic
3. Can to the competing response anywhere (even in the shower)

57

57

SOCIAL SUPPORT/COACH ROLE

- X Reinforce and prompt use of competing response
- X Praise use of competing response



58

SOCIAL SUPPORT STEPS


- X Identify support person
 - o Usually mom for kids, spouse, housemate, sibling
- X Training to be encouraging not punitive
 - o Permitted one reminder per setting
 - o "don't forget your exercise!"
- X Remember that it is the patient's treatment!!
- X Praise the practice not the success

59

REWARD PROGRAM



60



REWARD PROGRAM

- X CBIT is hard work, and students need external motivation to help when it gets hard
 - o Get points for effort
 - Doing homework
 - Coming
 - Working hard during session
 - o Have child and parent determine what the points can be turn in for
 - Can be non-monitory: stay up later, pick out family movie, etc.
 - o Review weekly

61

61

CBIT PART 2

- X Overview of implementing the program

62

62

REFERENCES

- X Koch, & Blacher. (2007). Evidence-based psychosocial treatments for tic disorders. *Clinical Psychology: Science and Practice*, 4(3), 252-267.
- X Leckman, J. F et al. (1998). Course of tic severity in Tourette Syndrome: The first two decades. *Pediatrics*, 102(1), 14-19.
- X Piacentini et al. (2010). Behavior therapy for children with Tourette Disorder: A randomized controlled trial. *JAMA*, 303(19), 1929-1937.
- X Woods, D. W., et al. (2008). *Managing Tourette Syndrome: A behavioral intervention for children and adults*. New York, NY: Oxford University Press.

63

63
