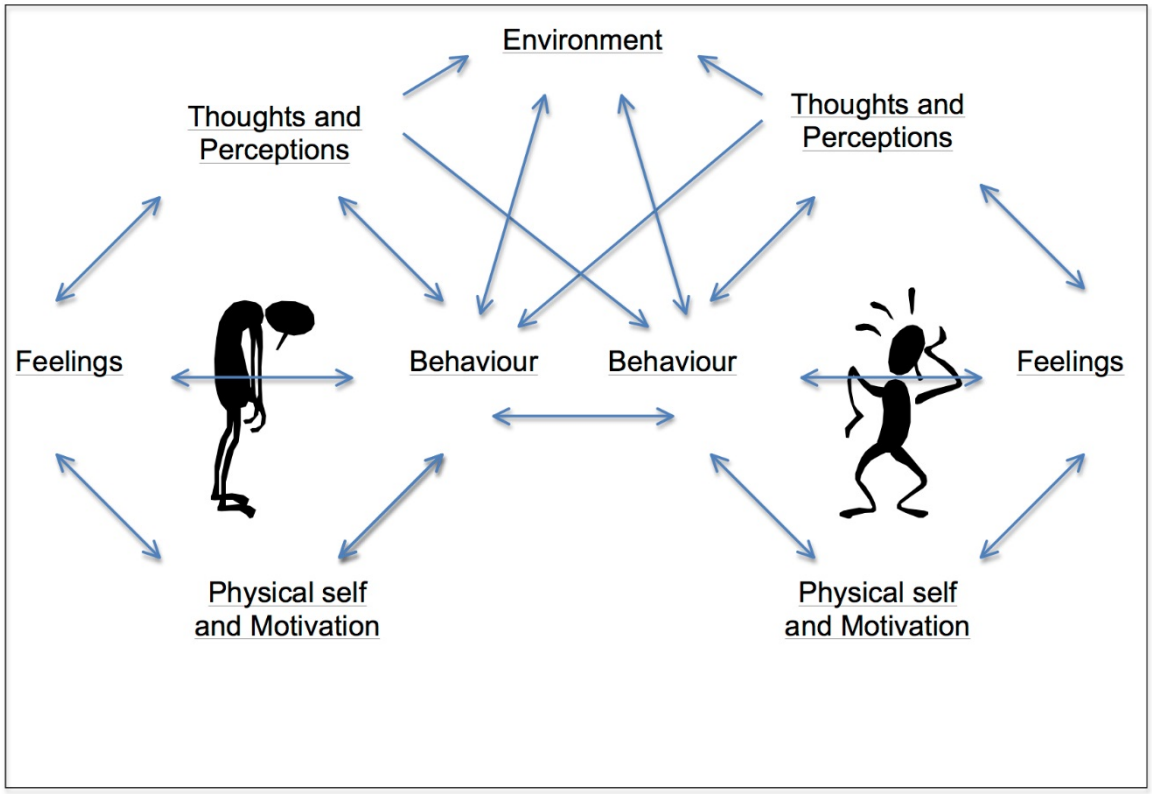
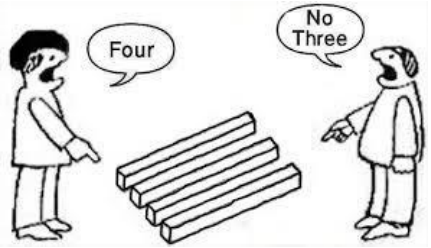
Assessment and Formulation



Optimal assessment procedures

- Triangulate assessment if possible, using parent, teacher (or other) and self report
- Behavioural measures – obtain baseline measure of function
- Mixed evidence so far about parent-child agreement (Mazefsky 2011, Blakeley-Smith 2011, White 2011)



Assessment tools

- Clinical interview/structured interview schedules: ADIS-C, CAPA, Kiddie SADS – none adapted for ASD

- Self-report measures (parent/teacher versions available for some) : Beck Youth Inventory, Spence, MASC, RCADS – again not adapted or normed for ASD

Reviews of anxiety assessment in ASD

- Groundhuis et al 2012
- Lecavalier et al 2014

Appropriate (with conditions)

ADIS-C, MASC, CASI-4R, PARS

Potentially appropriate

SCARED, ADAMS, RCADS

Not appropriate

RCMAS, NCBRF, CBCL

See Hallet et al 2013, Sterling et al, 2015

Wigham and McConachie (2014) review

- Of 8 tools, only the SCAS, RCADS and SCARED were considered to be robust tools in terms of measurement properties

- Few studies using these tools consider content validity – ie are the items valid for children with ASD? Are we measuring what we think we're measuring?

- Confirmatory factor analysis failed to support the original factors of the parent rated Spence Children's Anxiety Scale-Parent Version (Magiati et al. (2017)

Challenges for measuring anxiety in ASD
(see Lecavalier 2014)

- Unpicking anxiety vs autism symptoms (e.g. do the rituals cause distress?)
- Language, IQ and self-report
- Unique presentation of anxiety in ASD

http://www.autismsciencefoundation.org/news/autism-science-foundation-announces-2014-research-enhancement-grant-recipients

- Kerns et al 2016

- Adapting ADIS-C to include questions, probes and clinician-rated probes
  - To facilitate differential diagnosis of anxiety and ASD
  - To capture unconventional or ambiguous anxiety-like behaviour

Anxiety Scale for children with autism (Rodgers et al, 2016)

- Adapted version of the RCADS
- The Anxiety Scale for Children- ASD (ASC-ASD©) is a 24 item self-report anxiety questionnaire, with four sub-scales: Separation Anxiety (SA), Uncertainty (U), Performance Anxiety (PA) and Anxious Arousal (AA), for use with young people aged between 8-16 years with a diagnosis of autism spectrum disorder (ASD).
- No norms as yet but recommended clinical cut-off of 24
- Free to download https://research.ncl.ac.uk/neurodisability/leafletsandmeasures/anxietyscaleforchildren-asd/

Other measures

- Intolerance of uncertainty?
  - IUS-C and IUS-P
- Cognitive flexibility?
  - BRIEF, Flexibility Scale

Other measures

- Alexithymia
  - Toronto alexithymia scale (TAS-20)
  - Children's Alexithymia scale (CAM)
  - The way I feel (based on the TAS-20)

- Emotion regulation
  - Emotional Dysregulation Inventory (EDI) (Mazefsky et al., 2018)

Challenges of measuring depression in ASD (see Magnuson & Constantino, 2011)

- Validity of self-report *(e.g. language, alexithymia + self-awareness)*
- Overlapping symptoms between depression and ASD *(e.g. increased stereotypic behaviour)*
- Low functioning individuals

Depression assessment in ASD (see Magnuson & Constantino, 2011)

- Outward behaviour changes (e.g SIB as a proxi for negative self-view)
- Atypical affective changes (e.g. aggression, irritability, labile moods)
- Change in autistic symptomatology

Assessment of risk factors for depression

- Social and self-awareness
- Peer relationships esp. bullying
- Environmental & social stressors

Mental state (Dr Osman Malik)

- The *mental state examination* (MSE) is a structured way of observing and describing a patient's current *state* of mind, under the domains of appearance, behaviour, mood, affect, speech, thought process, thought content, perception, cognition and insight.

Assess:

- Appearance: dress (dishevelled, ‘quirky’, inappropriate for temperature), self-care, hygiene, alertness
- Behaviour: Agitation, Psychomotor slowing, hyperactivity, compliance, eye-contact, repetitive / ritualistic behaviours, habits, self-injurious behaviour
- Affect: Facial expression, eye contact, congruence, reactions (overt or under – emotional blunting), flatness,
- Mood: Subjective/objective, anhedonia, apathy, motivation, suicidal thoughts/ plans, references to future activities / plans
- Speech: rate, tone, volume, flight of ideas, mutism,
- Thoughts: coherence, consistency, talking past the point, depressed cognitions, obsessional thoughts, rumination

Mental state ctd…..

- Delusions, hallucinations
- Other unusual sensory experiences (déjà vu, jamais vu, depersonalisation, derealisation, intrusive imagery)

- Level of insight into the problem

For ASD…

- Measurement of adaptive and intellectual function may also be crucial, to put the above into the context of the child's ability
- ABAS or Vineland for adaptive function
- Wechsler for intellectual function

General tips on assessment

- Multidisciplinary approach
- Structured history where possible
- Prolonged assessment: Observation in different settings, with different people
- Corroborative information
- Rule out other explanations for changes in presentation
- Don’t underestimate the child or young person
- At the same time, do not assume they understand without checking and confirming as much as is possible

Functional assessment

- Get a good baseline:
  - Frequency
  - Duration
  - Intensity
  - Identify antecedents and consequences – essential for identifying triggers and maintaining factors
  - Measures – QABF - Attention, Escape, Physical, Tangible, and Nonsocial

Example function of a behaviour

- LJ hits his mother every time he is prevented from using the internet. Gradually his mother loses the will to restrict internet use.

- LA has meltdowns after about ten minutes when taken out shopping. Eventually her parents go shopping alone while one of them stays at home with LA.

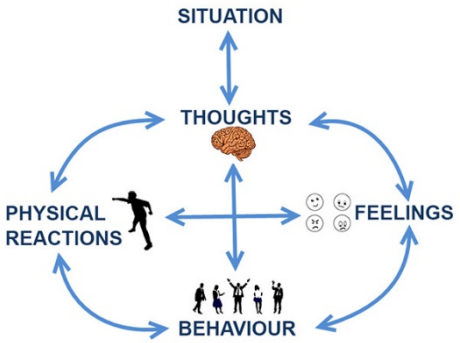
- What is the child communicating, what is a more adaptive reaction or behaviour that could be taught?

Formulation

- Why is it important?
  - Broader, more detailed and more individual than diagnosis
  - Allows for collaborative sharing
  - Clarifies the maintaining factors and goals for therapy
  - Allows for testing of hypotheses

A typical CBT formulation

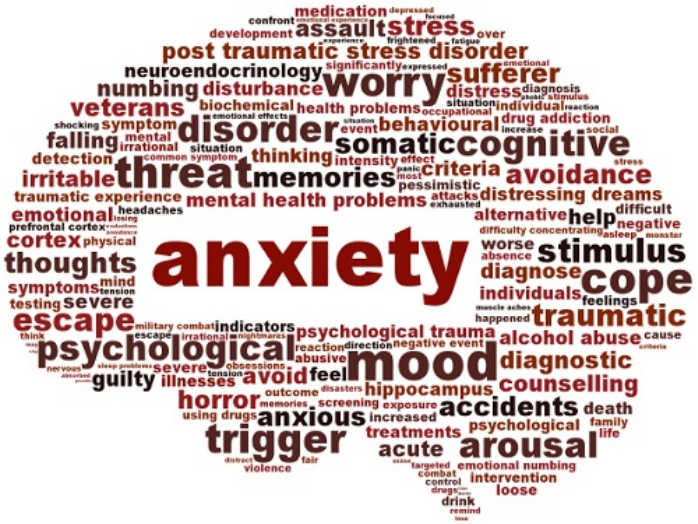
- Vulnerability factors
- Precipitating factors
- Triggers for the presenting problem
- Current problem in four systems: behavioural, cognitive (NATS, dysfunctional assumptions), physiological, affect
- Maintaining factors
- External stressors (economic, social, environmental)



A typical CBT formulation....

- Is often guided by a theoretical model, as well as individual assessment information

- E.g. OCD, PTSD, GAD



A detailed developmental formulation
(Carr, 2000)

- **Predisposing (vulnerability) factors:** personal (biological, psychological) and contextual (family problems, early stresses, parenting factors)

- **Precipitating factors**: e.g. divorce, changing school, loss of friendships, bullying **Perpetuating (maintaining) factors**: biological, psychological, systemic factors, parenting factors, social network factors

- Personal and contextual **protective** factors

What might an ASD-specific formulation look like?

Common ASD-Predisposing factors

- **Personal predisposing factors:**

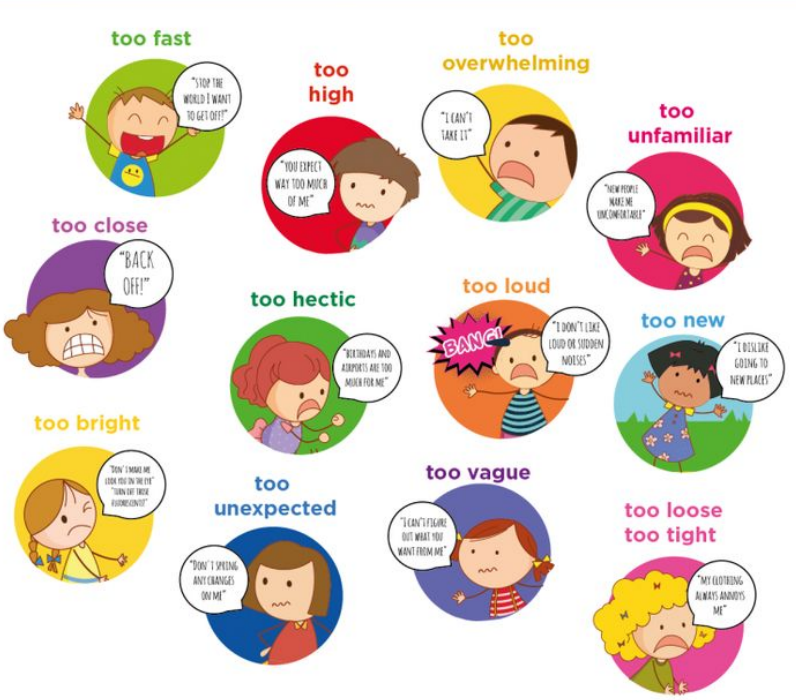
diagnosis of ASD, temperament, emotional dysregulation, genetic vulnerability, IQ

- **Contextual predisposing factors:**

over-protective parenting style, inappropriate early educational placements

Common ASD-specific triggers

- Change in routine
- Misperceptions/misunderstandings
- Sensory sensitivities



- As well as more typical triggers

Common ASD maintaining factors

- **Personal:** continuing cycles of emotional dysregulation, intrinsic cognitive processing style (ToM, poor global processing, rigidity), dysfunctional coping strategies

- **Contextual:** inadvertent parental/systemic reinforcement of behaviour, inconsistent or overinvolved parenting, high family stress

- **Social:** inappropriate educational placement, social isolation and peer rejection

Protective factors

- **Personal:** easy temperament, absence of challenging behaviour, good verbal reasoning skills, insight, motivated to change, cognitive flexibility, openness to new ideas

- **Contextual:** supportive school environment, good home-school communication, supportive family environment, calm consistent parenting style, high parental self-efficacy and self-esteem, good understanding of ASD, friendships

Underlying beliefs may not always be obvious or fit into a model

Situation	Typical underlying beliefs	Atypical underlying beliefs
Fear of detentions	fear of negative evaluation	Detentions involve litter duty ..germs…'I'll get ill if I have a detention''
Fear of separation	fear of something bad happening to self or parent	"I wont know what to say"
Elaborate OCD rituals	Prevention of harm	to get rid of the smell of school (no harm beliefs, just sensory sensitivity)

Example formulation

Early experiences

Social isolation, people thinking I was being rude, getting angry with me

↓

(Possible) Core beliefs

'I feel inferior to other people'

'being disinterested in people is good' (ie safer)

↓

Trigger

Being asked out for a drink, performing, daily experiences at college

Activates fear of social situations

Feeling ↑ → Thought

lonely, stressed 'they're judging me' 'they wont like me anyway, no point trying'

Images/memories of being bullied

↓

Behaviour

Reject invitation, avoid eye contact, keep self to self

Future directions for research

- Development of more ASD-specific assessment tools (e.g. depression)
- Use objective measures of anxiety, such as physiological arousal (GSR, heart rate) and attentional bias to validate diagnosis
- More longitudinal research
- Further research on psychological processing and the relationship to anxiety
- Neuroanatomy and neurobiology