17th International Conference on Tourette Syndrome & Tic Disorders

Behavioural Therapy Workshops

For participants with basic and advanced training

Wed, 21 May 2025

Eugenides Foundation

ESSTS

European Society for the Study of Tourette Syndrome | essts.org

Plan

Benvenuto
Willkommen!
¡Bienvenido/a!
Bienvenue !
Benvenuto/a!
Bem-vindo/a!
Välkommen!
Hoş geldin!
Witaj!
Selamat datang!

Warm welcome to Behaviour Therapy workshop

Dr. Cara Verdellen
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Dr. Zsanett Tarnok
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Jolande van de Griendt, MSc
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Dr. Tara Murphy
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Basic principles and behavioural techniques for treating Tic disorders

09:00 - The cornerstone of treatment: diagnostics, assessment and psychoeducation

09:25 - Habit reversal training

10:15 Break

10:30 - Exposure and response prevention

11:15 - Function based interventions

11.45 – Questions and closing

Time for a quiz

Jolande van de Griendt, MSc

Quiz…. Question ONE!

What to do if a patients comes to you with tics?

a. Do nothing, tics are quite common (sit down)

a. Immediately start tic treatment (stand up)

a. Do some proper diagnostics and then decide the next step (wave your hands)

a. Something else (jump!)

Quiz…. Question TWO!!

Okay, next step, it seems the diagnosis is Tourette syndrome. What now?

a. Immediately start medication (sit down)

a. Immediately start behavioural therapy (stand up)

a. Give some proper psycho-education (wave your hands)

a. Depending on the question for help (put your hands on your head)

Quiz…. Question THREE!!!

The patient is suffering from his/her tics, so treatment is needed. What treatment do you advise?

a. Immediately start medication (sit down)

a. Immediately start behavioural therapy (stand up)

a. Watch and wait (wave your hands)

a. Depending on the patients preference (put your hands on your head)

Quiz…. Question FOUR!!!!

You decide to start behaviour therapy. Choose below which one is most effective

a. Relaxation treatment (sit down and relax)

a. Habit reversal therapy (stand up)

a. Exposure and response prevention (wave your hands)

a. Massed practice (put your hands on your head)

Workshops 2025 | Behavioural therapy for tic disorders

Wednesday, 21 May 2025

Diagnostics/assessment, psychoeducation

Zsanett Tarnok, PhD

Egyenlito Diagnostic, Therapeutic and Consultancy Center, Budapest, Hungary

clinical psychologist, clinical neuropsychologist

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Diagnosis of TS & Tic Disorders

Definition of a Tic

A sudden, rapid, recurrent, nonrhythmic, motor movement or vocalization.

- Motor and vocal tics
- Simple and complex tics
- Suppressible

Simple motor tics

- **Simple motor tic:**
- Sudden, brief, ‘meaningless’ movement
- Recurs in bouts
- One muscle group

Examples:

excessive eye blinking, nose movements, head shaking, shoulder jerking

Complex motor tics

Complex motor tic:

- Sudden, stereotyped, semi-purposeful movement
- More than one muscle group
- Movement can last longer
- A constellation of movements as facial grimacing together with body movements

Examples:

Touching things, obscene gestures, facial grimacing together with body movements, at the same time sticking out the tongue, head shaking and grimacing, directly followed by a vocal noise

Simple vocal tics

Simple vocal tic:

- Fast, “meaningless” sounds

Examples:

coughing, throat clearing, sniffing,

whistling, animal noises

Complex vocal tics

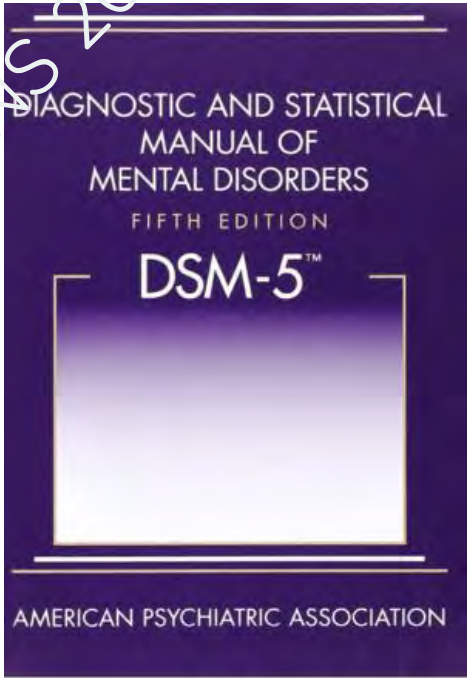
Complex vocal tic:

- Language, words, sentences

Examples:

Syllables, words, coprolalia, echolalia, palilalia, but also blocking or disinhibited speech

Tic disorders – DSM 5.



- Onset before age 18 years, not due to another medical condition/substance

- **Provisional (Transient) tic disorder**
  - Tics last less than one year
- **Persistent (Chronic) motor/vocal tic disorder**
  - Either motor or vocal tics for more than one year
- **Tourette's disorder (TS)**
  - At least two motor tics and one or more vocal tics at least one year
  - Other symptoms and comorbidity
- Tic disorder not otherwise specified
  - Criteria are not met for one of the specific tic disorders
  - E.g., onset >18 years
  - E.g., 5 months tic-free

•DSM 5 Neurodevelopmental disorders – Motor disorders

- Tic definition: 'stereotyped' is removed
- Maximum tic-free interval of 3 months is removed
- Stimulant medication as example of substance induced TS is removed

Assessment Guidelines for TS & Tic Disorders

Difficult to capture the tic phenotype

Heterogeneity of tic symptoms

Significant **fluctuations** in tic severity

waxing and waning

Premonitory urges

Tendency of patients to **suppress** tics (especially when in the office with the clinician)

- Significant **influence of environmental factors** on tic expression , course & fluctuations

-**Comorbidity** makes it more complex

Cath et al., 2011

European Child & Adolescent Psychiatry
https://doi.org/10.1007/s00787-021-01842-2

REVIEW

European clinical guidelines for Tourette syndrome and other tic disorders—version 2.0. Part I: assessment

Natalia Szejko[1,2,3] · Sally Robinson[4] · Andreas Hartmann[5] · Christos Ganos[6] · Nanette M. Debes[7] · Liselotte Skov[7] · Martina Haas[8] · Renata Rizzo[9] · Jeremy Stern[10] · Alexander Münchau[11] · Virginie Czernecki[5] · Andrea Dietrich[12] · Tara L. Murphy[13] · Davide Martino[14] · Zsanett Tarnok[15] · Tammy Hedderly[4] · Kirsten R. Müller-Vahl[9] · Danielle C. Cath[16]

Received: 8 March 2021 / Accepted: 30 June 2021

Abstract

In 2011 a working group of the European Society for the Study of Tourette Syndrome (ESSTS) has developed the first European assessment guidelines for Tourette syndrome (TS). Now, we present an updated version 2.0 of these European clinical guidelines for Tourette syndrome and other tic disorders, part I: assessment. Therefore, the available literature has been thoroughly screened, supplemented with national guidelines across countries and discussions among ESSTS experts. Diagnostic changes between DSM-IV and DSM-5 classifications were taken into account and new information has been added regarding differential diagnoses, with an emphasis on functional movement disorders in both children and adults. Further, recommendations regarding rating scales to evaluate tics, comorbidities, and neuropsychological status are provided. Finally, results from a recently performed survey among ESSTS members on assessment in TS are described. We acknowledge that the Yale Global Tic Severity Scale (YGTSS) is still the gold standard for assessing tics. Recommendations are provided for scales for the assessment of tics and psychiatric comorbidities in patients with TS not only in routine clinical practice, but also in the context of clinical research. Furthermore, assessments supporting the differential diagnosis process are given as well as tests to analyse cognitive abilities, emotional functions and motor skills.

Keywords Tics · Tourette syndrome · Assessment · Scales

Yale Global Tic Severity Scale (YGTSS; Leckman et al., 1989)

The Yale Global Tic Severity Scale: Initial Testing of a Clinician-Rated Scale of Tic Severity

JAMES F. LECKMAN, M.D., MARK A. RIDDLE, M.D., MAUREEN T. HARDIN, M.S.N., SHARON I. ORT, R.N., M.P.H., KAREN L. SWARTZ, B.S., JOHN STEVENSON, PH.D., AND DONALD J. COHEN, M.D.

Abstract. Despite the overt nature of most motor and phonic tic phenomena, the development of valid and reliable scales to rate tic severity has been an elusive goal. The Yale Global Tic Severity Scale (YGTSS) is a new clinical rating instrument that was designed for use in studies of Tourette's syndrome and other tic disorders. The YGTSS provides an evaluation of the number, frequency, intensity, complexity, and interference of motor and phonic symptoms. Data from 105 subjects, aged 5 to 51 years, support the construct, convergent, and discriminant validity of the instrument. These results indicate that the YGTSS is a promising instrument for the assessment of tic severity in children, adolescents and adults. *J. Am. Acad. Child Adolesc. Psychiatry*, 1989, 28, 4:566–573. **Key Words:** clinical rating instrument, motor and phonic tics, Tourette's syndrome.

Administration

- A semi-structured interview
- The YGTSS assesses symptoms over the **past week** (and also assesses symptoms from the past)
- The clinician-administered measure can be conducted with the parent and child together or separately
- It usually takes 20-30 minutes
- The clinician weigh information from multiple respondents and adjust ratings based on behavioral observations, clinical judgement and other sources of

Premonitory Urge for Tics Scale-PUTS

	Not at all	A little true	Pretty much true	Very much true
Right before I do a tic, I feel like my insides are itchy				
Right before I do a tic, I feel pressure inside my brain and body				
Right before I do a tic, I feel 'wound up' or tense inside				
Right before I do a tic, I feel like something is not 'just right'				
Right before I do a tic, I feel like something isn't complete				
Right before I do a tic, I feel like there is energy inside my body that needs to get out				
I have these feelings almost all the time before I do a tic				
These feelings happen for every tic I have				
After I do a tic, the itchiness, energy, pressure, tense feelings or feelings that something isn't 'just right', at least for a little while				
I am able to stop my tics, even if only for a short period of time				

Other tic-related instruments

- GTS- Quality of Life (GTS-QOL, Cavanna et al., 2008; Su et al., 2016)
- 28 items, 5-point scale

In the last 4 weeks have you	No Problem	Slight Problem	Moderate Problem	Marked Problem	Extreme Problem
1. Been unable to control all your movements?					
2. Had difficulty with daily life activities or hobbies (e.g. cooking, writing)?					
3. Suffered from pain or physical injuries as a result of your tics?					
4. Felt troubled by noises you could not stop making?					
5. Been worried about using swear words you did not mean to say?					

Measuring comorbidity

- **OCD**
  - (Childrens) Yale-Brown Obsessive-Compulsive Scale (C)Y-BOCS
- **ADHD**
  - Swanson, Nolan and Pelham questionnaire (SNAP, Harlan et al., 1999)
  - (Children's version of the) Connors ADHD Rating Scale (CAARS, Conners et al., 1999)
- **Autism**
  - Social Responsiveness Scale (SRS, Constantino et al., 2003)
  - Autism Questionnaire (AQ, Baron-Cohen et al., 2006)
  - ASSQ Screening for Autism Spectrum Disorders (Ehlers & Gilberg, 1993)

A patient comes to you…. What do you ask??

- Demographics

- When did it start?
  - Age at onset tics/OCD/ADHD
  - Age at worst period ever
  - Waxing/waning

- What kind of tics now & in the past
- Premonitory urges? Can tics be suppressed?
- Comorbidity?
- Impact of tics?
- Pain?
- Infections (throat, ear): PANDAS?
- Do family members have tics/OCD/ADHD?

Psychoeducation

Most common questions from parents of a patient

„What is a tic and what causes them?”

„What can we expect now for my child?”

„Will my child’s tics ever go away?”

“How can we help our child manage the tics so they can have a normal life?”

Recommendation

European Child & Adolescent Psychiatry (2022) 31:403–423
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REVIEW

European clinical guidelines for Tourette syndrome and other tic disorders—version 2.0. Part II: psychological interventions

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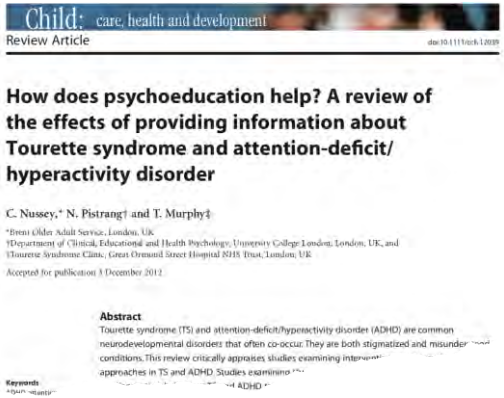
The European guidelines recommends embedding each treatment within a psychoeducational and supportive context



Child: care, health and development

Review Article

How does psychoeducation help? A review of the effects of providing information about Tourette syndrome and attention-deficit/ hyperactivity disorder

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Accepted for publication 3 December 2012

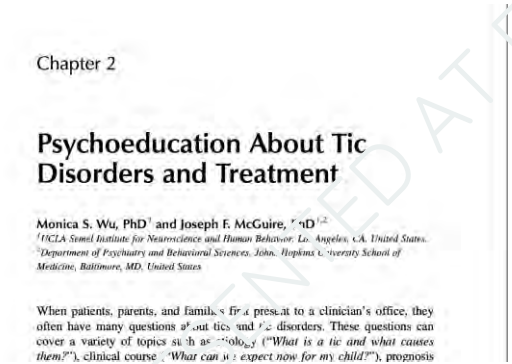
Abstract

Tourette syndrome (TS) and attention-deficit/hyperactivity disorder (ADHD) are common neurodevelopmental disorders that often co-occur. They are both stigmatized and misunder- conditions. This review critically appraises studies examining interven- approaches in TS and ADHD. Studies examining [illegible] ADHD.

Keywords [illegible]

Effectiveness of PE

- Needs to be measured differently
- Has nontypical effects
- not directly affect tic severity
- But is essential in therapy
- Evidence of what specific elements to address is missing



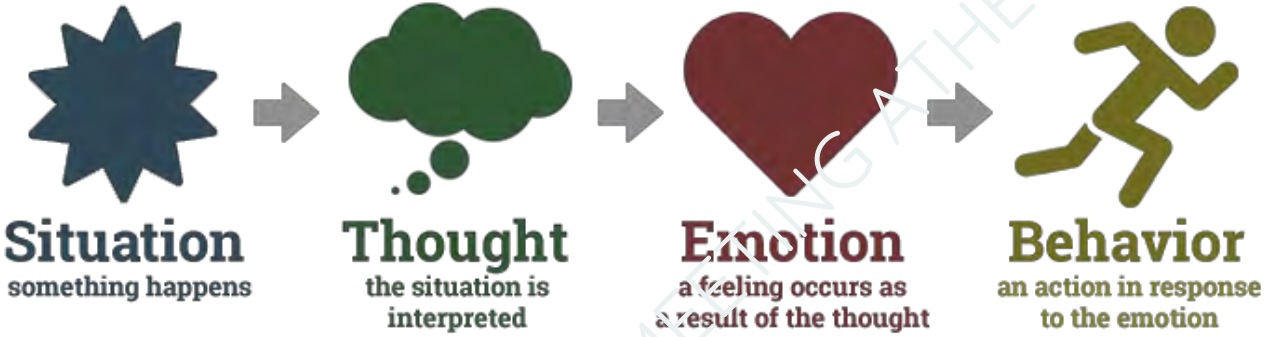
Chapter 2

Psychoeducation About Tic Disorders and Treatment

Monica S. Wu, PhD[1] and Joseph F. McGuire, PhD[1,2]

[1]UCLA Semel Institute for Neuroscience and Human Behavior, Los Angeles, CA, United States. [2]Department of Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine, Baltimore, MD, United States

When patients, parents, and families first present to a clinician's office, they often have many questions about tics and TS disorders. These questions can cover a variety of topics such as etiology ("*What is a tic and what causes them?*"), clinical course ("*What can we expect now for my child?*"), prognosis



Treatment of tics is severity-dependent

In case of very mild tics or lack of services psychoeducation alone may also be useful

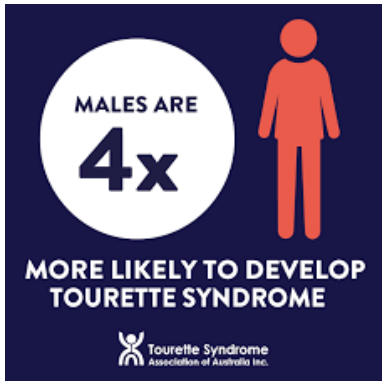
Not all tics need to be treated!

When?

- Right after the diagnosis

For who?

- Patient (child,adult)
- Parents / partner
- Siblings
- Teachers
- Classmates
- Relevant others



What?

- Prevalence

Prevalence

- 5-8% of school aged children has tics
- Prevalence Tourette syndrome: 1% of children 5-18 years old; Lower in African & African-american population (Robertson, 2008)
- Male-female = 3 : 1
- 40-60% has comorbid ADHD
- about 30% has comorbid OCD
- about 15% has comorbid ASD

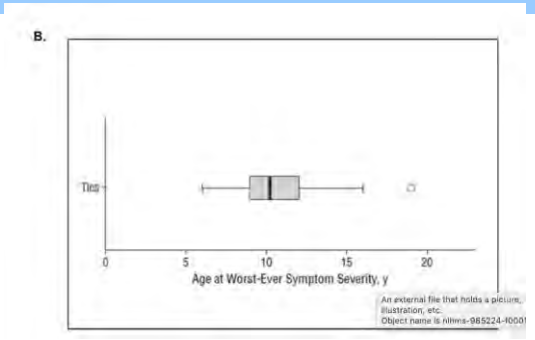
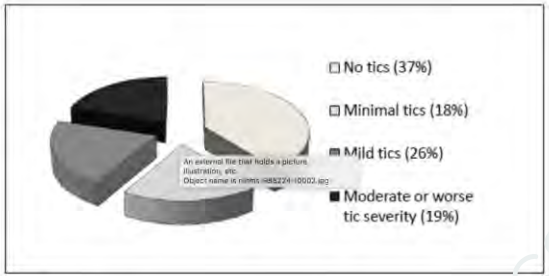
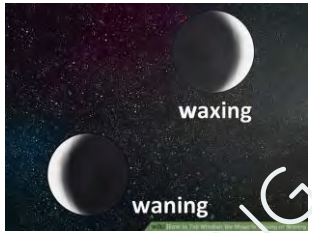


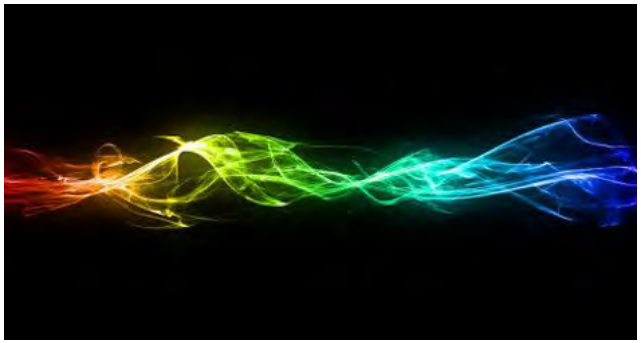
Figure 2.



Tic Outcomes in Early Adulthood.

Tic severity in early adulthood (N=82). Adulthood tic severity class is defined by Yale Global Tic Severity Scale [Total Tic Score] (YGTSS): no tics (YGTSS: 0), minimal tics (YGTSS: 1–9), mild tics (YGTSS: 10–19), moderate or greater tics (YGTSS: ≥20). By contrast, all individuals had moderate or greater severity tics in childhood. Less than 5% of individuals reported having worse adulthood tics than in childhood. Adapted from Fig 2. in Bloch & Leckman [7].



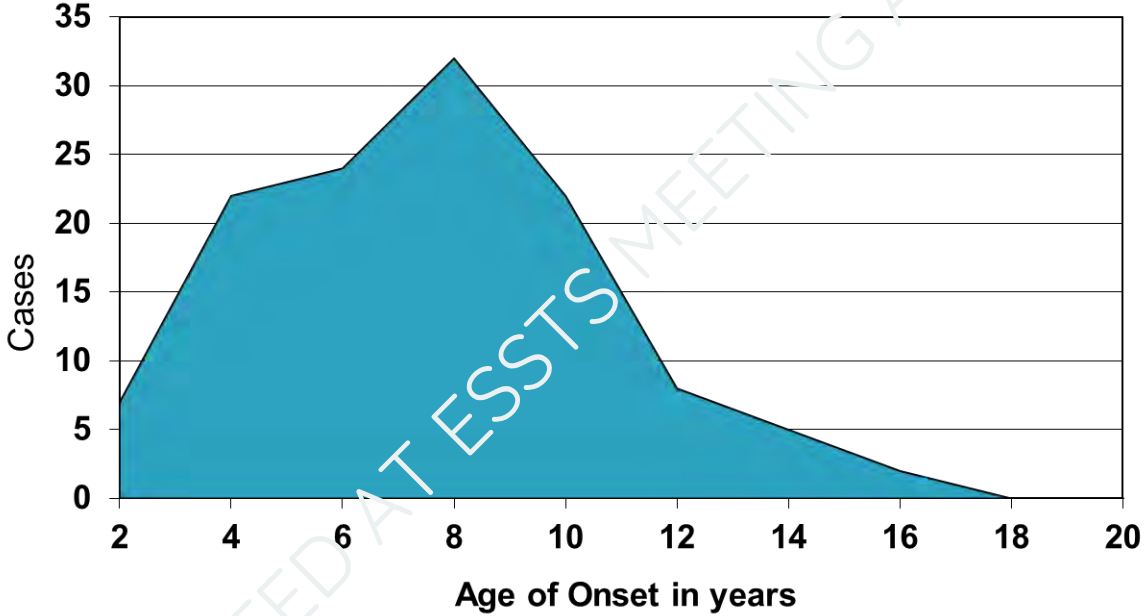


What?

- Symptoms and natural history of TS
- Explain that tics can wax and wane over time, and the role of stress and fatigue in moderating these fluctuations

(Leckman, 2014)

Age of Onset of Tics



(Leckman, 2000)

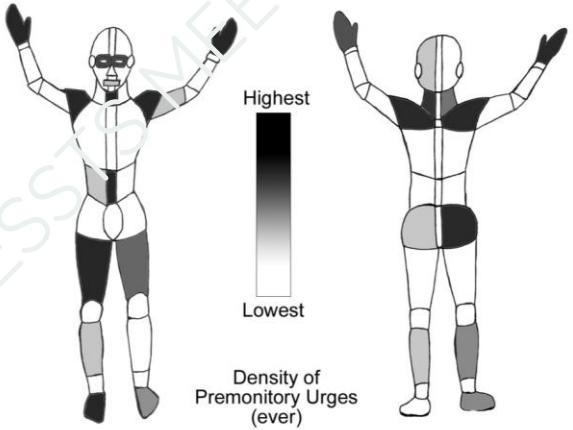
What?

- Types of tic disorders (DSM-5)
- Types of tics
- Differential diagnosis of repetitive behaviors

What?

- Internal factors: premonitory urges, stress, anxiety
- External factors: fatique, motor activities, social situation

(Leckman 1993)



Tourette syndrome and other tic disorders. Graphic shows the relative likelihood of lifetime sensory tics in a given region, as based on self-report of patients with Tourette syndrome. Overt tics are distributed similarly.

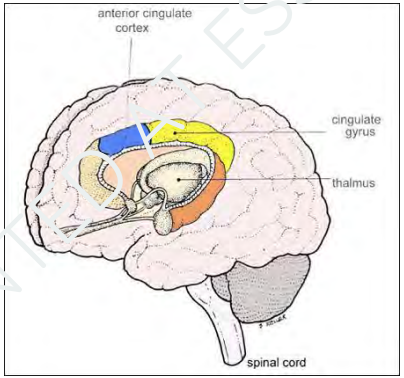
What?

- Comorbidity

What?

- Causes of Tourette Syndrome

EMTICS
European Multicentre Tics Study

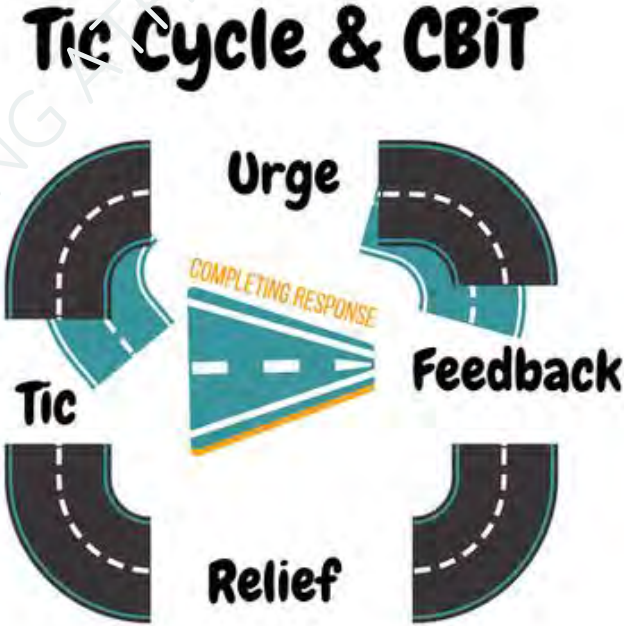


Am J Psychiatry. 2019 Mar 1;176(3):217-227

What?

- Treatment

- Provide patients and families with a clear understanding of the natural history and therapeutic options available for tics
- Pharmacotherapy
- Behavioral therapy



How?

- Provide families with the adequate knowledge necessary to discuss their children's tics with peers, teachers, and school administrators

How?

- Educate parents on the effects of different emotional reactions to their children's tics.
- Concept of „tic-neutral environment"

How?

- Discuss the impact of tics on social, academic, or professional activities

How?

- Encourage patients and families to focus on the individual's strengths and interests while sustaining efforts to better manage tics and related disorders

How?

- Increase parents' awareness of the dynamics of stigma and discriminating attitudes toward tics within the school environment

How?

- Wherever necessary and feasible, direct the psychoeducational intervention toward the school through focused meetings in order to prevent stigma and discrimination

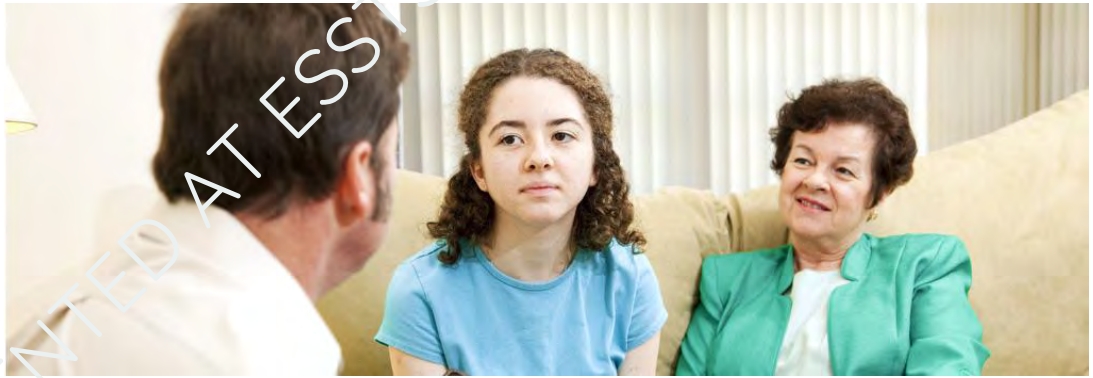
Common misconceptions

Wu and McGuire, 2018

- All children with TS curse?
- Talking about tics or focusing attention on tics makes tics worse.
- Tic suppression leads to an increase in tic frequency.
- If my child can suppress his/her tics, then he/she should be able to do it all the time.
- Targeting tics with behavior therapy will make other tics or symptoms worse.
- Behavior therapy and pharmacotherapy will make tics go away.
- Once the tics go away, my child will no longer have any more problems.

Forms of PE

- Individually to patient / family

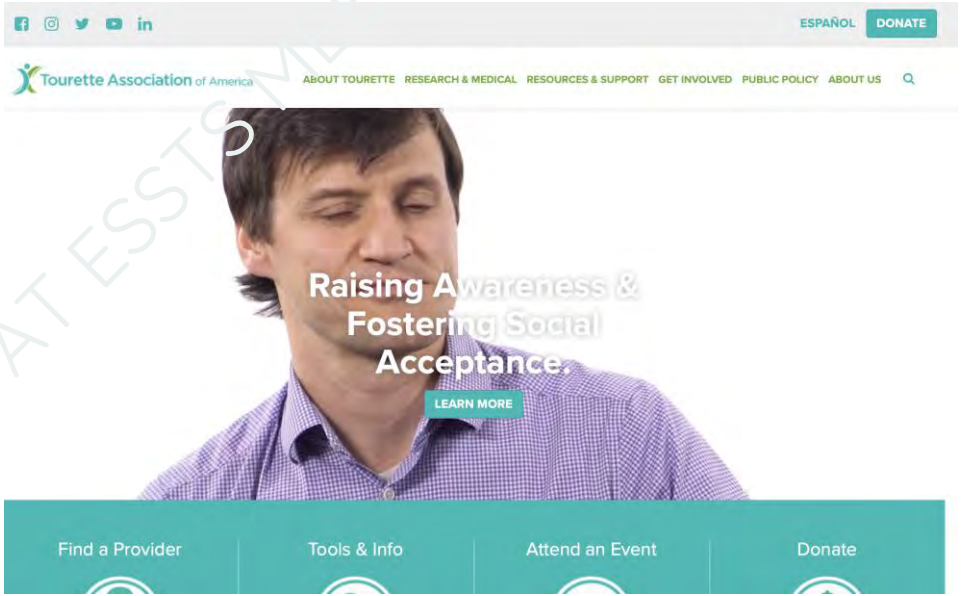


Forms of PE

- In group (support group, parents group)

Forms of PE

- Presentations



Some examples of tics

JUMPING

Blinking

Coughing

Shrugging

touching

sniffing, sn, sn

,, ,, ,,,

twirling

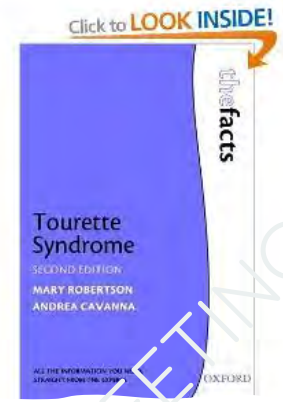
hair flicking

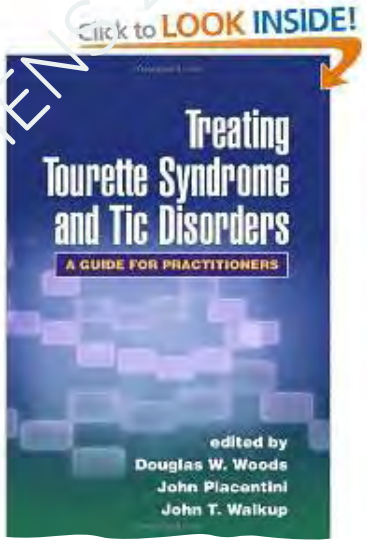
nodding

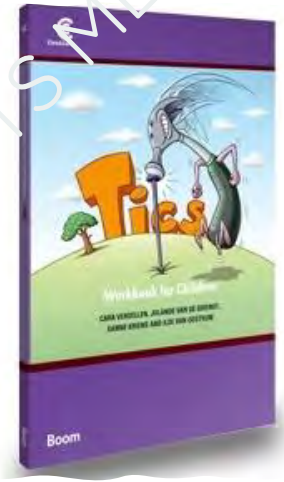
,,,,,,,, clicking, AHEMclearing your throatAHEM saying the same word over and over over and over over and over over and over over and over over and over over and over over and over over and over over and over over and over over and over over and over over and over AND OVER AND OVER AND OVER AND OVER AND OVE

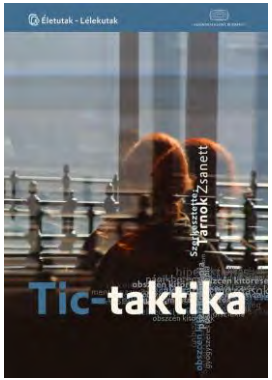
Forms of PE

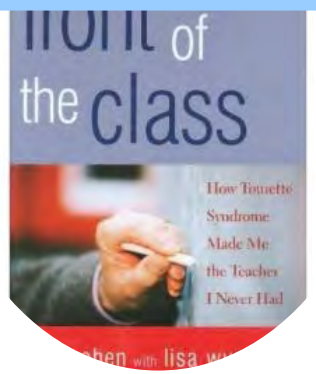
- With workbooks – also as the first phase of CBIT (Cara Verdellen, Jolande Van De Griendt et al.: Tics)

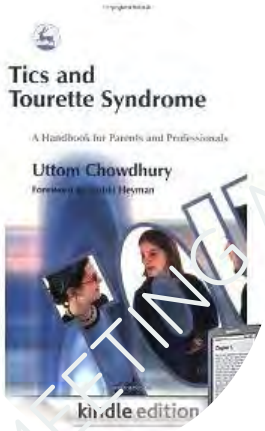


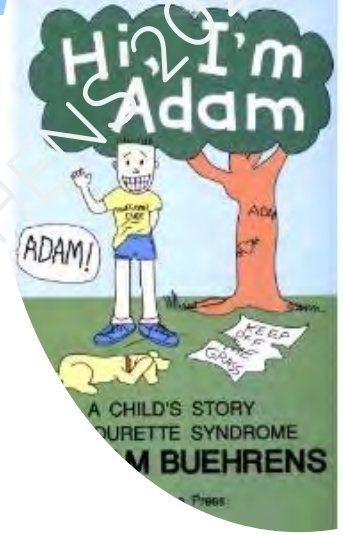


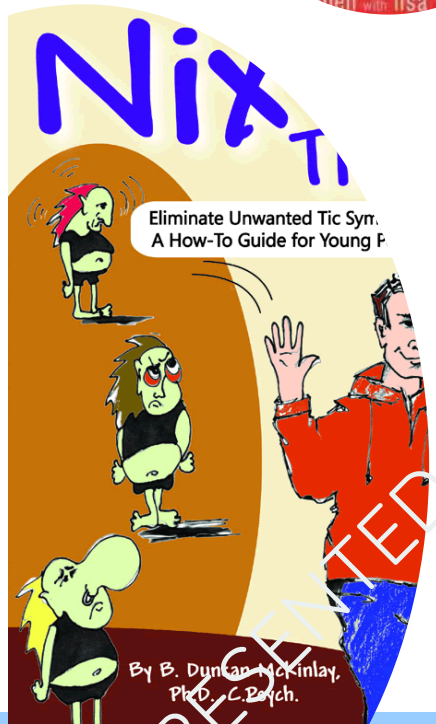




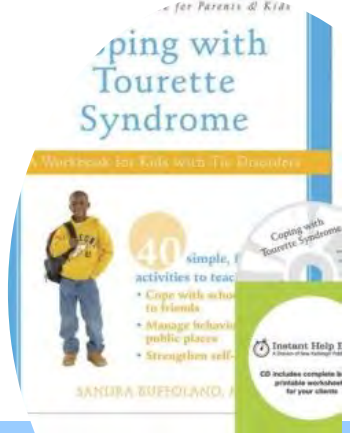


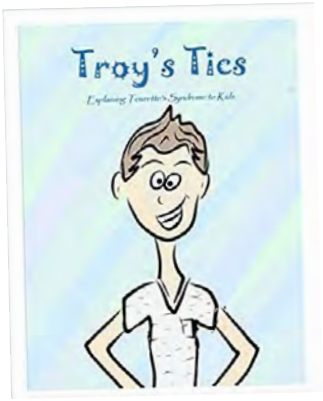


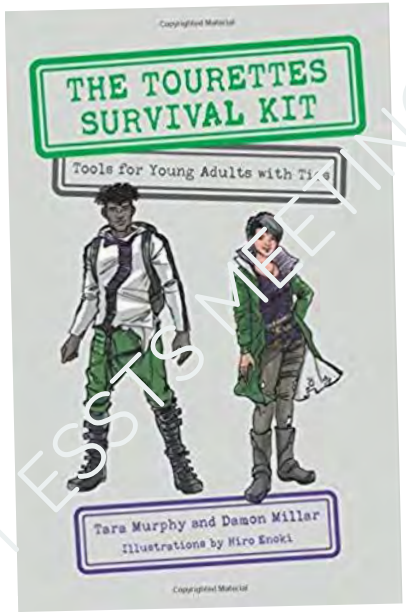


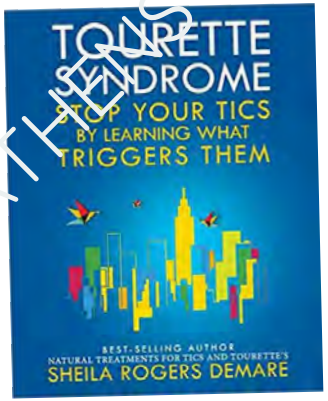


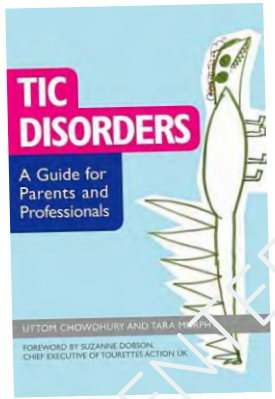
Forms of PE

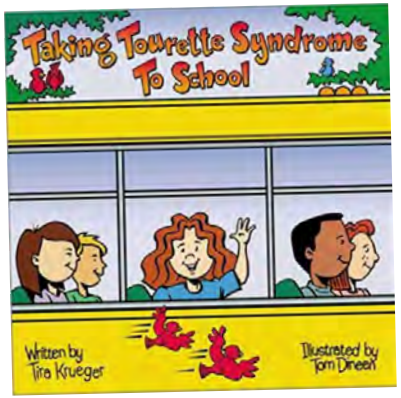






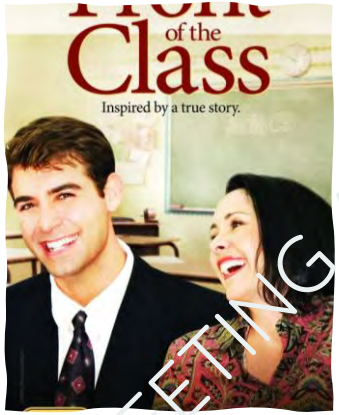


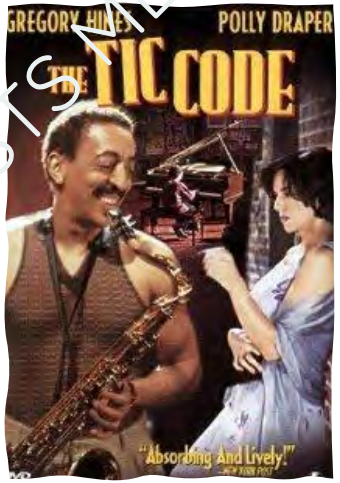


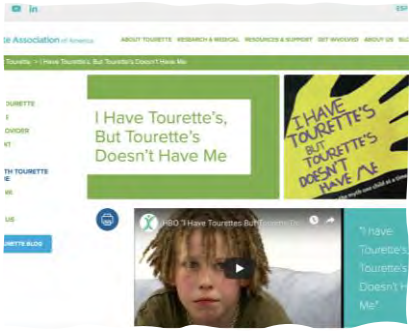


Forms of PE

- Videofootage

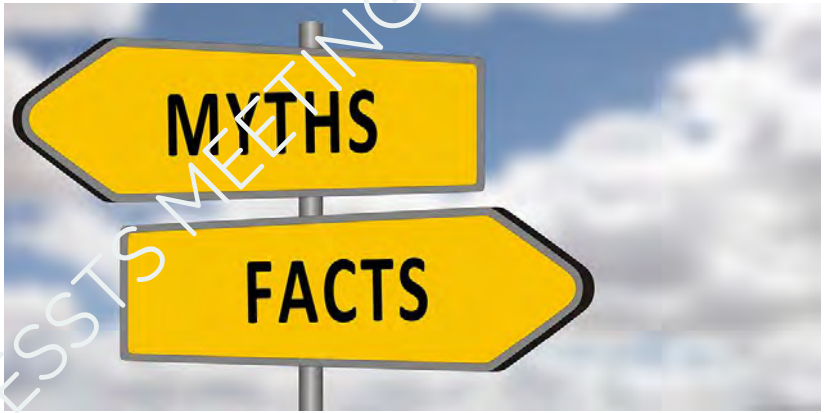






Main message

- Give information about the natural course of TS and complex etiology
- Reduce guilt about the symptoms
- Provide support (therapy, patient organizations)
- Dispel myths in order to reduce stigma and uncertainty about TS



Misunderstood (Tourette's Action)

https://www.youtube.com/watch?v=3OhuNoERSHY

Habit Reversal Training

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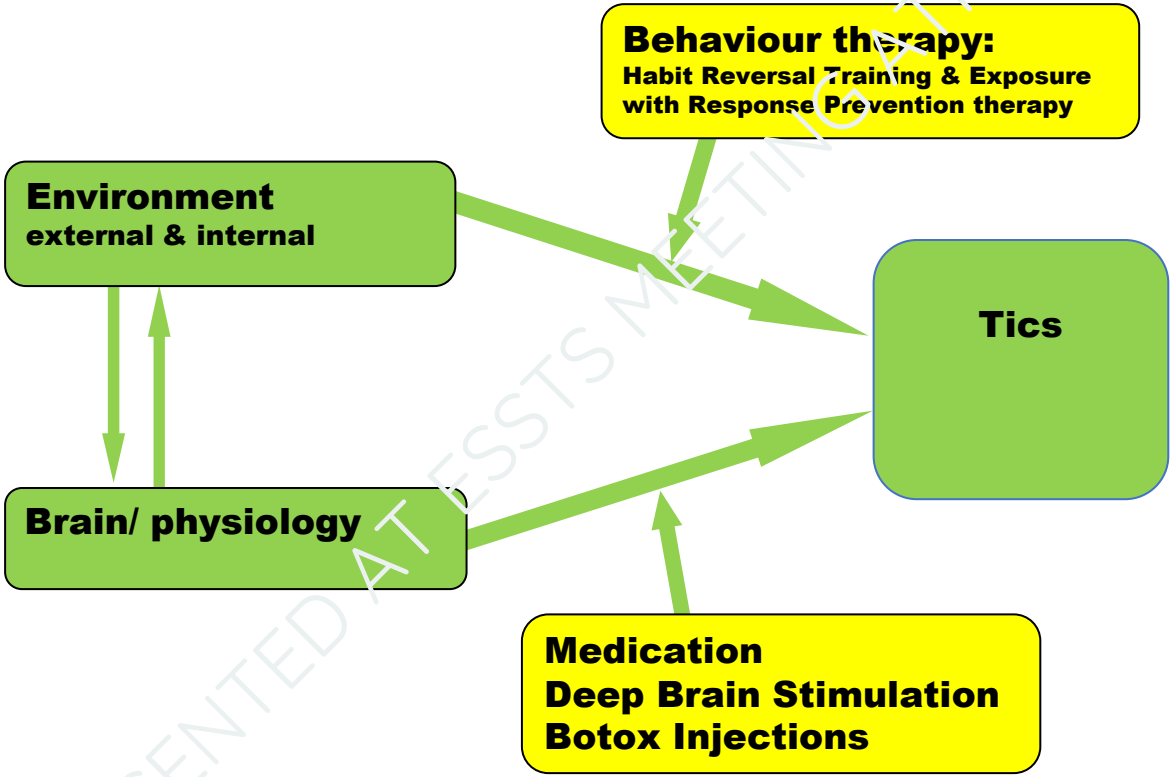
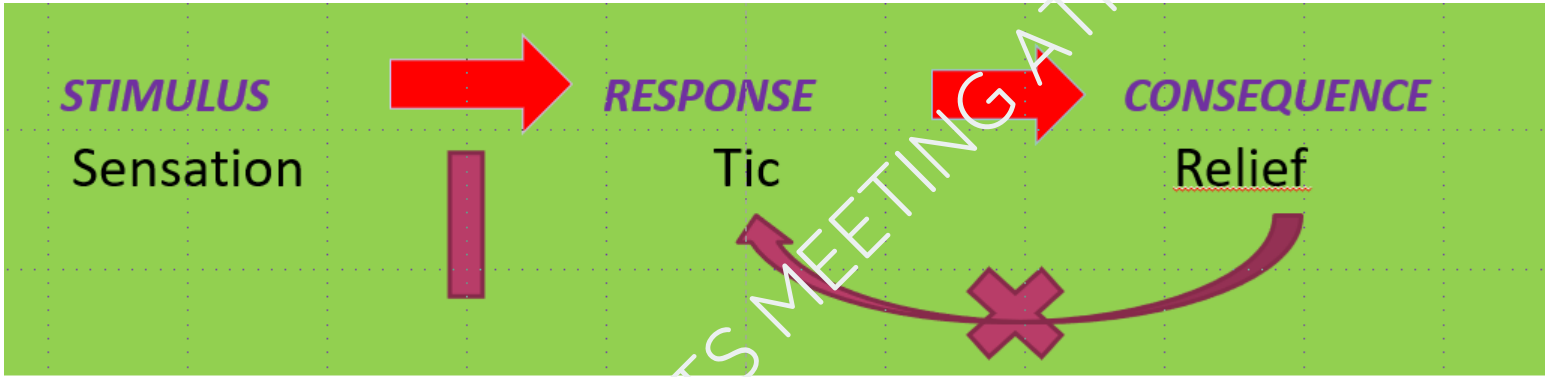
Treatment of tics



Negative Reinforcement Theory



- Habit reversal training (HRT):
  - Treats tics one by one
  - Awareness training and competing response training

- Exposure and Response Prevention (ERP)
  - Treats all tics at once
  - Prolonged exposure to the sensations while controlling all tics

Does behaviour therapy for tics work??

NO

You can leave the room now or stay and learn rubbish today

YES

Stay tuned!!

Updated European Guidelines (ECAP, 2021)

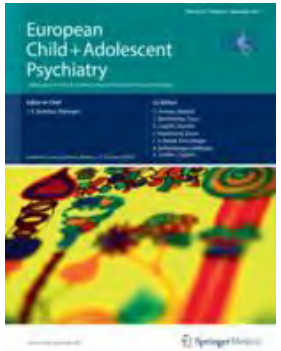
European Child & Adolescent Psychiatry
https://doi.org/10.1007/s00787-021-01845-z

REVIEW

European clinical guidelines for Tourette syndrome and other tic disorders—version 2.0. Part II: psychological interventions

Per Andrén[1] · Ewgeni Jakubovski[2] · Tara L. Murphy[3] · Katrin Woitecki[4] · Zsanett Farnok[5] · Sharon Zimmerman-Brenner[6] · Jolande van de Griendt[7] · Nanette Mol Debes[8] · Paula Viefhaus[4] · Sally Robinson[9] · Veit Roessner[10] · Christos Ganos[11] · Natalia Szejko[12,13,14] · Kirsten R. Müller-Vahl[2] · Danielle Cath[15] · Andreas Hartmann[16] · Cara Verdellen[17]

Received: 9 March 2021 / Accepted: 7 July 2021



European Child & Adolescent Psychiatry
https://doi.org/10.1007/s00787-021-01832-4

REVIEW

European clinical guidelines for Tourette syndrome and other tic disorders: summary statement

Kirsten R. Müller-Vahl[1] · Natalia Szejko[2,3,4] · Cara Verdellen[5,11] · Veit Roessner[6] · Pieter J. Hoekstra[7] · Andreas Hartmann[8] · Danielle C. Cath[9,10]

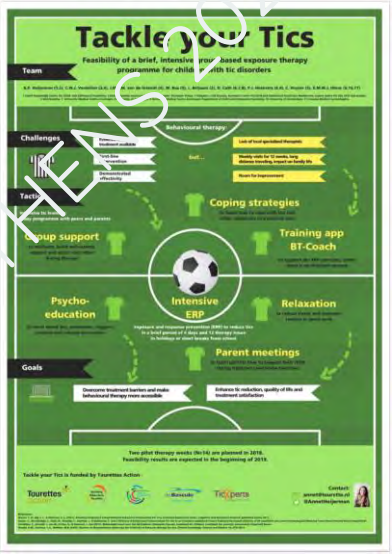
Received: 8 March 2021 / Accepted: 19 June 2021

- Effect sizes of 0.57–0.68
- 30-40 % reduction in tic severity
- Comparable to medication

Modalities of Delivery

BT also works in groups

- Yates et al., 2016
- Zimmerman-Brenner et al., 2021
- Nissen et al., 2019
- Bekk, 2023
- Heijerman-Holtgrefe et al., 2020; 2024



European Child & Adolescent Psychiatry (2019) 28:57–68
https://doi.org/10.1007/s00787-018-1187-z

ORIGINAL CONTRIBUTION

Combined habit reversal training and exposure response prevention in a group setting compared to individual training: a randomized controlled clinical trial

Judith B. Nissen[1,3] · Martin K

Contents lists available at Science

Behaviour Research and Therapy

journal homepage: www.elsevier.com/locate/brat

Shorter communication

Habit reversal training and educational group treatments for children with tourette syndrome: A preliminary randomised controlled trial

Rachel Yates [a], Katie Edwards [b], John King [b], Olga Luzon [a], Michael Evangeli [a], Daniel Stark [c], Fiona McFarlane [c,d], Isobel Heyman [c,d], Başak İnce [e], Jana Kodric [f], Tara Murphy [c,d,*]

European Child & Adolescent Psychiatry
https://doi.org/10.1007/s00787-020-01702-5

ORIGINAL CONTRIBUTION

Group behavioral interventions for tics and comorbid symptoms in children with chronic tic disorders

Sharon Zimmerman-Brenner[1,2] · Tammy Pilowsky-Peleg[3,4] · Lilach Rachamim[1,5] · Amit Ben-Zvi[1] · Noa Gur[3,4] · Tara Murphy[6] · Aviva Fattal-Valevski[7] · Michael Rotstein[7,8,9]

Modalities of Delivery

It also works online

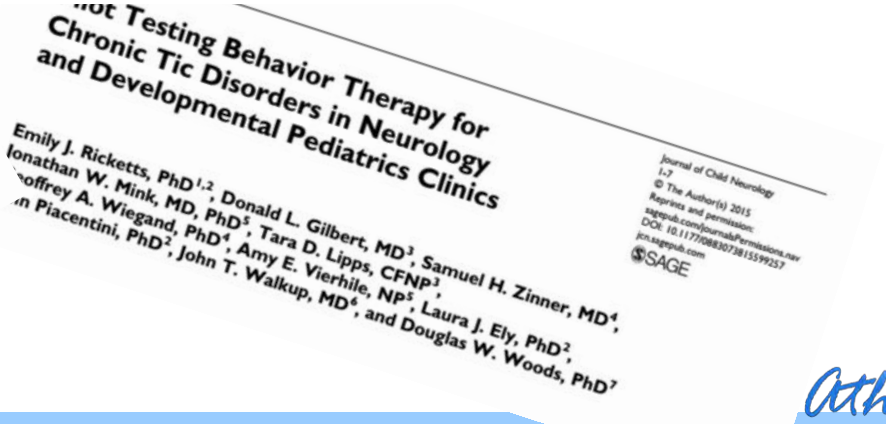
- Himle et al., 2010
- Ricketts et al., 2012
- Andren et al., 2019, 2022, 2024
- Hollis et al, 2021
- Rachmamim et al., 2020, 2022
- Capriotti et al, 2024

Modalities of Delivery

And without therapists (but it appears with reduced efficacy!)

- Jakubovski et al., 2018
- Haas et al., 2022
- Singer et al., 2020
- Tichelper.com
- BT-Coach

- Child Neurology and Developmental Pediatrics Clinics (Ricketts et al., 2015)
- Occupation Therapist Delivery (Rowe, Yuen & Dure, 2013)
- Fewer sessions (Chen et al., 2020)
- Intensified (Blount et al., 2014; Heijerman-Holtgrefe et al., 2020; 2024)
- Also works for younger children (CBiT – Junior; Bennett et al, 2021)



More than just CBITs

- ADHD (Greenberg, 2022)
- Music Therapy (Lui, et al 2025)
- Cognitive Psychophysiological treatment (CoPs; Leclerc et al, 2024)

Does behaviour therapy for tics work??

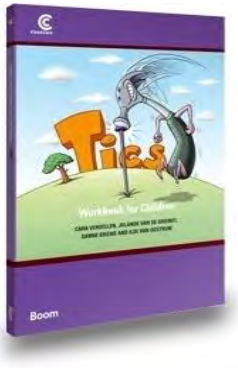
YES

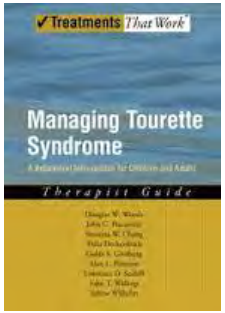
Stay tuned and learn all the basics today!!

Habit Reversal Training (HRT)

- Theory:
  - Awareness of the tic
  - Incompatible response to interrupt or prevent the tic

- Intervention: multi-component (Azrin & Nunn, 1973; CBIT Woods et al., 2008)
  - Awareness training
  - Training the incompatible response
  - Relaxation training
  - Social support
  - Generalisation

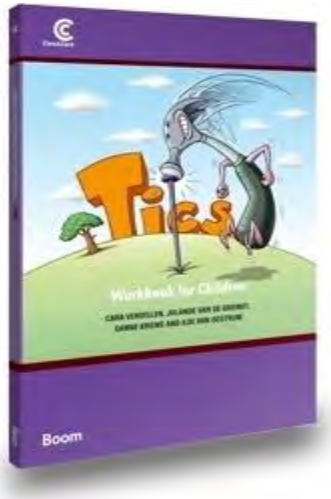




Treatment manual Habit Reversal Training (HRT) for children

CHAPTER 3

- 10 weekly 1 hour sessions
- Treating tics one by one
- Awareness-raising procedure
- Competing response training
- Homework



Make a Tic Hierarchy

- Use the YGTSS list of tics
- Select the **most** bothersome tic from the list
- Understand why it is bothersome to the patient

video on tic list

Awareness Training

- **Purpose**
  - Help client be aware and discriminate the tic
- **Three techniques**
  - Tic Description
  - Tic Detection
  - Early warning (premonitory urge)

Tic Description

Purpose

- To ensure therapist and patient are clear on the tic

Process

- Get the patient to describe the tic in a high level of detail
- Where is the urge?
- What happens first?
- Then what happens?
- Have we missed anything?

Video and/or roleplay
of a “tic description”

Let’s practice “Tic description”

- In groups of two, practice tic description
- Pick a specific tic and describe it detail by detail
- Swap roles!

Tic Detection

- "Tic Catching game": the first one who catches a tic, gets a point!

"What did you have for dinner?" Tic? Raise finger!

Talk about a neutral subject

- Patient tics → Patient acknowledges → Praise patient
- Patient tics → Patient does not notice → Therapist prompts
- Continue until at least 80% correct

- Request that patient simulate tics if he or she is not ticcing
- No controlling of tics!

Video/ roleplay
of tic catching game

Competing Response Training

- **Purpose**
  - Work out a behaviour that is physically incompatible with the tic or that allows the person to do something while they do not tic

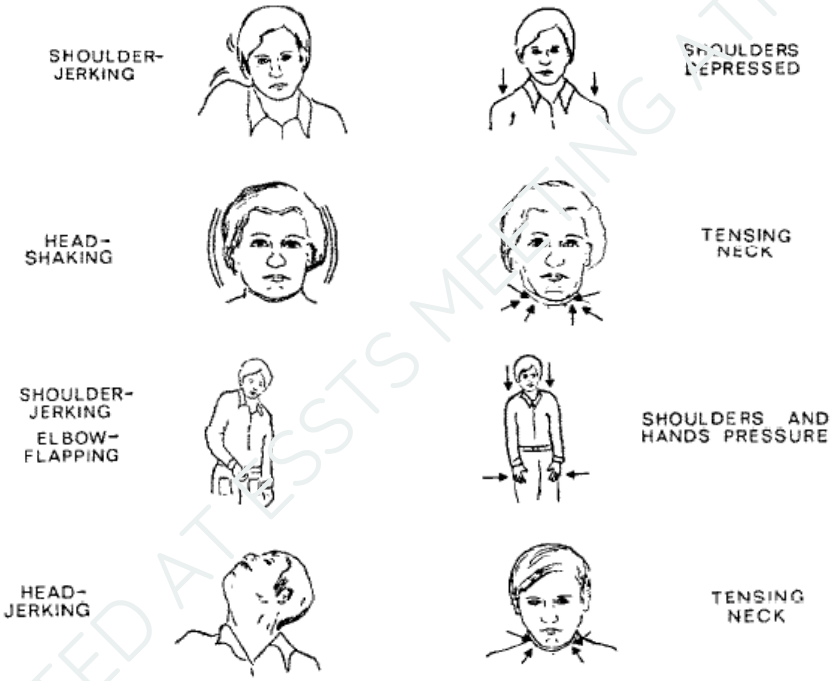
- **Three techniques**
  - Choosing the Tic blocker
  - Therapist tries Tic blocker
  - Patient practices use of tic blocker to mastery

Choosing the Tic Blocker

- **5 Rules for tic blocker**
  1. Incompatible w/ tic
  2. Less socially noticeable than the tic
  3. Patient can do tic blocker almost anywhere
  4. Maintain tic blocker for longer than one minute
  5. Use no props (‘naked in the desert’)

- **Choosing a tic blocker should be a decision between patient and therapist!**
- **Trial and error ;-)**

Competing responses
Motor tics



Vocal tics

Sounds

Breath in and out through the nose without a pause

Sniffing

Breath in and out through the mouth without a pause

Cursing

Breath in and out through the nose without a pause; hold lips tight together

Using the Competing Response

- Have patient demonstrate CR and provide corrective feedback if necessary
- Practice when the urge to tic (tic-alert) is felt
- If tic has started or already has been expressed, also practice the CR
- Practice in sessions and at home
- Depending on the effect, choose a new tic the next session or practice the same tic again

Individual Practices using Tic Blocker

- Have patient use tic blocker and gently give corrective feedback
- Have patient practice implementing tic blocker contingent on actual tic (or if needed, simulated tic)
- Practice when the urge to tic (tic-alert) is felt
- If tic has started or already has been expressed, also practice the competing response!
- Therapist should prompt and praise as appropriate
- Practice in sessions and at home; organise for the patient to engage in everyday conversation, games, tasks etc while developing mastery.
- Depending on the effect, choose a new tic the next session or practice the same tic again

Video and/or roleplay of creating a tic blocker

Let's practice how to explain and design tic blockers

- In the same groups of two, work on the same tic that you practiced awareness training on
- Swap roles!

Helpful tips

- Work towards generalisation: go to park; visit a shop; play games in session; read a book; look at a computer
- Build a hierarchy of places where the patient is motivated to control their tics
- Start with the easiest places and work through the hierarchy
- Train the parent / carer as you train the child
- Explain to partners
- Listen to the patient and hear what they find works well for them
- Eye tics are hard to treat

HRT Videos - https://www.youtube.com/playlist?list=PL1Suwo02Q3YaxkrzV27EGFUIz-fCS55OC

Take home Messages

Now you know:

- That behaviour therapy for tics WORKS!!
- How to apply Habit Reversal Training in Tics
  - How to train awareness
  - How to develop the competing response

Questions?

Thank you for your attention!

Time for a break!!

And please come back for more effective behaviour therapy strategies after the break!!

Workshops 2025 | Behavioural therapy for tic disorders

Wednesday, 21 May 2025

Exposure and response prevention

Cara Verdellen, PhD
Parnassia Group – PsyQ, Nijmegen, the Netherlands
TicXperts - the Netherlands
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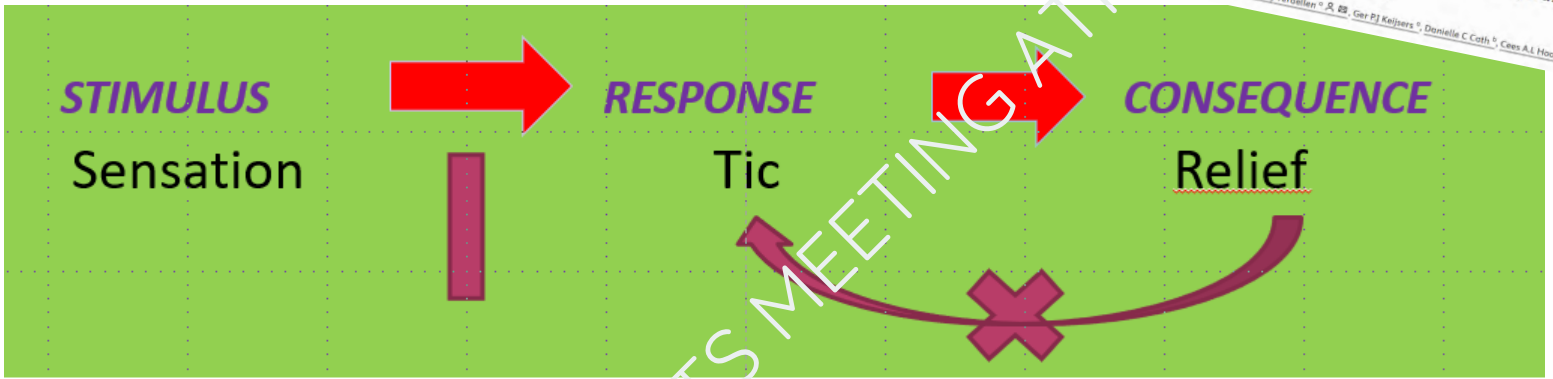
Exposure and Response prevention (ERP)



- ERP targets all tics at once
- Based on breaking the association
- Is it possible to tolerate the urge?

- Intervention: prolongued exposure to the sensations while controlling tics

Open your eyes

Rationale ERP

Resist the tic!

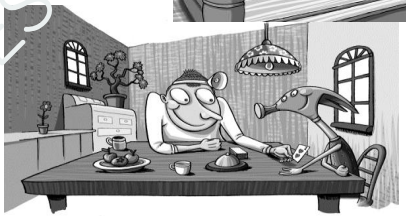
Tolerate the sensation

Phases of ERP

1. Controlling tics

1. Optimising exposure

1. Generalisation



Treatment manual ERP for children

CHAPTER 2

- 2 practice sessions: training response prevention
- 10 sessions: exposure is “added” to response prevention
- Weekly sessions
- Duration of sessions: 1-2 hours
- Homework

1. Practice sessions

- Train to control tics
  - Act like a coach: motivate, encourage, praise!
  - Like a goalkeeper/ learning to run the marathon
- Stop the time as soon as a tic is expressed
- Set new records! Longer times – Less tics

- At this stage, everything is allowed to prevent the tics from occurring

VIDEO response prevention

What if..?

The same tic comes through all the time…	Small tics escaping..	**Patient says it wasn't a tic! 'questionable-tics'**

What if..?

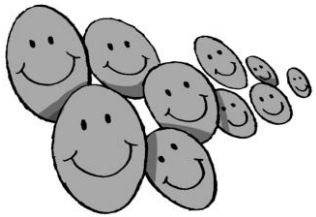
The same tic comes through all the time…	Small tics escaping..	**Patient says it wasn't a tic! 'questionable-tics'**
Focus on that specific tic Control for 5 minutes? Then control all again!	Let them go in the beginning Notice them Count them Try to control them as well	Patient knows best! But… If it wasn't a tic, he can control! Negotiate, count it as 0.5 tic Let it go for now, if it comes again, it may be a tic!

Practice session - Homework

- Homework assignments: when/ how long?
  - -Start: eg 2 x 10 min/day
  - -No distraction!
  - -Negotiate if necessary

- Registration

- Consider a reward system for good practicing



Record form practice sessions

Appendix 2 • Record form practice sessions

Date: _____ Practice session 1 – 2

Client: _____

Time	Expressed tic

Practising response prevention

Practice response prevention of blinking in small groups….

1 therapist:
- Motivate your client to control blinking as long as possible
- Use a timer
- Give lots of positive feedback

1 or more clients:
- Try to stop blinking your eyes as long as possible, and experience what urges come up

Change roles after 2 minutes (or earlier if eyes are sore ;-)

2. Exposure sessions

- Repeat the rationale
- Strive for complete tic control
- No pause – if a tic is expressed, control again!

- Identify tic-alerts (sensations)
- Focus on tic-alerts!
  - Location
  - Use metaphors (‘running mice’, ‘kiwi’)

VIDEO optimising exposure

Focus on tic-alerts!

How to optimise exposure?

Optimising exposure

- Try to provoke urges, without doing tics!

  - Talk about tics and tic-alerts
  - Describe tics and tic-alerts
  - Watch video of (own) tics
  - Mimic the tic

  - Watch out: focus on the tic-alerts!
  - Watch out: response prevention!

Optimising exposure

- Take a tic posture
- Do the beginning of a tic and then stop
- Do the tic in imagination
- Imagine situations, use objects, play games!

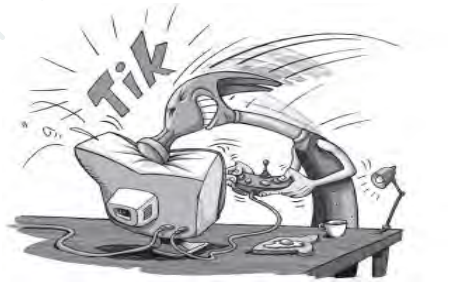
- Watch out: focus on the tic-alerts!
- Watch out: response prevention!

- Give compliments and encourage!

Optimising exposure

- If no tic-alerts are present:
  - Imagine a situation in which the patient has many tics
  - Let the patient bring tic-eliciting objects in the session
  - Go outside!

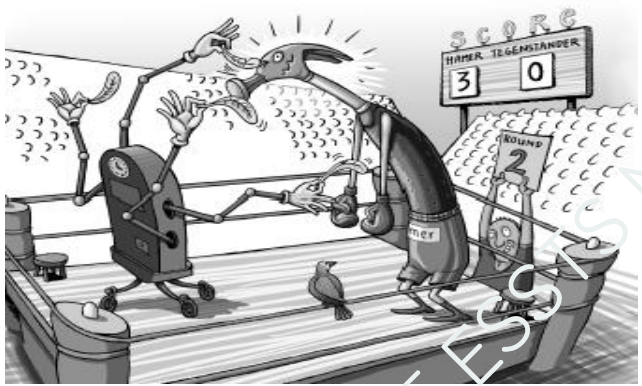
Remember:
-High urges
-No tics!

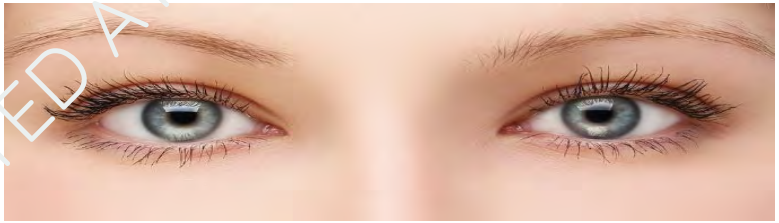


VIDEO optimising exposure

Imagine situations / mimic tics

Practising (optimising) exposure





And then…? Remember the rationale

Resist the tic!

Tolerate the sensation

Working mechanisms? Get the most out of it!

No treatment

URGE → TIC

Behaviour therapy

URGE → NO TIC / URGE → NO TIC

Inhibitory learning: extinction

No treatment

I cannot control my tics / I cannot stand the urge

Behaviour therapy

I CAN control my tics / I CAN endure the urge

Expectancy disconfirmation

3. Enhancing generalisation

More frequent

More situations

More difficult

3. Enhancing generalisation

- Practice ERP in many different situations/ contexts
- Only start this if tics are controlled in the presence of high urges
- For example during reading, walking, eating

- Make a hierarchy

- Are tics still being controlled?
- What about the tic-alerts?

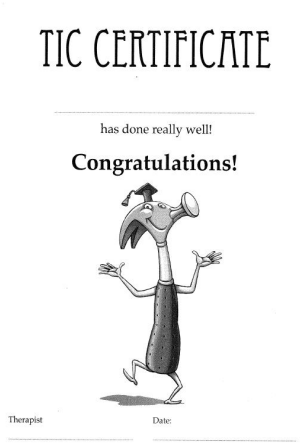
- Make compliments and encourage!

Take home Messages

Now you also know:

- How to apply exposure and response prevention
- How to optimise exposure and get the most out of it
- How to apply generalisation techniques

- How it is to be a TIC THERAPIST!



Questions?

ERP Videos - https://www.youtube.com/playlist?list=PL1Suwo02Q3YbxXVNkTkmvKfZ5jn1IjN7N

Function based interventions

Dr. Katrin Woitecki, behaviortherapist for children and youth

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Function based interventions

- Important aspect of behaviour therapy for tics
- Not in particular tic-specific therapy
- Help the family to understand the concept and be creative

Importance of function based interventions

- If you ask patients concerning the occurence of tics, you will see, that they wax and wane
- It is a natural course of tics

- But:
- Patients do have their own situations when tics increase or decrease

- they are influenced by individual internal and external antecedents and consequences

- Typical situations are:

Typical situations of increasing and decreasing

Internal antecedents:
- Anxiety
- Excitement
- Anger
- Anticipation

External antecedents:
- Specific situations
- Specific activities

Decreasing:
- Being relaxed
- Being in my room
- Listening to music

Most tics when....

(Himle et al., 2014; N=51)

Antecedent:

- Watching TV/videogames (92.2%)
- Coming home after school (88.2%)
- Doing homework (80.4%)
- Being in classroom (78.4%)
- Being in social public places (78.4%)
- Doing sports (72.5%)
- In car (72.5%)

Consequence:

- When told to stop ticcing (72.5%)
- When being comforted (58.8%)

More in general

Exacerbation of tics

- Family stress
- personal relationships stress
- school-related stress

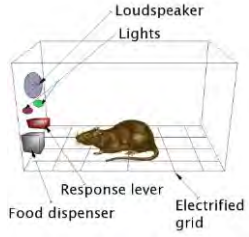
- Managing these stressful events is important in the treatment of Tics

Tan CY, Chiu NC, Zeng YH, Huang JY, Tzang RF, Chen HJ, Lin YJ, Sun FJ, Ho CS. Psychosocial stress in children with Tourette syndrome and chronic tic disorder. Pediatr Neonatol. 2024 Jul;65(4):336-340. doi: 10.1016/j.pedneo.2023.06.011. Epub 2023 Nov 14. PMID: 38000929.

How can we explain this mechanism

Operant conditioning (also called **instrumental conditioning**) is a learning process through which the strength of a behavior is modified by *reinforcement* or punishment.

First extensively studied by Edward L. Thorndike (1874–1949), who observed the behavior of cats trying to escape from home-made puzzle boxes.



B.F. Skinner (1904–1990) is referred to as the father of operant conditioning, using an operant conditioning chamber ("Skinner Box")

How can we explain this mechanism

SD: Response →

Consequence

SD = discriminative stimulus

R = Response = behaviour of the subject

C = Consequence = what happens to the subject AFTER the response

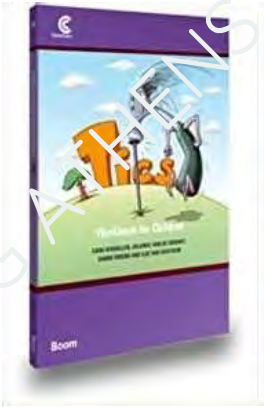
How can we explain this mechanism

FA:

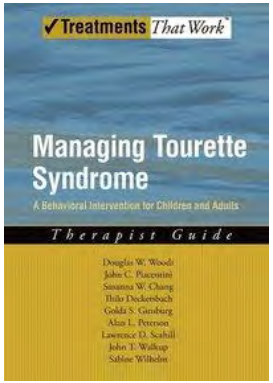
Sd: (Discriminative stimulus)	R (Response) →	Sr (Consequence)
Doing dishes:	Tics increase →	Short term:
finish dishes		- don't have to
a massage		- mother gives me
me cause he dishes		- brother mad at has to finish
		Long term:
		- tics will worsen

What does this mean for therapy?

- **Step 1: Functional assessment**



- **Step 2: Developing interventions**



- **Step 3: Develop plan for implementation**

Antedecents / SD

Sd : R (Response) → Sr (Consequence)

Internal antecedents:

- Anxiety
- Excitement
- Anger
- Anticipation

External antecedents

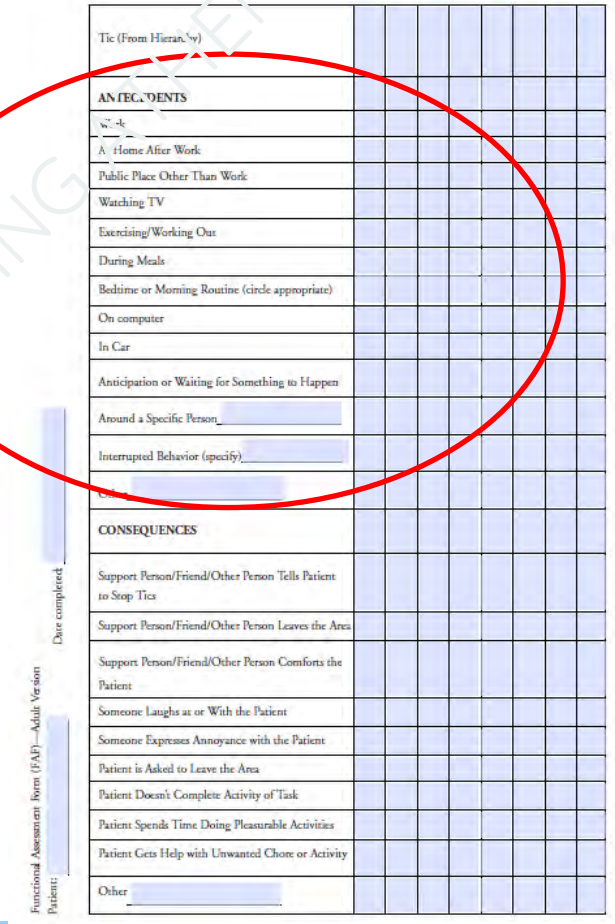
- Specific situations
- Specific activities

Functional Assessment Form

Woods et al, 2008

Check antecedents (SD):

- Classroom/ work
- At home after school/work
- Public place other than school/work
- Watching TV/ Video games
- Playing Sports/ work out
- During meals
- Bedtime or morning routine
- Doing homework
- On computer
- In car
- Other anxiety – thoughts about people judging him
- Anticipation/ waiting for something to happen
- Around a specific person
- Interrupted behaviour (specify)
- Other.....



R (Response)

Sd : R (Response) → Sr (Consequence)

R is often an increase of symptoms:

- More tics
- More severe tics

Sr (Consequences)

Sd : R (Response) → Sr (Consequence)

Often (Woods et al, 2008):

Social Attention

Escape from difficult situations

Consequences (Sr)

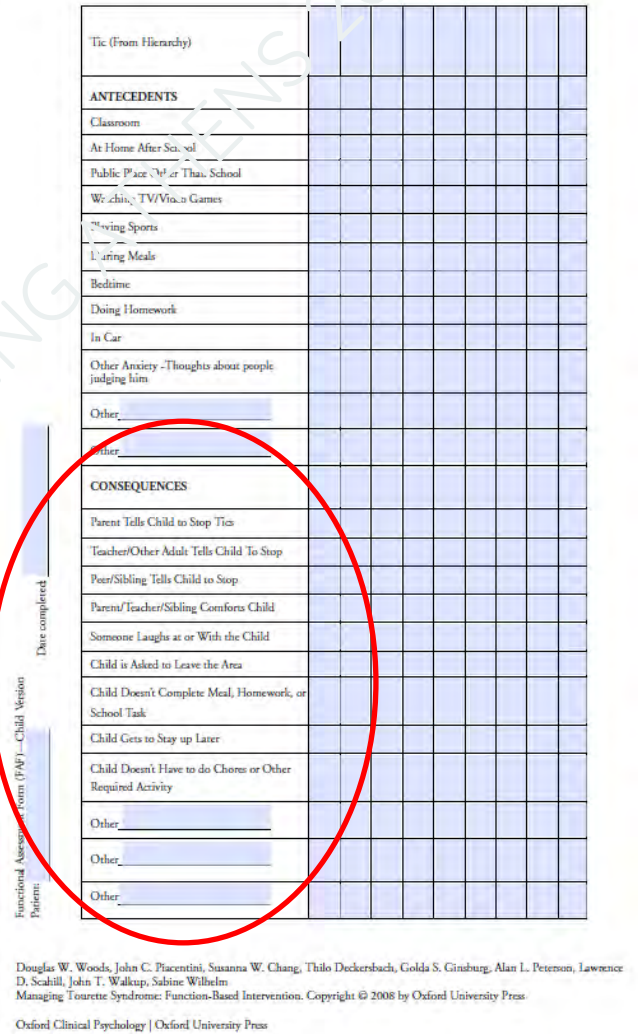
Woods et al., 2008

Social attention

- Someone tells the patient to stop tics
- Someone leaves the area
- Someone comforts patient
- Someone laughs at or with patient
- Someone expresses annoyance with patient
- Patient is asked to leave the area

Escape from difficult situation

- Patient doesn't complete activity or tasks
  e.g. meal, homework, school tasks, chores
- Patient spends time doing pleasurable things
  e.g. stay up later, get a massage
- Patient gets help with required activities
- Patient doesn't have to do required activities



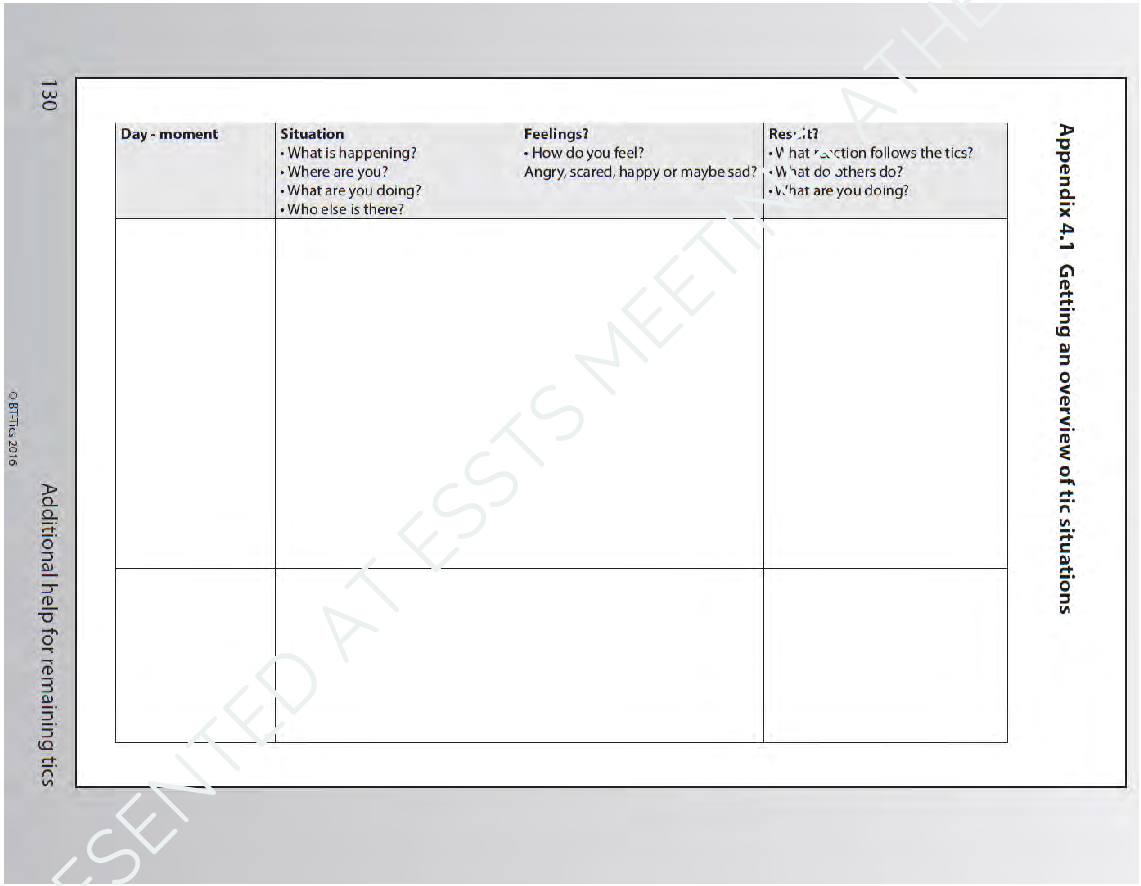
Tic (From Hierarchy)									
ANTECEDENTS									
Classroom									
At Home After School									
Public Place Other Than School									
Watching TV/Video Games									
Playing Sports									
During Meals									
Bedtime									
Doing Homework									
In Car									
Other Anxiety -Thoughts about people judging him									
Other_____									
Other_____									
CONSEQUENCES									
Parent Tells Child to Stop Tics									
Teacher/Other Adult Tells Child To Stop									
Peer/Sibling Tells Child to Stop									
Parent/Teacher/Sibling Comforts Child									
Someone Laughs at or With the Child									
Child is Asked to Leave the Area									
Child Doesn't Complete Meal, Homework, or School Task									
Child Gets to Stay up Later									
Child Doesn't Have to do Chores or Other Required Activity									
Other_____									
Other_____									
Other_____									

Functional Assessment Form (FAF) – Child Version
Patient: Date completed:

Douglas W. Woods, John C. Piacentini, Susanna W. Chang, Thilo Deckersbach, Golda S. Ginsburg, Alan L. Peterson, Lawrence D. Scahill, John T. Walkup, Sabine Wilhelm
Managing Tourette Syndrome: Function-Based Intervention. Copyright © 2008 by Oxford University Press

Oxford Clinical Psychology | Oxford University Press

Self-report form (Verdellen et al., 2011)



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Additional help for remaining tics

Appendix 4.1 Getting an overview of tic situations

Day - moment	Situation • What is happening? • Where are you? • What are you doing? • Who else is there?	Feelings? • How do you feel? Angry, scared, happy or maybe sad?	Result? • What reaction follows the tics? • What do others do? • What are you doing?

Self-report form (Woitecki et al., 2015)

6.9-K Tic History for One Day

Tics can occur with varying degrees of severity or weakness during a day or occur with different frequency. You've probably noticed that too. Please draw your personal tic curve below. To do this, write down the times of the day or various activities of the day. Start with morning and end with evening. On the left side, you can enter the tic strength, e.g. from 0 to 10 or another strength. Then enter how your tics are distributed throughout the day. Even though every day is always a little different, just try to record the course of the tics as best you can.

Time/Activities

6.8-K More frequent or less frequent occurrence of tics

S 1/2

Tics can vary in severity depending on the situation. You should now become your own situation detective and see in which situations your tics vary. Here are a few examples. Make a cross in each matching box. Maybe you can think of more situations. Then think about whether you have any idea why the tics occur more often in some situations than in others.

Tics occur,	Tics are then: stronger/ Common	weaker/ rarer	No change	What could be the reason for this?
in special moods, e.g.:				
• When I'm sad				
• When I'm tired				
• When I'm happy				
• When I'm stressed				
• When I'm bored				
• When I'm teased about my tics				
• _				
when I carry out certain activities, e.g.:				
• when I do sports				
• When I read				
• When I listen to music				
• when I'm doing homework				
• When I Play				
• When I watch TV				
• when I play computer games				
• _				

- **Step 2: Developing interventions**

7. Starving tics for attention

https://www.leakybrakes.ca/brake-shop/brake-shop-virtual-clinic/tic-management-toolbox/

Interventions in Everyday Situations

Minimize or eliminate situations when possible

- If situation cannot be eliminated: what strategies help to relieve tics in these situations?

Examples (Woods et al., 2008; Murphy, 2019 Woitecki, 2015):

Tics in the morning

- Pack schoolbag in the evening; put clothes out; plan enough time

After School Tics

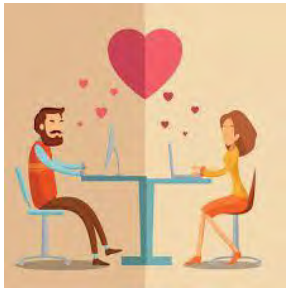
- Provide child 15 min of free time after school before making any requests; after 15 min child should return to family living area; exercise

Watching TV

- Limit amount of time in front of TV / computer games etc

Interventions in Everyday Situations

Interventions for adolescents/ young adults



During dating

- Discuss tics at an early stage
- Avoid tic-eliciting activities just before the date
- Model ignoring tics
- Be cautious with alcohol

Finding a job

- Think about whether you mention Tourette in your application
- Practice interviews so you feel more secure
- Arrive early to avoid stress on the way

(Public) Transport

- Schedule transport during time of day when it is less crowded
- Travel together with people you feel comfortable with
- Use a Tourette's pass

Interventions in Everyday Situations

During Meals

- Eliminate tic-exacerbating activities or stimuli 30 min before mealtime

Bedtime Tics

- Relaxation practice 15 min before bed
- Establish a specific bedtime routine

In-Car Tics

- Seat child in a place where tics will cause the least safety risks
- Schedule car trips during time of day when tics are least likely to happen

Interventions on Consequences

Social attention:

Parents/siblings/teachers/peers/coaches/spouses should…

- No longer tell the patient to stop the target tic
- No longer comfort the patient when target tic occurs
- No longer laugh at the patient when target tic occurs
- Provide specific instructions to peers not to react to the tics
- Educate peers, teachers and relatives about the child's condition

Interventions on Consequences

Escape items:

- The patient should not be encouraged to leave the room for (mild) tics
- Child begins homework after 30 min at home, work until finished
- Parents should prompt the use of tic control
- The child should not be sent from the table
- Practice tic management strategies
- Child must not be allowed to come out of the room after assigned bedtime

Step 3: Develop plan for implementation

- What do I need to implement these changes?
- Who can help?
- How can I remember to do it?

- Start with small steps
- Be kind to yourself, even if it doesn‘t work right away
- Get incouragement through parents/therapist/friends/self

6.10-K Job of the Week

Name: _____ Date: _____

Job of the week (what do I want to change?): _____

When do I do it: _____ Reminder: _____

What is my goal? How can I know that I have achieved it?

Level 0 = Goal not achieved, everything as before, task has not been implemented.

Level 1 = I did the task on the agreed day, but nothing has changed (the tics have remained the same).

Stage 2 = I did the task on the day agreed, and something changed a bit (the tics went down a bit).

Stage 3 = I did the task on the agreed day, and a lot has changed (tics have decreased significantly).

For each day, log which level applies to the day. In addition, you still have space to write down any other comments that you noticed during the implementation of your task.

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

Function-Based Interventions Form

Date Developed: _____ Date Implemented: _____

Target Tic: _____

List specific plausible strategies that can prevent the antecedent situations from occurring or prevent you from encountering them.

1. _____
2. _____
3. _____
4. _____

List specific strategies that could make a situation less likely to worsen tics if the situation cannot be prevented.

1. _____
2. _____
3. _____
4. _____

List ways in which consequences for this tic can be avoided or changed.

1. _____
2. _____
3. _____
4. _____

Take home messages

- Antecedents and consequences have an impact on tic exacerbation
- Try to make small everyday changes
- Be creative
- Try to notice if it has an impact on the patients‘ tics and how they feel

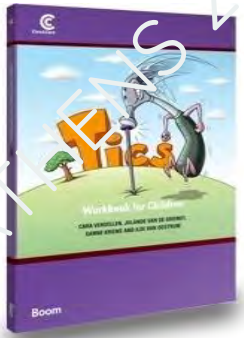
TIC CERTIFICATE

has done really well!

Congratulations!

Therapist

Date:



by the ESSTS Board

Online training events 2025 | Consultations for clinicians delivering behavioural therapy for tics

We are pleased to offer 2-hour consultations for clinicians delivering behavioural therapy for tics to children, adolescents and adults.

Ideally, clinicians attending will have previously undergone the ESSTS conference BT training for beginner and/or advanced participants, or will have similar experience elsewhere before they attend.

The group format enables attendees to learn from one another about behavioural therapy techniques and adaptation for specific pieces of clinical work. There will be an **emphasis on evidence-based treatment** and a **focus on its application in clinic**.

Attendees should be able to describe anonymised casework that they have consent to share, or have technical questions that they would like to explore further and discuss in detail.

When

Event dates for 2025 (all hours in GMT):

- **Tuesday, 27 May 2025**: 18:00-20:00
- **Tuesday, 30 September 2025**: 18:00-20:00
- **Tuesday, 25 November 2025**: 18:00-20:00

Where: online