



Neurodiversity  
Prevalence, identification  
and person-centred support

[www.matthewshub.org](http://www.matthewshub.org)

# Background



- Set up 2014 following Matthew's death by suicide
- Became a charity 2016
- Support autistic people and those with ADHD without a learning disability
- Cover Hull and East Yorkshire
- Aged 13 year old up to old age
- Currently over 2200 members
- Around 40% female, 50% male, 2% transgender

# Staffing – neurodiverse staff

## Neurodiversity

- Autistic
- ADHD
- Dyslexic
- Dyspraxic

## Qualifications

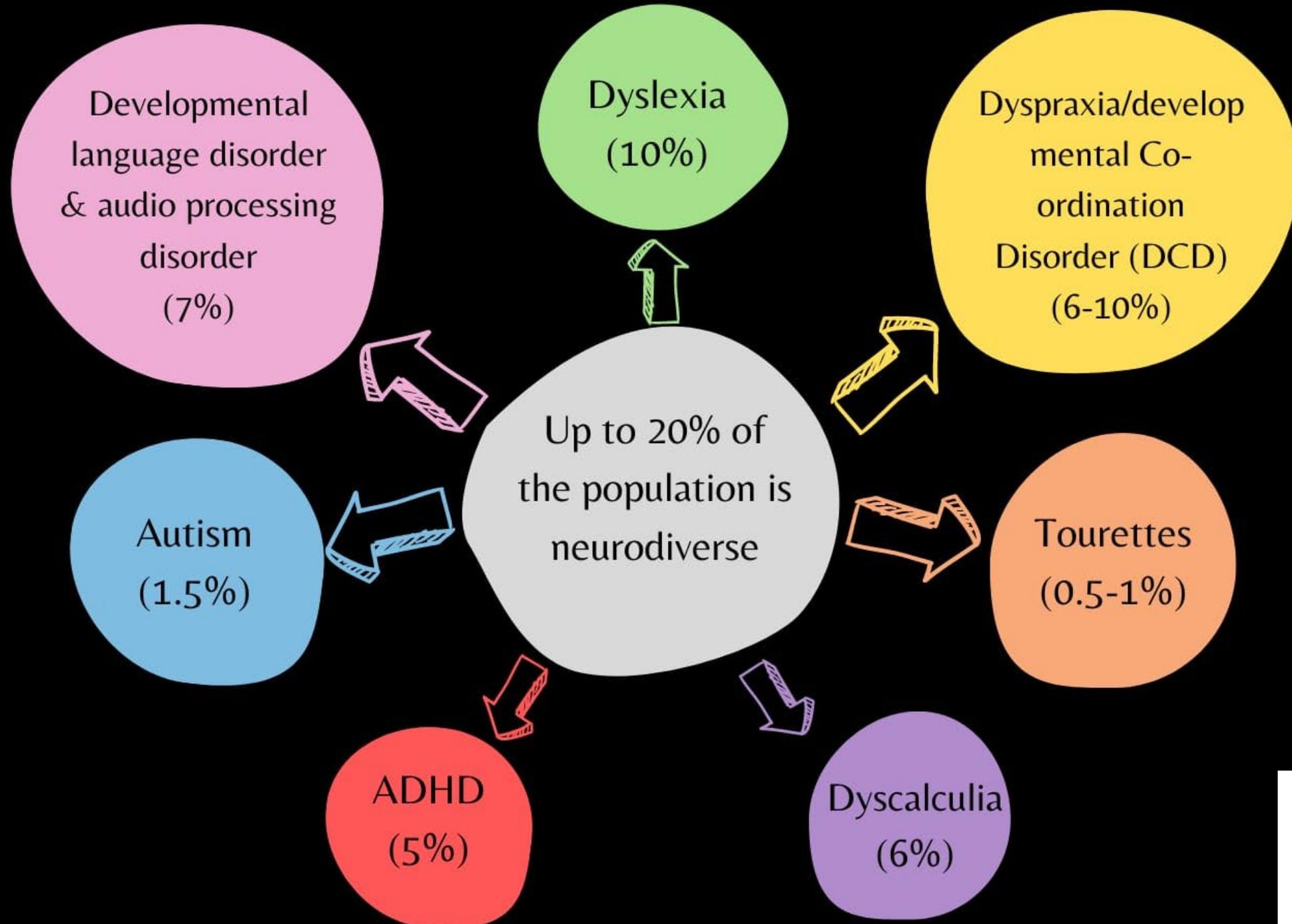
- Qualified teacher
- RMN
- Health visitor
- Psychology first degrees and Masters
- Criminology degree
- Masters in Autism and ADHD
- Health and Social care
- Youth work
- Coaching ICF accredited

# What we do

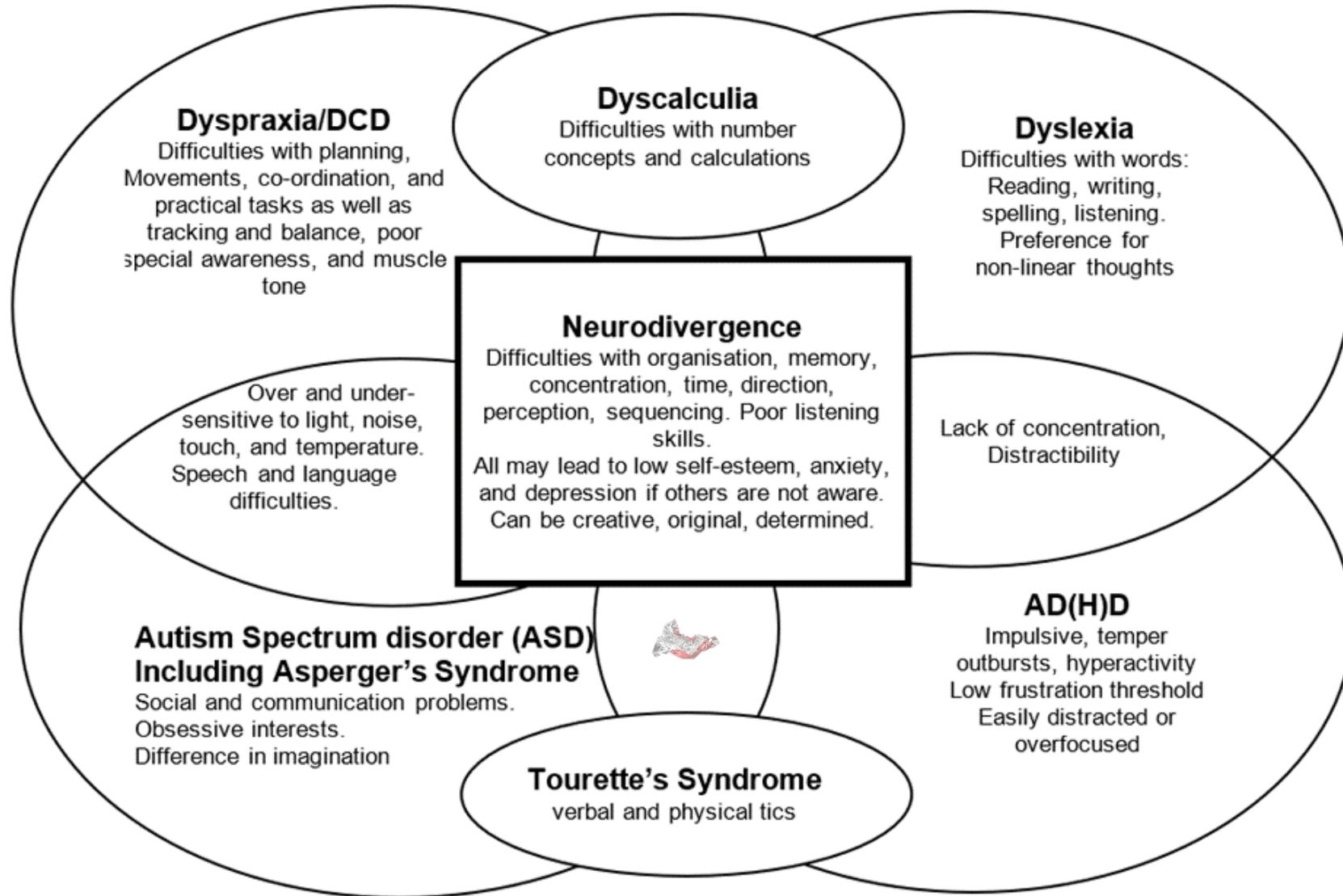
- Peer mentoring
- Emotional wellbeing support
- Parent support
- Social activities – 13-17, 18-25 and adults
- Training and workshops
- Coaching

# Funding

- Contracts – NHS, Adult Social Care, local authority
- Big Lottery – 3 grants each for 4 years, current grant for coaching
- Sales of training
  - Matthew's Hub training written and delivered by autistic people / ADHDers
  - Oliver McGowan training – we deliver this mandatory training for NHS and local authority staff across NHS Humber and North Yorkshire ICB area.



# Neurodiversity



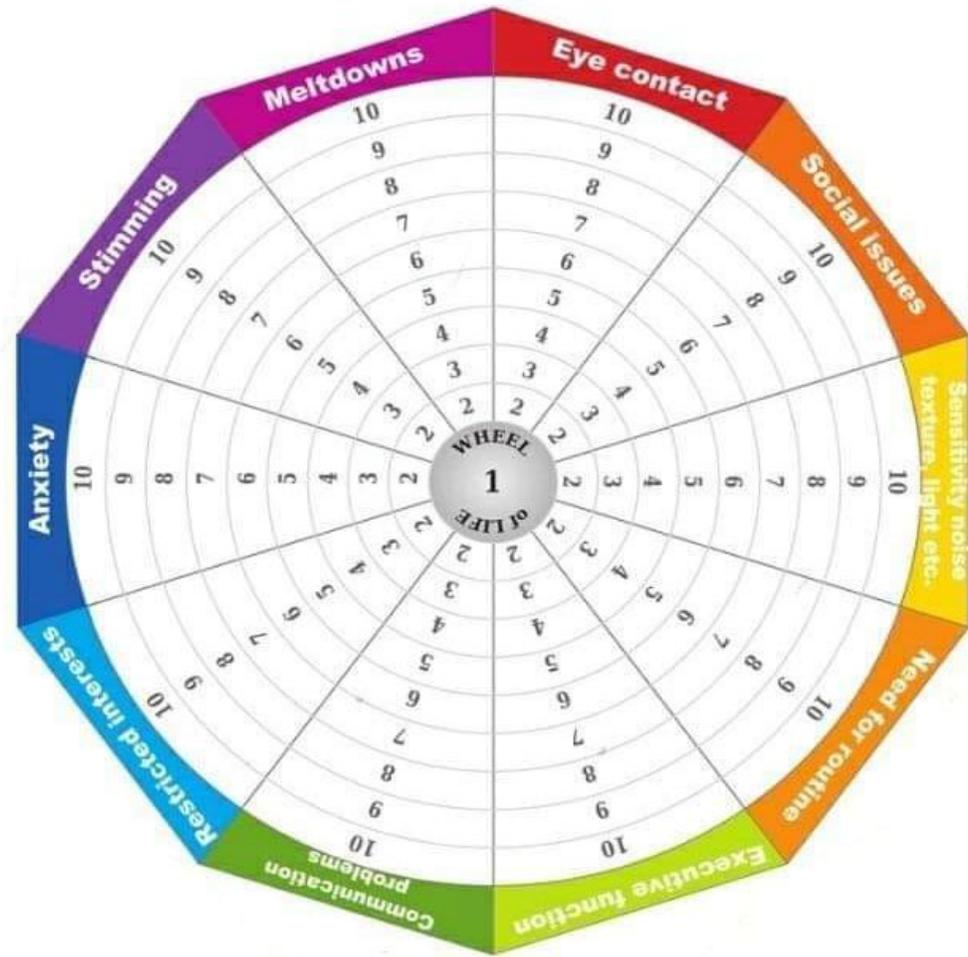
		Likelihood of a secondary diagnosis of...							
		ADHD	ASD	DCD	DLD	Dyscalculia	Dyslexia	ID	Tic disorders
Primary diagnosis	ADHD								
	ASD								
	DCD								
	DLD								
	Dyscalculia								
	Dyslexia								
	ID								
	Tic disorders								

# What People Think the autism spectrum looks like:



less autistic

more autistic



# Dyslexia – 10% of general population

Costs of undiagnosed  
issues in the UK =  
£1billion

Exclusions from school



High levels of long term  
unemployment

Imprisonment



Increased mental  
health issues

Underachievement



# Positives of being dyslexic

- Enhanced creativity, problem-solving abilities, and a knack for seeing the "big picture".
- Dyslexic individuals can excel in art, design, and technology due to their visual and spatial reasoning skills.
- Many successful entrepreneurs and business leaders are dyslexic, due their problem-solving and creative skills.
- Neuroscience and fMRI scanning show that dyslexic brains really are “wired” differently. The left parietal temporal area of their brains uses different neural pathways that help people with dyslexia to think differently, creatively, and laterally.

# Developmental Language Disorder (DLD) & Auditory Processing Disorder - 7% of general population

Can be expressive / receptive

3/5 young offenders have DLD

Young offenders are 6 times more likely to have DLD than general population

62% of young offenders with DLD reoffend compared to 25% in general population

# Dyspraxia / Developmental Co-ordination Disorder (DCD) – 6-10% of general population

It is three or four times more common in boys than girls



Can cause learning problems for children – different to dyslexia



Can affect physical, speech and language, social, eye movements, sensory, spatial, awareness, memory, organisation, concentration, emotion, sense of direction and thought processing



Positives to being dyspraxic - being determined, thinking outside the box, and long term memory



# Dyscalculia 6% of general population



Difficulty in composing and decomposing numbers



Forgets maths facts



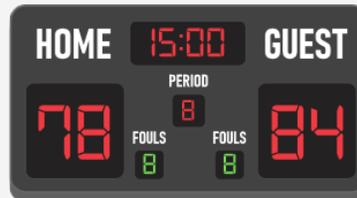
Number patterns are hard



Dyscalculia make life harder-shopping, cooking, planning journeys or recipes



Is often late or early



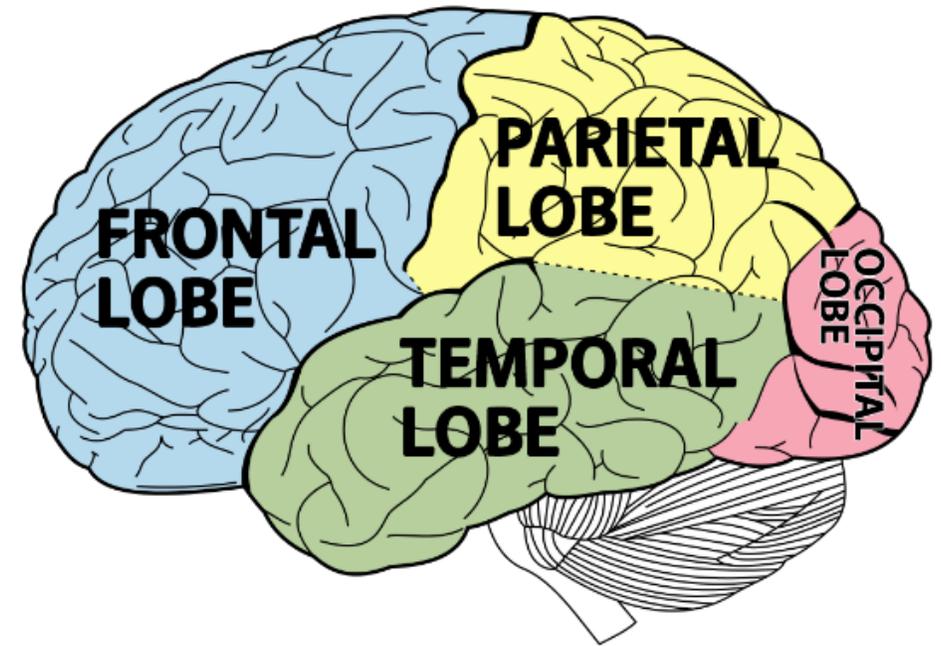
Doesn't understand scoring in games



Learning to drive can be hard

# What is Attention Deficit Hyperactivity Disorder (ADHD)?

- ADHD is a neurodevelopmental difference
- ADHD is strongly inheritable, though there is no one clear cause for ADHD
- Differences in brain development, structure, and activity



# What is ADHD?

'ADD' isn't a diagnostic term anymore

## Subtypes

- Predominantly inattentive
- Predominantly hyperactive – impulsive
- Combined

NICE guidelines estimate that 20-30% of people with ADHD are predominantly inattentive, around 15% are predominantly hyperactive – impulsive, and 50-75% are combined

# Attention Deficit Hyperactive Disorder (ADHD)- 7% of general population

ADHD was first described in 1775 by Adam Weikard



ADHD can be experienced as either hyperactivity or impulsivity

ADHDers can be creative, spontaneous, great problem solvers and highly energetic



ADHDers can lose important things, be inattentiveness, daydream or “zone out”, talk excessively without stopping, be impatient and find it hard to follow instructions

ADHDers are more likely to have road traffic accidents, have addictive personalities



At least 30% of prisoners have ADHD

13% more likely to die by suicide - 1:4 male ADHDers have attempted



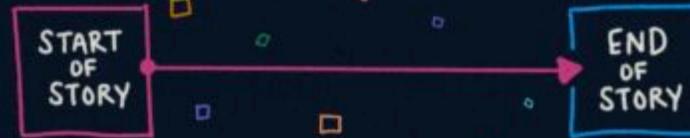
**What ADHD traits are  
you already aware of?**

# Attention

- Very short attention span
- Easily distracted by both external (the environment) and internal (own thoughts)
- Difficulty with conscious, directed attention
- Sustaining concentration and focus
- Continual redirecting of attention
- Can feel painful and frustrating
- Struggling to attend to things we want to attend to
- Avoiding tasks which require sustained mental effort



## NON-ADHD STORYTELLING



## ADHD STORYTELLING



adhdd.com

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# Hyperactivity

What can hyperactivity look like?

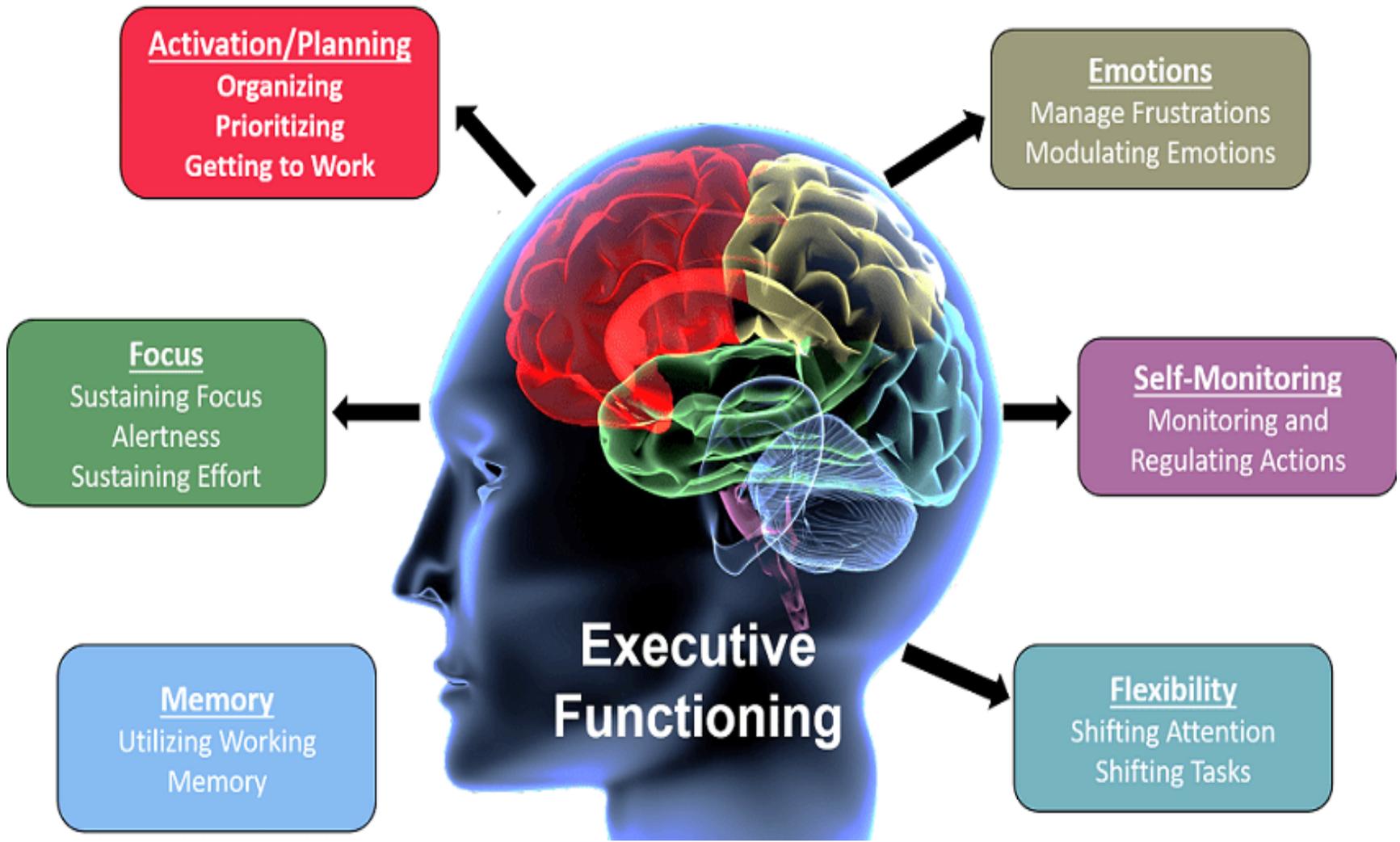
- “Driven as if on a motor”
- Lots of energy
- Restless
- Fidgety
- Cannot sit still
- Talking really fast
- Racing thoughts
- Easily bored
- Busy all the time

# Impulsivity



What can impulsivity look like?

- Reckless and risky behaviour (antisocial behaviour, substance misuse, aggression, dangerous driving)
- Blurting things out
- Interrupting others
- Difficulty waiting your turn
- Financial issues



# Executive Functioning



## Planning and Organising

- “Time challenged”
- Prioritising
- Breaking tasks down

## Memory

- Impacts short term and working memory
- Out of sight, out of mind (works for people too)
- Forgetfulness

# Executive Functioning

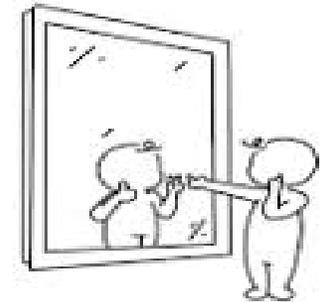
## Emotions

- Mood switches
- Intensity
- Difficulty with regulation
- Low frustration tolerance



## Self-Monitoring

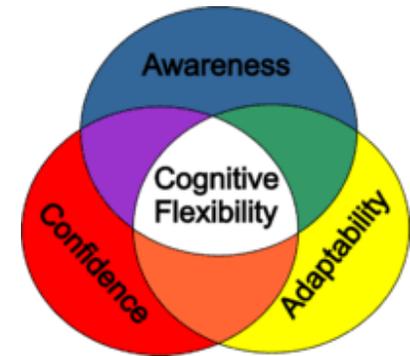
- Highly self aware
- Monitoring and regulating behaviour, thoughts, feelings
- Goal setting and action
- Perfectionism/chaos



# Executive Functioning

## Mental Flexibility

- Shift attention and tasks
- May get 'stuck'
- May be overly flexible
- Thought patterns and negative thinking



# Senses

- Typically associated with autism, but sensory overload and sensitivities are common in people with ADHD too
- May be related to:  
distractibility; difficulty concentrating; intense emotional reactions;  
under/over stimulation



# Relationships



What might cause difficulties?

- Interrupting people
- Forgetting birthdays/appointments/plans
- Out of sight out of mind
- Having conversations 'in our heads'
- Being late
- Risk taking and impulsive behaviour
- Emotional dysregulation
- Miscommunications and perception of rudeness (for example, if I tell a related story, I am trying to relate, not to one up you or make it all about me)

# Women and ADHD



- Often misdiagnosed and diagnosed later in life
- Tend to be more inattentive and less hyperactive – impulsive; hyperactivity is in speech and thoughts rather than behaviour
- Internalising traits
- Traits are seen as a result of something else – personality, gender, lifestyle
- Societal expectations of women – multitasking, being on the go
- Inability to meet these expectations contributes to low self esteem, rejection sensitivity, people pleasing, anxiety and overthinking

# Women and ADHD



- Common misdiagnoses include bipolar disorder and borderline personality disorder
- Perceptions of ADHD traits
- Anxiety and depression common
- Incorrect treatment and medication can worsen ADHD traits
- Oestrogen is involved in the modulation of neurotransmitters including dopamine, oestrogen levels vary considerably during puberty, the last 2 weeks of the menstrual cycle, peri-menopause and menopause

# Self Esteem and Rejection Sensitivity



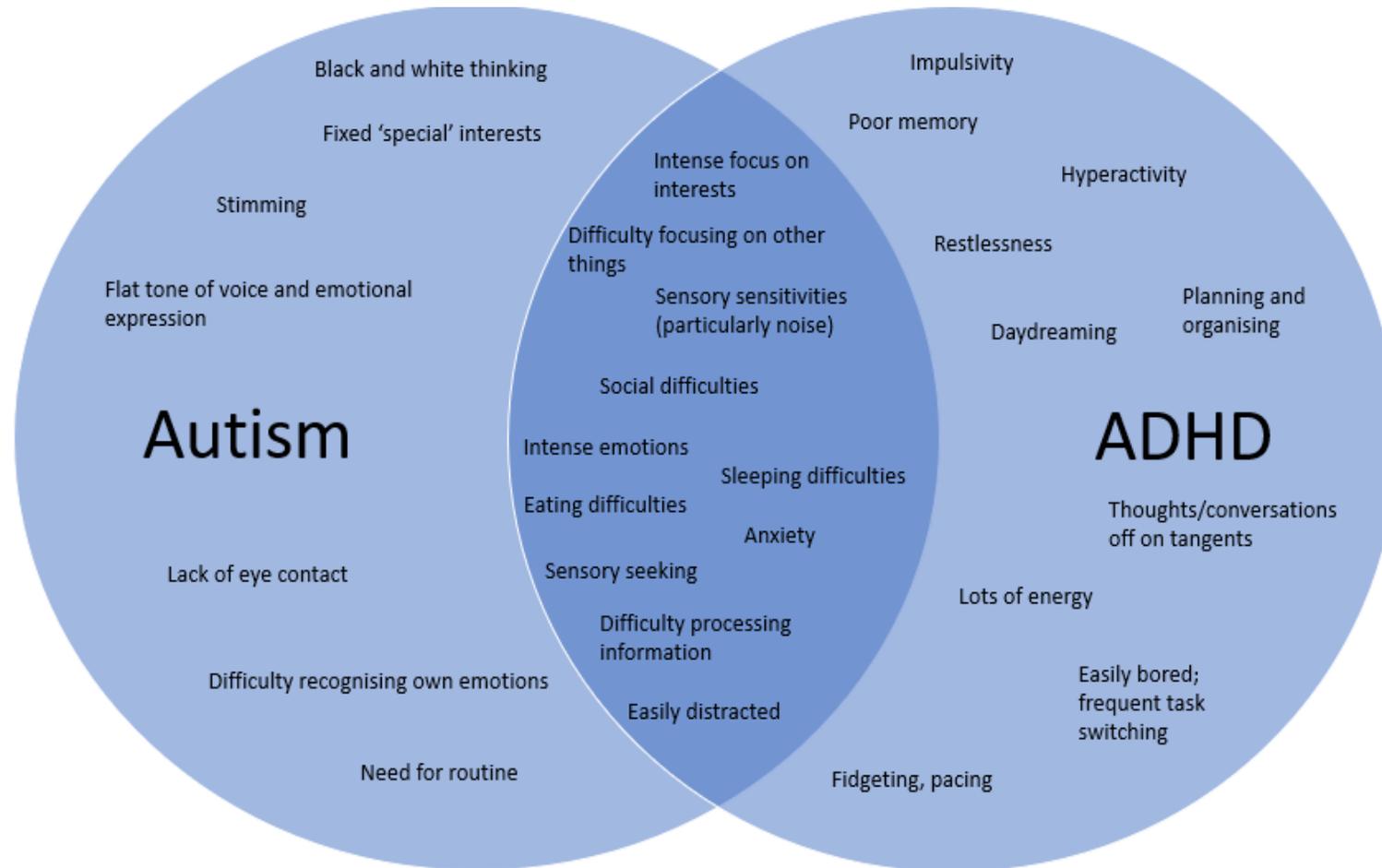
- ADHDers often struggle with self esteem and self confidence
- ‘Rejection sensitivity dysphoria’ – not a medical diagnosis, a way of describing some symptoms associated with ADHD
- Lots of negative messages from others, guilt and blame about our difficulties
- “When you experience severe emotional pain or discomfort because of a failure or feeling rejected.”

## Consequences

- Self – fulfilling prophecy
- Avoidance
- People pleasing
- Lack of self care

# Autism

Up to 80% of people with ADHD are also autistic



# Environment

Autism + environment = outcome



From our experience, the same is true for ADHD too...

# Environment



- How loud is the setting? How quiet is it?
- How busy is it? Does the person need additional stimulation?
- How bright are the lights? Do they need darkness, or dimmed lights
- How many interruptions are there?
- What has been asked of the person? How many steps are there?
- Is there a way to keep track of time? Clocks / alarms / prompts
- How many tasks is the person juggling?
- Are there any additional expectations?

# Support and Treatment



- Medication – personal choice. Up to 80% of people with ADHD notice positive effects of medication. Most ADHD medications are stimulants
- Mindfulness, CBT, counselling, life coaches, strategy sessions
- Reasonable adjustments and Access to Work in the workplace, DSA at university, EHCP's at school
- Environment and social support
- Exercise
- Diet and supplements

# Strategies



- Making prompts as visual as possible
- Organising, planning and prioritising (alexa/siri/etc)
- Snowball method (debt-reduction strategy)
- Changing expectations
- Barriers (removing/adding)
- Think about your language
- Time management (pomodoro, timing tasks, visualising time)
- Body doubling - working on a task with another person present
- Sensory aids

# Strengths



- Hyperfocus
- Resilience
- Creativity
- Ambition
- Spontaneity
- Energy
- 'Out the box' thinking
- Motivation
- Empathy
- Courage
- Problem solving
- Imagination
- Perseverance

Autistic people are sometimes described as 'high' or 'low' functioning, or having 'mild' or 'severe' autism

This is assigned by other people based on how they experience autism, not the experiences of the autistic person

# Autism – at least 1.5% of general population

1 in 100 people diagnosed

Current male:female ratio is 3:1

Only 33% of Autistic people also have a learning disability

Autistic people are 9 x more likely to end their lives by suicide than the non-autistic population  
Autistic people can die up to 16 years earlier

Only 32% of autistic people are in paid employment

Increased mental illness – anxiety, low self esteem



Fewer than 16% in full time employment



11-66% of autistic adults have thought about suicide



Up to 35% have planned or attempted suicide

Within prisons the prevalence of autism is 16% - 19%

## WHAT IS AUTISM

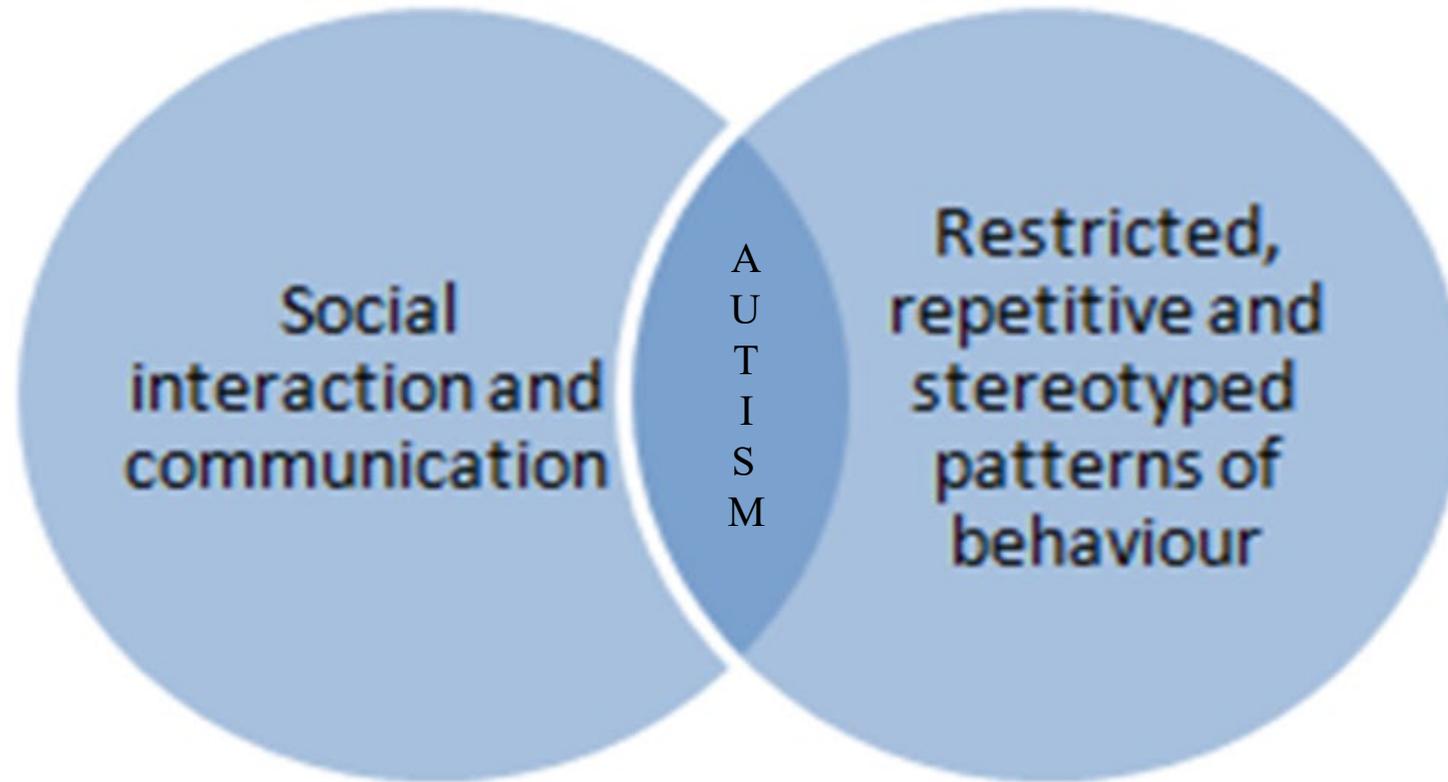
- Autism is a lifelong neurological developmental difference which is present from birth
- Autistic people tend to experience the world a little differently
- It is not a mental health problem or something you can 'catch,'
- The current diagnostic term in the UK is Autistic Spectrum Disorder (ASD)
- The terms Aspergers and High functioning are no longer used
- Traits of autism can feel disabling; often this is because the world isn't designed for autistic people

## MYTHS & STEREOTYPES

- Everyone's a bit autistic
- Autistic people have no empathy
- Autistic people can't make eye contact
- Autism is caused by vaccines/parents
- Autistic people have special talents/abilities
- Autistic people don't have a sense of humour
- Autism is a learning disability
- Autism only affects children
- Women aren't autistic
- Autistic people don't have friends/relationships/jobs
- Autistic people aren't social
- Autistic people are deliberately rude

**And the list goes on .....**

# DYAD OF IMPAIRMENTS



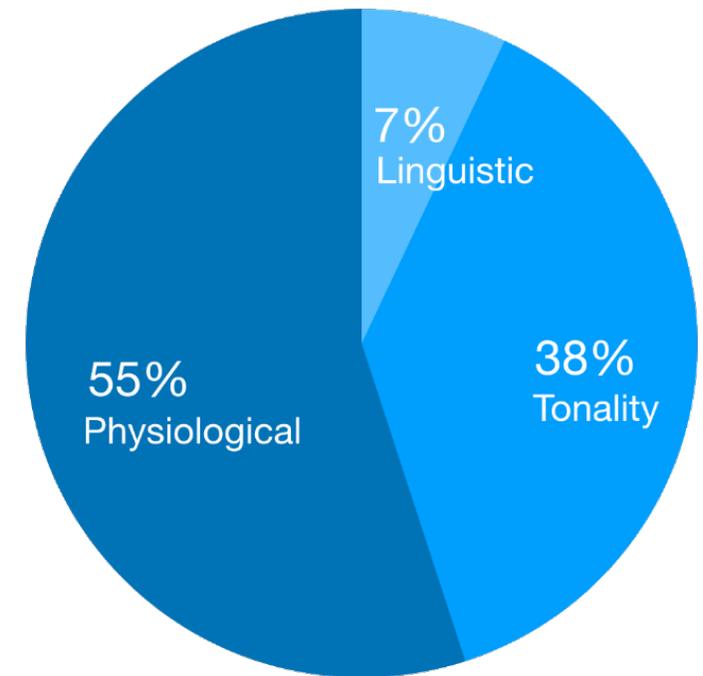
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# SOCIAL INTERACTION

- Differences in how we interact with others and how we share information and express ourselves
- Trouble making or maintaining friendships
- Shy and observe situations before joining in
- Anxious in social settings, socially awkward
- Limited interactions/ Appear to not interact with others
- Withdraw from friends and family
- Lack of confidence / lack of awareness in social settings
- Will reciprocate but not initiate interaction
- Prefer own company or online interactions
- Difficulty recognising other people's emotions and intentions

# COMMUNICATION

- Tone of voice and facial expressions
- Appearing 'blunt', 'rude' or over honest
- May go off on tangents and be difficult to re-direct
- Not liking small talk, preferring to discuss topics of interest 'all the time'
- Over/ under sharing information
- Eye contact
- Difficulty retaining focus during conversation
- A delay in processing time – executive functioning
- Development of expressive language is often greater than receptive language



# LITERAL LANGUAGE

Many autistic people take communication literally

It is important to try and avoid using vague language when possible

- Eyes in the back of your head
- Get the ball rolling
- They've got 2 left feet
- Walking on eggshells



Its not just verbal language that can be taken literally, written language is just as easily taken literally

# RESTRICTED/ REPETITIVE PATTERNS OF BEHAVIOUR

Always using the same routes to get places

Intense areas of interest

Lack of awareness of personal safety

Wear the same or similar clothing all the time/ sunglasses indoors/ noise cancelling headphones

Restricted/ limited diet

Stimming

Echolalia

Change can be difficult to manage and can be anxiety provoking

Preference of things in the 'right place' - Not liking people touching/ moving their belongings

Difficulty understanding cause and effect and predicting what might happen next

# STIMMING

Many stims go unnoticed as many people do them.

Sometimes stimming may be more obvious, because it impacts the world around us, goes on for longer, is unusual or age inappropriate.



## WHY DOES STIMMING HELP?

**Overstimulation:** Stimming can help block out excess sensory input

**Under stimulation:** Stimming helps provide extra sensory input when needed

**Pain reduction:** Repeated banging of the head or body actually reduces the overall sensation of pain. One hypothesis is that stimming causes the release of beta-endorphins in the body, which then causes a feeling of anesthesia or pleasure

**Management of emotions:** Both positive and negative emotions may trigger a burst of stimming. You may see physical reactions to joy or excitement, such as jumping or hand-flapping. Frustration or anger may intensify a stim to the point that it becomes destructive

**Self-regulation:** Some stims serve the purpose of soothing or comforting. Many infants learn to suck their thumbs to relax themselves

# COKE BOTTLE KIDS

A day in education spent masking means managing and processing:

- Demands/ instructions
- Transitions
- Interactions
- Social norms/ rules
- Environmental concerns – noise, light temperature etc
- Sensory issues – clothing, textures, food etc

When they get home to a ‘safe’ place or people, they demask and let it all out.

Like the lid being taken off a coke bottle that’s been shaken all day!



# MENTAL HEALTH

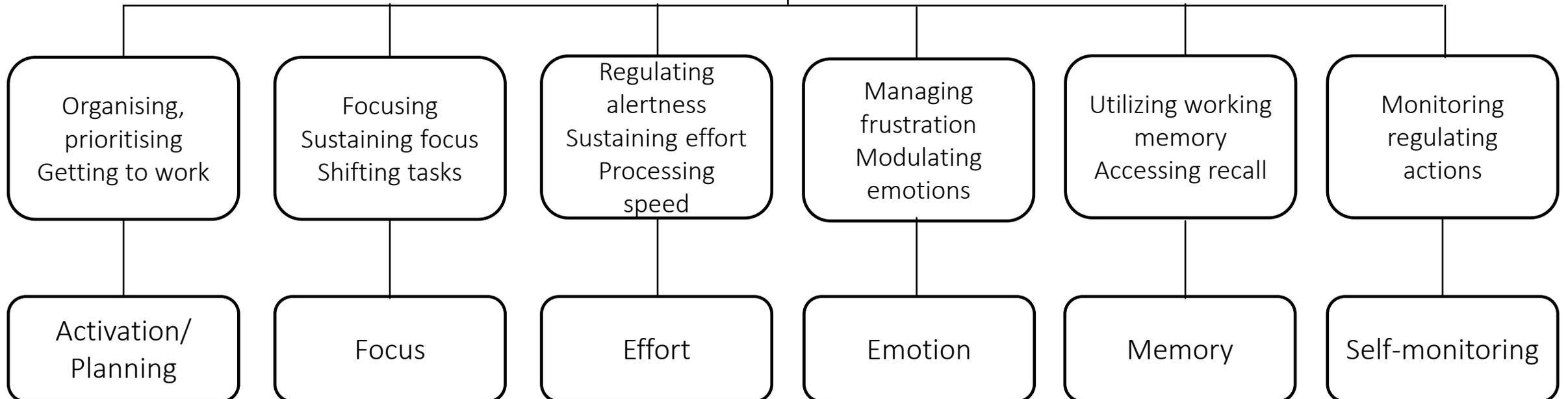
Autism isn't a mental health condition, it is however common for autistic people to have mental health difficulties such as depression and anxiety, and to struggle with low self esteem and confidence.

- Almost 8 in 10 autistic adults experience a mental health problem
- Autistic people are 9 times more likely to take their own lives than the general population
- Autistic females are 12 times more likely to take their own lives than the general population

Autistica (2019), Lever and Geurts (2016), Tromans, et al. (2018)

# EXECUTIVE FUNCTIONS

Executive Functions – work together in various combinations



# SPOON THEORY – APPLIED TO AUTISM

Christine Miserandino used this metaphor to explain what it's like living with lupus

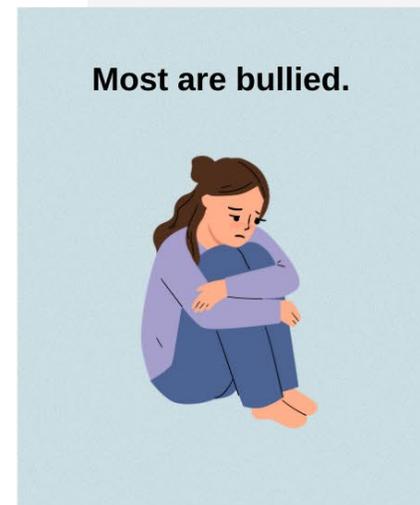
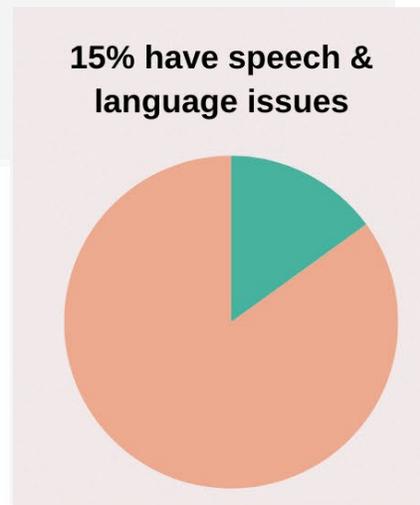
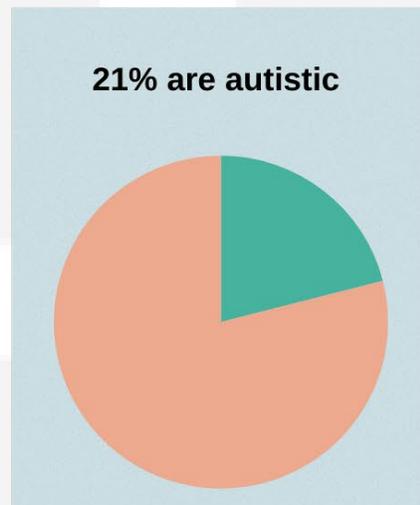
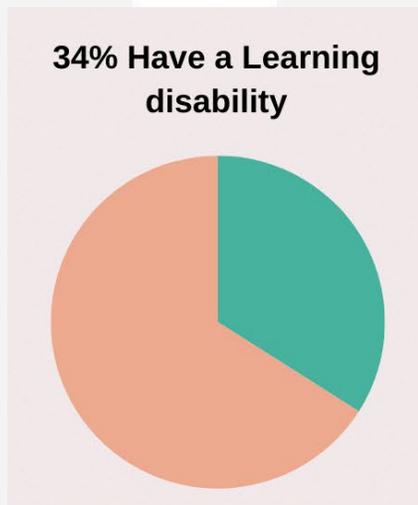
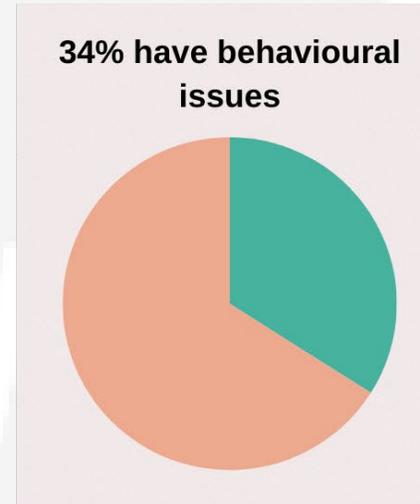
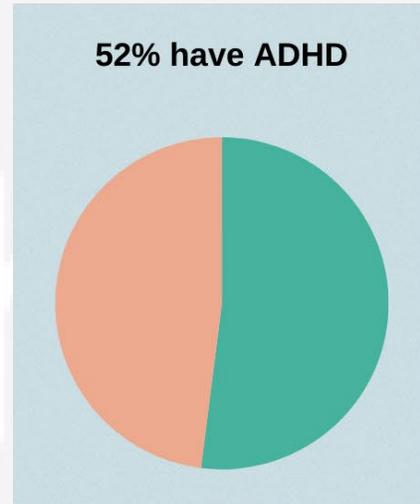
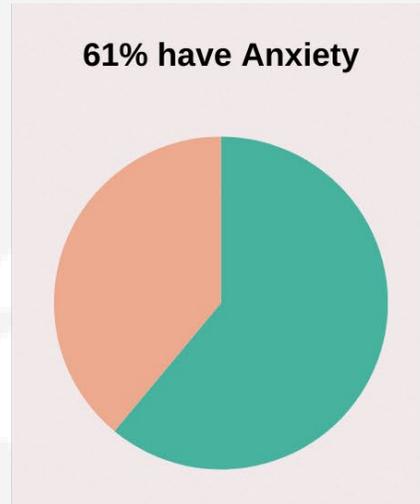
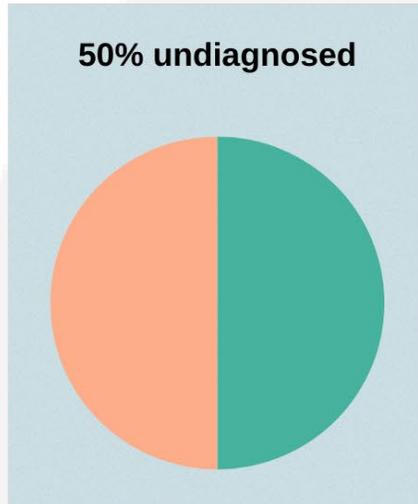
We start each day with a certain number of spoons, or units of energy

Daily activities and tasks take up spoons. Some activities and tasks use more spoons than others

We can borrow spoons from the next day, but must always pay them back through rest and recharging



# Tourette's - 0.5 – 1% of general population



# How can understanding and supporting Neurodiversity help your business?

- ✓ Helps attract talent into key roles.
- ✓ Improves staff retention and reduces recruitment, induction and training costs.
- ✓ Can help increase productivity.
- ✓ Helps reduce absenteeism and presenteeism.
- ✓ Strengthens team dynamics and increasing job satisfaction leading to improved overall employee wellbeing.
- ✓ Enhances brand values and business reputation.
- ✓ Increases understanding of your neurodiverse clients



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**ANY  
QUESTIONS?**