



Sydney Children's Hospitals Network

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# MENTAL HEALTH AND INTELLECTUAL DISABILITY HUB



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# Trauma and Neurodevelopmental disorders

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# Overview

- Neurodevelopmental disorders
- Trauma/ PTEs
- Prevalence
- Risk factors
- Why is it important?
- Impact of chronic trauma
- Clinical presentation: assessment and barriers
- Treatment

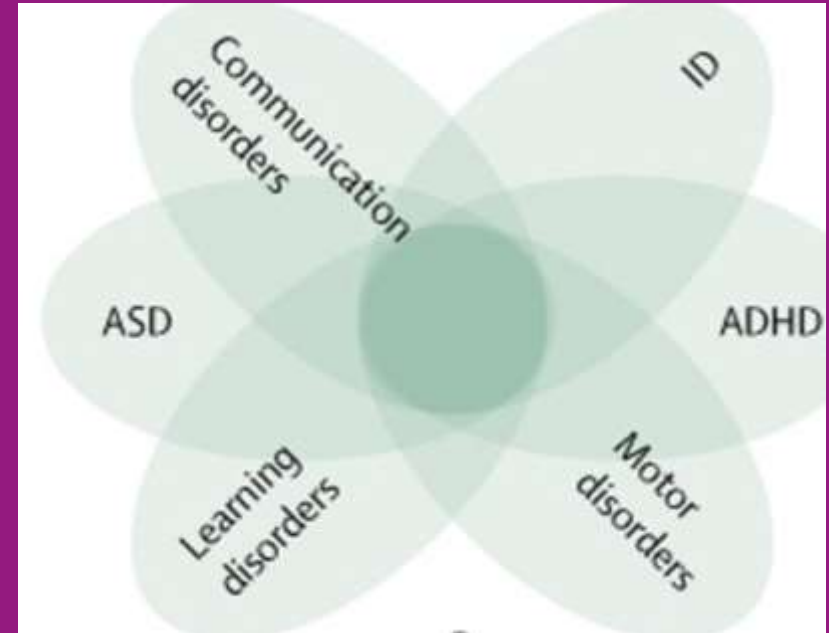






# Neurodevelopmental disorders

- A group of conditions with onset in the developmental period, before puberty and are characterized by developmental deficits that produce impairments of personal, social, academic, or occupational functioning. (Rutter)
- The range of developmental deficits varies from very specific limitations of learning or control of executive functions to global impairments of social skills or intelligence
- Generally , non progressive with exceptions
- The neurodevelopmental disorders frequently co-occur
- Higher rates of medical and psychiatric comorbidities, and high mortality rate



# Intellectual Disability

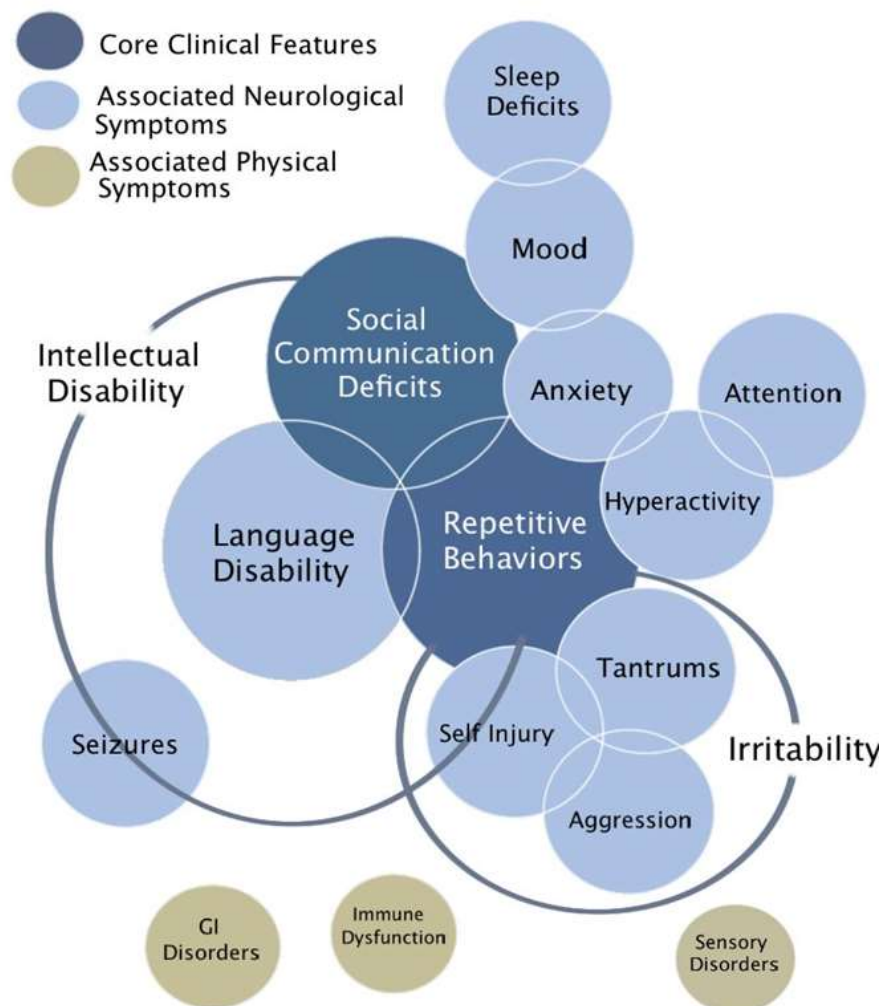
- Assessment of intellectual disability is predicated on three components: significantly impaired intellectual functioning, significantly impaired adaptive behaviours, and evidence of onset during the developmental period
- **Severity of ID DSM -1V versus DSM-5 (Boat 2015)**

| Level of ID | DSM-IV Criteria (severity levels were based only on IQ categories) | DSM-5 Criteria (severity classified on the basis of daily skills)   |
|-------------|--|---|
| Mild        | Approximate IQ range 50–69   | Can live independently with minimum levels of support.  |
| Moderate    | Approximate IQ range 36–49   | Independent living may be achieved with moderate levels of support, such as those available in group homes. |
| Severe      | Approximate IQ range 20–35   | Requires daily assistance with self-care activities and safety supervision.                                 |
| Profound    | IQ <20   | Requires 24-hour care.  |



# Autism spectrum disorders

- Key clinical features include impairment in social communication, including deficits in social-emotional reciprocity, verbal and non-verbal communication and, restricted and repetitive behaviours.
- 40-50% may have comorbid ID or a language disorder (Levy et al., 2010)



# Trauma and potential trauma events

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Trauma is defined as resulting from an event, or series of events, that is experienced by an individual as harmful or threatening and also has immediate and/or lasting adverse effects on an individual's functioning and well being.

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The event(s) may be acute (i.e., an isolated, single occurrence, such as a motor vehicle accident) or chronic (e.g., witnessing recurring domestic violence in the home) in nature.

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The same event may be experienced as traumatic for one individual but not for another as a result of possible differences in an individual's appraisal of the event. Therefore, the term potentially traumatic event (PTE) typically refers to an event that might reasonably be considered a trauma (e.g., physical abuse), though whether or not the event is experienced as traumatic varies by individual.





# Traumatic stress versus PTSD

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Traumatic stress, “a persistent disturbance of mood, arousal, and behaviour following a traumatic event” (Kerns et al., 2015), is one of the most recognized and researched responses following exposure to a traumatic event (Dorsey et al., 2017).

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Posttraumatic stress disorder (PTSD) is a specific set of traumatic stress symptoms defined in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; APA, 2013). PTSD is characterized by the presence of recurring trauma reminders, avoidance of trauma-related reminders, changes in mood or cognitions, and changes in arousal and reactivity (e.g., hypervigilance) that persist for more than one month (APA, 2013), in the context of exposure to actual or threatened death, serious injury or sexual violence.



# Prevalence

- Copeland and colleagues (2007) found that in a community- based sample of children and adolescents, 30.8% of participants reported exposure to one traumatic event and 37% reported exposure to multiple events by age 16 using the DSM-IV diagnostic criteria.
- Of particular importance, 21.9% of children and adolescents who experienced trauma exposure reported significant impairment, and 49.6% of those with two or more exposures endorsed impairment (Copeland et al., 2007).
- Further, in a population-based sample of adolescents, McLaughlin and colleagues (2013) demonstrated that 61.8% experienced at least one lifetime PTE, with 18.6% experiencing three or more.
- Population-based studies (e.g., Kilpatrick et al., 2003; McLaughlin et al., 2013) indicate that approximately 7% of girls and 3-4% of boys will develop PTSD following a traumatic event in childhood or adolescence (Dorsey et al., 2017).
- Jones et al. (2012) found that children with an Intellectual Disability were over **four times more likely to be victims of family violence than their peers without disabilities.**



## Risk factors for trauma in IDD

- Dependency on others and for longer periods of time
- Impaired social skills
- Communication deficits
- Social skill deficits, social isolation, and desire for friendship and acceptance are risk factors for peer victimization
- Trusting strangers
- The severity of a child's disability (e.g., challenging behaviors)
- Parenting stress and social factors (e.g., stigma and discrimination in their community from being viewed as a "bad parent" who cannot manage their child's behaviour)
- Family factors
- Lack of sexual education and knowledge of safety skills
- Community factors : societal perception and legal system



# Trauma exposure single versus chronic trauma / complex trauma

- Developmentally, chronic trauma differs from both single exposure trauma and adulthood trauma
- “Complex Trauma” refers to experiencing more than one traumatic event which may be chronic and long-lasting, developmentally adverse. These tend to be interpersonal in nature (e.g., sexual or physical abuse, war, community violence) with onset in the early developmental years. The events tend to occur within the child's care giving unit including neglect (physical, emotional, & educational) as well as ill-treatment of the child.
- Impact incorporated into the biological and neurological structures of the body and brain
- The effect of trauma is different in different developmental stages
- Ornitz (1996) has listed critical periods of major structural changes in brain development in accordance with Piaget's stages of cognitive development. This includes the periods between early childhood (1.5-4 years), late childhood (6-10 years), puberty and mid-adolescence.

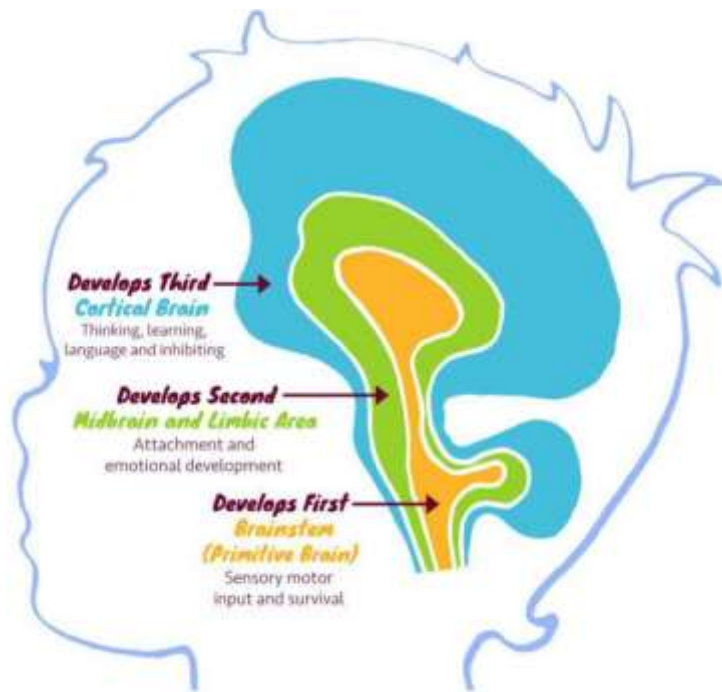


# Why is it important?

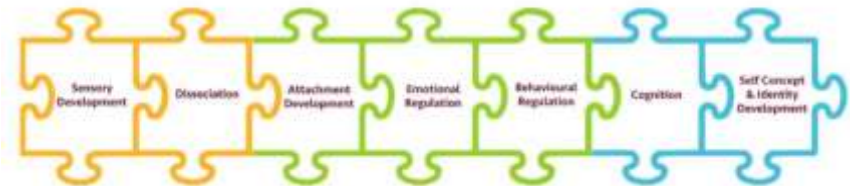
- More vulnerable and higher rates of under reported exposure to trauma
- At times, the trauma suffered by the intellectually disabled is based upon a recognition of their obvious vulnerabilities. At other times, the trauma is due to their lack of risk awareness
- More adverse life events, often beginning at a young age (4 times higher)
- They are more likely to have multiple chronic physical health concerns and psychiatric comorbidities
- Trauma is a significant underlying factor in their multimorbidity, disrupting their self-regulatory capacities
- Existence of significant health disparities relative to the general population
- They are less likely to access disease prevention or screening programs
- Social determinants of health : isolation and stigmatisation



# The Seven Impacts of Developmental Trauma



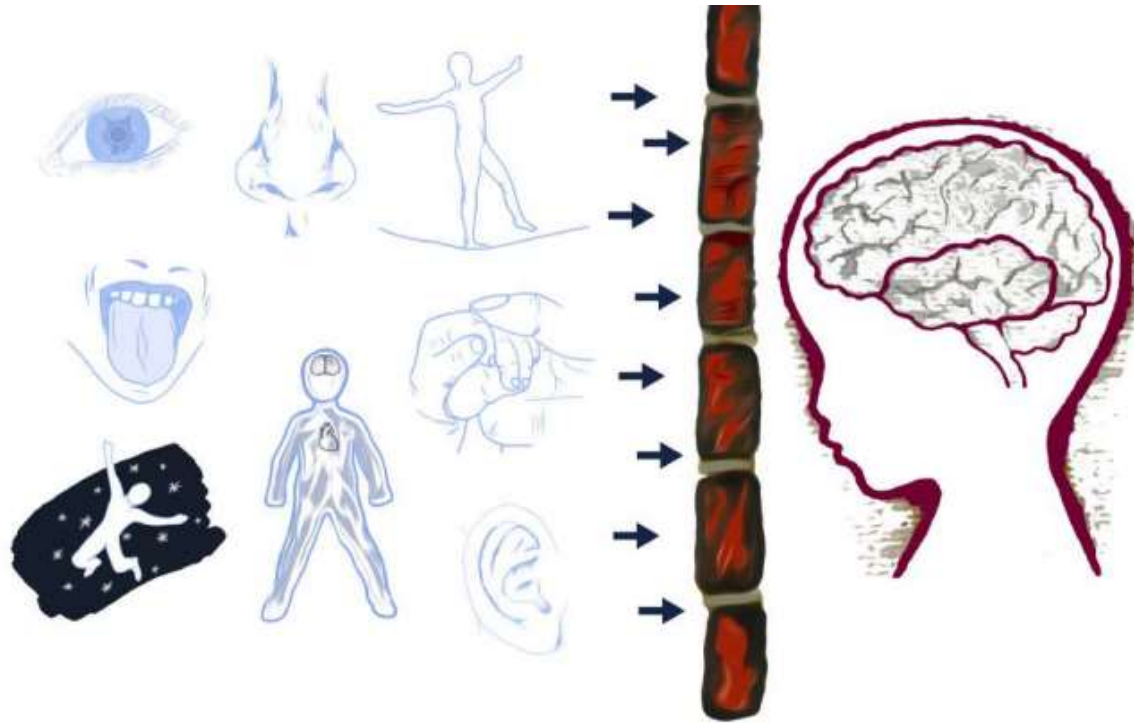
The seven pieces of the Developmental Trauma puzzle are:



# Sensory Development

- First 0-3 years of life, majority of memories are sensory memories.
- Implicit memories are memories before language, which means that while the child cannot later recall and talk about them, their body has stored the memories in its sensory systems.
- Because traumatised children are stuck in 'fear mode' as they grow up, their hyper-vigilance to signs of danger reduces their ability to filter out "irrelevant" sensory experiences such as background sights, sounds and textures. This can mean that the child's sensory system becomes overloaded and overwhelmed, and they feel there is danger imminent, even when they are completely safe.
- When a traumatised child is feeling stressed, they may have a sensory flashback which means that they re-experience the bodily feeling of immediate danger, with no way to make sense of it or communicating it verbally as the memory has no language 'attached' to it.





### SIGNS OF SENSORY PROBLEMS AT HOME

- Strong dislike for certain foods & textures
- Strong dislike for touching or overly tactile
- Sucking, biting, chewing to self-sooth
- Avoidance of routines such as tooth brushing
- Jumpy, restless and alert, even when safe
- Difficulty knowing when they are hot/cold; hungry/full or when they need the toilet

### SIGNS OF SENSORY PROBLEMS AT SCHOOL

- Difficulty with concentration & attention
- Overwhelmed by noisy busy classrooms
- Difficulty throwing and catching a ball
- Difficulty with co-ordination and balance
- Poor handwriting and pencil grip
- Shutting down/zoning out frequently throughout the day



# Dissociation- Right brain and limbic system business

- Dissociation is a psychological defence: separation or disconnection between thoughts, feelings and behaviours; and a separation between the mind and body. It is the mind's way of putting unbearable experiences and memories into different compartments.
- Right brain is involved in non-conscious reception, expression and communication of emotions, along with the physiological and cognitive parts of emotional processing; control of instinctively elicited emotional responses; modulation of primary emotions and adaptive capabilities for emotional regulation .
- Childhood trauma therefore leads to changes in the right brain. The deficits in coping especially in terms of self-regulation are due to deficits in the right hemisphere development
- Dissociation can present: amnesia, derealisation, depersonalisation or identity confusion



## SIGNS OF DISSOCIATION AT HOME

- The child appears as if s/he is not listening to requests from the parent
- Rapid regressions in age-level behaviour, e.g. suddenly acting like a baby.
- Normal punishment and consequences for misbehaviour do not work, as the child cannot learn from their experiences
- Voice hearing
- Relationships are so changeable it is hard to keep up for the adults
- Denying behaviour which adults know they have engaged in

## SIGNS OF DISSOCIATION AT SCHOOL

- Frequent 'day dreaming' & lack of focus; leading to under achievement
- Abilities to read, write, learn change drastically from one task to the next
- The child is forgetful or confused about things s/he should know, such as friends' names
- Confusion about day and time
- They get back homework that they have no memory of doing
- Voice hearing
- Sometimes seems very young for their age

# Attachment Development

- Attachment is the affective bond or tie that develops between persons as a result of regular caretaking and provision of emotional security Bowlby 1969/1982.
- Consistent low sensitivity , inconsistent sensitivity or tainted with fear result in disordered attachment.
- Among children with ID referred for psychiatric consultation, Reactive Attachment Disorder (RAD) and PDD symptoms were both highly prevalent.

## Risk factors:

- Child factors: Impaired affect regulation, vulnerability for stress, and deficient problem-solving skills
- Carer factors: Lack of adapted support, problematic interaction with the child, and needing time and resources to adapt psychologically to having a child with a disability.

Crittenden has taught us that: Attachment is not the problem. Danger is the problem – attachment is the solution.



### SIGNS OF ATTACHMENT INSECURITY AT HOME

- Avoidance of emotional intimacy or emotionally over-spilling
- Feeling 'hard to reach', emotions are bottled up and the child is hard to read
- The parent/carer feels exhausted with the unrelenting demands, crises and emotional needs of the child.
- Boundary setting can trigger a big reaction or non-compliance in child
- Episodes of distress or anger last much longer than expected
- Separations trigger anxiety or anger in the child
- The child is controlling of his/her parents and siblings

### SIGNS OF ATTACHMENT INSECURITY AT SCHOOL

- Difficulties processing new information
- Under performance or over-dependence on academic perfection
- Difficulties planning, organising and completing tasks
- Struggles with transitions, loss and change
- Big reactions or zoning out for reasons not obvious to others
- Difficulties in friendships
- Find it hard to ask for help or the child is always needing help
- Over compliance of disruptive behaviour in class

# Emotional Regulation

- Children with ID/ASD are at risk of disrupted mood or emotion dysregulation.
- The limbic system is responsible for deriving subjective information in terms of emotional experiences that guide behaviour (MacLean, 1985). This allows the brain to adapt to the changes in the environment and organize the new learning (Mesulam, 1998).
- Amygdala modulates the fear response and Amygdala reactivity is moderated by inhibitory connections from the ventromedial prefrontal cortex (vmPFC). Amygdala hyper-reactivity and abnormal inhibition of vmPFC observed in PTSD.
- Inability to achieve a sense of control stability may give rise to feelings of helplessness. Inability to grasp what is going on and inability to do anything about it leads to transition from a fearful stimulus to fight/flight/freeze response which does not allow for learning from experience. This fight/flight/freeze response is modulated by the amygdala which releases this response as a result of the misinterpretation of the stimuli as threatening when it is in fact innocuous.
- Premature emotion regulatory system: their emotional brain is often stuck in the toddler phase of emotional regulation where they can't do it alone and they need adults to coregulate for them.
- It may be helpful to think of them as 'attachment seeking' instead of 'attention seeking'.



### SIGNS OF EMOTIONAL DYSREGULATION AT HOME

- Prolonged meltdowns over small things
- Lots of arguments as the child cannot see things from their parents' perspective
- Very limited empathy for others
- Frequent child to parent violence
- Tearfulness and clingy behaviours at separation
- Bedtime routine is prolonged and painful
- In teens – self harming, drug use, promiscuity

### SIGNS OF EMOTIONAL DYSREGULATION AT SCHOOL

- Outbursts of anger or distress at small events such as a change in activity
- Immaturity in friendships – jealousy, possessiveness, struggles to share
- Too emotional to take on board new learning
- Tearfulness and anxiety at drop off
- Over-dependence on adults
- Rule breaking
- Aggression, running off and hiding

### SIGNS OF BEHAVIOUR DYSREGULATION AT HOME

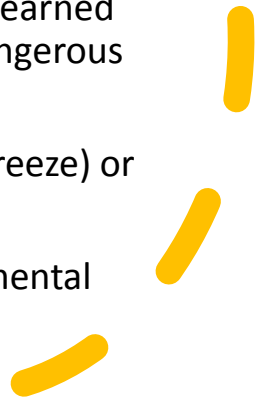
- Lying, stealing, hoarding
- Over-eating or under-eating
- Aggression or lethargy (often seen as laziness)
- Unresponsive to day to day requests (often seen as non-compliance)

### SIGNS OF BEHAVIOUR DYSREGULATION AT SCHOOL

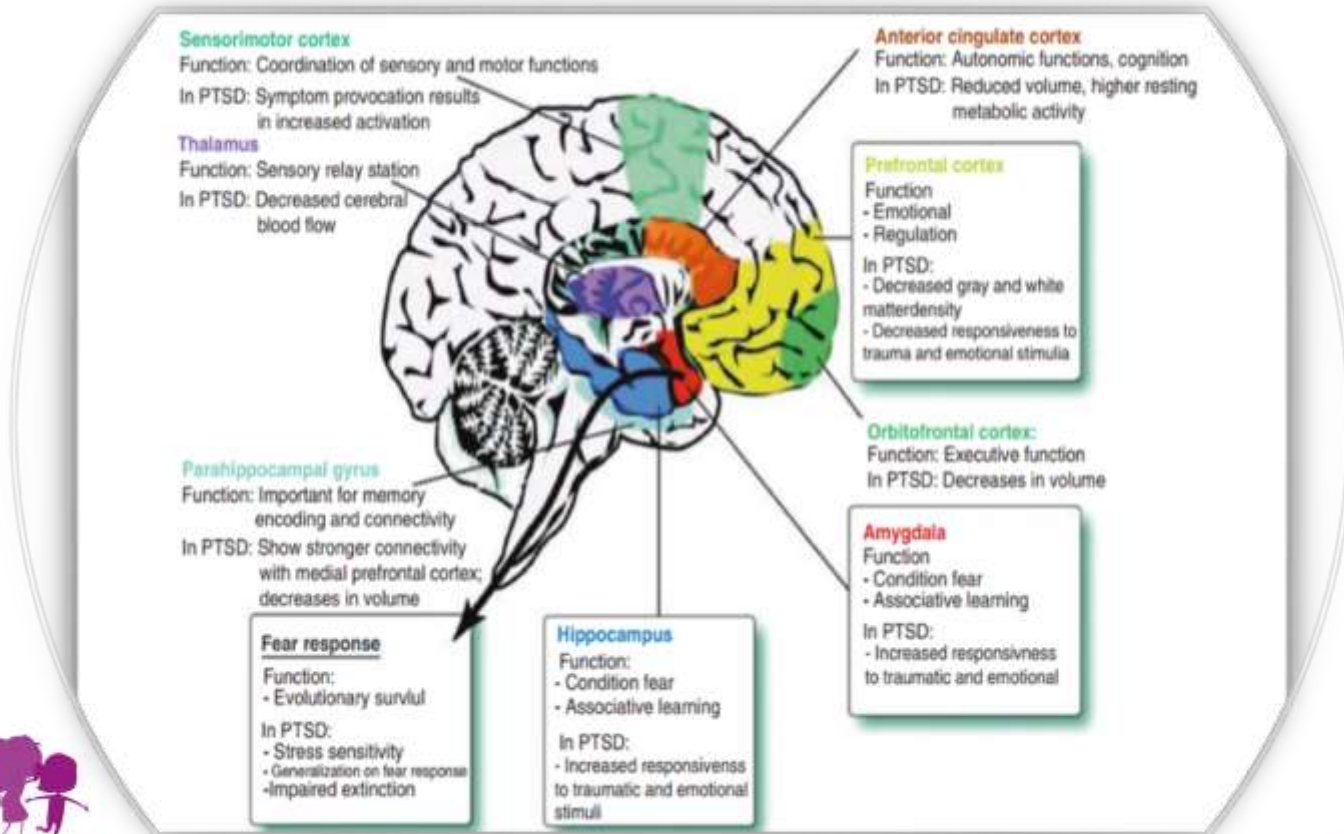
- Lying, stealing, hoarding
- Disruptive in class
- Restless, fidgety, moves about the classroom lots
- Slowed down, unresponsive

# Behavioural Regulation

- Small window of tolerance
- Persistent automatic survival mode, driven by learned helplessness / loss of control in a perceived dangerous world.
- Varies from overly-aroused state (fight/flight/freeze) or under-aroused state (shut down mode).
- Overactivation of HPA axis – increased risk of mental illness



# Cognition





Children with chronic trauma often struggle with a range of problems, which can include:

#### POOR COGNITIVE SKILLS AT HOME

- Unable to learn from mistakes
- Cannot organise themselves for the morning and evening routines
- Forget complicated instructions
- Cannot be reasoned with
- Black and white thinking
- Ego-centric – can only see the world from their own perspective

#### POOR COGNITIVE SKILLS AT SCHOOL

- Difficulties problem-solving
- Struggles to complete a task
- Unable to process information quickly
- Cannot remember new information
- Cannot put into words what they are thinking
- Poor ability to read social cues
- Cannot organise their belongings

# Self Concept & Identity Development

## SIGNS OF POOR SELF CONCEPT & IDENTITY DEVELOPMENT AT HOME

- Not feeling worthy of accepting love and nurture
- Becoming upset at small 'tellings off'
- Becoming jealous when their parent/carer pays others attention
- Saying "I'm stupid" or "everyone hates me"

## SIGNS OF POOR SELF CONCEPT & IDENTITY DEVELOPMENT AT SCHOOL

- Being knocked back easily
- Becoming upset at failure
- Self doubt and self criticism
- Not trying for fear of failure



# Other impacts of Complex trauma

Chronic trauma results in

- Protoplasmic, shortening telomere length (the tip of DNA strands associated with length of life and the pace of aging);
- Disrupting of the hormonal and endocrine systems;
- Increasing inflammation and inflammatory responses while also interfering with immune functioning;
- Reducing brain volumes in, and connectivity between, the amygdala, hippocampus and prefrontal cortex; as well as impairing neurological and cognitive development and
- Increasing the risk of later life psychiatric illnesses.

**In short, chronic trauma becomes the person and the body keeps count!**



# Clinical presentation

- Anxiety , PTSD, atypical features
- Depression / mood symptoms
- Developmental regression
- Psychotic symptoms
- Substance use
- Sleep disturbance: important modifiable target in PTSD treatment
- Recurring nightmares may be less frequent; atypical presentations are common
- Challenging behaviours: aggression, DSH, Suicidal ideation/ attempts, sexualised behaviours or conduct disturbance
- Increased ED presentations
- Diagnostic overshadowing
- More functional impairment due to worsening neurocognitive deficits and lack of social perception



# Trauma assessment

- Trauma screening tools are most commonly used for identification purposes
- Trauma assessment refers to the comprehensive process of exploring the range of PTEs experienced by children and the areas of their functioning that might have been affected by that exposure
- Components of Trauma assessment: clinical interview, use of objective and psychometrically valid measures, behavioural observation of the child, and contact with important individuals within the child's life (e.g., family members, other providers, teachers).



# Trauma questionnaire

- Trauma History Profile, which was adapted from a section of the UCLA PTSD Reaction Index for DSM-IV covers 20 trauma types and allows children to identify additional traumatic events (Pynoos et al., 2014; Steinberg, Brymer, Decker, & Pynoos, 2004).
- Trauma Symptom Checklist for Children
- UCLA PTSD Reaction Index for Children/Adolescents – DSM-5
- The Lancaster and Northgate Trauma Scales (LANTS): The development and psychometric properties of a measure of trauma for people with mild to moderate intellectual disabilities (S. Wigham , C. Hatton , J.L. Taylor )
- the NCTSN compiled a Measures Review Database (<http://www.nctsnet.org/resources/online-research/measures-review>)



# Trauma assessment complications- Barriers

- Many clinicians do not systematically screen for trauma as a routine component of their clinical intake process creating “blind spots” in the detection of trauma exposure and related symptoms
- “don’t ask, don’t tell” approach to trauma
- Clinicians do not assess for trauma out of fear of “re-traumatization” and potential harm
- Popular standardized measures of trauma-related symptoms may be too narrow in scope and fail to capture the pervasive and complex range of problems

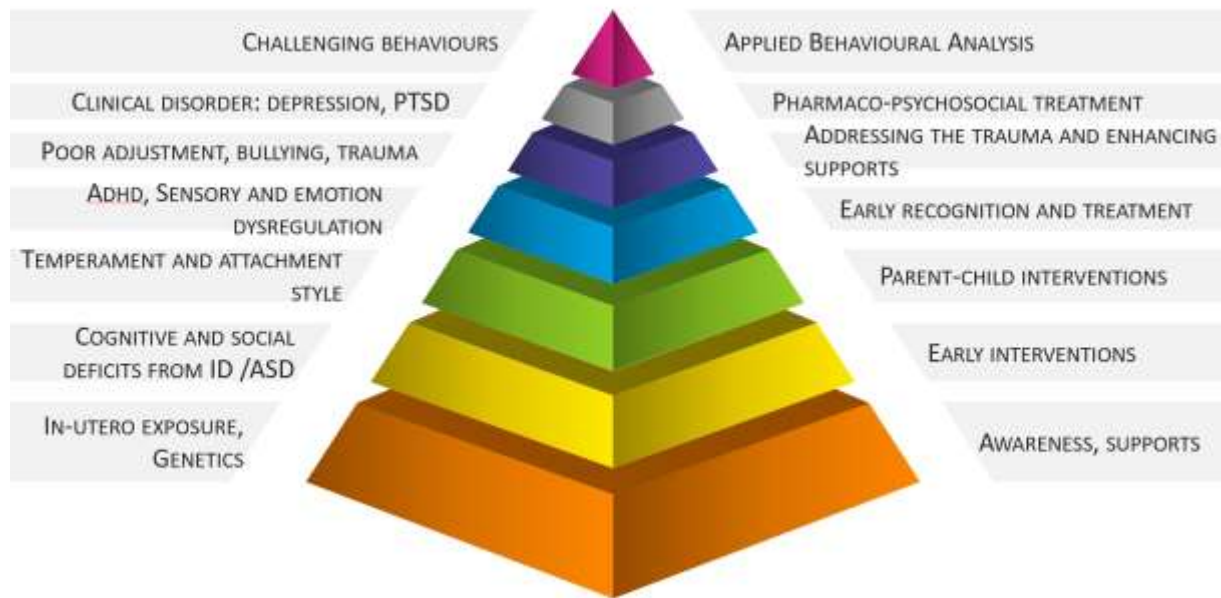


# Case example 1

- Ruby 13yo girl with history of complex trauma, ASD, ID, ADHD, FASD, and reactive attachment disorder, presented with heightened aggression towards her adoptive parents. She has had multiple ED presentations and inpatient admissions aimed at risk containment, diagnosis clarification and medication review. Though the initial ED presentation was in context of behavioural activation secondary to SSRI, her subsequent presentations were primarily driven by relational crisis, perceived rejection and unmet needs.
- Rasmi, 16yo girl with history of hypochondriasis, ASD, mild ID, ADD, complex trauma and disordered attachment presented initially last year with self-injurious behaviours and aggression directed at her mother. She had frequent ED presentations and multiple inpatient admissions. All her presentations were primarily driven by relational crisis, perceived rejection and unmet needs.
- The supports required to care for these patients rapidly escalated from NDIS funding to NDIA/DCJ and now Integrated Service Response (ISR). They both are in a separate temporary respite care.







# Treatment of complex trauma in people with IDD

- Safety management and risk containment
- Enhancing supports in the community
- Address the challenging behaviours
- Sensory based interventions
- Psychological therapies
- Psychopharmacology

All approaches should be tailored to the developmental age of the young person!



# Assessment of factors contributing to challenging behaviours

| Medical/Psychiatric comorbidities  | Genetic   | Medication   | Behavioural  | Communication   | Cognitive, Sensory, and Occupational.  | Environment and Psychosocial   |
|--|---|--|--|---|--|--|
| Ear infections, headaches, menstrual cycles, injuries, constipation, GORD, and dental problems<br>Metabolic<br>Stress response<br>Inflammatory/immune response<br>Seizures<br>Sensory deficits<br><br>Anxiety disorder<br>ADHD<br>Depression | Genetic disorders associated with specific medical problems (eg, Down syndrome carries an increased risk of thyroid, cardiac, vision, and hearing problems<br>MELAS | Side effects/ discontinuation<br>sedating or activating medications. For example, stimulants, muscle relaxants, antiepileptics, calcium channel blockers, phosphodiesterase inhibitors, and centrally acting antiemetics | Function-based<br>Avoid demands, Gain attention or gain access to preferred items/people,<br><br>Internal reinforcement (eg self-stimulatory or pain-reducing) | consider whether the child has consistent access to an adequate communication system across settings, and can consult with a speech language pathologist as needed. | Demand-ability mismatch<br>sensory hyper- or hyporeactivity<br><br>motor impairments | Change aversion<br>Family breakdown<br>Individuation<br>Trauma/ Abuse<br><br>Bullying<br><br>Relational or attachment driven |



# Self-injurious Behaviour (SIB)

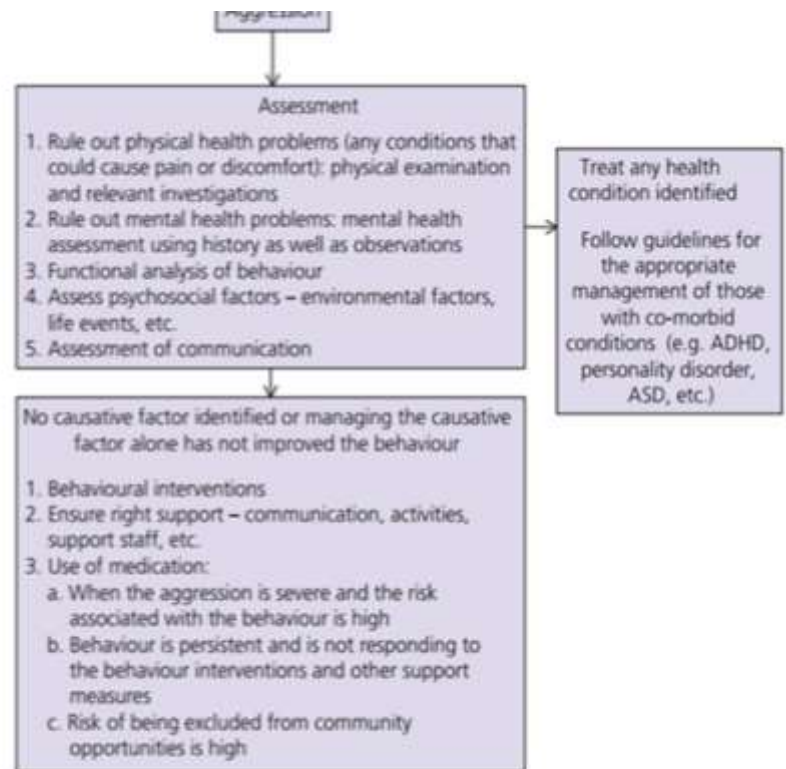
- Self-injurious behaviour (SIB) may be defined as non-accidental self-inflicted acts causing damage to, or destruction of, body tissue and carried out without suicidal ideation or intent.
- SIB may be viewed as a symptom of a psychiatric disorder, or in the context of behaviour arising from maladaptive learning, or in association with behavioural phenotypes
- Prevalence higher in adolescents and young adults; increasing ID, coexisting sensory impairments/ genetic syndromes

| Subtype                                       | Clinical features   | Psychotropics (aim for monotherapy)  |
|---|---|--|
| Extreme self-inflicted tissue damage (Opiate) | History of severe SIB   | Opiate antagonists<br>Naltrexone   |
| Repetitive and Stereotypic (Dopamine)         | History of repetitive and stereotypic SIB   | Antipsychotics (small doses)<br>SGA > older APAs   |
| Agitation when SIB is Interrupted (Serotonin) | Obsessive-compulsive behaviour  | SSRIs, TCAs  |
| Heightened anxiety (Noradrenaline)            | High arousal and anxious affect   | Anxiolytics:<br>Propranolol, Pregabalin<br>TCAs: Amitriptyline (low dose)<br>Mood stabilisers: Lithium carbonate<br>Carbamazepine and Epilim |
| Mixed (Multiple)                              | A combination of features in two or more of the subtypes described before. Most common presentation | One or more medication classes depending on predominant subtype  |



# Aggression

- Prevalence range from 11 to 60%.
- Chronic aggression increases carer's distress and risk to reduced community participation (school refusal, legal issues).
- Poor impulse control, mood dysregulation and perceived threat are significant predictors.
- Treating the diagnosable psychiatric disorders decreases the behaviours' frequency and severity of aggressive behaviours.
- Effective medications: Risperidone, Aripiprazole, SSRI and Lithium
- Limited evidence: Olanzapine, valproate



Algorithm 12.1 Assessment of aggression.



# Sexualised behaviours of Concern (SBoC)

- ▶ Prevalence and severity may vary;
- ▶ Significant impact on the development of friendships, familial relationships, social and community participation.
- ▶ Persisting SBoC increases the risk of sexual abuse (Jones et al. 2012; Koller 2000).
- ▶ Comprehensive assessment including functional behaviour assessment

## **Managing SBoC:**

- ▶ Provide education related to appropriate socio-sexual skills;
- ▶ Avoid being overly tolerant and overly reacting
- ▶ Eliminate a medical or organic cause or the effects of medication
- ▶ Ensure that the interpersonal needs of individuals with disabilities are met;
- ▶ Target self-regulation of SBoC; Incorporate the use of positive support methods, including reinforcement procedures and sex education; Replacement of inappropriate behaviour with a functionally equivalent appropriate behaviour.



# Others

## Stereotyped Behaviours

- Stereotyped behaviours (41.3%) can cause functional impairment, increased use of psychotropic drugs, and stress for caregivers.
- SB defined as “peculiar or inappropriate voluntary acts which occur habitually and repetitively, that persists over time, lack of variability, resistance to environmental change, and abnormality for age-related development”.
- Higher association with sensory hypersensitivities.



## Case example 2 – Charlie 8yo

9 yo boy from Regional Australia, referred for admission psychiatrist RFW psychiatrist due to worsening behaviour. A brief phone conversation between on-call registrar and referring psychiatrist regarding review in ED prior to the transfer, was assumed as acceptance.

Pt along with his mother and cousin drove to Sydney and stayed in ED for 8 hours

Pressure from ED Consultant to admit the patient to Hall ward for diagnosis clarification and medication review (**Question-** patient may have bipolar illness/psychosis)

Background history: ASD, moderate ID, ADHD, ODD, epilepsy and complex trauma

Medications: Quetiapine 75mg BD, Melatonin 10mg, Clonidine, 50mcg BD and 100mcg at night, Vyvanse 50mg

Recently stopped risperidone 2mg BD, and Epilim (after being seizure free for a year); increased Vyvanse from 30 to 50mg





## Case example 2

- 8 mon h/o progressively worsening behavioural disturbance (aggression) with countless meltdowns lasting from 1-2mins to over an hour. Mum needing to physically restrain him
- Behaviour mostly worse at home but has also been an issue at school (biting etc), but better managed than at home with strategies
- Marked separation anxiety
- New onset visual and auditory hallucinations for the last 3 months - auditory hallucinations are more common than visual hallucinations and visibly distressed due to hallucinations
- No evidence of tonic/ clonic seizures, however has multiple 'zone out' episodes; poor sleep since medication changes (4hrs/day), poor appetite following increase in lisdexamphetamine dose



Next step?



Admission?



Goals?



Potential challenges?



Any alternatives?



## Detective work

- Longitudinal history confirmed longstanding behavioural disturbance in the face of complex neurodevelopmental disorders (ASD, ID, SPD, ADHD), compounded by exposure to DV and separation of his parents (father was incarcerated)

### **Contributing factors to the recent decline:**

- Withdrawing risperidone, and replaced with low dose of quetiapine
- Increasing stimulant dose- heightens hyperarousal and adrenaline driven exaggerated emotional responses.
- Sleep deprivation and ceasing anticonvulsant: recurrence of seizures in the form absence and complex partial seizure (hallucinatory phenomenology consistent with ictal episodes)
- Lack of respite/social supports – carer distress/burden



## Recommendations

- Does not need an acute psychiatric admission
- Neurology review and EEG, blood investigations
- Medication changes:
  - Reduce lisdexamphetamine dose to 30mg
  - Restart sodium valproate as mood stabilizer 100mg BD, and titrate up based on response.
  - Seroquel 50mg/ 50mg/ 100mg, plus a PRN dose of 50mg
  - Continue same dose Catapres
- Introduced sensory strategies
- Follow up with local paediatrician for early review following medication changes and ongoing psychiatric review through RFW service.
- Psychosocial interventions



# Pharmacological treatment of PTSD

**Table 5.6** Typical dosage of medications for treatment of PTSD in children and adolescents. These clinical guidelines are based on less than robust research evidence (e.g. case series) in children and adolescents and on extrapolation of data from adult trials

| Medication                             | Starting dose (mg) | Dose range (mg)      |
|--|--------------------|----------------------|
| <b>SSRI</b>                            |                    |                      |
| Sertraline                             | 12.5–25            | 50–200 od            |
| Citalopram                             | 5–10               | 10–40 od             |
| <b>Tricyclic</b>                       |                    |                      |
| Imipramine                             | 10                 | 25–100*              |
| <b>Anti-adrenergic</b>                 |                    |                      |
| Clonidine                              | 0.05 nocte         | 0.1–0.2 nocte        |
| Guanfacine                             | 0.5 bd             | 1–3 nocte            |
| Prazosin                               | 1 nocte            | 2–4 nocte            |
| Propranolol                            | 10 tds             | 40–80/day            |
| <b>Second-generation antipsychotic</b> |                    |                      |
| Risperidone                            | 0.5                | 0.5–1 od             |
| Quetiapine                             | 25–50              | 50–200 od (at night) |

- Address the comorbidities: ADHD, Substance use, mood disorders



# Sensory based treatments

- Sensory Motor Arousal Regulation Treatment (SMART) (Koomar 2009; Warner et al. 2013),
- The Safe Place (May-Benson and Sawyer 2016),
- Neurosequential Model of Therapeutics (NMT) (Perry 2006, 2009), and
- Sensorimotor Approach



# Psychological treatments

- CBT/ CBT mixed therapies
- Cognitive processing therapy (CPT)
- Eye-movement desensitization and reprocessing (EMDR)
- Compassion-focused therapy
- Other therapies: Exposure therapy, Narrative therapy, Play therapy
- Attachment focussed therapies: Circle of Security, Tuning into Kids/Teens, PCIT



# Do persons with intellectual disability and limited verbal capacities respond to trauma treatment?

Journal of Intellectual & Developmental Disability

- Four case reports of PTSD treatment of clients with ID using TF-CBT and 13 using EMDR have been found in the literature (Barol & Seubert, 2010; Mevissen, Lievegoed, & De Jongh, 2011).
- Of these, 14 clients had mild ID and one had moderate ID.





# Eye-movement desensitization and reprocessing (EMDR)

- Eye-movement desensitization and reprocessing (EMDR) therapy is a comprehensive psychotherapy intervention with empirically validated efficacy for PTSD treatment.
- EMDR therapy uses a standardized protocol, consisting of eight phases, to address past distressing memories, current triggers, and future challenges.
- The focus of therapeutic work is on changing the memory, not the symptoms.
- A unique element in EMDR is bilateral stimulation—usually horizontal eye movements. Research suggests that bilateral stimulation makes memories less vivid and less emotional, facilitates physiological relaxation, and increases cognitive flexibility.
- EMDR sessions are usually 60 to 90 minutes long. Clients with a single trauma benefit from two to five sessions; clients with multiple traumatic events often require 12 or more sessions. Treatment is typically provided in one session once per week, although some clients receive intensive treatment of 10 sessions per week for 1 or 2 weeks.
- Research has shown that EMDR therapy successfully and rapidly reduces symptoms of PTSD as well as associated depression and anxiety.



**Table 1. EMDR treatment of two patients with poor verbal capacities**

| Case                       | Level of ID & comorbidity   | Complaints   | Trauma/life events   | Number of sessions | Results   | Follow-up   |
|----------------------------|-----------------------------|--|--|--------------------|---|---|
| Maria<br>(young woman)     | Moderate Symptoms of autism | Restless<br>Possessive of mother<br>Sleep problems<br>Aggressive outbursts<br>Tearful<br>Bad personal hygiene<br>Obsessive behaviour   | 3 months ago sexual abuse by two perpetrators<br>Outplacement in crisis unit recently (parents could no longer handle behaviour problems)<br>Parents divorced years ago  | 6                  | No longer restless<br>Obsessive behaviour disappeared<br>Sleeping pattern normalised<br>Positive mood returned<br>Aggression disappeared<br>Personal hygiene normalised                                   | 4 months: Results maintained<br>32 months: Results maintained with increased self-sufficiency |
| Simon<br>(middle-aged man) | Moderate                    | Since 10 months: Aggressive outbursts; e.g., threatening with knife<br>Complaining<br>Shaking<br>Possessive of caregivers and girlfriend<br>Eating too much/stuffing food in mouth | 10 months ago mother died<br>In his late adolescence father died of heart attack<br>10 years ago outplacement; family's farm was sold, mother moved<br>Courtship broken up, forced by others<br>After 4 EMDR sessions: Lost his way during trip abroad, was found after 2 days and brought to police station | 5                  | Self-sufficiency increased<br>Able to talk about mother in an appropriate way<br>More relaxed<br>Excessive rage disappeared<br>Asked for help when in trouble<br>Able to talk about thoughts and feelings | 10 months: Results maintained   |

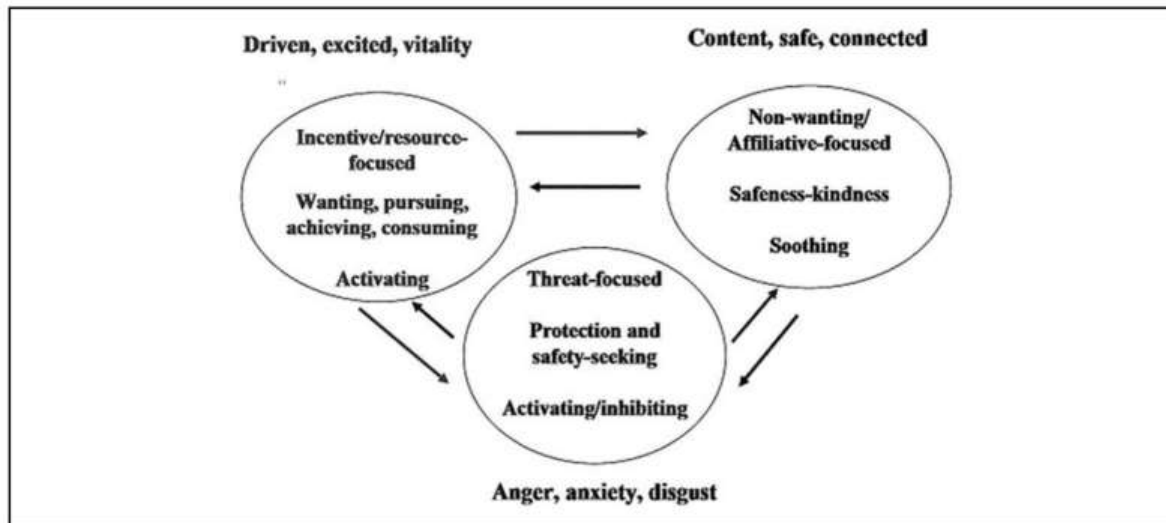
# Compassion-focused therapy for trauma in people with intellectual disabilities: A conceptual review

- Compassion-focused therapy (CFT) aims to address the elements central to TIC. CFT uses a range of techniques to help individuals develop a greater sense of safeness, trust and social affiliation, as well as formulating problems within historical, cultural, social and biological contexts.
- The main focus is to encourage emotional and mental well-being through developing compassion, defined as ‘sensitivity to suffering in self and others with a commitment to try to alleviate and prevent it’ (Gilbert et al., 2017, p. 1).



# Three types of affect regulation system

From Gilbert (2009b) with kind permission from Little, Brown Book Group Ltd.



# CFT- Effectiveness evidence

- A recent systematic review found CFT to be better than no treatment and as effective as treatment-as-usual in addressing a range of clinical and non-clinical health and mental health issues (Leaviss and Uttley, 2015). Self-compassion has been found to protect against PTSD symptomology after trauma exposure (Hiraoka et al., 2015; Scoglio et al., 2015; Zeller et al., 2015), mediated by emotion dysregulation (Scoglio et al., 2015) and behavioural avoidance (Thompson and Waltz, 2008). A multiple-baselines design found that a brief compassion-focused intervention for trauma was associated with large and reliable reductions in PTSD symptomology and shame (Au et al., 2017).
- The case for CFT for trauma in PWID: The adaptability of CFT to differing developmental levels



# Evidence for CFT with PWID

- Two studies described CFT interventions for PWID with promising results
- CFT's focus on activating the soothing system means a more embodied and skills-based approach can be utilized, making it potentially less reliant on cognitive skills than traditional CBT.
- A qualitative study into how PWID experience CBT found that the therapeutic alliance, including empathy and validation, were identified as key helpful factors, leading the authors to suggest that CFT is worth exploring as an approach for PWID (Pert et al., 2013).
- CFT has been used successfully with a client with a traumatic brain injury, for whom CBT was not effective (Ashworth et al., 2011), and was found to reduce anxiety, depression and self-criticism in a group of people with acquired brain injuries (Ashworth et al., 2015).



# CBT/ CBT mixed therapies

- CBT-mixed therapies are flexible treatments that target a wide variety of trauma populations.
- CBT-mixed therapies are based on cognitive models of PTSD that link PTSD to negative appraisals of the trauma and trauma sequelae as well as to differences in how memories of traumatic events are processed.
- CBT-mixed therapies have strong research support in their efficacy for diverse trauma populations.
- HOPE is an example of a research-supported CBT-mixed treatment specifically for women survivors of IPV who seek shelter.

## EXHIBIT 3.1

### HOPE Modules

#### Establishing Safety and Empowerment

1. Goal Setting
2. Knowledge is Power: Psychoeducation re Abuse and PTSD
3. Safety Planning
4. Empowering Yourself
5. Establishing Trust in Relationships

#### Managing PTSD With Empowerment Tools

6. Rethinking Victim Thinking into Survivor Thinking
7. Coping With Triggers
8. Safe Sleep
9. Self-Soothing and Relaxation

#### Improving Relationships

10. Establishing Boundaries
11. Establishing Safe and Health Relationships
12. Improving Relationships by Managing Anger

#### Post-Shelter Modules

1. Goal Setting
2. Safety Planning
3. Booster Sessions
4. Terminators/Establishing Long-Term Support and Safety

#### Optional Modules

1. Crisis Management
2. PTSD and Substance Use
3. Grounding
4. Nightmares
5. Grief
6. Emotional Numbing
7. Co-Parenting With an Abuser



# Cognitive processing therapy (CPT)

- Cognitive processing therapy (CPT) is an evidence-based, trauma-focused psychotherapy for PTSD that typically consists of about 12 sessions and may be delivered individually or in groups.
- CPT is based on cognitive theory and posits that one's beliefs can be disrupted by traumatic events in a way that can interrupt the normal recovery process from trauma.
- In CPT, the focus is on learning to identify, examine, and challenge thoughts to reach more accurate and balanced conclusions about the traumatic experience itself, as well as more balanced beliefs about oneself, others, and the world.
- CPT has been shown to be helpful for diverse populations who have experienced a wide range of traumas, including sexual and physical assault, combat trauma, and motor vehicle accidents, as well as for people who have experienced multiple traumas.
- CPT has been studied internationally, across different languages and cultures, with both veterans and civilians, and in group and individual formats. It has consistently demonstrated significant reductions in PTSD symptoms and increases in functioning.





# Other therapies

- Exposure therapy
- Narrative therapy
- Play therapy
- Circle of Security
- Tuning into Kids/Teens





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