


Tourette Syndrome

Tourette
OCD 
Alberta
Network



Presented by
Adrienne Hill

TS: Origins

Named after French physician
Gilles de la Tourette

- 1857-1904
- Neurodevelopmental
- Genetic disorder
- Characterized by tics

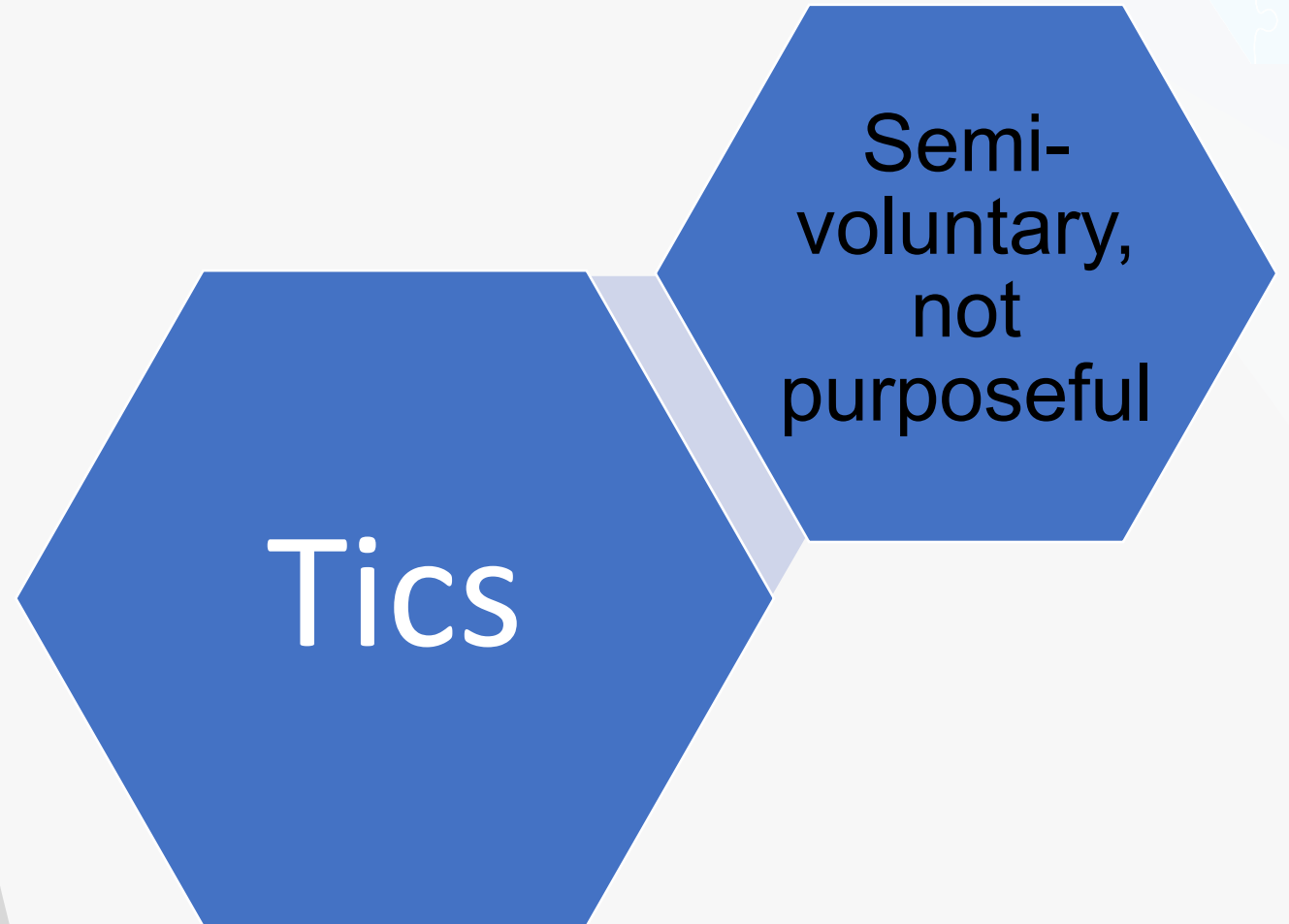


What are
tics?

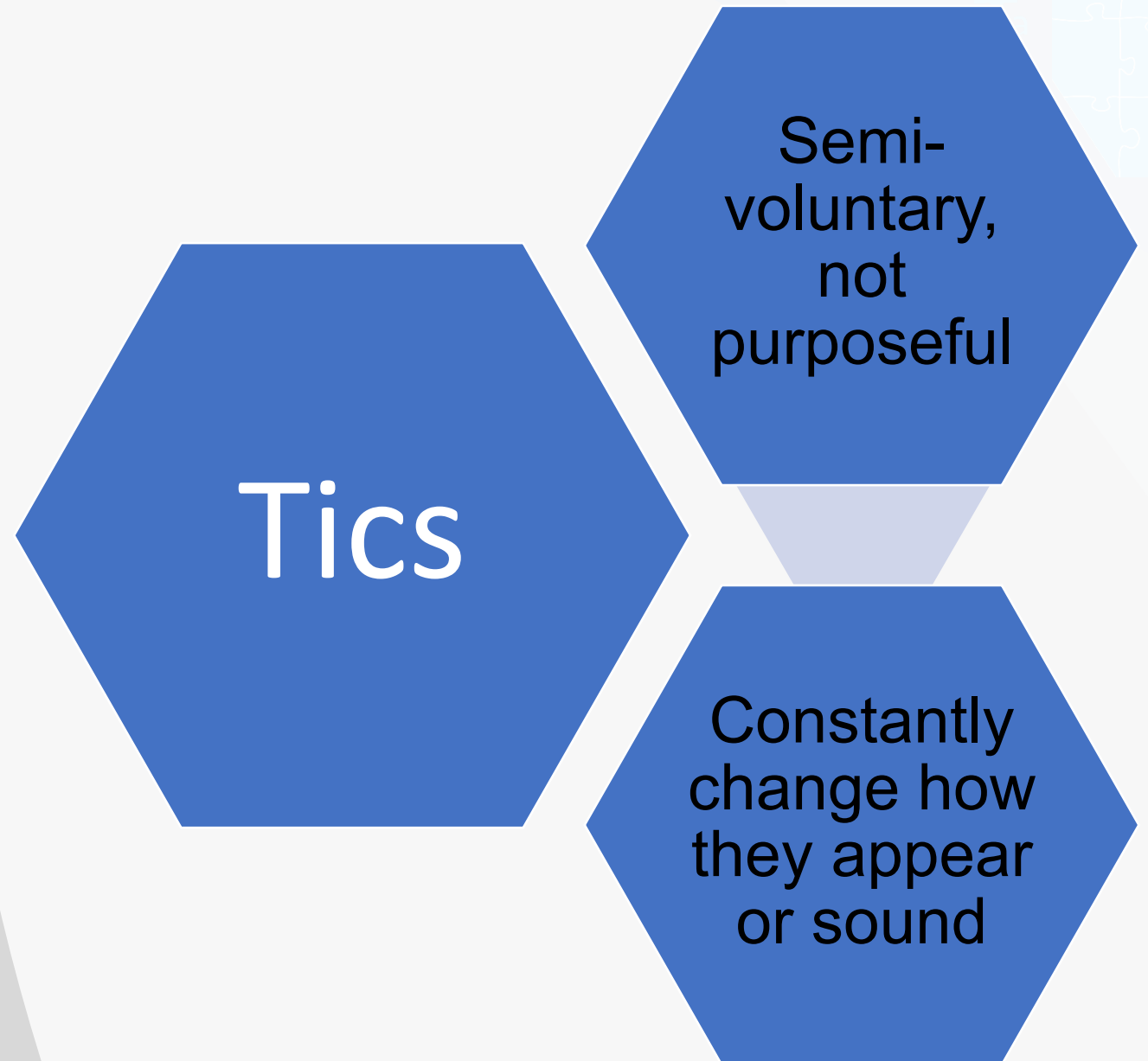


Tics

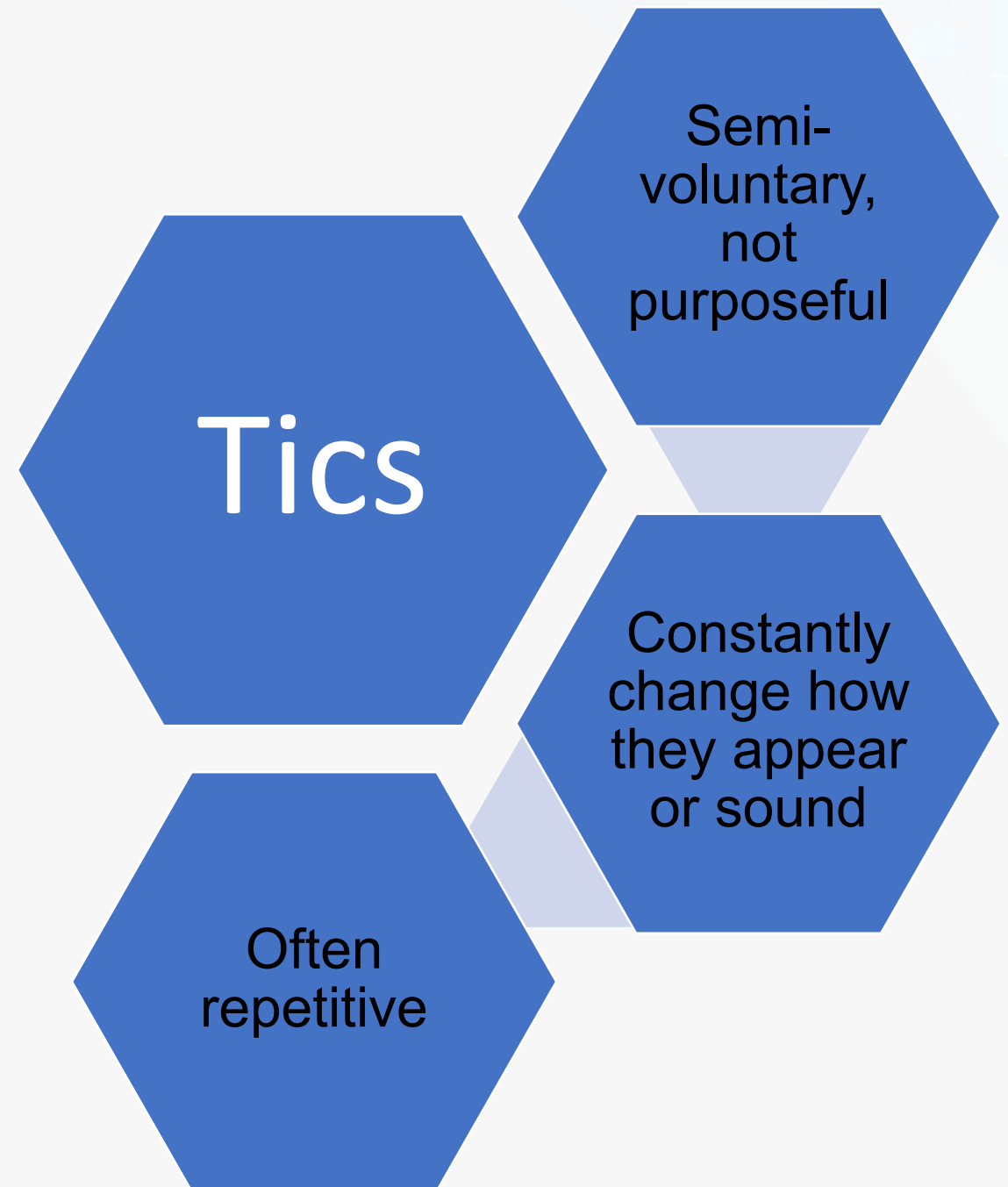
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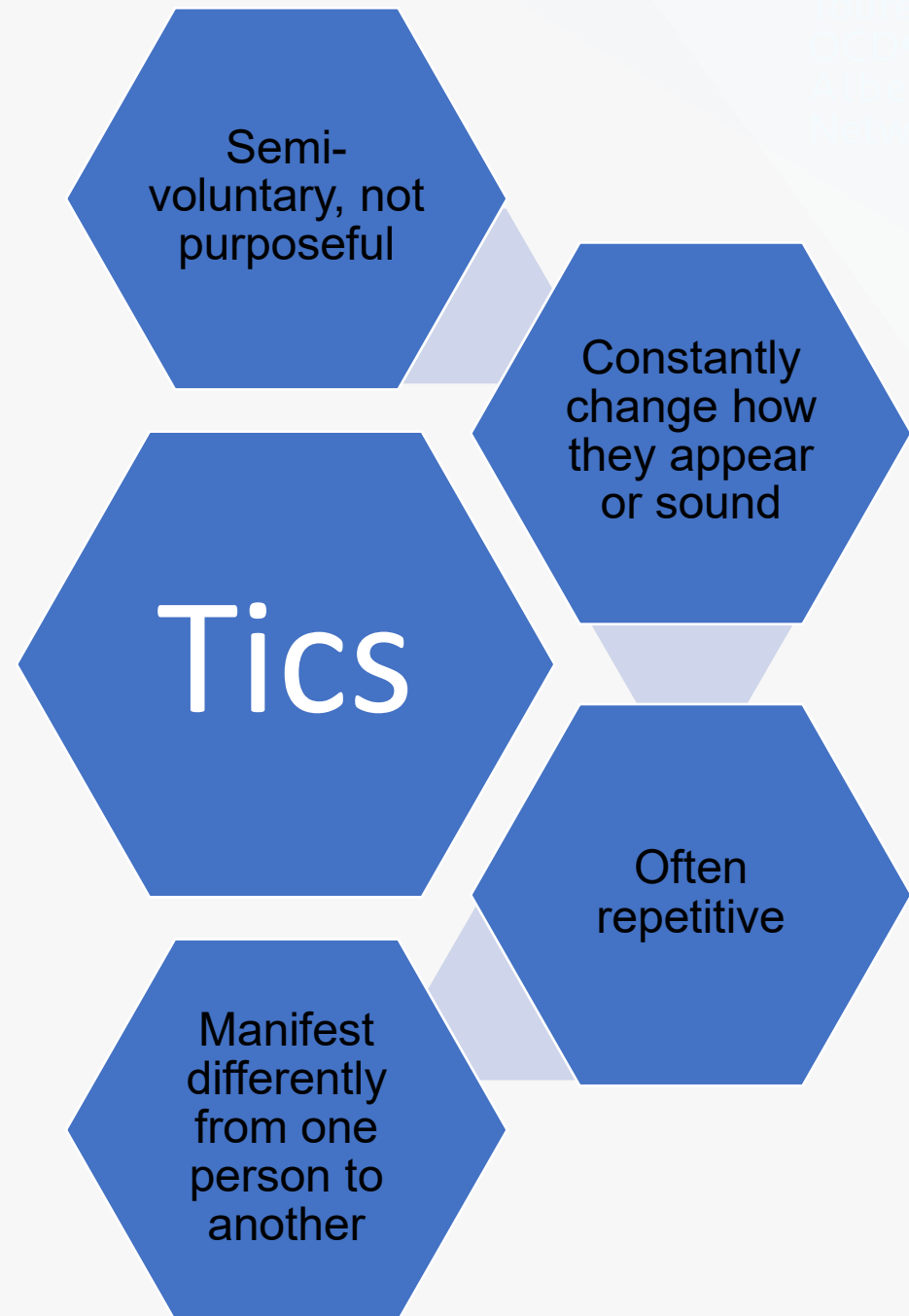
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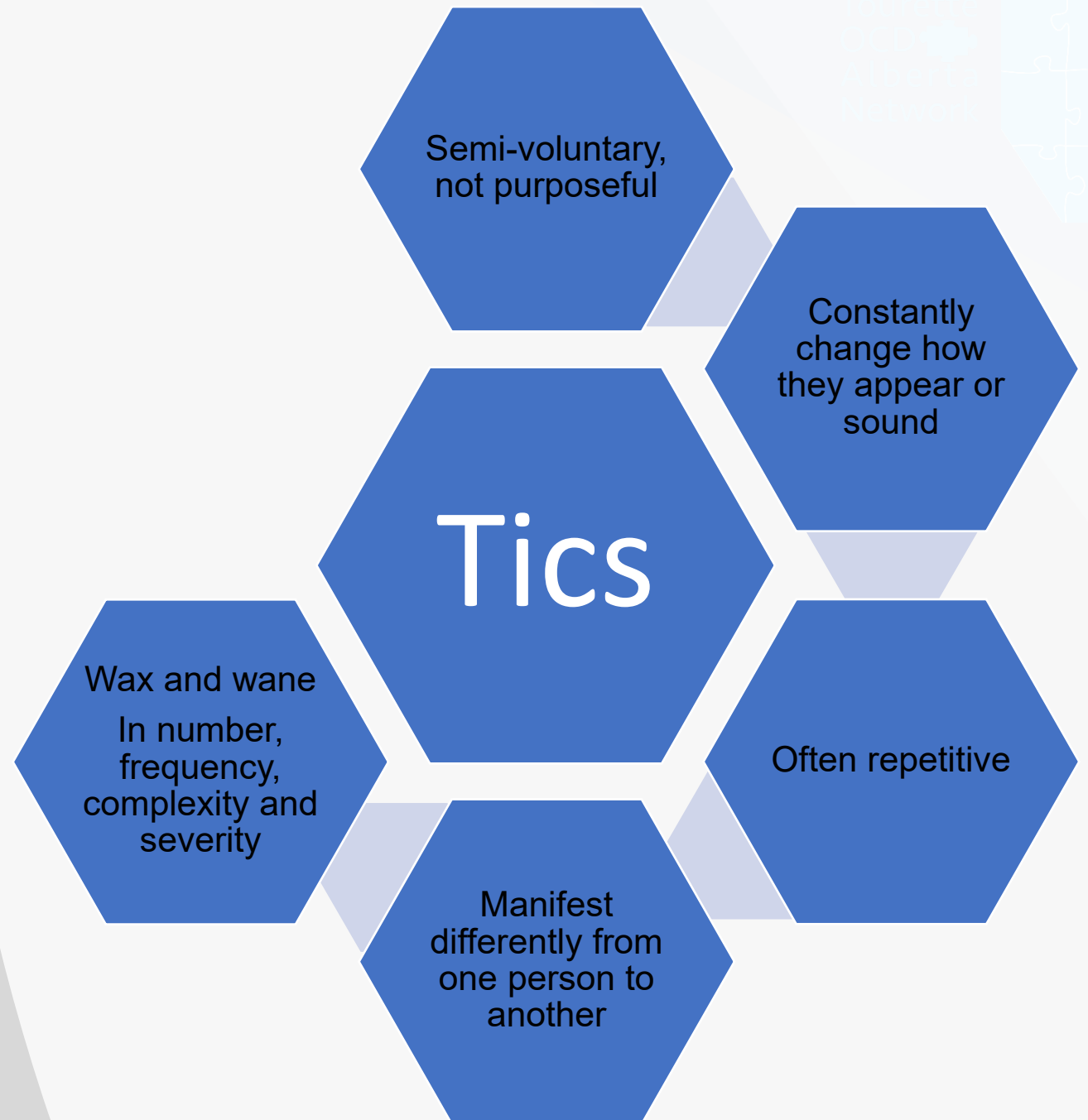
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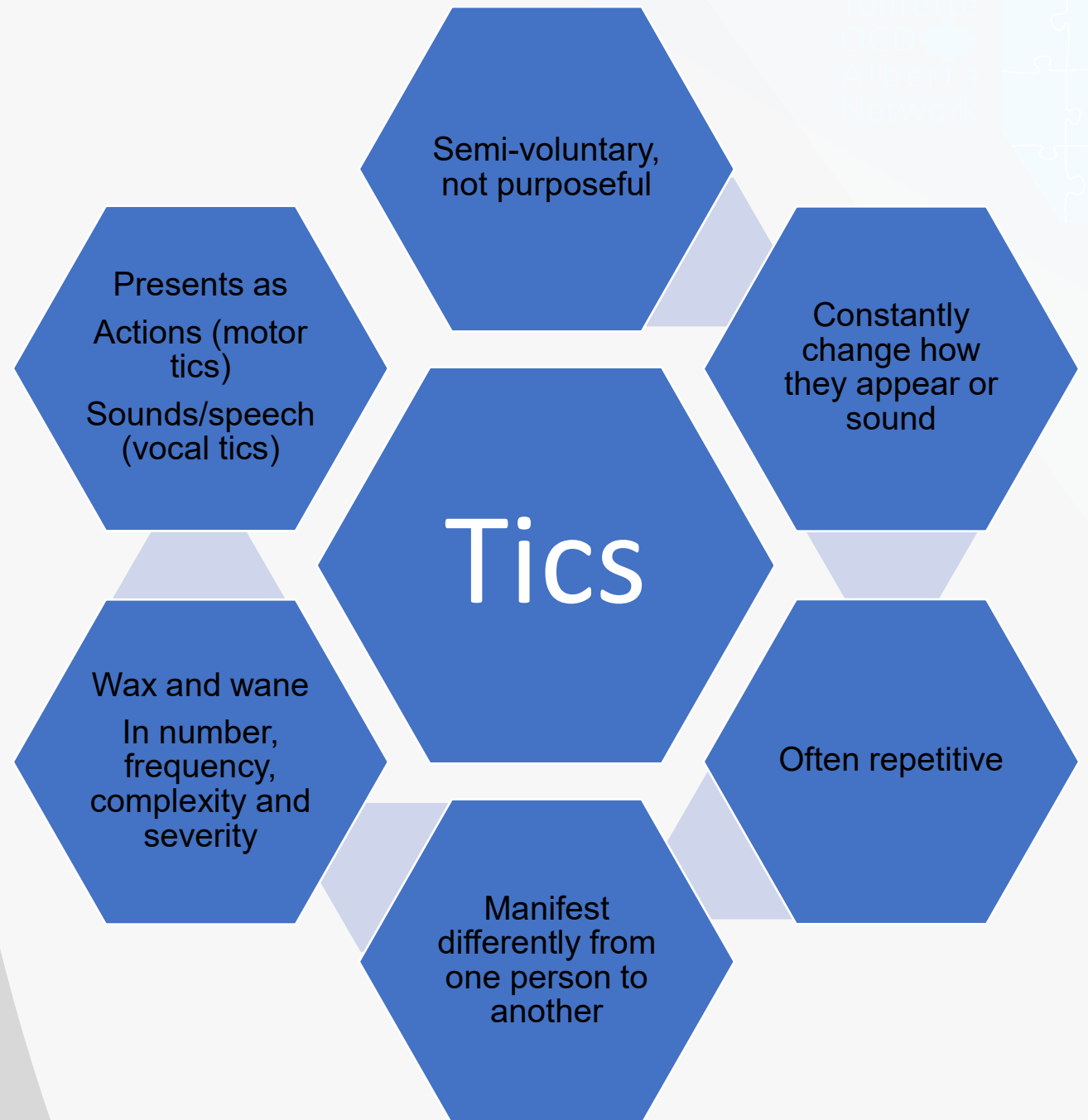
What are tics?



What are tics?



What are tics?



Simple Motor Tics

- Involves one muscle group



Simple Motor Tics

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Movements

- Rapid
- Darting
- Meaningless



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Simple Motor Tics

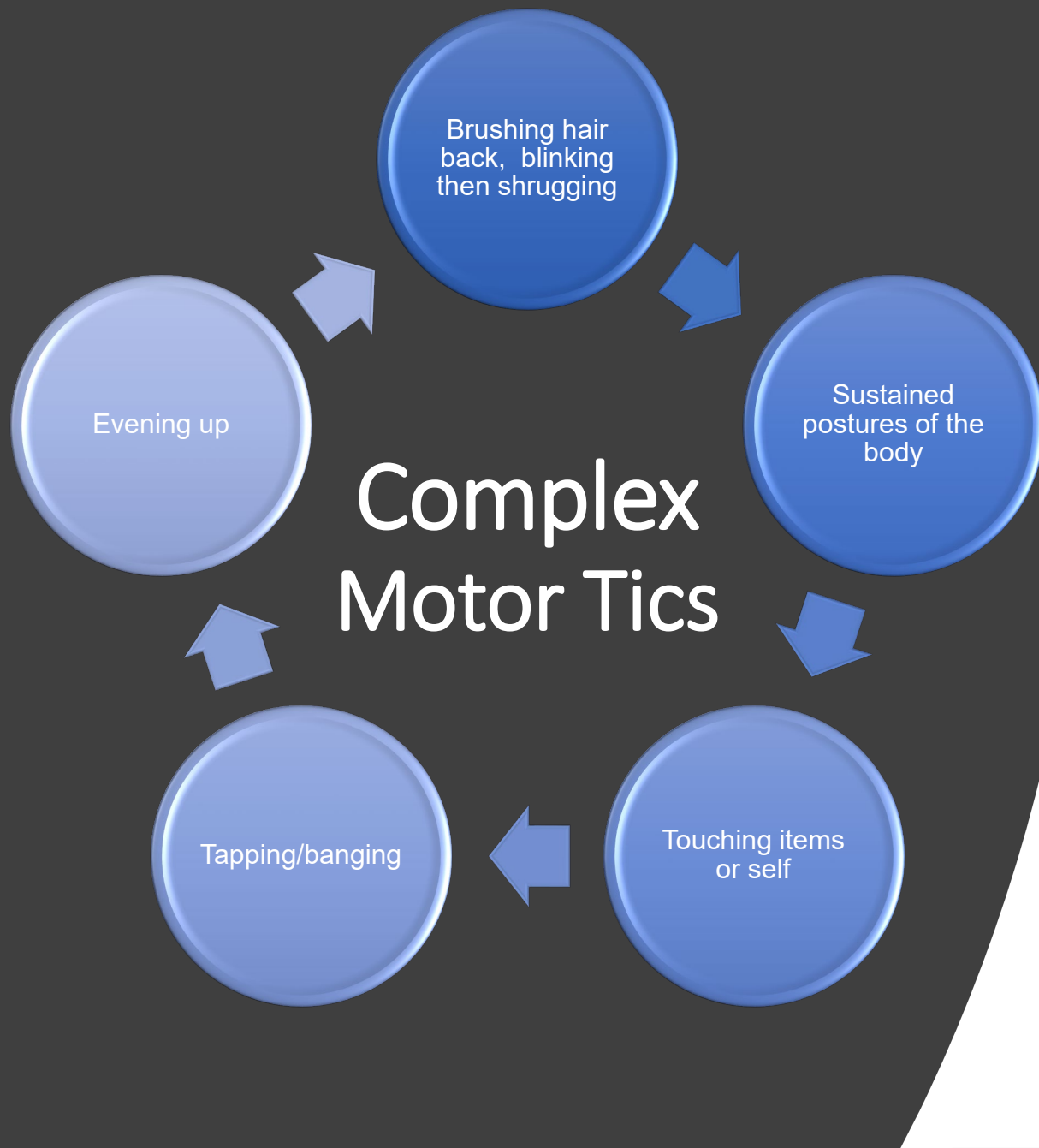
- Eye blinking
- Nose wrinkling
- Shrugging



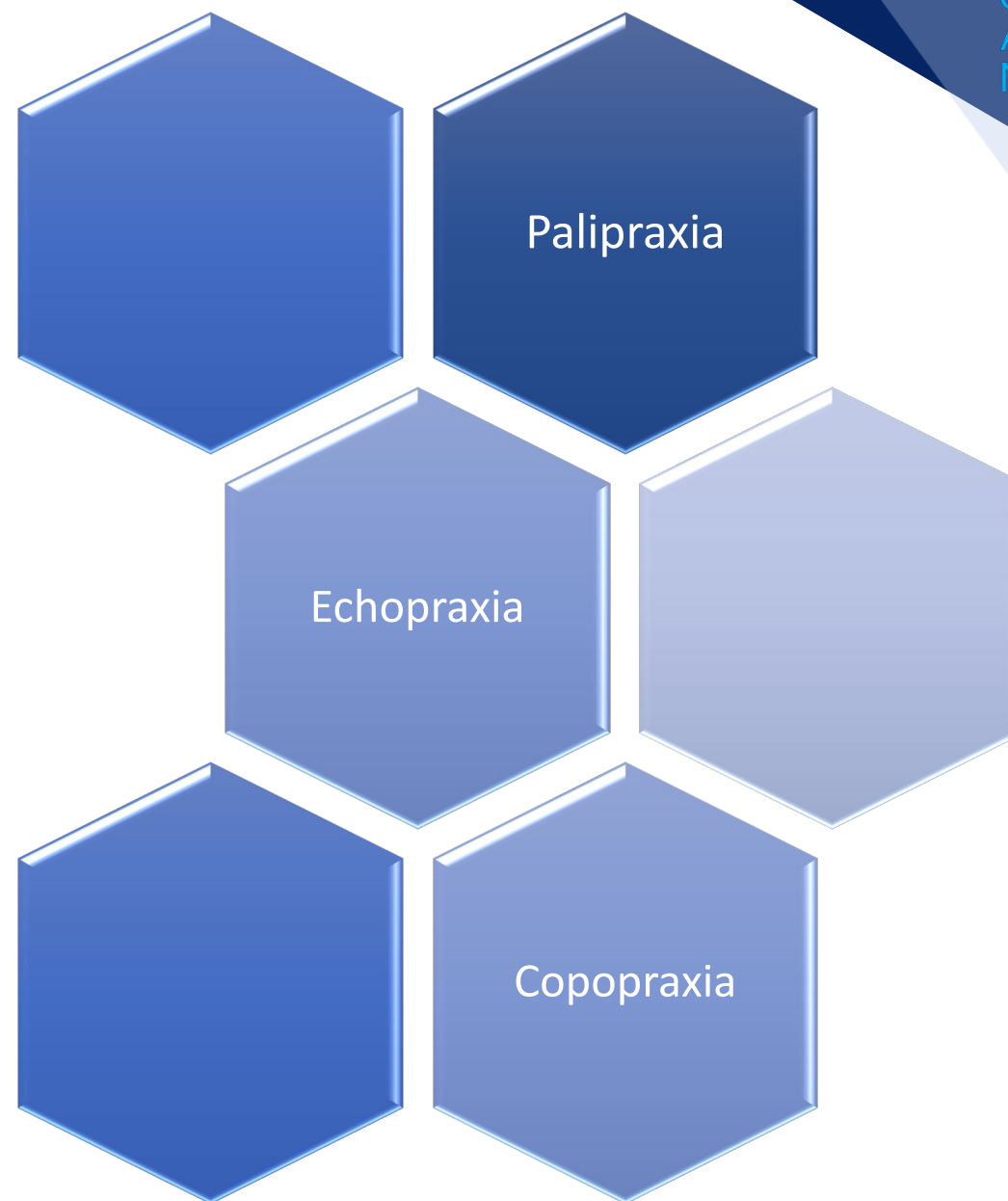
Complex Motor Tics

- May Involve multiple muscle groups
- Are slower, more purposeful in appearance





Motor Tics





Simple
Vocal
Tics

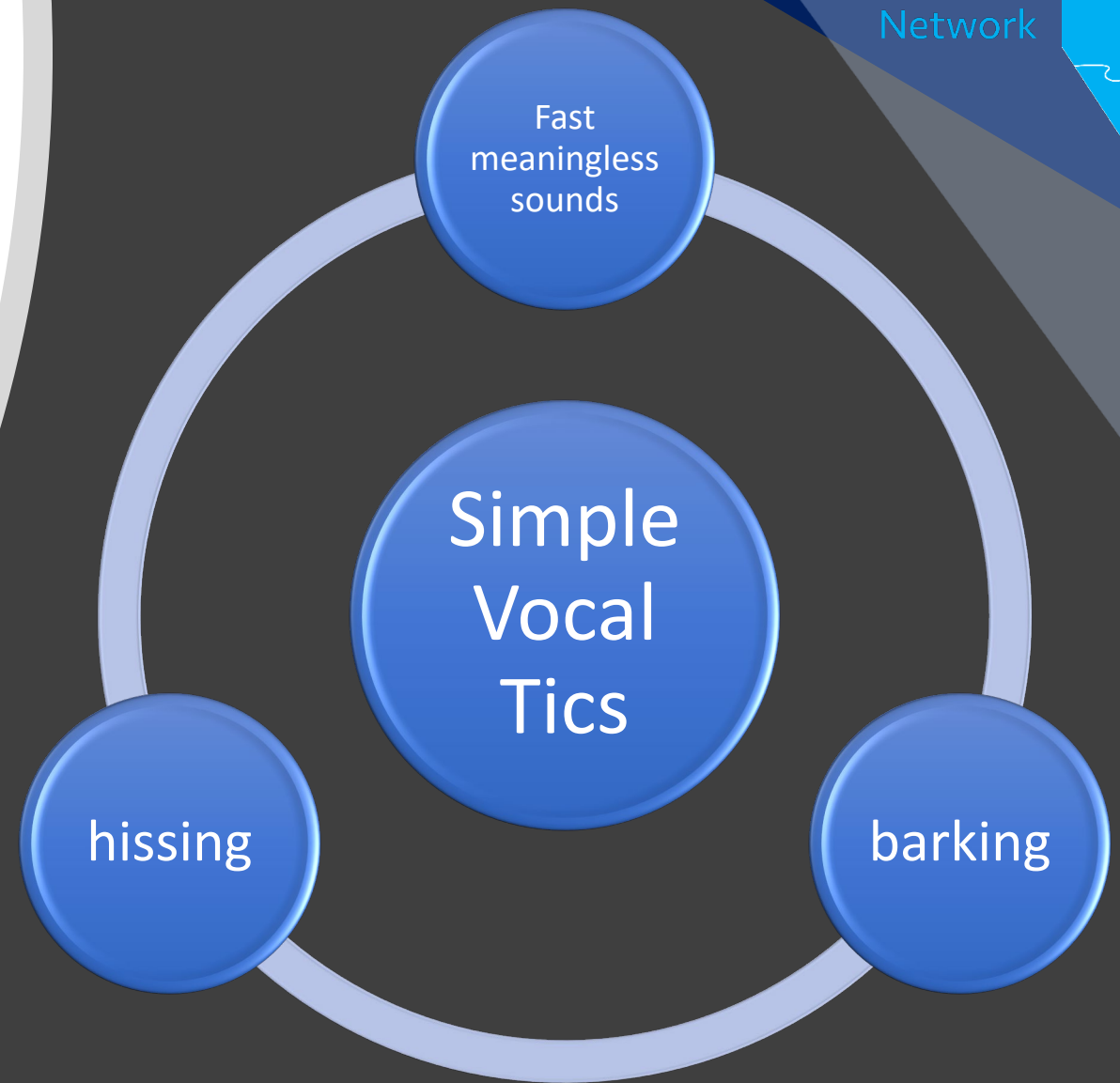
Fast
meaningless
sounds

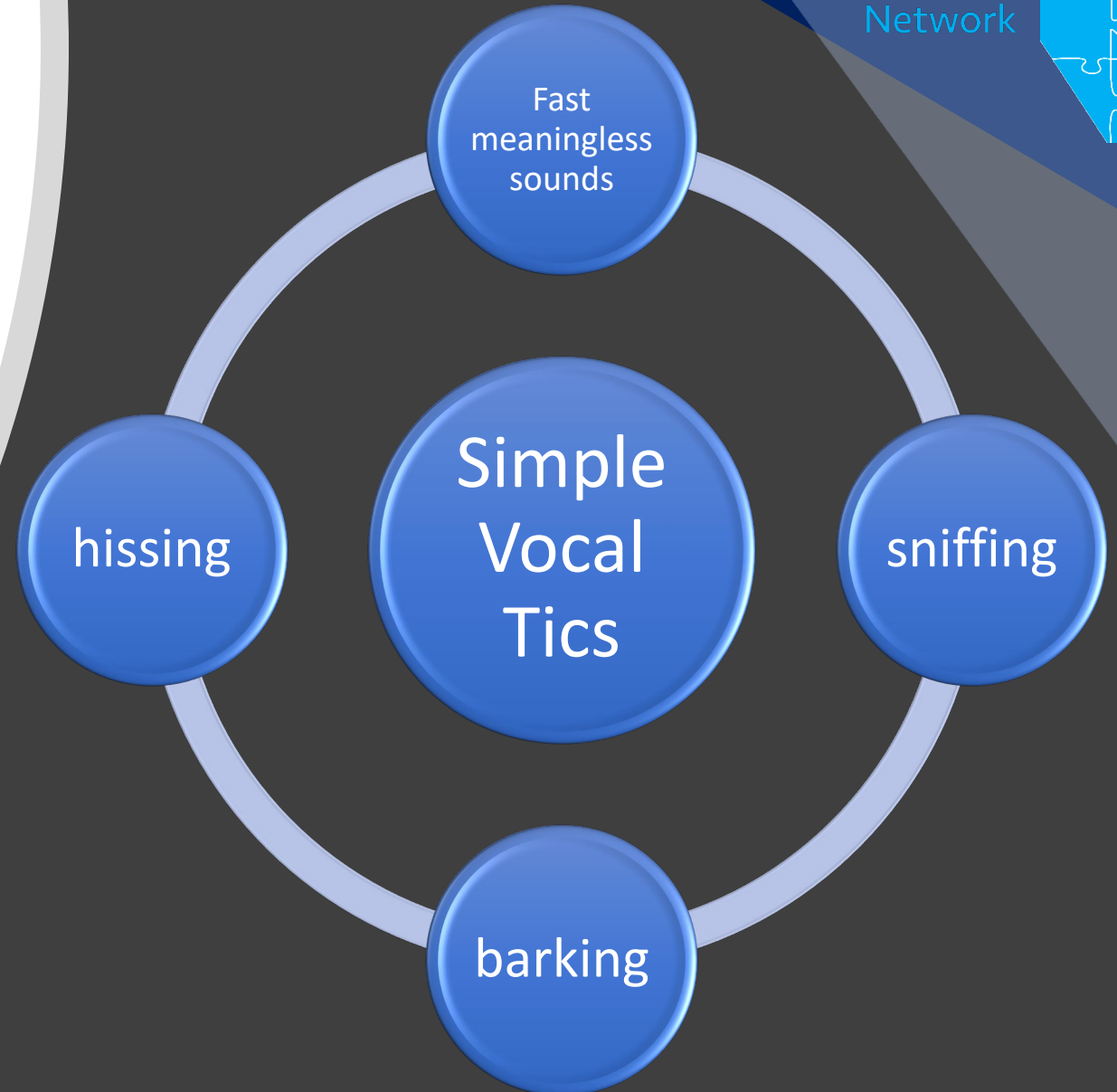


Fast
meaningless
sounds

Simple
Vocal
Tics

hissing





Complex Vocal Tics

Words,
Phrases,
Statements

Out of context speech



I love chocolate
milk

Shut up!

What's for dinner tonight?

You're fat!



Volume

Pitch

Rate of
speech

Stuttering



Palilalia

Echolalia

Vocal Tics

Coprolalia

Coprolalia
<10%



Harmful/Painful Tics



Eyes rolling
Causes headaches

Harmful/Painful
Tics



Eyes rolling
Causes headaches

Biting
Lips, arm, fingers,
objects

Harmful/Painful
Tics



Biting

Lips, arm, fingers,
objects

Eyes rolling

Causes headaches

Jaw snapping,
rapid head
twisting,
jerking

Harmful/Painful
Tics





Harmful/Painful Tics

- Slapping/punching self with force
- Hitting self with utensils, TV remote
- Touching/handling dangerous objects
 - Razorblades
 - Knives
 - Lit matches, cigarettes





Factors that
can make
symptoms
worse

Seeing or
hearing
someone
ticcing

Talking
about tics



What Can Help Tics?

Sleep

Exercise

Activities that
require focused
attention

Riding a bicycle

Playing a
musical
instrument

Video games



Periodic suppression
is possible, but:

It takes intense
effort

It diverts
attention from
tasks at hand

Is difficult for
young children



Tic Suppression

People with Tourette
Syndrome may try to
suppress symptoms due
to:

Fear of
embarrassment
or humiliation

Fear of teasing
and/or bullying

Pain related to
repetitive
movement



TS Myths

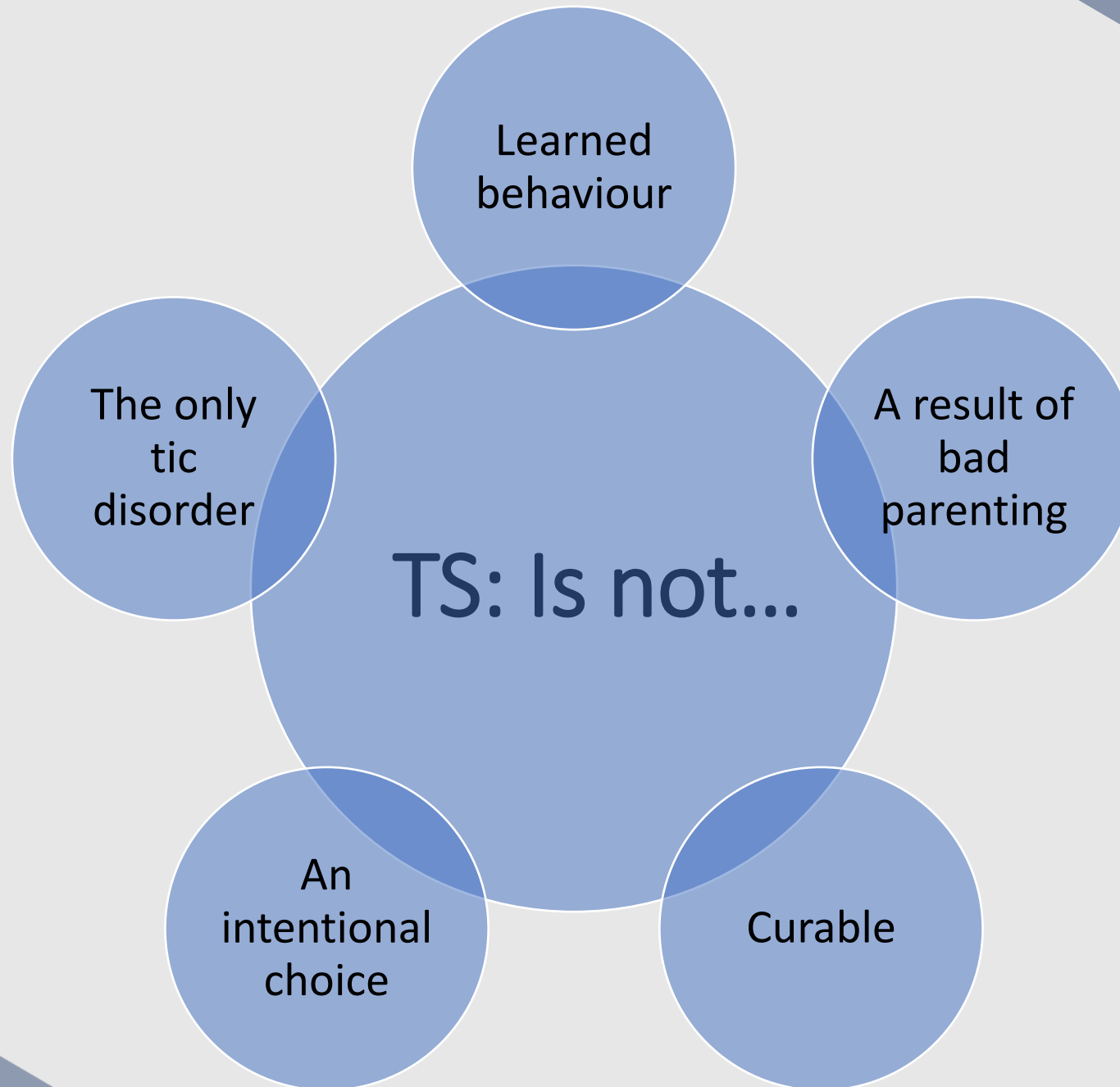
People with TS...

Always swear

Are cognitively
impaired

Manifest the same
symptoms all the time

Can control their symptoms if they
really want to

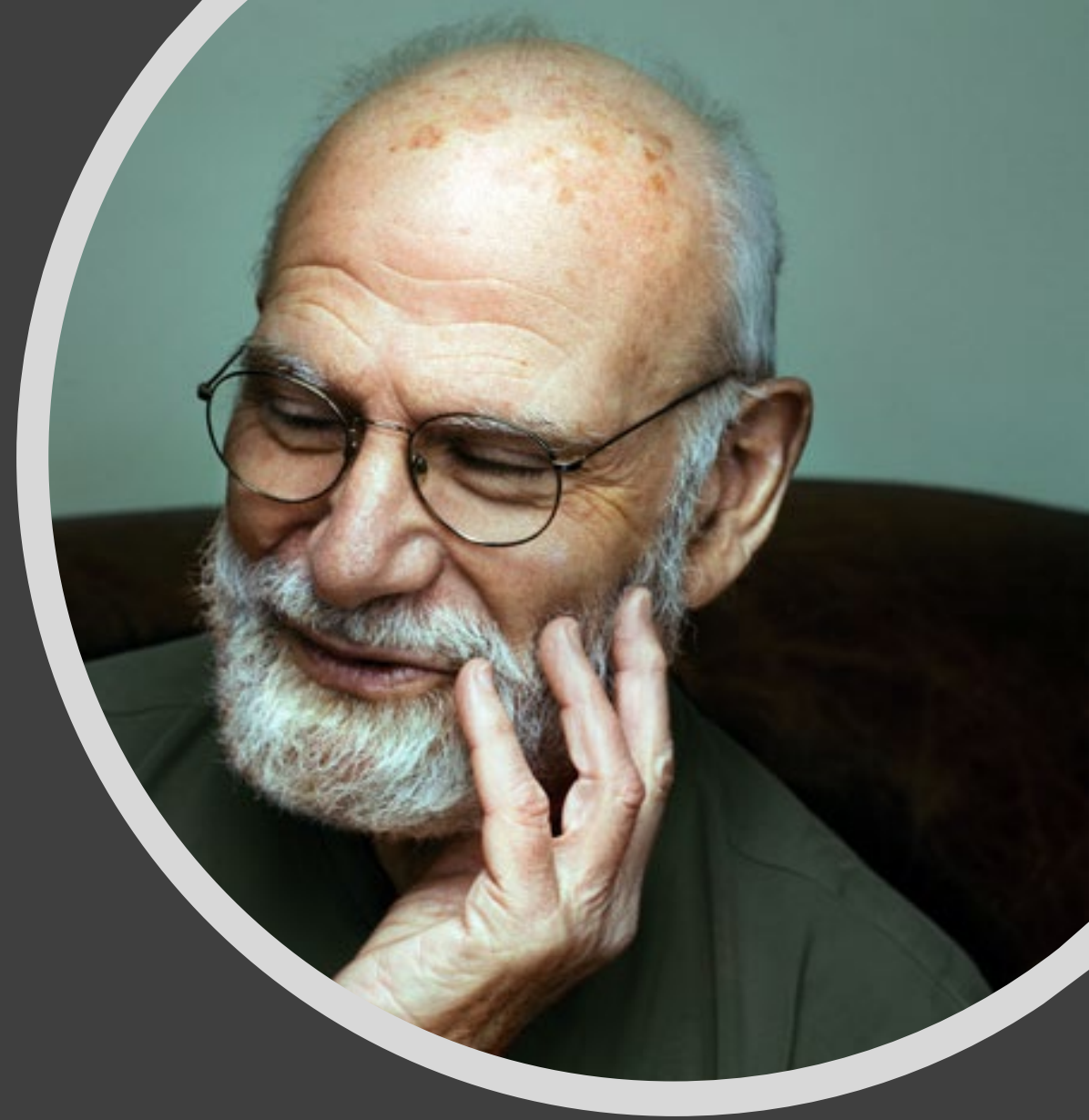


Occurrence

Neurologist Oliver Sacks' comment regarding Tourette Syndrome incidence in 1971:

“It had an incidence, I had read, of one in a million, yet I had apparently seen three examples in an hour.”

From his book, “The Man Who Mistook His Wife for a Hat”





Occurrence

- Approximately 1% of school age children
- 3 times more likely in boys than girls
- Boys and girls both have similar symptomology

Who does it affect?

All ethnic groups

- Less common in individuals of African descent

Tends to peak at age 10-12

Can continue in adulthood

- High rate of improvement in late adolescence

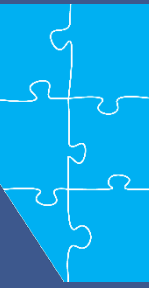


TS: Diagnostic Process*

- Presence of more than one motor tic and at least one vocal tic
- Tics may wax and wane in frequency, but must have persisted for more than 1 year
- Onset of symptoms before age 18
- Symptoms not due to a medical condition or substance
 - Parkinson's, Huntington's, brain trauma, medications or substances

**Diagnostic and Statistical Manual of Mental Disorders, 5th ed. (DSM-V)*





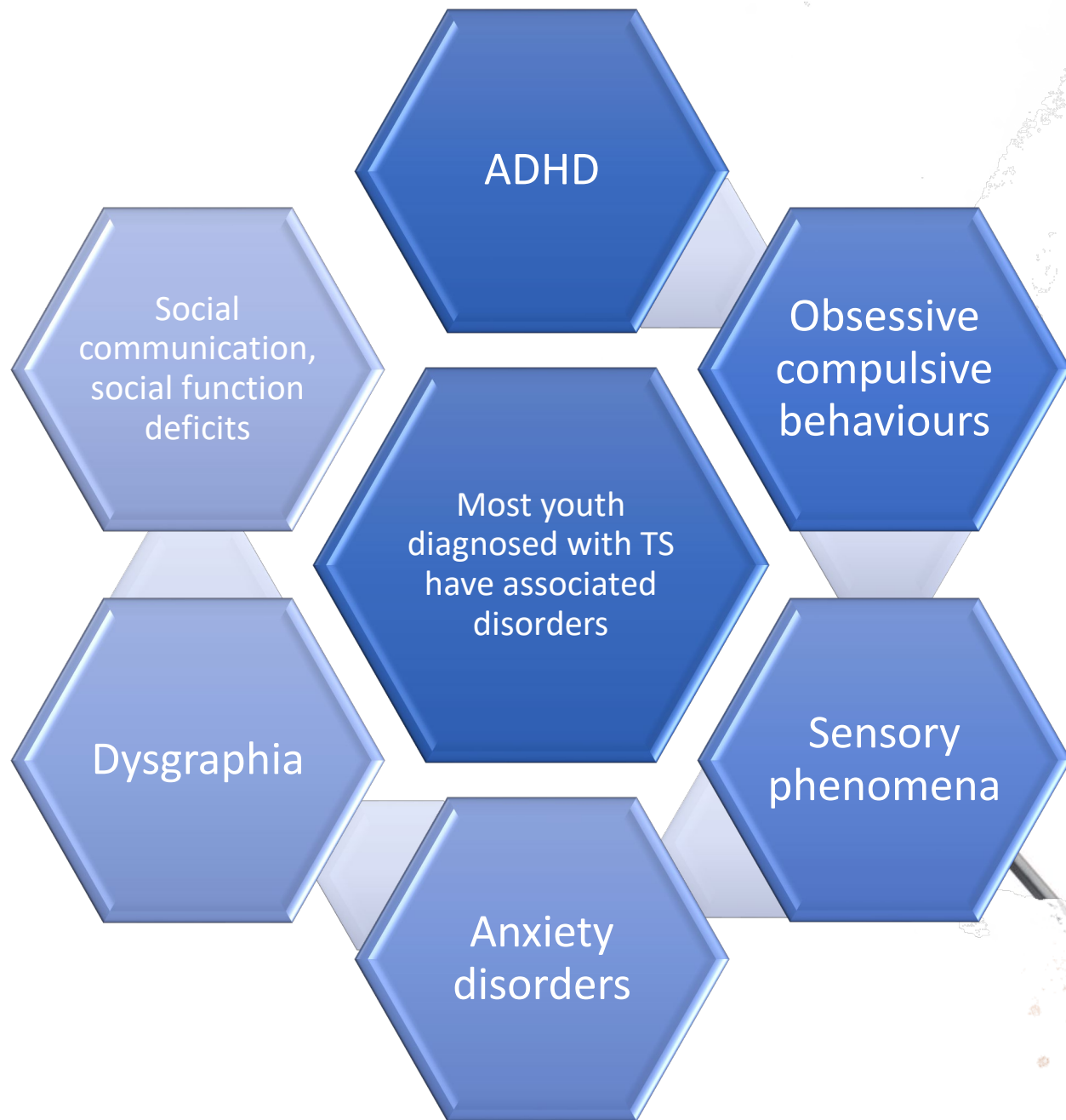
Treatment Options

- Pharmacological intervention
- Cognitive behavioural interventions
 - CBIT (tics)
 - ERP (anxiety/OCD)
 - CBT (OCD, depression)



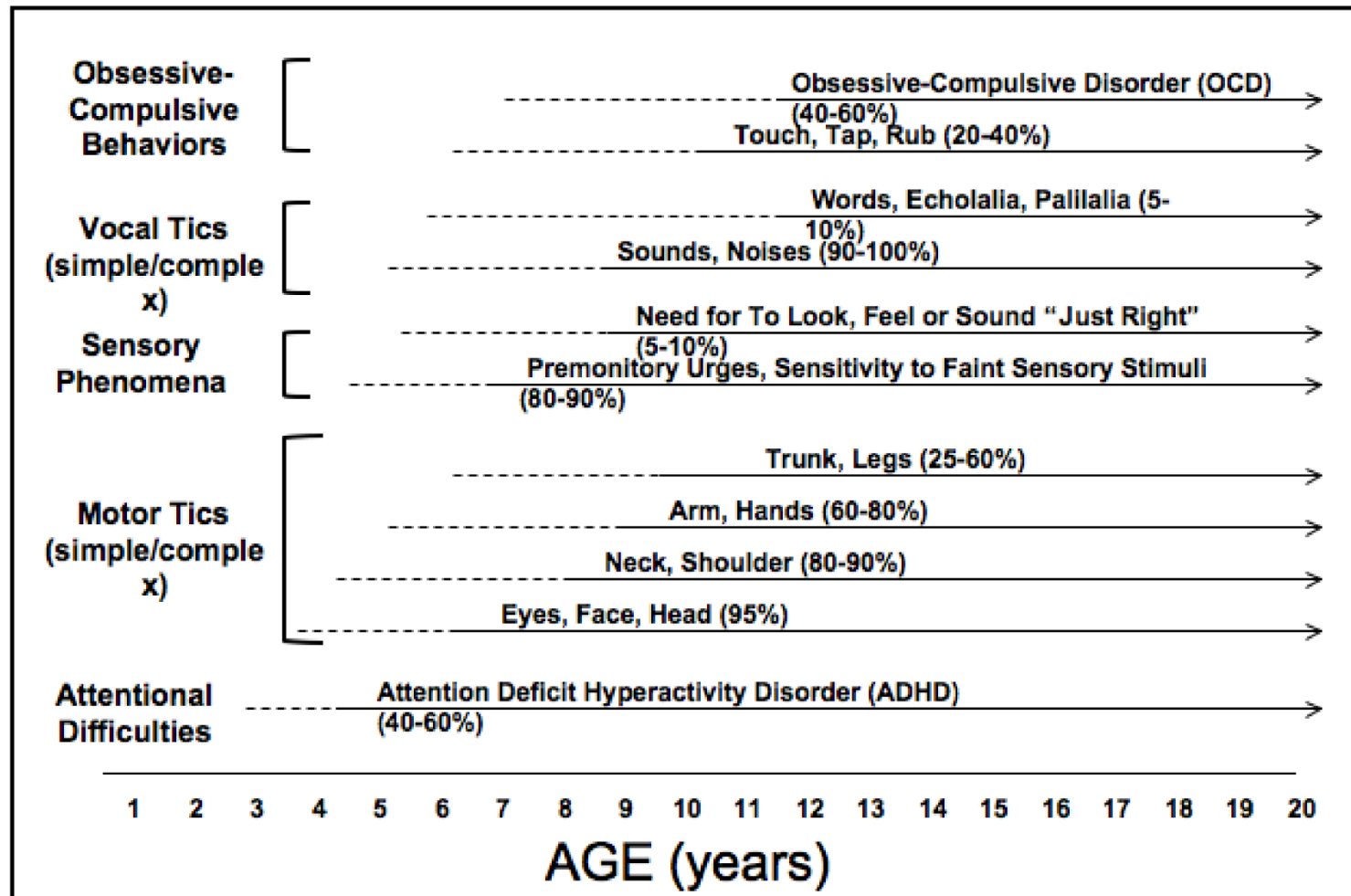
Most youth
diagnosed with TS
have associated
disorders





Natural History of Tics and Associated Disorders

from *Tourette Syndrome* by
Davide Martino and James F.
Leckman





Strategies

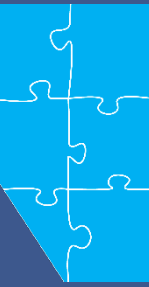
“How do you know which behaviours are TS and which aren’t”

- Can be difficult to determine
- Basic rules such as not harming oneself, others or property apply to everyone.



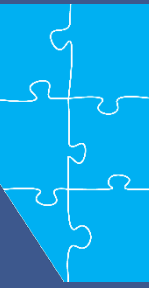
Impact of tics on learning





Impact of tics on learning

Eye, head, neck tics make reading difficult



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Vocal tics can make class discussions and exams/quiet times difficult



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Hand, arm, body tics can make handwriting difficult





Impact of tics on learning

Eye, head, neck tics make reading difficult

Vocal tics can make class discussions and exams/quiet times difficult

Hand, arm, body tics can make handwriting difficult

Premonitory urge or itch can cause distraction

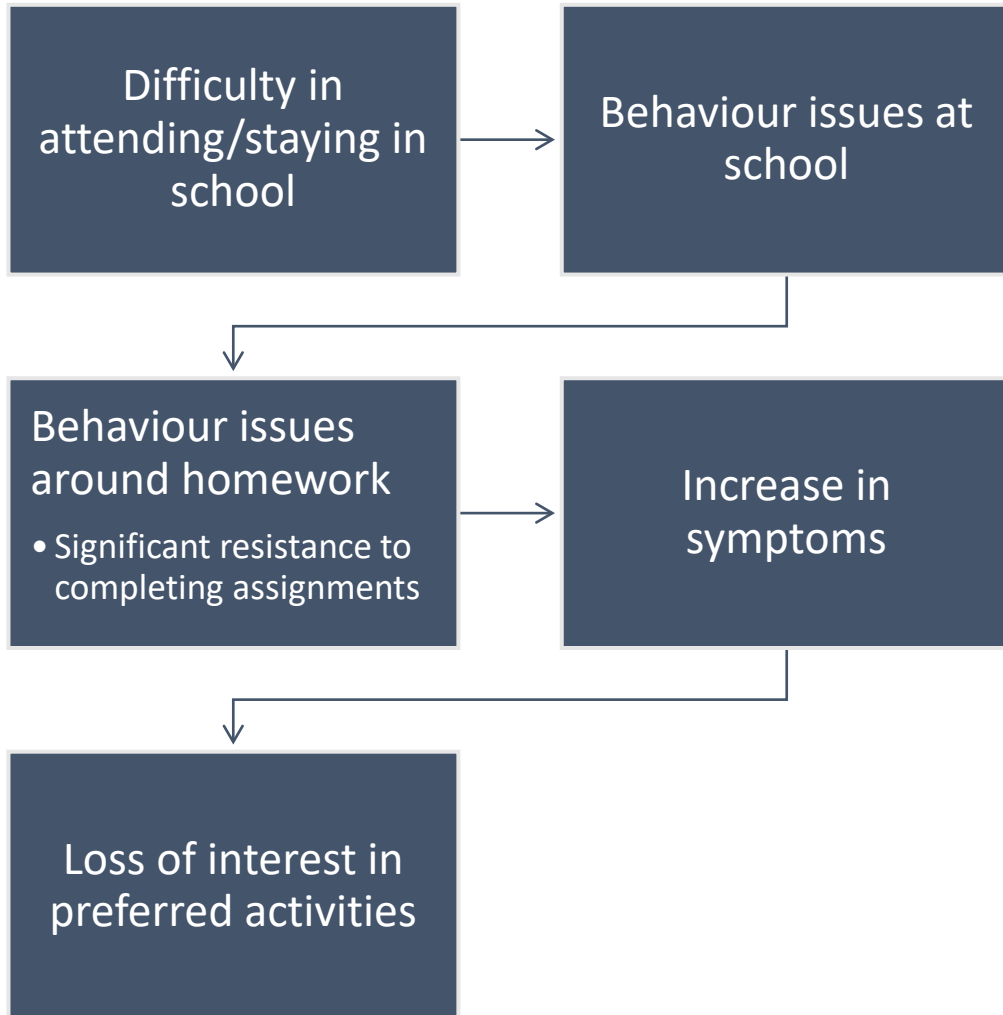




Areas of Impact

- Planning
- Organization
- Strategizing
- Paying attention to and recalling details
- Time management

What to Watch For



Recognize:

- Declining academic performance
- Results in:
 - Increased anxiety
 - Frustration
 - Decreased self worth
 - Eventual refusal to engage
 - Perceived as lazy/unmotivated



Recognize:

- Every student with TS is different
- Tic expression should never be punished
- Accommodations should not be viewed as punishment
- Recognize accommodations are not a permanent fix but are support while the student learns to manage their symptoms using behavioural strategies.



Potential problems

Parents may expect that teachers know strategies

Parents/students may keep diagnosis secret

If diagnosis is shared, teachers may question diagnosis since no obvious symptoms appear in school due to suppression

Fear of labels

Fear of stigmatizing

Strategies

Ignore tics



Strategies

Ignore tics

Let student
know that they
don't have to
hide symptoms



Strategies

Ignore tics

Let student
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Allow to leave
class to relieve
tics



Strategies

Ignore tics

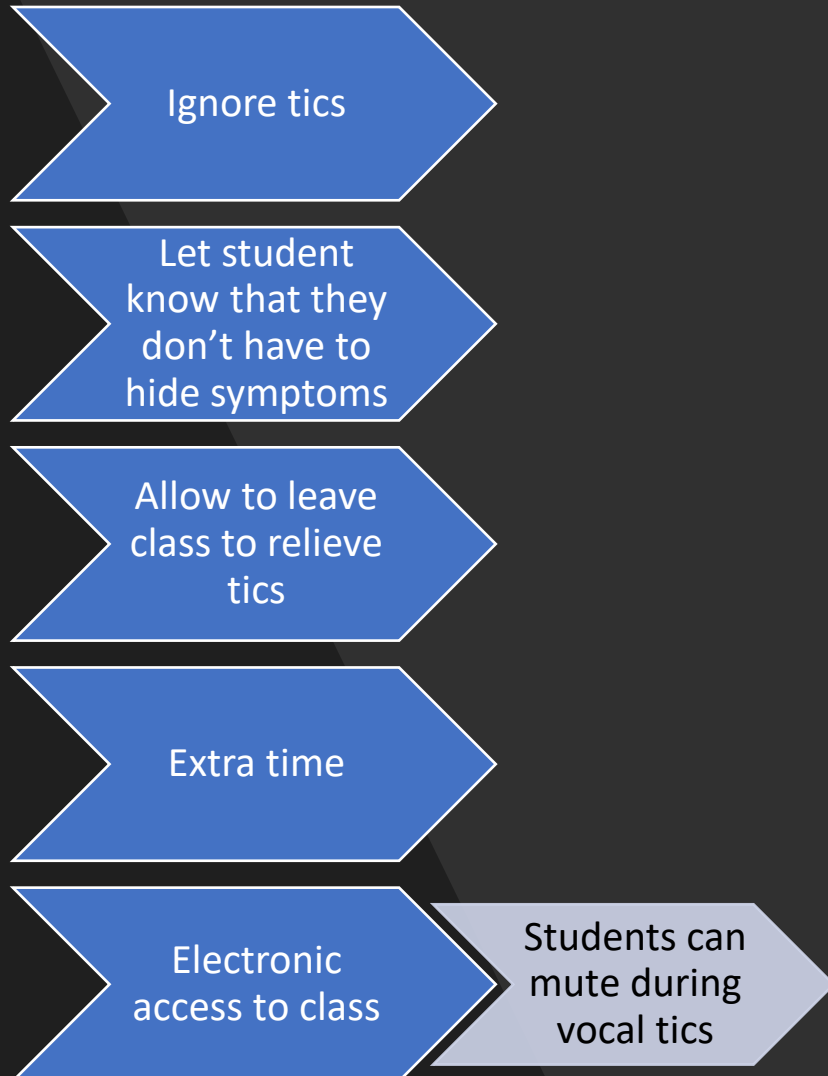
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Extra time



Strategies



Strategies

- Reduce homework
- Extensions on due dates
- Ask student to repeat back instructions
- Help the student break larger tasks into smaller parts
- Use bullets not paragraphs
- Separate room for exams/written activities



Strategies

- Redirecting when stuck
- Using non punishment-based rewards
 - Guarantee success
- Providing written due dates/assignments online



Strategies

- **Anticipating lost/forgotten supplies**
- Having students use backpacks to contain all supplies
 - If backpacks not allowed
 - Textbooks/supplies in each teacher's room
 - Textbooks/supplies that student can have at home



Supporting adaptation of unacceptable tics (be creative)

- Involve classmates when appropriate
- Always involve the student
 - Spit into a cup instead of on the floor
 - Hit a box/pillow instead of a person
 - Type the insult on their phone instead of saying it to the person
 - Use words that are similar to swear words
 - Allow early release from class if hallways crowded
 - Carry something in both hands while walking in halls between classes

Help to stay on task by...

- Using short time limits with timers
 - Success must be assured
 - Gradually increase time as student improves
 - Time Timer can provide quiet visual feedback
- Providing auditory cues
 - App with tones playing at irregular intervals to remind students to be on task
 - Regularly change tone





Organizing Work/Notes

Sciences:

- Use grid paper to help with organization, such as working top to bottom
- Encourage use of boxes to highlight steps

$$\textcircled{2} \quad -11x = -15$$

$$\begin{aligned} \textcircled{1} \quad 3x - 7 &= 14x + 8 \\ 3x - 14x &= -7 - 8 \end{aligned}$$

$$\textcircled{3} \quad x = \frac{15}{11}$$

A large, abstract blue watercolor splash graphic on the left side of the slide, with various shades of blue and white ink-like textures.

Assistive technology

- Speech to text software
 - Dragon Naturally Speaking
 - Chrome Voice Recognition
- Text to speech
 - Natural Reader software
 - Audible audiobook app

Educate:

- ✓ All teachers
 - Substitute teachers, teacher assistants
- ✓ Students
 - Students with regular and situational contact
- ✓ Office staff
- ✓ Custodial staff
- ✓ Other parents/parent volunteers
- ✓ Bus drivers

Self Advocacy

An important skill

May not be ready or able to self advocate when symptoms are bad

Requires gentle nudging

Can take years to learn

- Help is available through to post secondary years





How the Tourette OCD Network Can Help

In class, grade specific presentations

Teacher professional development

Support for strategies in specific situations

The Tourette OCD Alberta Network

Our mission is to improve access to care for people with Tourette Syndrome and Obsessive-Compulsive Disorder province wide.

Find us at <https://cumming.ucalgary.ca/resource/tourette-ocd/home>

Thank you for inviting me!

