

•⁺ Mental Health Problems in ASD^{+•}

Where we were

Anxiety/emotional disturbance conceptualised as 'part of ASD'

Mental health problems underlying challenging behaviour often unrecognised or untreated/mistreated

Few if any treatment options other than medication

A few case studies and anecdotal reports

Where we are now

Robust data on the prevalence of mental health problems in ASD (eg Simonoff et al 2008)

Several trials demonstrating efficacy of CBT for anxiety (eg Sukhodolsky, 2013)

An understanding of the atypical and typical presentations of anxiety in ASD)

Understanding of the pathways and moderating/ mediating factors to anxiety in ASD

Development of ASD-specific assessment tools/techniques

Anxiety

Very common presenting clinical problem



```
graph TD; A[Very common presenting clinical problem] --> B[Prevalence rates of about 50%]; B --> C[Typical and atypical presentations quite specific to ASD]; C --> D[ASD-specific pathways to anxiety?]
```

Prevalence rates of about 50%

Typical and atypical presentations quite specific to ASD

ASD-specific pathways to anxiety?

Associated factors

- Anxiety and IQ seem to be related (Waite et al 2020)
- Possibly verbally more able individuals have higher awareness of difference and hence higher anxiety
- But equally questionnaire measures may be better at picking up anxiety in high functioning individuals – we need better measures
- Social and communicative features, and repetitive and restrictive features may have a differential impact on anxiety
- Some disorders may vary differentially according to age



Presentation of anxiety in autism

Qualitative studies: Ozsivadjian, Magiati and Knott (2012), Trembath et al (2012), Magiati et al (2016)

- A qualitative, bottom-up approach
- An attempt to try and capture the atypical presentation of anxiety in ASD, qualitative differences between anxiety in ASD and the general population

Quantitative studies eg Kerns et al 2014

Triggers

Typical:

- Worries about social expectations/judgments
- Worries about not meeting demands
- Typical fears

ASD-specific:

- Worries about changes to routine and new situations
- Social fears but not driven by fear of social negative evaluation
- Sensory over-stimulation, unusual fears
- Being prevented from engaging in repetitive behaviours or circumscribed interests
- School as a theme throughout

Signs and symptoms of anxiety

Typical:

- Somatic: changes in eating and sleep
- Increase in arousal
- Escape, avoidance, reassurance, safety behaviours


ASD-specific:

- Challenging behaviour or withdrawal
- Increase in sensory, repetitive behaviours
- Increase in socially inappropriate behaviours
- Behavioural rather than verbal communication of anxiety


Impact


Impact of anxiety often greater than the ASD itself

Impact on child, parents, sibling





Cognitive pathways to anxiety in ASD

- Relationships identified between:
 - Intolerance of uncertainty (IU) and anxiety
 - Attentional bias and anxiety
 - Executive function and anxiety
 - Sensory sensitivity and anxiety
- 




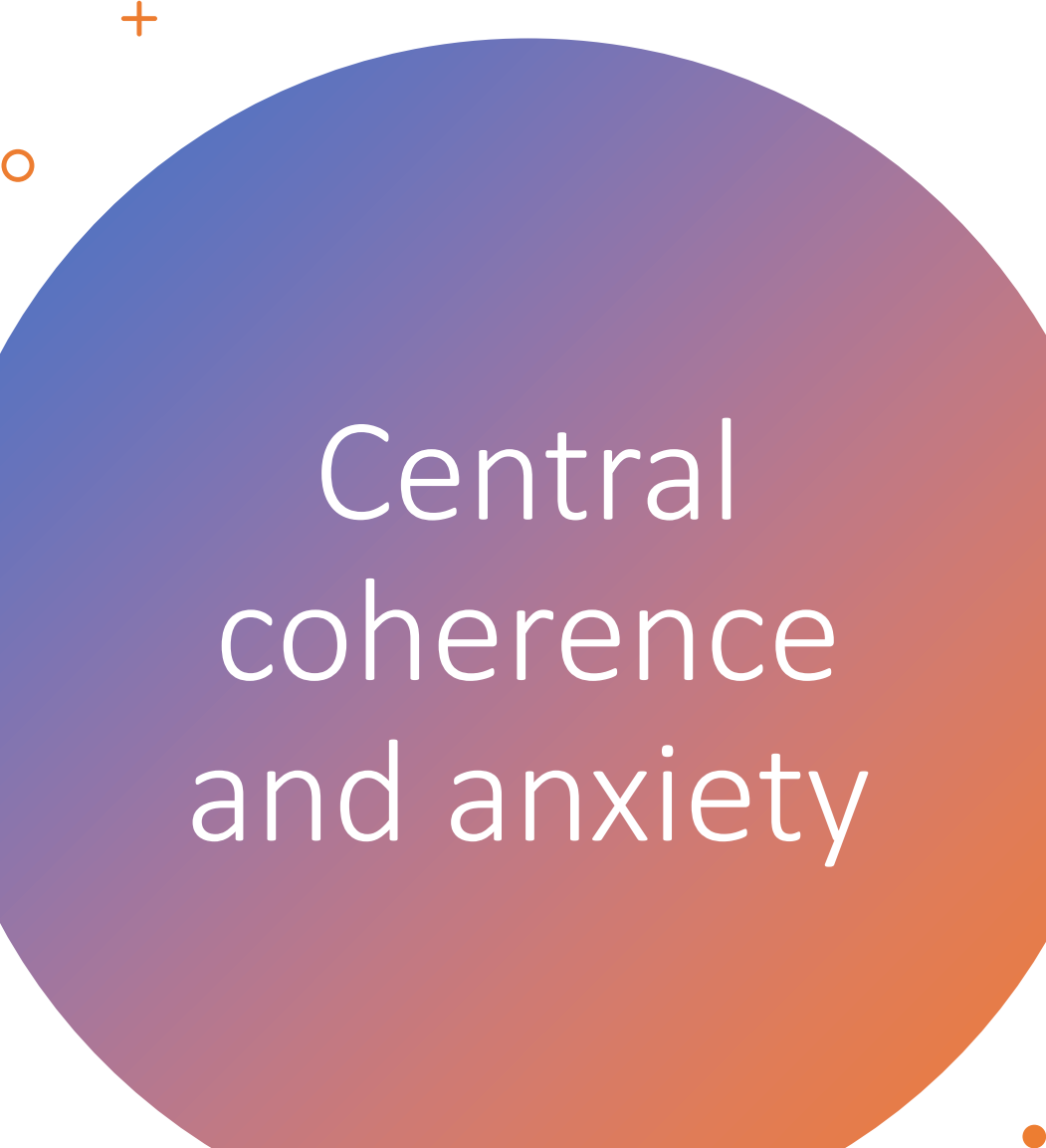
Theory of mind and anxiety

- Misunderstanding of other people's intentions can lead to a perception of threat.
 - Difficult to distinguish between deliberate and accidental acts.
 - Ambiguity perceived as threatening
 - e.g. Busy school corridor, get bumped into. Interpret this as being deliberately pushed or hit.
 - An awareness of the difficulty understanding other people can also lead to anticipatory anxiety about being around people, and hence avoidance
- 





Weak central coherence

- Tendency to process information locally rather than globally
 - Pay less attention to context
 - Pay preferential attention to parts rather than wholes
 - Eg Happe and Frith, 1996, 2006
- 





Central coherence and anxiety

- Poor global processing can lead to a piecemeal understanding of social situations/ task instructions
 - Possible processing bias towards threatening stimuli. Eg only processing negative comments, not whole context
- 




Attentional bias in anxiety and ASD (Hollocks et al 2016)



- Negative interpretation bias
 - ASD/ANX=ASD/no anx > no ASD
 - Attentional bias to threat faces
 - ASD/ANX> ASD no anx> no ASD
 - Some studies have shown no attention bias in ASD
 - Negative biases may be related to ASD more generally, not just anxiety
- 




IU in ASD

- IU may actually mediate the relationship between ASD and anxiety -after the effect of IU was taken into account, there was no longer any difference in anxiety between ASD and non-ASD groups.(Boulter et al 2013).
 - A meta analysis of 10 studies found 9 had a robust link between IU and Anxiety
 - Greater insistence on sameness associated with higher anxiety (Rodgers et al, 2012; Gotham et al, 2013)
 - RRBs may help reduce IU/anxiety by creating sameness/reducing unpredictability (leads to positive beliefs about RRB, reduces learning opportunities)
- 




The role of cognitive inflexibility

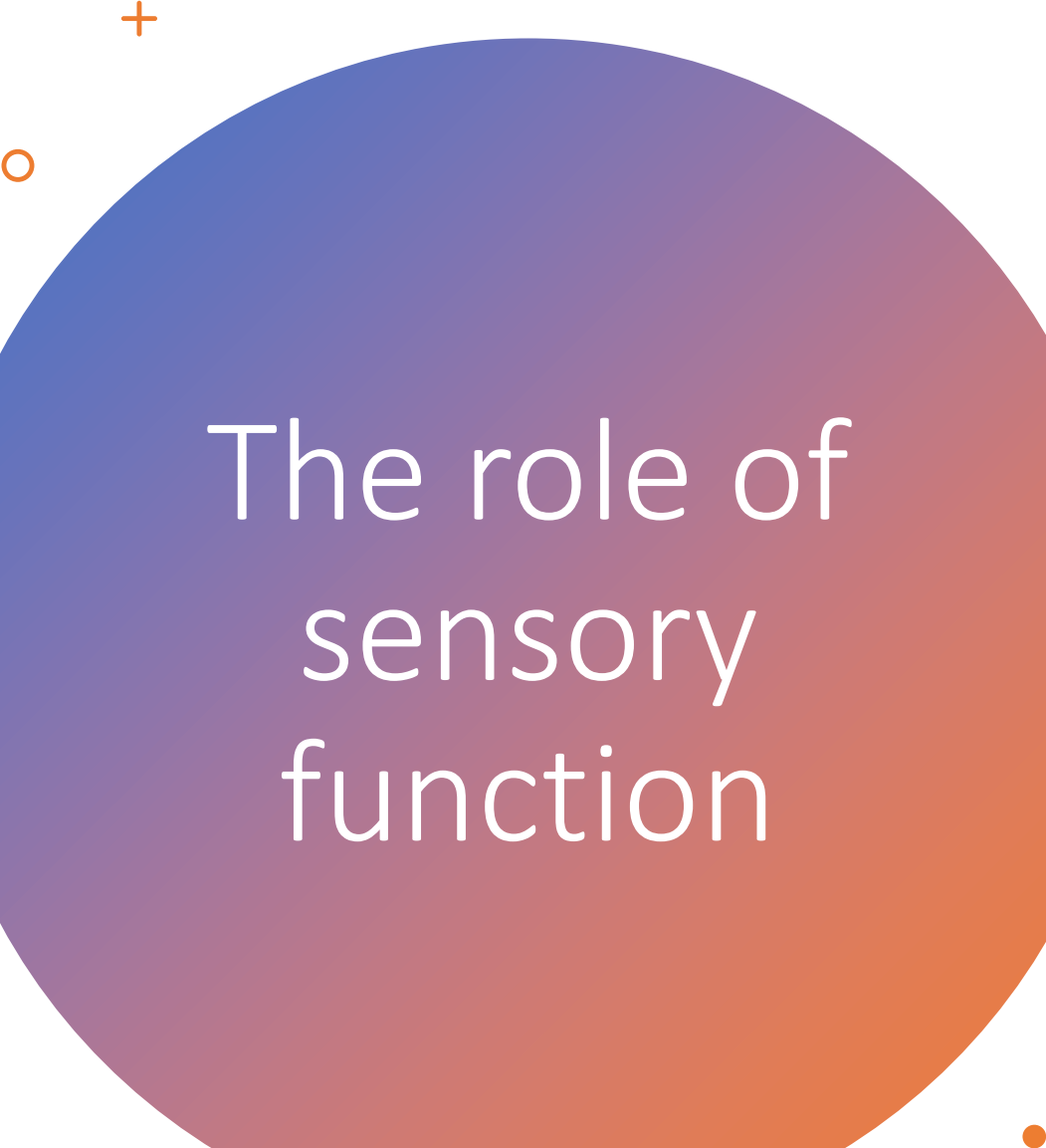


- Not a great deal of research apart from within the neuropsychology literature
 - Direct pathway to externalising problems, indirect pathway to internalising problems (via IU)(Ozsivadjian et al, 2020 JCPP)
 - Inflexibility may inhibit the development of flexible, adaptive strategies to managing stress
 - Bidirectional, for example, anxiety may exacerbate inflexibility, resulting in an insistence on sameness, as well as inflexibility preventing effective management of anxiety (Wood and Gadow)
 - Does cognitive inflexibility affect treatment outcome?
- 




The role of alexithymia

- Alexithymia is characterised by difficulties identifying, expressing and feeling emotional states (Nemiah, 1976).
 - Internal sensations may be confusing and unpredictable and makes ER harder
 - The relationship between anxiety symptoms and features of ASD has been shown to be mediated by alexithymia (Stephenson et al, 2016)
 - a lack of reactivity to inner experiences was found to be a powerful predictor of anxiety and worry in adults with ASD (Maisel, 2016).
- 




The role of sensory function

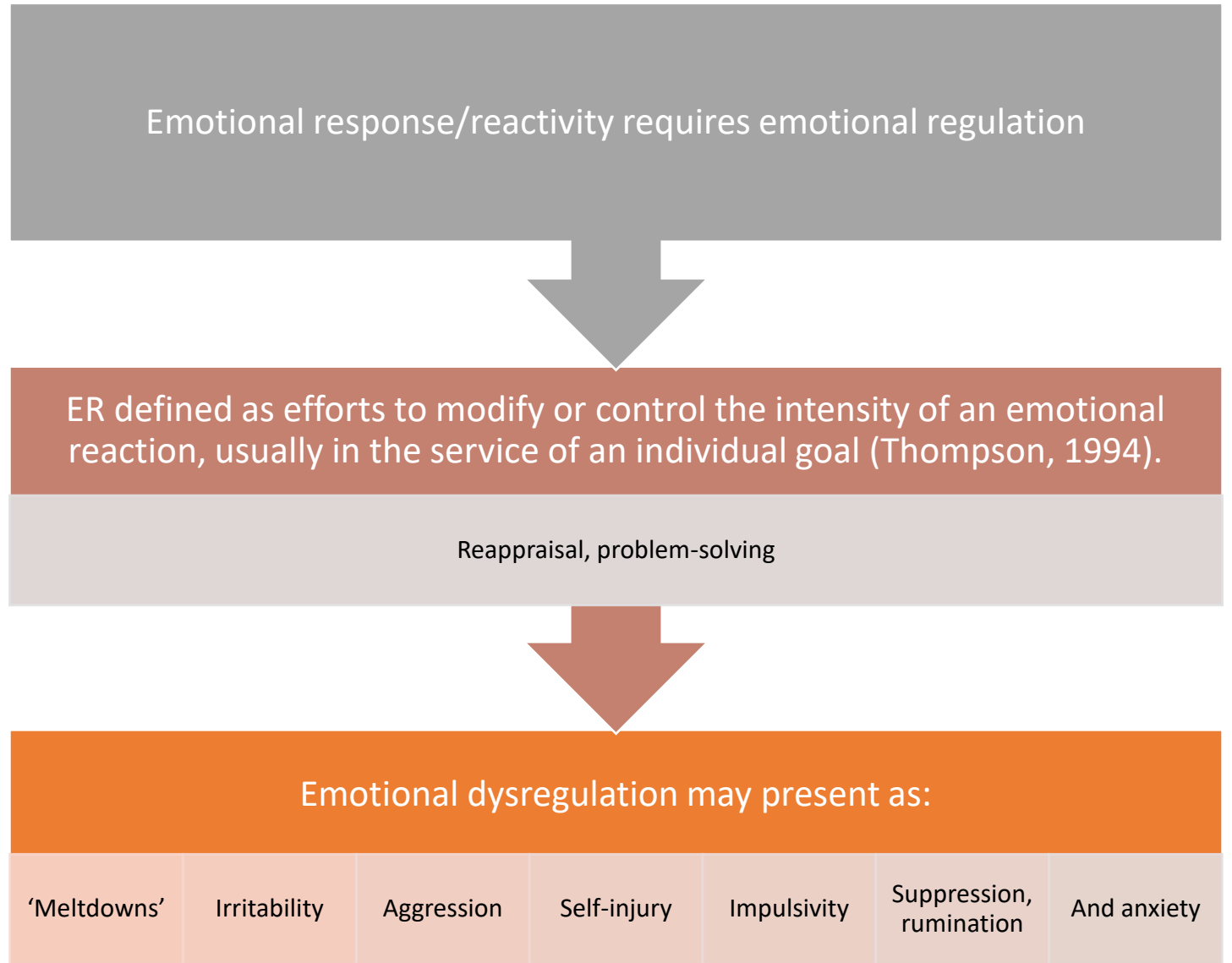
- Hypersensitivity
 - Hyposensitivity
 - Sensory processing differences – sensory prediction reduces uncertainty
-
- A bidirectional relationship
 - Atypical habituation processes
 - Also intense imagery experiences – an often-neglected area of cognition and CBT
- 



Intolerance of ...more than uncertainty?

- Of discomfort?
 - Of internal state
 - Of external stimuli
- 


Emotional regulation



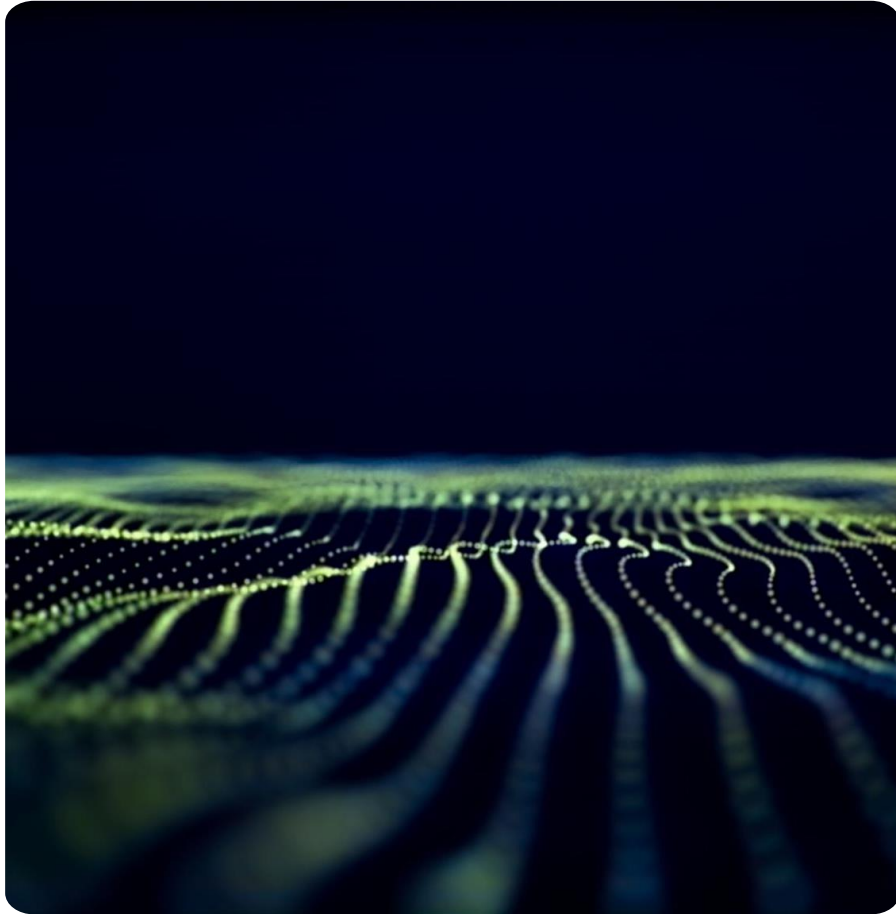


Emotional regulation

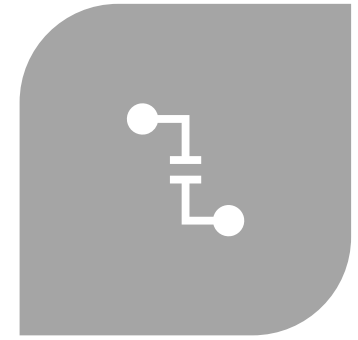


- Individuals with ASD have been shown to use adaptive ER strategies (such as cognitive reappraisal) less frequently, and maladaptive ER strategies (such as avoidance) more frequently in the management of negative emotion (e.g. Samson et al, 2014).
 - White et al (2014) detail two proposed pathways to anxiety via impaired ER: a direct pathway, whereby ER difficulties, considered intrinsic to ASD lead directly to anxiety; and an indirect route whereby the pathway is via by neural, physiological and socio-cognitive factors, with a number of proposed moderators such as rigidity, cognitive bias and social motivation.
- 

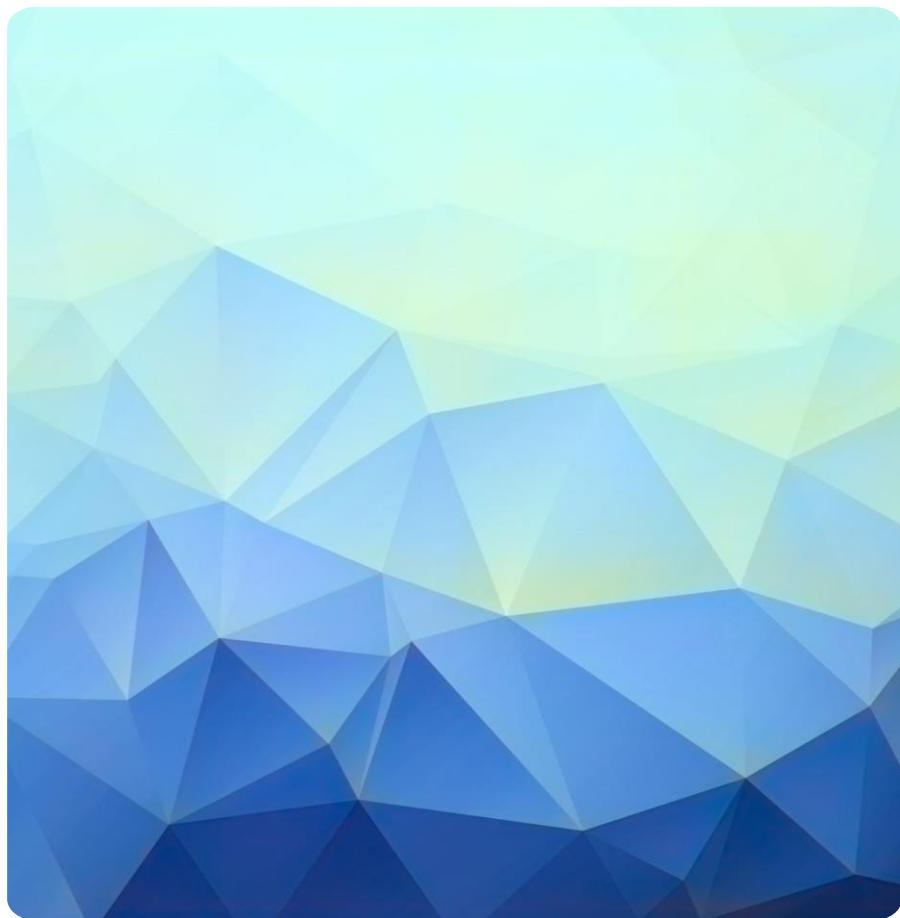
Affective neuroscience



ABNORMAL PREFRONTAL
CORTEX FUNCTION



ABNORMAL CONNECTIVITY
BETWEEN PFC AND AMYGDALA
(EG SOUTH ET AL 2012)

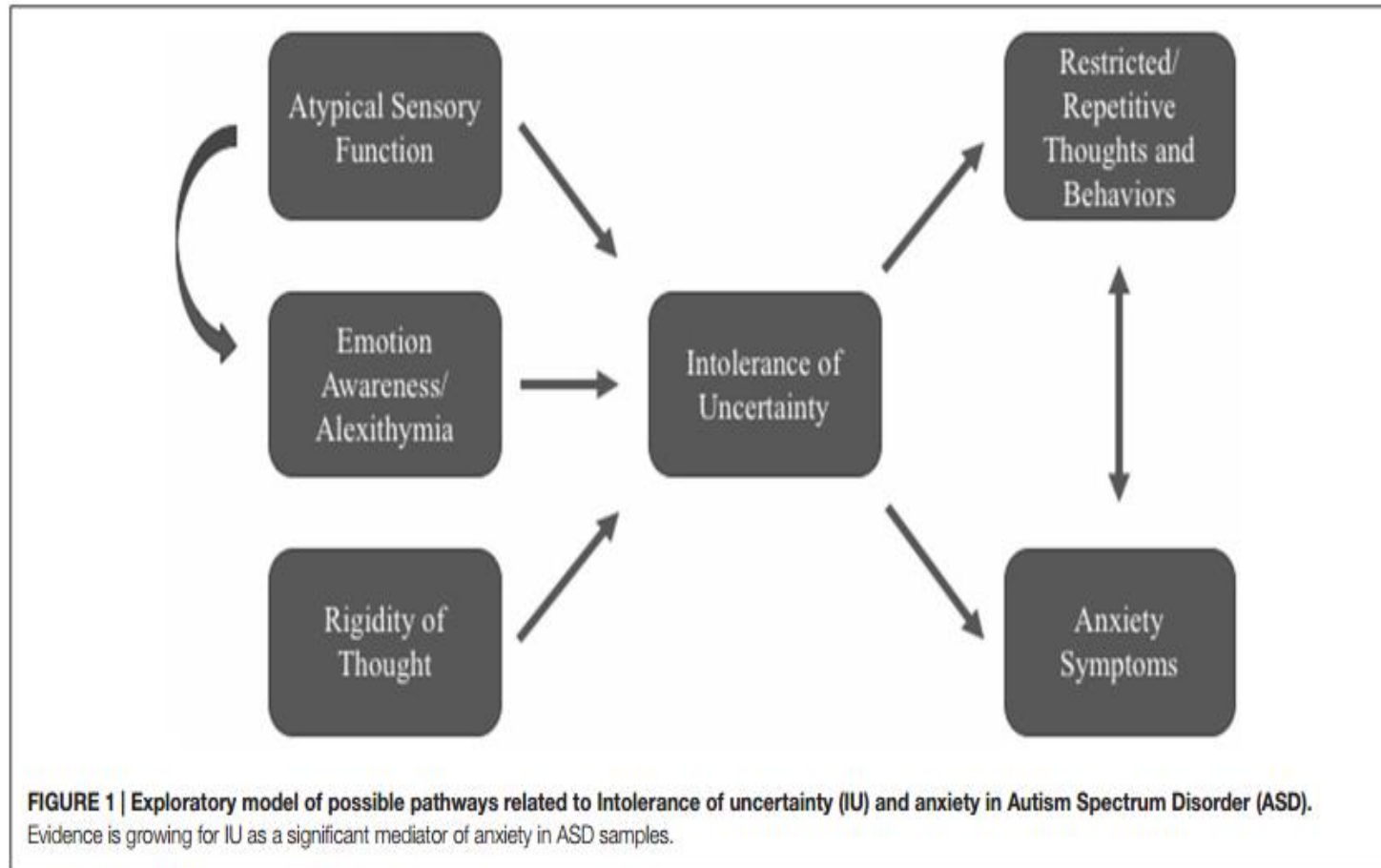


Affective neuroscience

Reduced heart rate and cortisol response to psychosocial stress in ASD (Hollocks et al 2016)

Similar to chronic stress/PTSD including early childhood maltreatment

South and Rodgers (2016)



Summary

Anxiety occurs at greatly increased rates in the ASD population

It may present typically but also atypically

Identifying pathways to ASD will help us refine treatments

+

•

○

Implications for treatment

- Adapted CBT
- Medication

+

•

○

Implications for treatment

- Addressing alexithymia – mindfulness/DBT
- Addressing imagery – imagery-enhanced CBT

+

•

- Improving tolerance for uncertainty

- CUES approach
- Core component of Dugas and Robichaud model of GAD

+

•

○

Addressing cognitive inflexibility

- Unstuck and on target - teaches what flexibility, goal setting and planning are, why they are important, and how to use self-regulatory scripts that guide flexible, goal-directed and planning behavior
- Plan A/Plan B
- Big deal/little deal



However

The best intervention is prevention

Providing the right educational environment –
reasonable adaptations, or specialist provision

Taking into account sensory needs

Autism friendly environments

Improving awareness of neurodiversity



Environmental supports in school

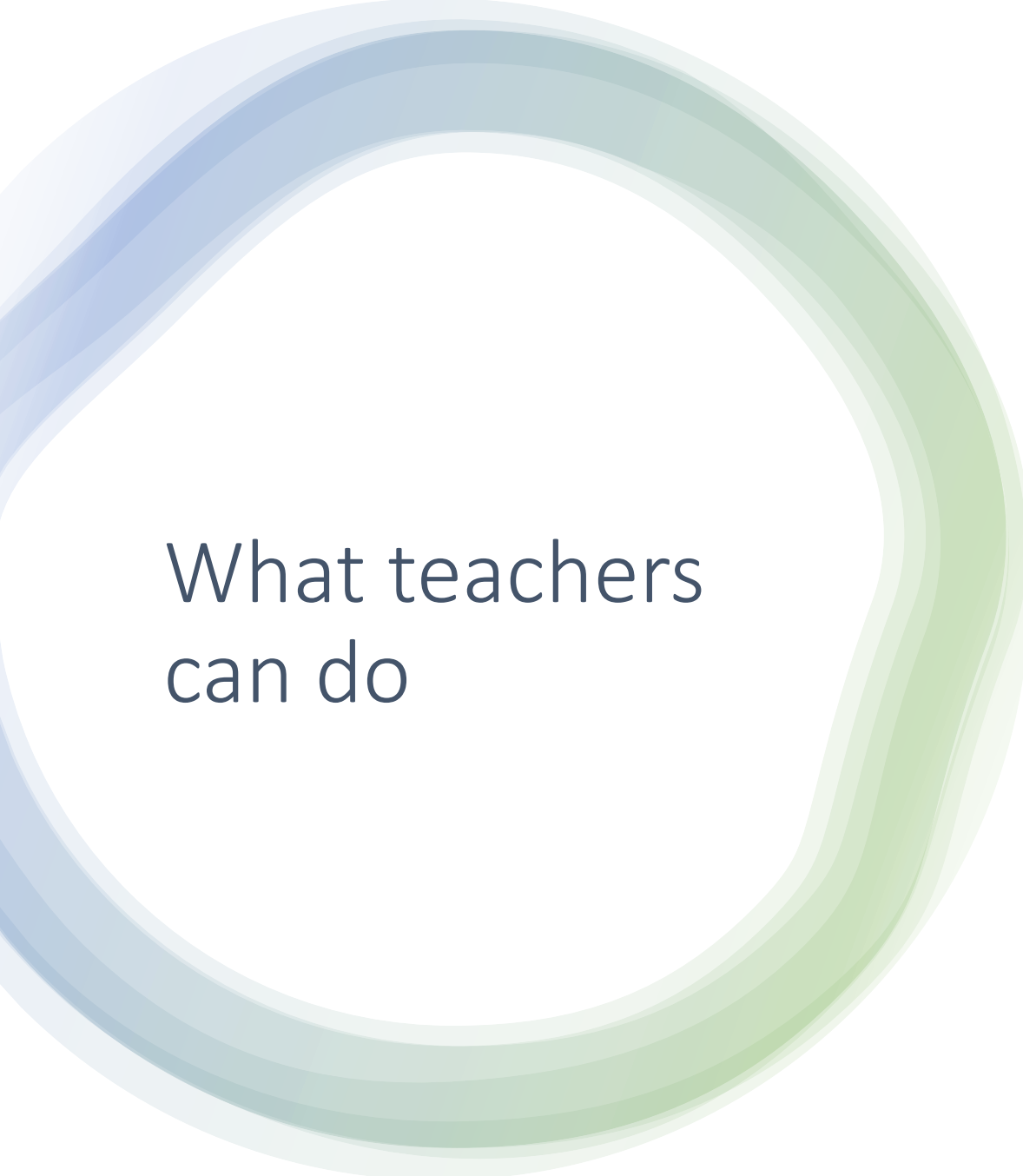
Increase predictability, reduce confusion (visual timetables)

Increase sense of calm if possible (reduce clutter, encourage use of calming techniques/objects)

Have a plan in place for unmanageable anxiety (eg go-to person, go-to place)

Meet and greet

Having separate place to get changed (for example)



What teachers can do

Know the child's triggers – reduce some if possible – but not all as this does not reflect the real world

'Read' the child's behaviour – be aware of the impact of adult behaviour on the child (eg perception of being shouted at/told off, criticised, feeling pressured, getting into battles)

Give opportunities for time out – and making child is confident to use them (eg time out card)

Reduce pressure on the child, for example not expecting them to answer questions in front of the whole class, discuss homework requirements with parents

Home school book

Praise – public vs private – be aware that being the focus of attention is uncomfortable for some.