



Supporting children with ADHD and Tourette syndrome

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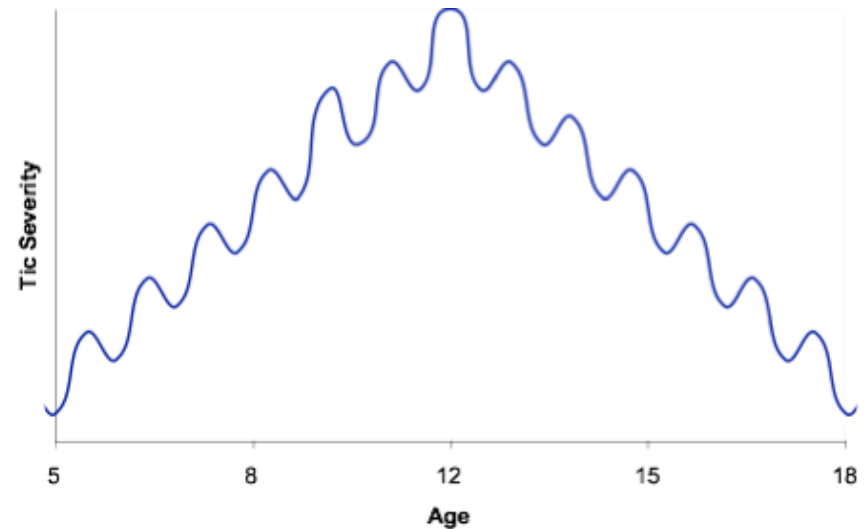
Outline

- Diagnostic Features of Tics
- Tics and common co-morbidities
- Supporting children with tics
 - Psychoeducation
 - Talking therapies for tics – ERP and HRT
 - Support in schools



Diagnostic Features of Tics

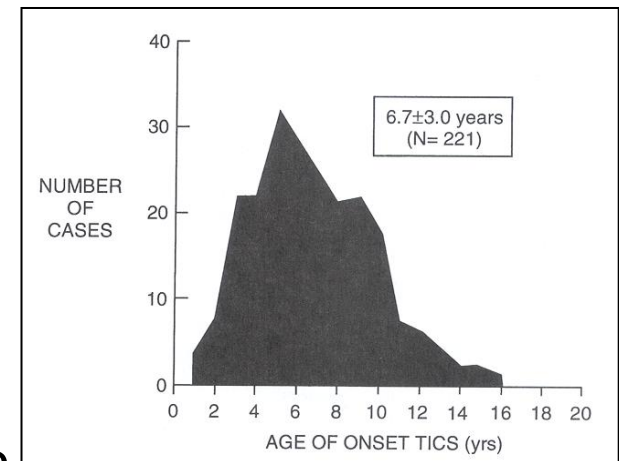
- Involuntary, abrupt, movements or sounds that occur individually or in bouts
- Premonitory urge
- Involuntary, but suppressible
- Waxing and waning course with peak around age 10-13 years



Tics: Epidemiology

- Mean age of onset childhood 5-6 yrs
- Exacerbated by anxiety, stress, fatigue
- Lessened by mental distraction
- Higher than average presence of co-morbid difficulties (Robertson, 2006)

Yale Child Study Centre



Premonitory Urge



Motor Tics

- **Simple Motor Tics:** eye blinking, eye movements, nose movements, mouth movements, facial grimace, head jerks/movements, shoulder shrugs, arm movements, hand movements, abdominal tensing, leg movements, toe movements
- **Complex Motor Tics:** touching, tapping, dystonic or abnormal postures, squatting, jumping, copropraxia (obscene gestures), self-abusive behavior

Phonic Tics

- **Simple phonic tics:** (sounds, noises): throat clearing, sniffing, animal noises
- **Complex phonic tics:** syllables, words, coprolalia (obscene words), echolalia (repeating others words), palilalia (repeating your own words)



M. le Dr GILLES DE LA TOURETTE,
Médecin des Hôpitaux de Paris, directeur en chef
du service médical de l'Exposition de 1900.
Cliché E. Pirou.

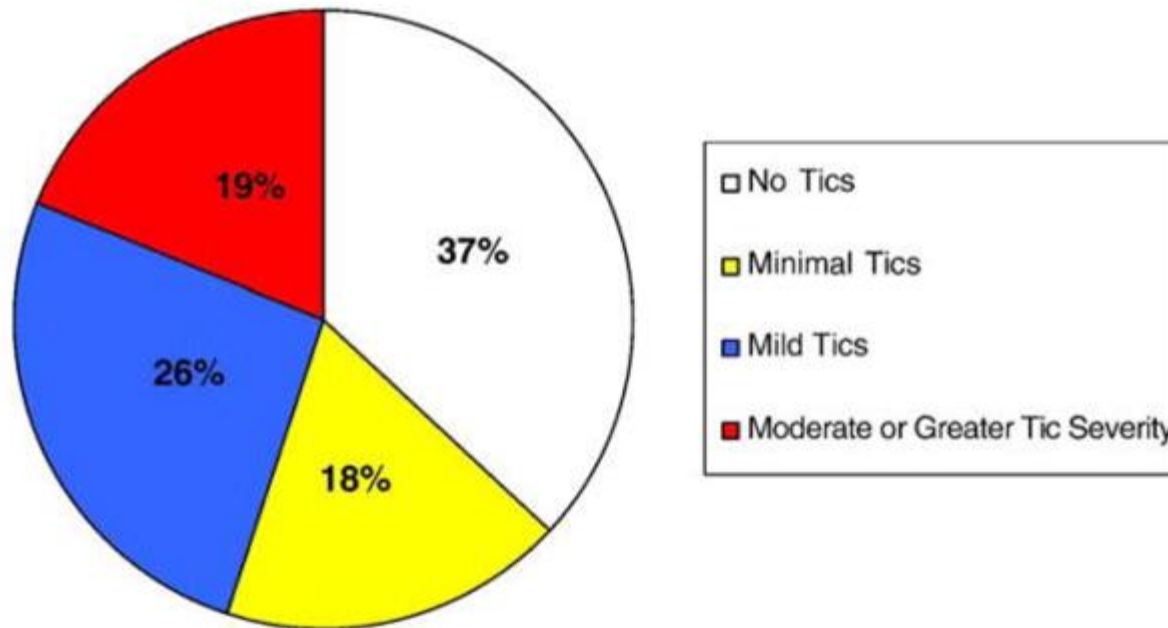
Tic Disorders



- Provisional tic disorder
 - Vocal or motor tics < 1 year
 - 3%
- Chronic motor or vocal tic disorder
 - Vocal or motor tics > 1 year
 - 1.6%
- Tourette syndrome
 - Multiple motor and 1 vocal tics > 1 year
 - 0.77%

Knight et al. (2012) Prevalence of tic disorders: A systematic review and meta-analysis.
Pediatric Neurology, 47, 77-90

Adulthood Tic Severity



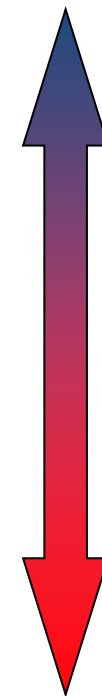
- Adulthood tic severity in 82 children with significant childhood tic symptoms

Common Co-morbidities

TS: Associated conditions

TOURETTE SYNDROME
“PLUS”

- <90%
- ADHD
- OCD/OCB
- Mood Disorders
- Learning Disabilities/ASD
- Specific Learning Difficulties



“MALIGNANT TS”

Tics and ADHD

- 40-90% of child population with TS
- Typically precedes the onset of tics
- Not associated with increased tic severity
- Sleep onset problems

Lebowitz, et al., 2012

Rage Attacks



- Sudden explosive episodes of rage
- Out of proportion to trigger
- Difficulty calming down

- Increase in explosive outbursts associated with the onset of tics during early childhood
- Persists in adolescence/adulthood
- Not related to tic severity

ADHD: TACT study (2002)

- Treatment of ADHD in Children with Tics
 - 4 arms (MPH, clonidine, combination, & placebo)
 - Results:
 - MPH did not worsen tics
 - Clonidine useful for hyperactivity symptoms
 - Outcomes measures best w/ combination
- Stimulants should NOT be avoided due to concerns about worsening tics

Tics and OCD/OCB

- 30-50 %
- Emerges after the onset of tics
- Associated with increased tic severity

Tics and OCD

- Earlier age of onset
- Male > Female
- Symmetry or “evening up” compulsions
- “Tourettic OCD”
 - OCD as hybrid
 - Sensory phenomena



Obsession: Order

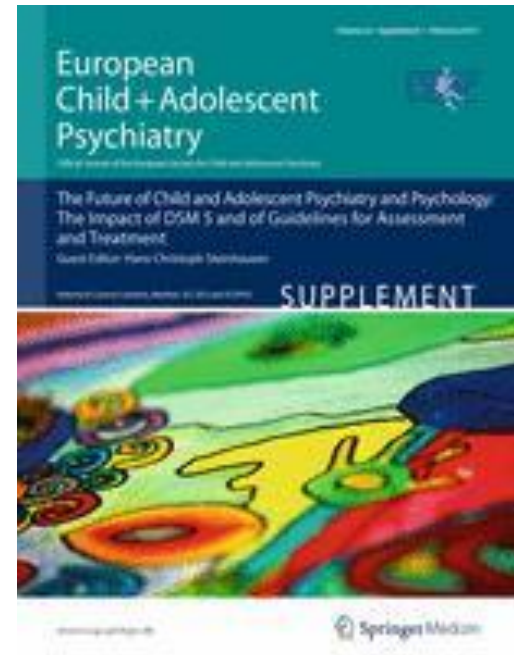
Compulsion: Arrange/ Symmetry

Factors Associated with Tic Exacerbations

Himle et al., 2014

Antecedent Variables	% Endorsed (N = 51)
TV/video games	92.2%
Home after school	88.2%
Homework	80.4%
Classroom	78.4%
Public place – social	78.4%
Physical activities – sports	72.5%
In car	72.5%
Anticipation/Waiting	68.6%
Meals	56.9%
Bedtime routine	56.9%
Presence of a specific person	13.7%
*Other	
Disruption to routine/transition	19.6%
Negative emotion (anger, frustration, upset)	15.7%
Positive emotion (excited, relaxed)	9.8%
Other specific activities (e.g., reading, taking tests, performing, talking about tics)	29.4%
Consequence Variables	%Endorsed (N = 51)
Attention-Based Consequences	
Told to stop tic	72.5%
Received comfort	58.8%
Laughed at /Looked at/ Asked about tics	35.3%
Escape-Based Consequences	
Asked to leave the area /Provided break	17.6%
Does not complete required chore or task	25.5%

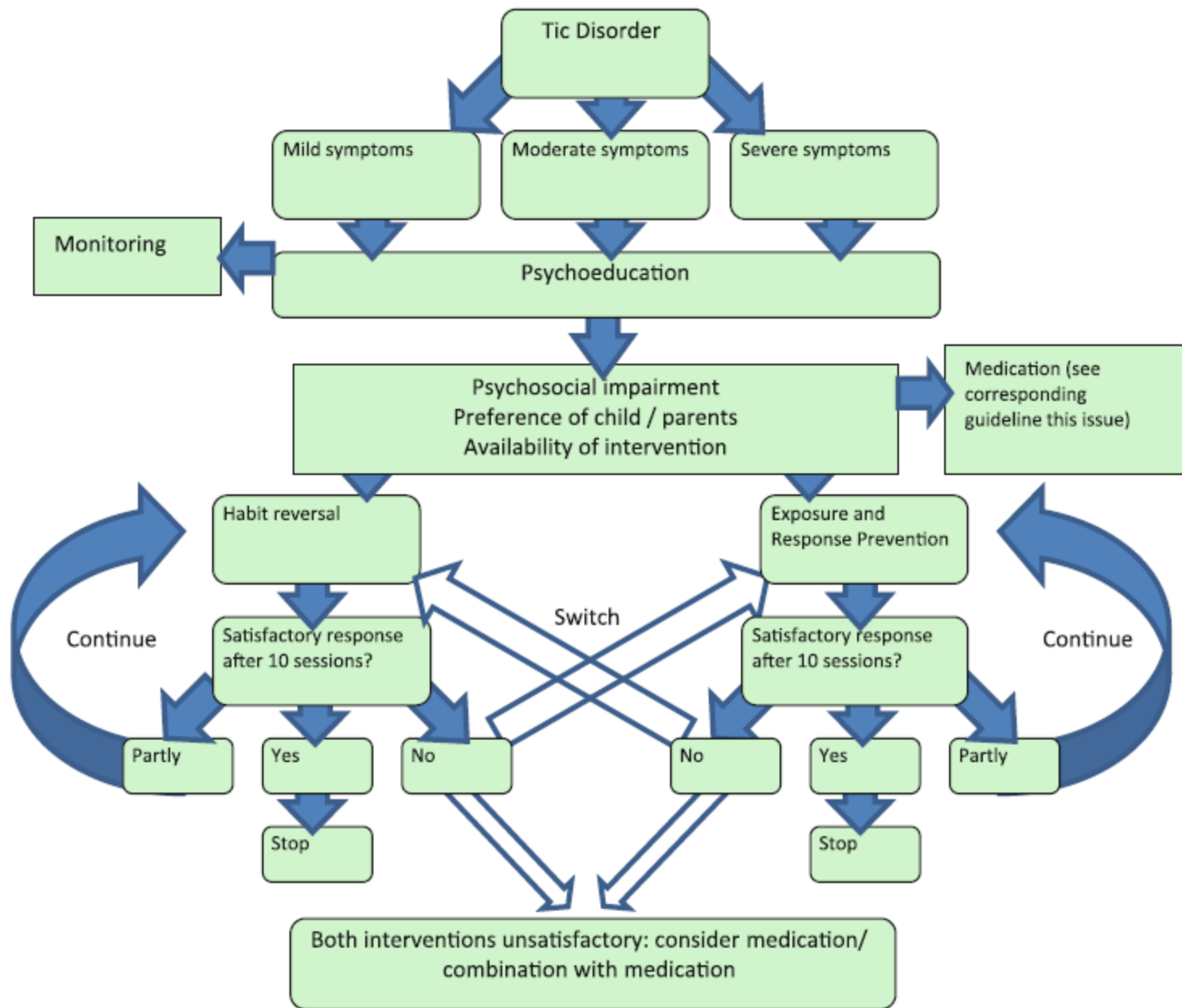
Treatment



Eur Child Adolesc Psychiatry (2011) 20:197–207
DOI 10.1007/s00787-011-0167-3

European clinical guidelines for Tourette Syndrome and other tic disorders. Part III: behavioural and psychosocial interventions

Cara Verdellen · Jolande van de Griendt ·
Andreas Hartmann · Tara Murphy ·
the ESSTS Guidelines Group



Psychoeducation – how parents can support

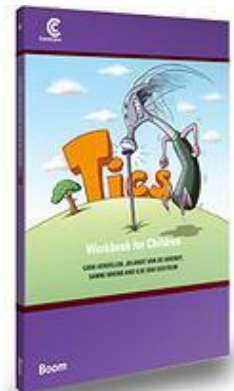
- Tics may not be bothersome to child – but can be bothersome to the family.
- If possible aim to ignore the tic due to their suggestible nature.
- Familiarise your self with the nature of tics (e.g. Waxing and waning course, peak, reduction in tics).
- Discuss with school if necessary

Habit Reversal Therapy (HRT)

- Targets tics individually
- 10-12 weekly sessions of 1-2 hours with homework
- Psychoeducation and motivational work
- Tic and urge awareness practice
- Involves developing a “competing response”

5 Rules

- Incompatible with tic
- More socially acceptable
- Can be done anywhere
- Patient can maintain it for longer than 1 minute
- Can do it with no props



HRT – Competing Responses

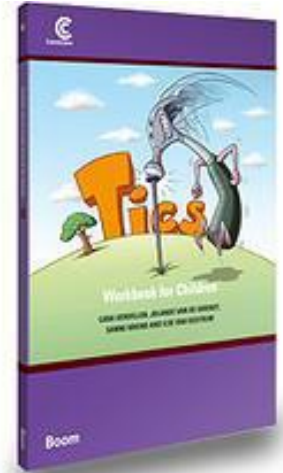
Tic	Competing response
Sniffing	Breathing in and out of mouth without a pause
Swearing	Breathing in and out of nose without a pause; purse lips together
Shoulder shrug	Depressing shoulders
Finger stretching	Making a fist

Premonitory Urge



Exposure Response Prevention (ERP)

- Targets all tics
- Involves practicing “holding tics in”
- 10-12 weekly sessions of 1-2 hours with homework
- Psychoeducation and motivational work
- Tic and urge awareness practice
- Timed practice of tic suppression
- Exposure to situations that provoke tics and practice of tic suppression.



Mechanisms of action: Cognition

Cognitive factors (Verdellen, 2007)

- Falsification of cognitions
- Urge is evaluated differently

I cannot stand my urge



I can stand my urge

Intervention

I cannot control my tic



I can control my tic

Managing tics at school

- Educating staff about managing tics
 - Tourette’s Action leaflets
 - Sharing clinical letters
- Tourette’s action talks
- Do a class presentation on tics
- Encouraging children to talk to peers – what to say?
 - “they are neurological and come from the brain but don't harm the brain in any way”; “like a hiccup or a yawn”



Compensatory Strategies

- Additional time in exams/complete class work
 - Tics, ADHD, anxiety
 - Fine-motor control, speed of processing
 - Alternative means of recoding (notebook, tablet, scribe = last resort)
- Tic 'time-out' pass (similar to movement breaks)
- Seating position in class – this may conflict with ADHD recommended positions
- Organisers/planners, visual diaries/timetables
- Written instructions/prepared worksheets
- Traffic light system – stop, think, act



Thank you for
listening

