

# Complex Trauma

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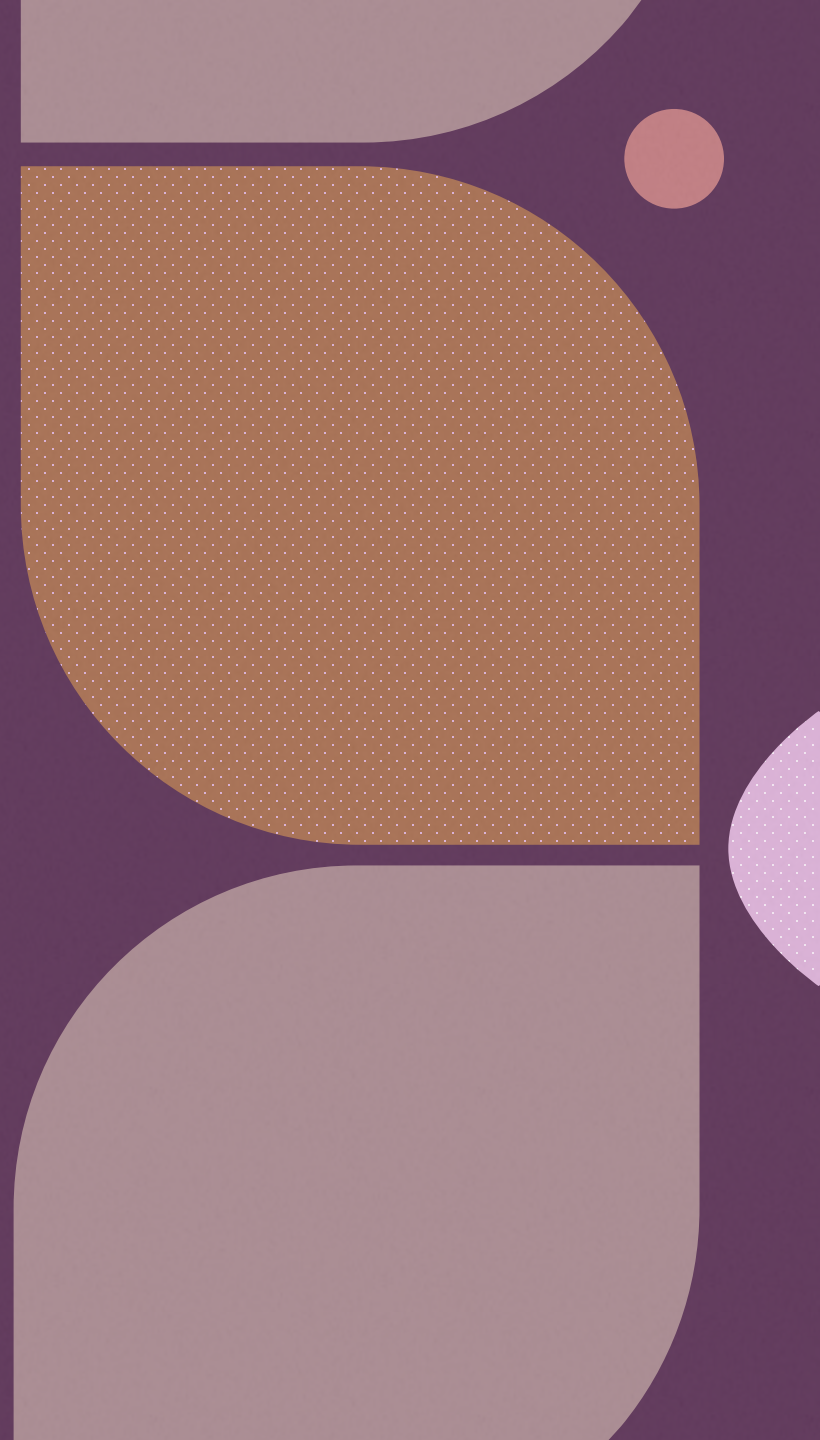
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No conflicts of interest to declare



# Learning Objectives

- Define the concept of “Complex Trauma”
- Discuss 2 cases of youth experiencing complex trauma
- Review biological changes and symptoms related to experiencing trauma
- Discuss treatment options for those affected by trauma and it's associated symptoms

# Complex Trauma

- Lack of a consensus on definition
- Generally understood to involve:
  - Repetitive trauma that occurs over an extended period of time
  - Undermines primary caregiving relationships
  - Occurs at sensitive time for brain development
- Physical abuse, sexual abuse, emotional abuse, neglect, witnessing domestic violence, exposure to community violence, medical trauma

# Complex Trauma

- Complex trauma exposure increases likelihood of:
  - Posttraumatic stress response
    - Re-experiencing
    - Avoidance
    - Hyperarousal
    - Negative cognitions and mood
  - Discrete set of psychological difficulties
    - Deficits in relationships and attachment
    - Emotional and behavioural dysregulation
    - Cognitive/attentional deficits
    - Biological changes affecting physical health

# Case: KA

- 15 yo male, living with aunt in Little Saskatchewan First Nation
- Presented to Percy Moore Hospital with 1 day of sudden onset sharp periumbilical abdominal pain, emesis x5
- Also endorsing dysuria and urinary frequency
- Transferred to Children's Hospital Emergency (CHER) for further workup
- Bloodwork, urinalysis, and CT abdomen unremarkable
- Improvement to pain after large BM following enema
- Follow-up in Children's Clinic the following day

# Case: KA

- Presented to Children's Clinic where discussion was held about anxiety possibly contributing to the pain
- Mental health screening questions led to endorsement of suicidal thoughts
- Disclosed "coming close" to drinking bleach and hanging self, both within the last week
- Sent back to CHER for psychiatric assessment where he was admitted to PY1 due to ongoing suicidal thoughts

# Case: KA

- Father died by suicide 1 day before patient was born
- Mother abandoned family multiple times when patient was growing up, and he began living with an aunt 2 years earlier
- Currently has intermittent contact with mom
- Lives with 5 half-siblings (ages 3, 4, 5, 13, 17) who he feels the need to care for and be a “father figure” towards
- Frequently arguing with older brother
- Has a 17 yo girlfriend who he worries is pregnant
- Current “physical, verbal, and cyber bullying” at school but excels academically



# Case: KA

- Significant substance use endorsed
- Alcohol 1-2 times per week, typically 12 beers at a time
- Xanax- 5 “tablets” every couple days
- Percocets- 2-3 “tablets” daily
- Marijuana- “quarter ounce” daily

# Case: KA

- Depressive symptoms: anhedonia, sleep disturbance, decreased energy, decreased appetite, longstanding suicidal ideation (6 years)
- Anxiety symptoms: frequent worries, muscle tension, panic attacks, social anxiety
- Mood congruent derogatory auditory hallucinations
- Initiated on fluoxetine

# Complex Trauma

- Structural and functional changes in brain development
  - Neuroendocrine dysregulation
  - Reduced hippocampal, amygdala, and prefrontal cortex volume
  - Decrease in corpus callosum size
- Alternative developmental pathway when exposed to high stress
  - Promote rapid autonomic responses to avoid harm
- Result in affective, somatic, behavioural, and interpersonal impairments

# Complex Trauma

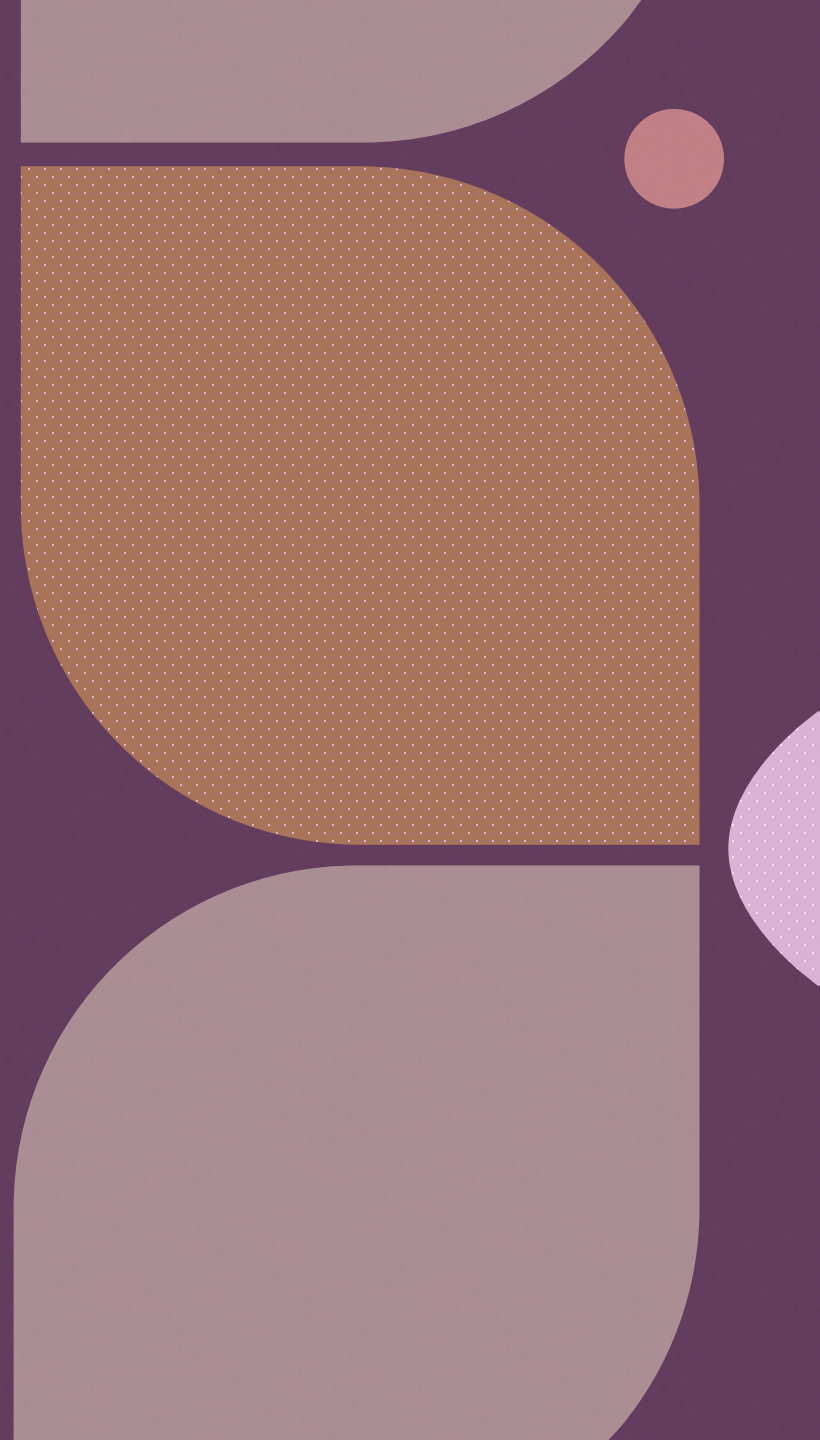
- Dose response relationship with exposure to more trauma resulting in increased symptom burden
- Other factors that contribute to more chronic and severe impairment:
  - Multiple types of trauma
  - Earlier onset of trauma exposure
  - Interpersonal nature of trauma

# Complex Trauma Symptom Profile

- Dysregulation of affect and behaviour
  - Anxiety, depression, anger, aggression
  - Chronic trauma exposure can overload a child's ability to cope with emotions
- Avoidance responses
  - Dissociation, substance abuse, self-injurious behaviour
- Interpersonal difficulties
  - Trust, low interpersonal effectiveness, revictimization, victimizing others, poor boundaries

# Complex Trauma Symptom Profile

- Identity problems
  - Self-blame, low self-esteem, poor self-efficacy
- Somatization



# Case: KA

- 7 weeks later re-presented to CHER
- EMS contacted by mom after observing seizure activity
- Had moved to Winnipeg, staying with a different aunt
- Drank “2L of 7% alcohol” with aunt and then took 3 gabapentin pills and 4 others later as a “suicide attempt”
- Endorsed ongoing SI and admitted to PY1. Neurology consulted for seizure assessment

# Case: KA

- Uncle murdered 2 weeks after previous discharge
- Did not refill fluoxetine after completing 30 day prescription, however found it helpful
- Over past couple weeks worsening depression, anxiety, suicidal thoughts, and auditory hallucinations at times of high stress
- Re-started fluoxetine and connected with Winnipeg resources (ICATS)
- Discharged to a different aunt's home in Winnipeg



# Complex Trauma Treatment- Psychotherapy

- Phase-based approach to therapy:
  - Phase one: engagement, safety and stabilization
  - Phase two: recalling traumatic memories
  - Phase three: enhancing daily living
- Cognitive Behavioural Therapy
  - Exposure
  - Cognitive processing

# Complex Trauma Treatment- Pharmacotherapy

- Treatment adapted from literature on PTSD and other conditions with similar symptom clusters
- Antidepressants
  - First line pharmacotherapy for PTSD (SSRI)
  - Evidence for efficacy with re-experiencing, hyperarousal, and avoidance symptoms
- Adrenergic agents
  - Prazosin has RCT evidence for improving sleep and decreasing trauma-related nightmares
  - Beta-blockers ineffective in larger trials

# Complex Trauma Treatment- Pharmacotherapy

- Antipsychotics
  - Mixed evidence despite frequent usage
  - American Psychiatric Association guidelines suggest usage only with comorbid psychosis or severe agitation/aggression
- Typically avoid:
  - Benzodiazepines
  - Mood stabilizers

# Case: KA

- 2 weeks later accompanying a cousin to CHER (as a support) who had been hit by a car
- As she was being discharged, KA experienced multiple generalized tonic-clonic seizures in CHER
- Received IV lorazepam and fosphenytoin
- Described association with left occipital headache and 3-5 minute period of decreased LOC with disorientation and aggression following seizure
- Admitted to Children's Hospital for Pediatric neurology assessment and urgent EEG, MRI

# Case: KA

- Following day witnessed to have multiple seizure events in hospital
- Had seizure on way to EEG and then multiple events during photic stimulation
- No EEG correlation and No epileptiform discharges seen
- Made comment to EEG technician that he would be in hospital “a long time”
- Diagnosed with Psychogenic Nonepileptic Seizures (vs. factitious/malingering)

# Case: KA

- Complex Trauma:
  - Major Depressive Disorder
  - Unspecified Anxiety Disorder
  - Substance Use Disorder
  - Psychogenic Nonepileptic Seizures

# Case: NK

- 6 yo male, demonstrating signs of anxiety and "dark thoughts"
- Mild academic challenges at school
- Asked to see for play therapy by his dad's psychiatrist
- Dad is a refugee from Congo with clearly established PTSD, alcohol use disorder, and suicidal thoughts
- Dad struggles with verbal outbursts when intoxicated and yelling out when experiencing flashbacks and nightmares

# Case: NK

- Well engaged in play therapy but resistant to discussing emotions or home life
- Parents separated during the course of treatment
- Increased anxiety initially at school, later more generalized
- Low self-esteem
- Progressive social isolation
- Grandfather who lived at home suffered a stroke and later died
- Onset of visual hallucinations of scary figures at nighttime
- Sleep increasingly poor, leading to missing school in mornings

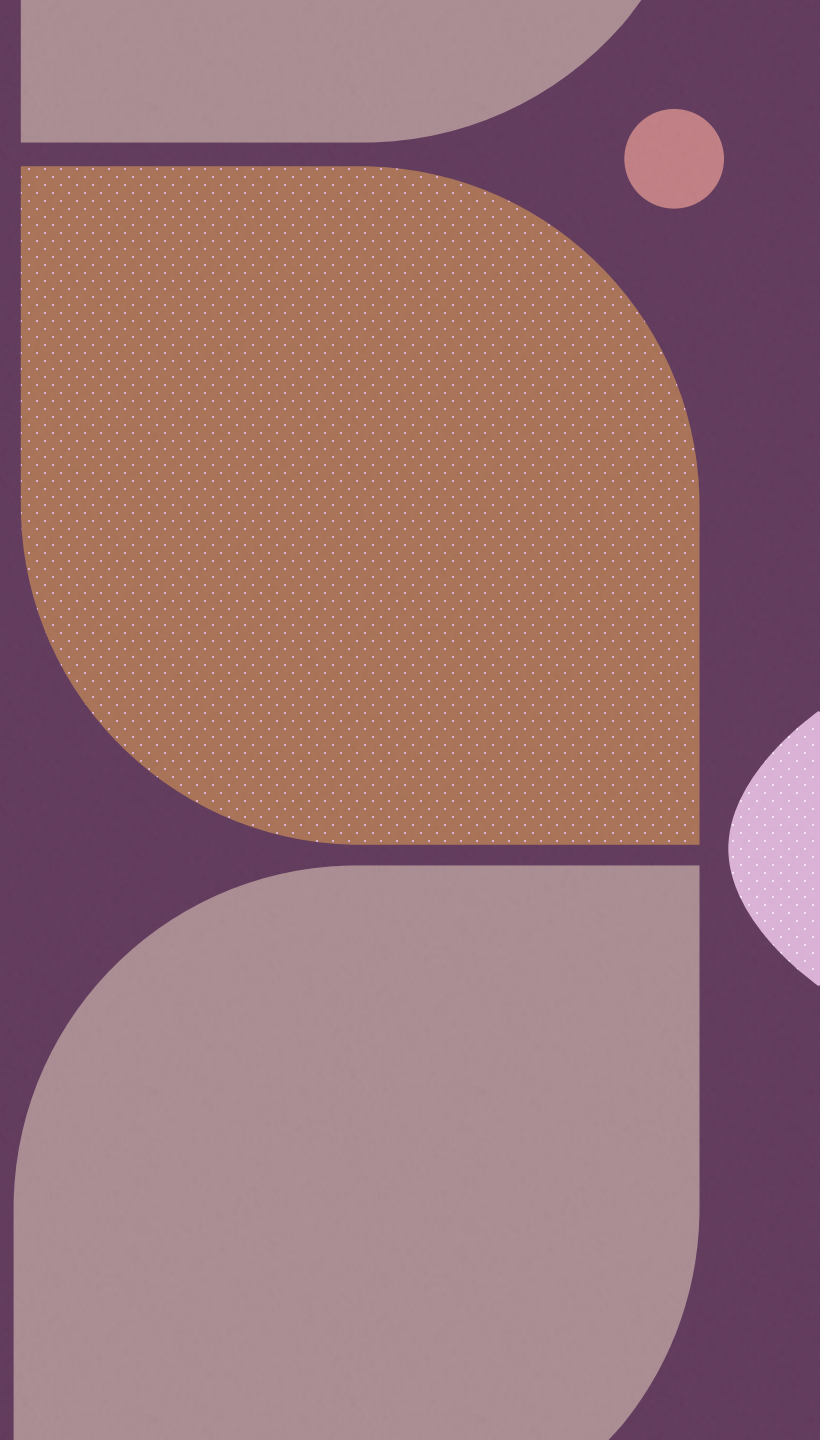


# Case: NK

- Pharmacotherapy initiated for insomnia:
  - Melatonin
  - Trazodone
  - Quetiapine
- Dad moves back into the home
- Rapid onset of nightmares, flashbacks, uncontrollable crying triggered by dad's voice, severe escalation in anxiety
- Initiated on fluoxetine

# Case: NK

- Complex Trauma:
  - Generalized Anxiety Disorder
  - Post Traumatic Stress Disorder



# References

- American Psychiatric Association. (2022). Trauma- and Stressor- Related Disorders. In *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.).
- Briere, J., & Scott, C. (2015). Complex Trauma in Adolescents and Adults: Effects and Treatment. *The Psychiatric clinics of North America*, 38(3), 515–527.
- Kliethermes, M., Schacht, M., & Drewry, K. (2014). Complex trauma. *Child and adolescent psychiatric clinics of North America*, 23(2), 339–ix.