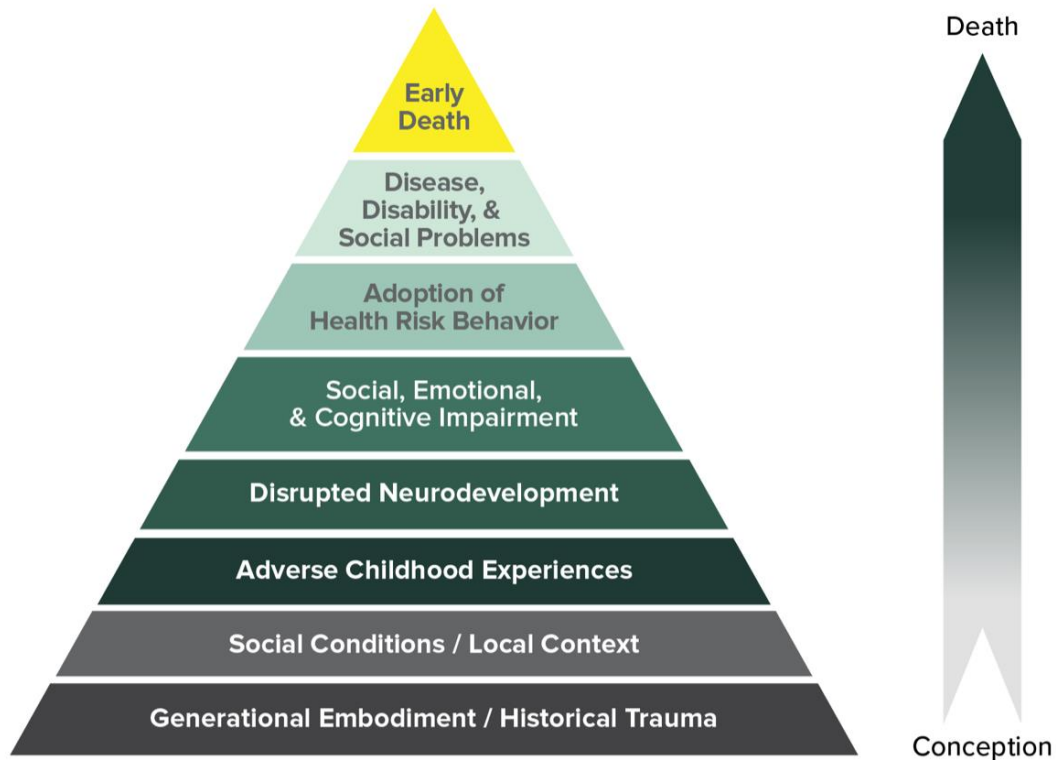


Addressing Childhood and Developmental Trauma

Dr. Carissa Muth
Clinical Director
Sunshine Coast Health Centre

CDC-Kaiser ACE Study

- Conducted at Kaiser Permanente from 1995 to 1997
- Sample- 17,000 Health Maintenance Organization members completed confidential surveys regarding their childhood experiences and current health status and behaviors
- One of the first studies considering correlation between “adult health risk behaviours, health status, and disease states to childhood abuse and household dysfunction” p. 246)



Mechanism by which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan

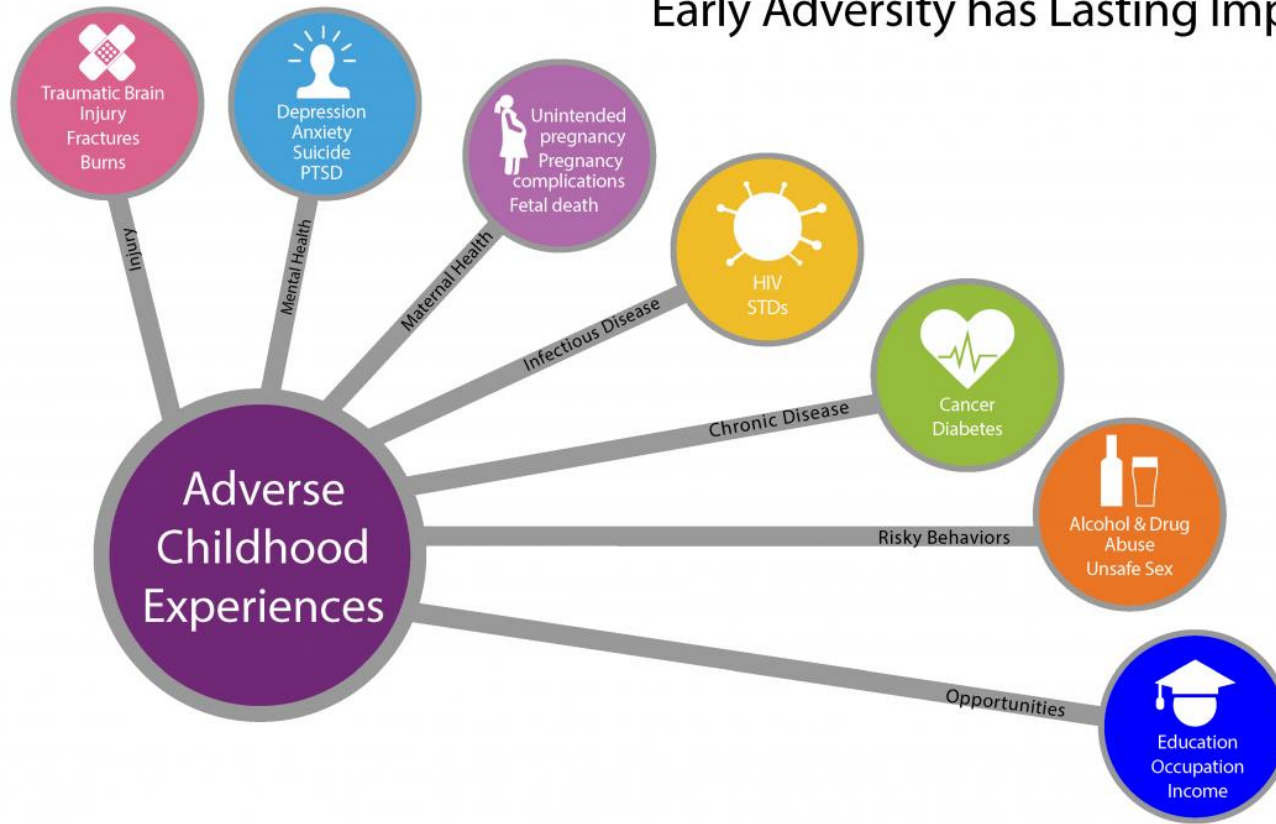
ACE Score Prevalence for CDC-Kaiser ACE Study Participants by Sex, Waves 1 and 2.

Number of Adverse Childhood Experiences (ACE Score)	Women Percent (N = 9,367)	Men Percent (N = 7,970)	Total Percent (N = 17,337)
0	34.5%	38.0%	36.1%
1	24.5%	27.9%	26.0%
2	15.5%	16.4%	15.9%
3	10.3%	8.5%	9.5%
4 or more	15.2%	9.2%	12.5%

Note: Research papers that use Wave 1 and/or Wave 2 data may contain slightly different prevalence estimates.

Source: Centers for Disease Control and Prevention, Kaiser Permanente. The ACE Study Survey Data [Unpublished Data]. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2016.

Early Adversity has Lasting Impacts



ACES- Major Findings

- ACEs are common across all populations
- Some populations are more vulnerable to experiencing ACEs
- Graded dose-response relationship between ACEs and negative health and well-being outcomes
- As the number of ACEs increases so does the risk for negative outcomes

Table 4. Number of categories of adverse childhood exposure and the adjusted odds of risk factors including current smoking, severe obesity, physical inactivity, depressed mood, and suicide attempt

Health problem	Number of categories	Sample size (N) ^a	Prevalence (%) ^b	Adjusted odds ratio ^c	95% confidence interval
Current smoker ^d	0	3,836	6.8	1.0	Referent
	1	2,005	7.9	1.1	(0.9–1.4)
	2	1,046	10.3	1.5	(1.1–1.8)
	3	587	13.9	2.0	(1.5–2.6)
	4 or more	544	16.5	2.2	(1.7–2.9)
	Total	8,018	8.6	—	—
Severe obesity ^d (BMI ≥ 35)	0	3,850	5.4	1.0	Referent
	1	2,004	7.0	1.1	(0.9–1.4)
	2	1,041	9.5	1.4	(1.1–1.9)
	3	590	10.3	1.4	(1.0–1.9)
	4 or more	543	12.0	1.6	(1.2–2.1)
	Total	8,028	7.1	—	—
No leisure-time physical activity	0	3,634	18.4	1.0	Referent
	1	1,917	22.8	1.2	(1.1–1.4)
	2	1,006	22.0	1.2	(1.0–1.4)
	3	559	26.6	1.4	(1.1–1.7)
	4 or more	523	26.6	1.3	(1.1–1.6)
	Total	7,639	21.0	—	—
Two or more weeks of depressed mood in the past year	0	3,799	14.2	1.0	Referent
	1	1,984	21.4	1.5	(1.3–1.7)
	2	1,036	31.5	2.4	(2.0–2.8)
	3	584	36.2	2.6	(2.1–3.2)
	4 or more	542	50.7	4.6	(3.8–5.6)
	Total	7,945	22.0	—	—
Ever attempted suicide	0	3,852	1.2	1.0	Referent
	1	1,997	2.4	1.8	(1.2–2.6)
	2	1,048	4.3	3.0	(2.0–4.6)
	3	587	9.5	6.6	(4.5–9.8)
	4 or more	544	18.3	12.2	(8.5–17.5)
	Total	8,028	3.5	—	—

^aSample sizes will vary due to incomplete or missing information about health problems.

^bPrevalence estimates are adjusted for age.

^cOdds ratios adjusted for age, gender, race, and educational attainment.

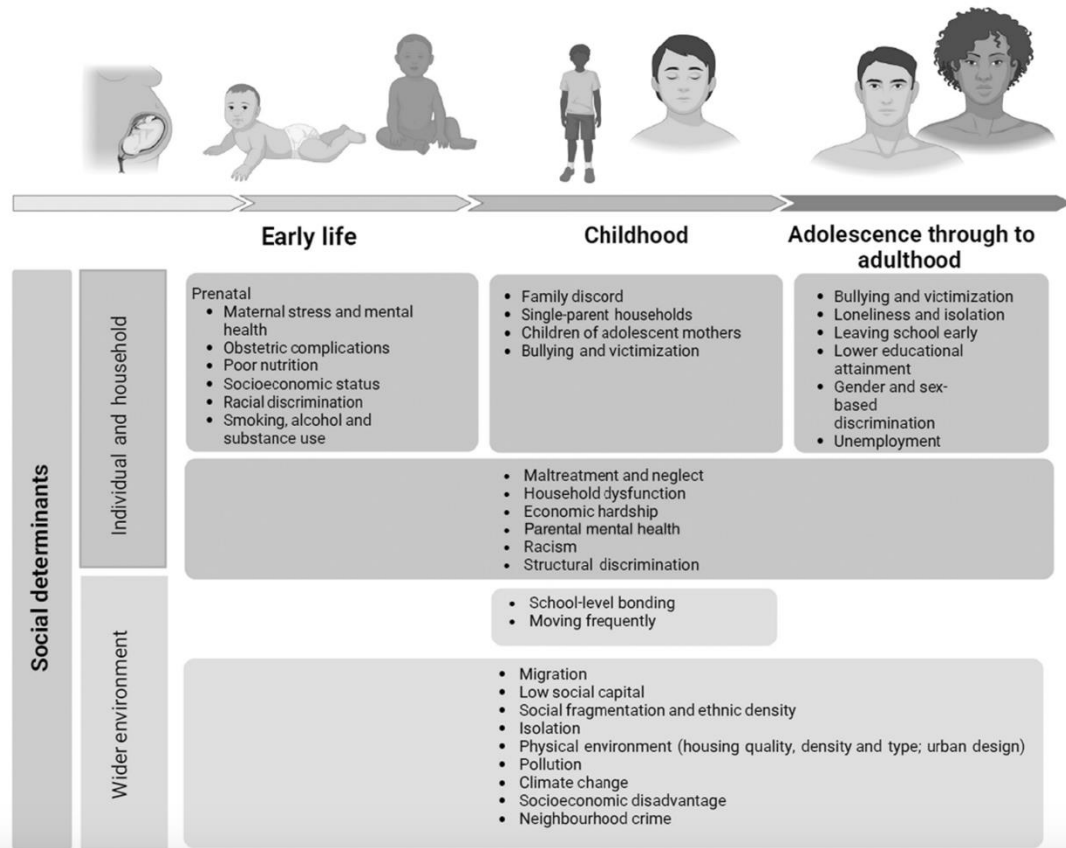
^dIndicates information recorded in the patient's chart before the study questionnaire was mailed.

Findings

- “The findings suggest that the impact of these adverse childhood experiences on adult health status is strong and cumulative” p.251
- “However, the analysis we present illustrates the need for an overview of the net effects of a group of complex interactions on a wide range of health risk behaviors and diseases.” p. 251
- “An essential question posed by our observations is, ‘Exactly how are adverse childhood experiences linked to health risk behaviors and adult diseases?’” p.252

Linking ACE and Risk

- “The linking mechanisms appear to center on behaviors such as smoking, alcohol or drug abuse, overeating, or sexual behaviors that may be consciously or unconsciously used because they have immediate pharmacological or psychological benefit as coping devices in the face of the stress of abuse, domestic violence, or other forms of family and household dysfunction.” p. 253
- “High levels of exposure to adverse childhood experiences would expectedly produce anxiety, anger, and depression in children. To the degree that behaviors such as smoking, alcohol, or drug use are found to be effective as coping devices, they would tend to be used chronically.” p. 253
- “Understanding the causal mechanisms through which any prenatal exposure may affect offspring mental health remains a critical objective for psychiatric epidemiology” p.61

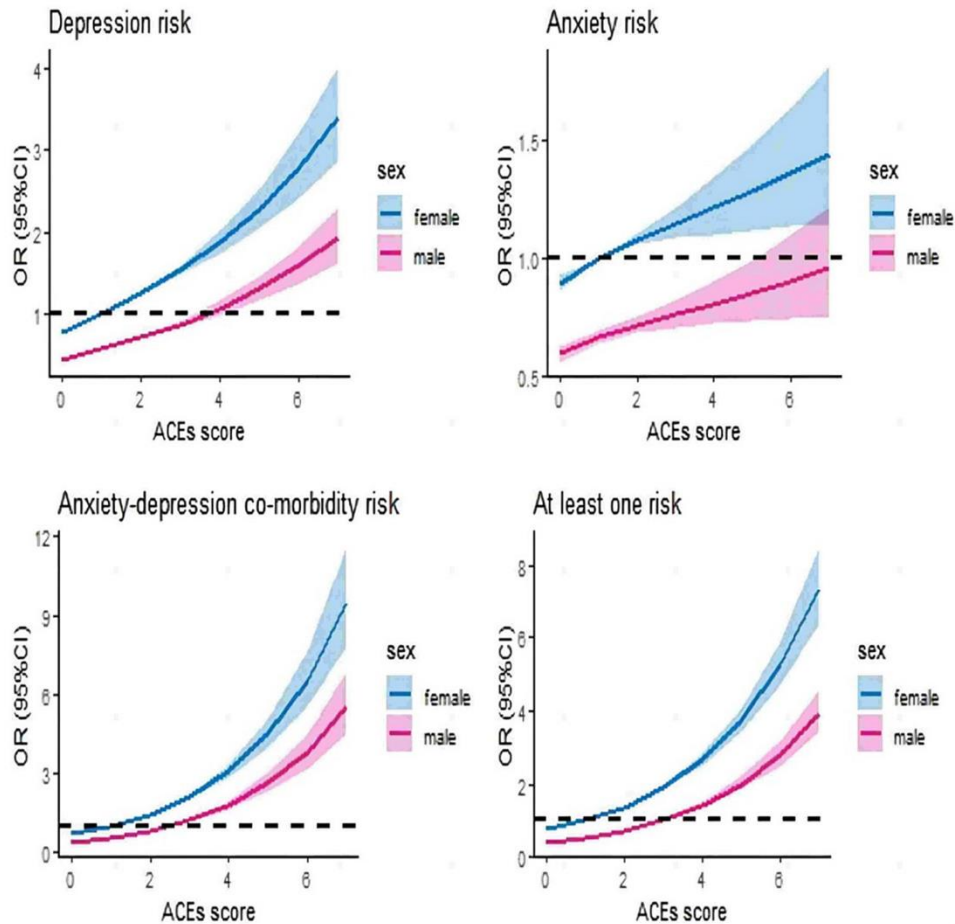


Social determinants on mental health

- “The risk of developing any mental health condition is inextricably linked to our life circumstances” p. 58
- “Socioeconomic disadvantage is a fundamental determinant of mental health outcomes over the life course” p. 60
- “Early life exposure to socioeconomic disadvantage may increase risk of mental health problems through several different mechanisms, based on potential biological, psychological and social pathways” p. 61

Risk of Psychopathology

- Dose-dependent relationship (four or more types of ACEs are considered polytraumatized individuals and are more prone to report poorer mental health)
- In the specific category of ACE, anxiety is more closely related to sexual or physical abuse, and depression is more closely related to emotional abuse
- It was also observed that individuals exposed to less than four ACEs had a higher risk of PTSD than CPTSD, whereas individuals exposed to six or more ACEs had a higher risk of CPTSD ([Ferrajão et al., 2024](#))



Risk of Psychopathology

- It was found that exposure to 2–3 ACEs and exposure to 4–5 ACEs were significantly associated with PTSD diagnosis, while exposure to sexual abuse, bullying, threats of violence, and near-drowning were significantly related to CPTSD diagnosis.
- Fearful attachment style was significantly associated with PTSD diagnosis (not CPTSD)
- Individuals with higher exposure to ACEs had higher PTSD symptom levels compared to individuals with lower levels of exposure or exposure to a single ACE

Risk of Psychopathology

- Being female increased the likelihood of a PTSD diagnosis twofold, which may be related to differences in exposure to ACEs in both sexes
- Adults with 4+ ACEs are 9.56 to 9.6 times more likely to have a diagnosed mental health condition overall.
- In adolescent samples, those with 4+ ACEs are 6.24 times more likely to experience probable PTSD symptoms than those with zero ACEs

ICD-11: Rationale for Separating Complex PTSD (CPTSD) from PTSD - Prioritizing Clinical Utility



WHO GUIDING PRINCIPLE: PRIORITIZING CLINICAL UTILITY
(Diagnosis must lead to better treatment outcomes)

EVIDENCE COLLECTED TO JUSTIFY THE SPLIT



DISTINCT SYNDROME EVIDENT:
Chronic, repetitive trauma creates a symptom profile beyond fear-based PTSD.



SYMPTOM CLUSTER DIFFERENCES:
Statistical analysis confirmed two distinct patient groups based on symptom patterns.



TREATMENT NEEDS DIFFER:
Evidence showed PTSD protocols often fail for CPTSD patients without prior stabilization.



TRADITIONAL PTSD
(The 'Fear' Response)



1. Re-experiencing
(Flashbacks)



2. Avoidance
(Triggers)



3. Sense of Threat
(Hypervigilance)

CLINICAL FOCUS & PATHWAY: Conditioning to specific threat.
→ **Trauma-Focused Therapy** (e.g., Exposure) to process memory.

THE "SIBILING" MODEL
(Mutually Exclusive Diagnoses)



COMPLEX PTSD (CPTSD)
(The 'Self' Disturbance)



1. PTSD
clusters



Avoidance
(Triggers)



4. Affect
Dysregulation
(Emotional storms/
numbing)

PLUS



5. Negative
Self-Concept
(Shame, worthlessness)



6. Relational
Disturbances
(Distrust, isolation)

CLINICAL FOCUS & PATHWAY: Alteration of personality & self-organization.
→ **Phase-Based Therapy** (Stabilization & skill-building FIRST, then trauma processing).

WHY THE SPLIT MATTERS FOR CLINICAL UTILITY

More precise treatment
for event-based fear. ✓

PTSD DIAGNOSIS



CPTSD DIAGNOSIS

Ensures appropriate phase-based care
& reduces BPD misdiagnosis. ✓

The split ensures patients receive the most effective, targeted treatment for their specific trauma profile.

DSM-5

vs

ICD-11

- Symptoms of Disorders of Extreme Stress NOS (DENOS) in DSM-IV rarely occurred in the absence of PTSD
- In DSM-5 PTSD was modified and expanded
 - Added symptoms- self blame, persistent negative mood, irritation, self-destructive behaviour
- Symptoms could be captured by a diagnosis of PTSD and borderline personality disorder

- Psychometric evidence that CPTSD and PTSD can be differentiated
- Compared to PTSD, CPTSD is more often related to early repeated interpersonal trauma and more significant impairment
- WHO survey of clinicians that CPTSD was the most requested new diagnosis of inclusion

CPSTD

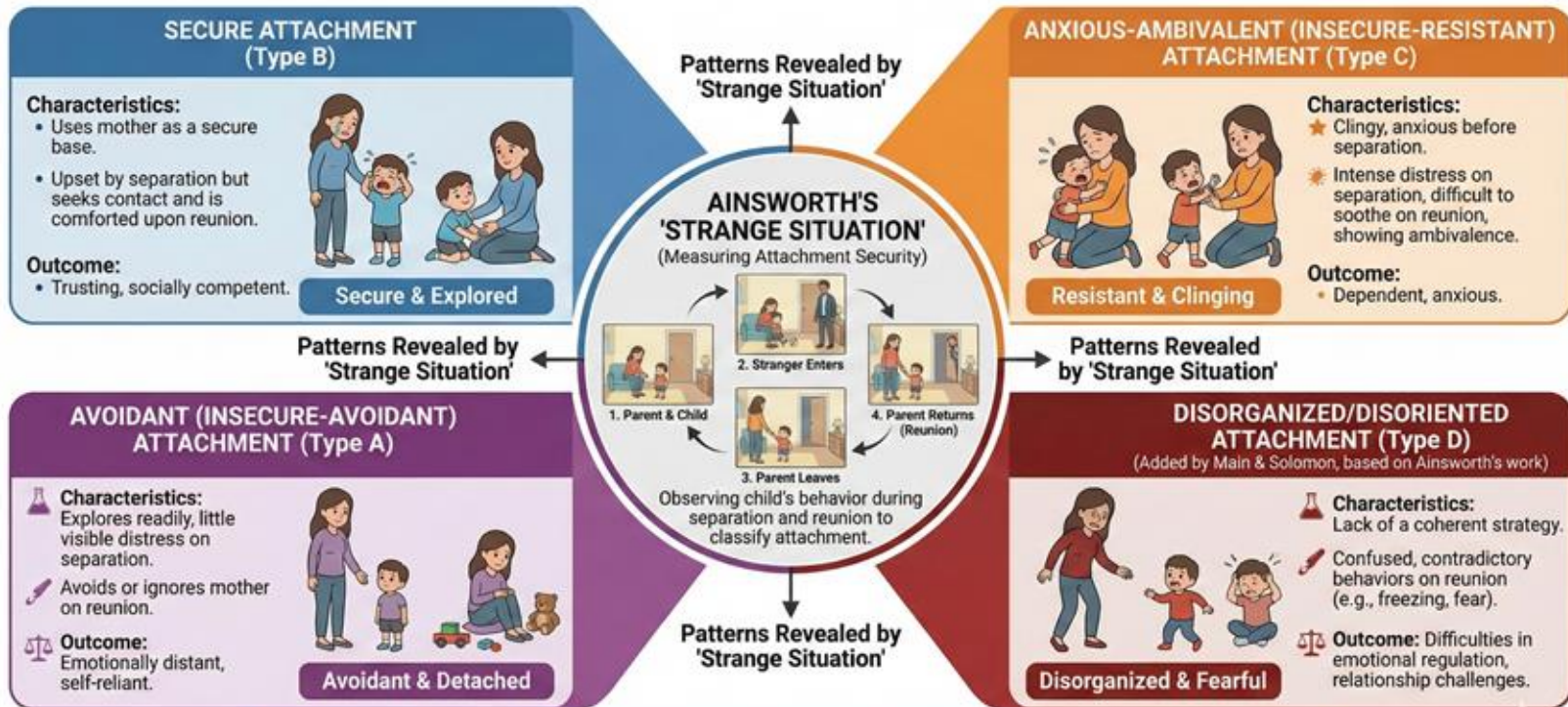
- The evidence suggests that while PTSD can arise at any point in life, CPTSD is overwhelmingly the result of childhood trauma due to emotional neglect, bullying, humiliation, and disrupted attachment.

- Exposure to trauma during childhood has long been recognized as a significant predictor of PTSD in adulthood in addition to other disorders such as depression
- Age 10 as period when trauma severity recall was the greatest. Also period of strengthening safety cues and threat differentiation
- Cumulative stressors prior to age 13 significantly increase the odds of psychological distress in adulthood
- Development of fear circuitry may contribute to risk for later PTSD and other trauma- related pathology

- Middle childhood is a sensitive period in which adverse experiences have long-lasting neurobiological impacts (around age 10)
- Timing of trauma exposure during development as significant consequences on PTSD symptoms as well as neural underpinnings
- A supportive and enriching environment in childhood cannot completely counteract the negative effects of the early environment
- Cortisol response to a social stressor in children, but not adolescents (above 10 yrs), is reduced by the presence of their mother

- While men are more likely to experience trauma, women are more likely to develop PTSD or mood disorders
- Women show greater amygdala reactivity to negative emotional stimuli than men (before and after puberty)

ATTACHMENT THEORY: Mary Ainsworth's 'Strange Situation' & Core Patterns



Mary Ainsworth (1913-1999): Pioneered the 'Strange Situation' procedure, classifying attachment patterns based on the balance of attachment and exploratory behaviors. Her work provided empirical evidence for Bowlby's theory.

Attachment Style	Regulatory Strategy & Specific Behaviors	Relationship to PTSD Risk and Appraisals
Secure (Type B)	Behavior: Effective use of "Secure Base" for social support-seeking and "Safe Haven" for emotional down-regulation.	Low Risk: Acts as a psychological buffer. Secure individuals maintain a "signal-to-noise" ratio that allows for objective cognitive processing of the event, preventing negative generalizations about safety.
Anxious-Preoccupied (Type C)	Behavior: Hyperactivating strategies; vigilant monitoring of threat, rumination on distress, and excessive reliance on others for regulation.	High Risk: Hyperactivation reinforces negative event-related appraisals of safety and personal competence. The chronic "Go" system state leads to higher rates of intrusive memories and persistent psychological arousal.
Dismissive-Avoidant (Type A)	Behavior: Deactivating strategies; suppression of emotions, denial of vulnerability, and obsessive self-reliance.	Moderate/Delayed Risk: Suppression creates a "cognitive load" that eventually fails. Negative appraisals are often somatic (body-based) rather than conscious, leading to high physiological arousal despite reported emotional "numbness."
Fearful-Avoidant / Disorganized (Type D)	Behavior: Fragmented/conflicting strategies; oscillating between intense need and fear of others; high levels of dissociation during stress.	Highest Risk: Associated with impaired mentalization. The lack of a coherent strategy for safety prevents the brain from organizing the trauma into a past event, leading to severe, chronic PTSD and complex trauma symptoms.

**References on following slide

Core symptoms of PTSD



Complex PTSD (ICD-11)

Negative Self Concept

- Persistent beliefs about self as diminished, defeated or worthless
- Feelings of shame or guilt



Emotional dysregulation

- Heightened emotional reactivity
- Violent outbursts
- Reckless or self – destructive behaviour
- Dissociative states under stress



Interpersonal difficulties

- Persistent difficulties in sustaining relationships due to tendency to avoid, deride or have little interest in relationships
- Intense relationships but difficulty maintaining emotional engagement



Interventions

PTSD Recovery

- Majority of people with PTSD have symptoms even after undergoing “gold standard” of treatment
- Symptoms tend to worsen after major life stressors, worsening symptoms lead to more stressors, and it often takes months or even years to return to baseline functioning after a symptom flare up
- Stress reactivity, stress generation, and stress persistence may reflect individual mechanisms that account for chronic PTSD symptoms

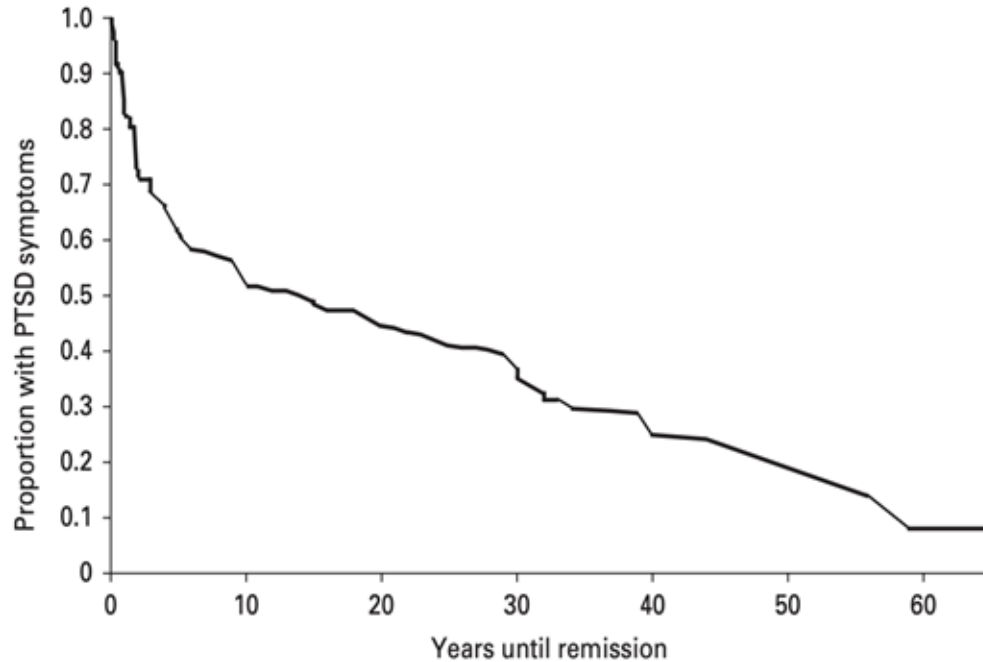
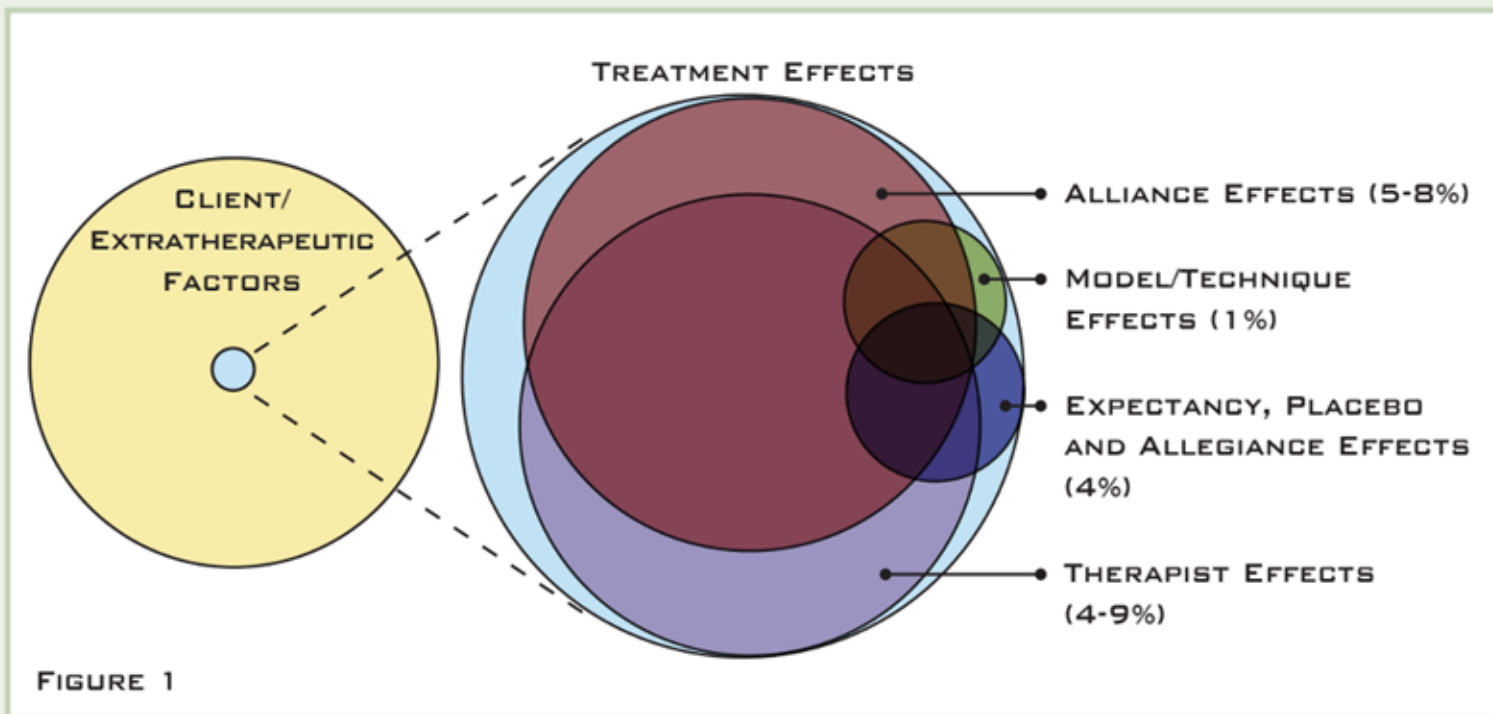
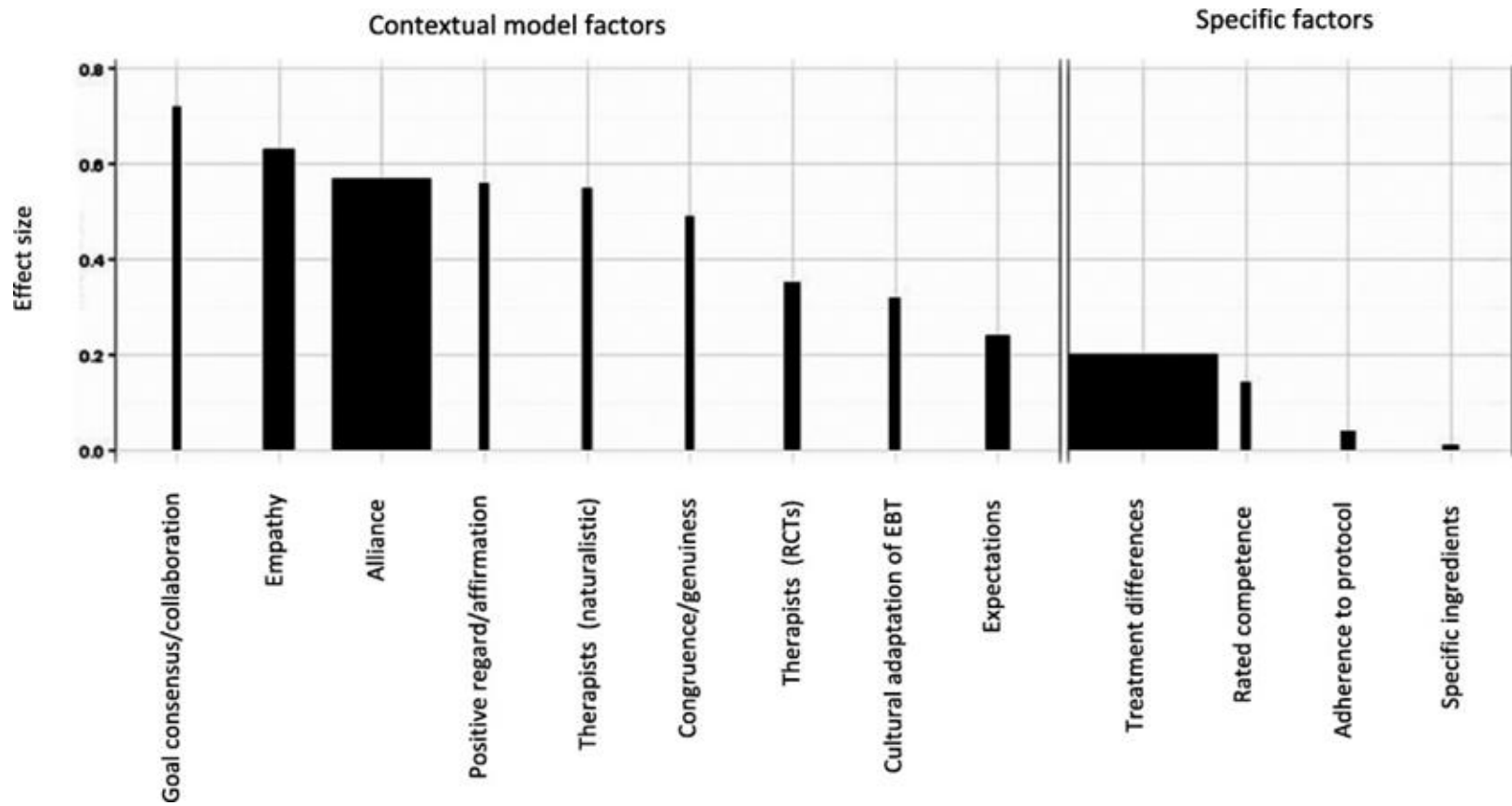


Fig. 1. Survival curve indicating years after onset until remission from post-traumatic stress disorder (PTSD) in the population.

| THE THERAPEUTIC FACTORS |





Role of Self-Efficacy

- Positive expectancies predict post-trauma resilience
- Coping self-efficacy may be an important predictive factor of recovery
- Group therapy has been found to increase self-efficacy
- All the current evidence based trauma treatments (e.g., CBTPE, CPT, EMDR) include a component focused on improving self-referent beliefs

Resilience

- Resilience research increased in correlation with the etiology of psychopathology and recognition between variations in adaptive behavior in high-risk samples, which was highlighted in ACE study
- Resilience research began in the 1970s in the same context that gave rise to developmental psychopathology
- Looked at positive and negative pathways leading from psychopathology
- Considers the system and development of the individual
- “Study of individuals ‘off the risk gradient’ who manifest positive adjustment and development despite risk or adversity exposures ,p.526
- In addressing how trauma “gets into the brain and body” - Positive experiences have also been found to influence the biology and development of adaptation at multiple neurobiological levels

Table 1 Sample of resilience definitions reflecting a dynamic systems perspective

Source	Definition
Acosta et al. (2017, p. ii)	“...the capacity of a dynamic system, such as a community, to anticipate and adapt successfully to challenges”
Cicchetti (2013, p. 404)	“...a dynamic developmental process encompassing the attainment of positive adaptation despite exposure to significant threat, severe adversity, or trauma. . .”
Feder et al. (2019, p. 443)	“...a complex and dynamic process, broadly defined as the ability to adapt successfully to adversity, stressful life events, significant threat, or trauma”
Folke (2016)	“...persistence, adaptability, and transformability of complex adaptive social-ecological systems. . .having the capacity to persist in the face of change, to continue to develop with ever changing environments”
Luthar et al. (2015, p. 247)	“A dynamic process reflecting positive child adjustment despite significant risk or adversity”
Masten (2007, p. 921)	“...the capacity of dynamic systems to withstand or recover from significant disturbances”
Panter-Brick & Leckman (2013, p. 333)	“...the process of harnessing biological, psychosocial, structural, and cultural resources to sustain well-being”
Ungar (2018)	“...the capacity of a system to anticipate, adapt, and reorganize itself under conditions of adversity in ways that promote and sustain its successful functioning”
van Breda (2018, p. 4)	“The multilevel processes that systems engage in to obtain better-than-expected outcomes in the face or wake of adversity”

Resilience

- “The capacity of a dynamic system to adapt successfully through multisystem processes to challenges that threaten the function, survival, or development of the system.” P.524]

- Resilience is dynamic, changing over time as a result of multiple processes and development.
- Resilience of a person or a family extends beyond the individual or family system level to encompass the capacity and resources that can be mobilized in response to challenges through processes connecting that person or family to additional capacity and resources.
- Resilience capacity is distributed across multiple systems; the resilience of an individual person depends on many systems, both internal and external to the person.
- Resilience can manifest in multiple possible pathways over time.
- Resilience can cascade across levels, domains of function, and generations.
- Interventions to nurture or bolster resilience can target different processes within levels or linking system levels.

Table 2 Short list of multisystem resilience factors

Sensitive caregiving, close relationships, social support
Sense of belonging, cohesion
Self-regulation, family management, group or organization leadership
Agency, beliefs in system efficacy, active coping
Problem-solving and planning
Hope, optimism, confidence in a better future
Mastery motivation, motivation to adapt
Purpose and a sense of meaning
Positive views of self, family, or group
Positive habits, routines, rituals, traditions, celebrations

Stage (phased)-Based Treatment

- Debated as to the merit
 - Phase-based treatment recommended for Complex PTSD by the International Society for Traumatic Stress Studies (ISTSS)
- Phase 1 - Safety and Stabilization [14]
 - Not needed for every client (don't encourage avoidance)
 - Focused on creating coping skills
 - Emotional regulation
 - Sobriety
 - Goals
 - Ensure client safety
 - Improve expression of emotion
 - Increase positive beliefs about self
 - Address feelings of guilt shame
 - Improve interpersonal functioning





TEMPERATURE

Change your body temperature. Splash your face with cold water, hold an ice cube, let car AC blow on your face, take a cold shower



INTENSE EXERCISE

Do intense exercise to match your intense emotion. Sprint to the end of the street, do jumping jacks, push ups, intense dancing



PACED BREATHING

Try Box Breathing: Breathe in for 4 seconds, hold it for 4 seconds, breathe out 4, and hold 4. Start again, and continue until you feel more calm.



PAIRED MUSCLE RELAXATION

Focus on 1 muscle group at a time. Tighten your muscles as much as possible for 5 seconds. Then release & relax. Repeat with other muscle groups.

S.T.O.P SKILL

DISTRESS TOLERANCE

Helps us to react in a less impulsive way when we're upset or in need of support

S STOP! Don't react impulsively!!!

T Take a step back from the situation and breathe!

O Observe your internal bodily sensations, thoughts and feelings. Connect with your 5 senses and the present. What are others saying or doing?

P Proceed mindfully by acting with awareness. Think about your long term goals. Which actions will make the situation better or worse?

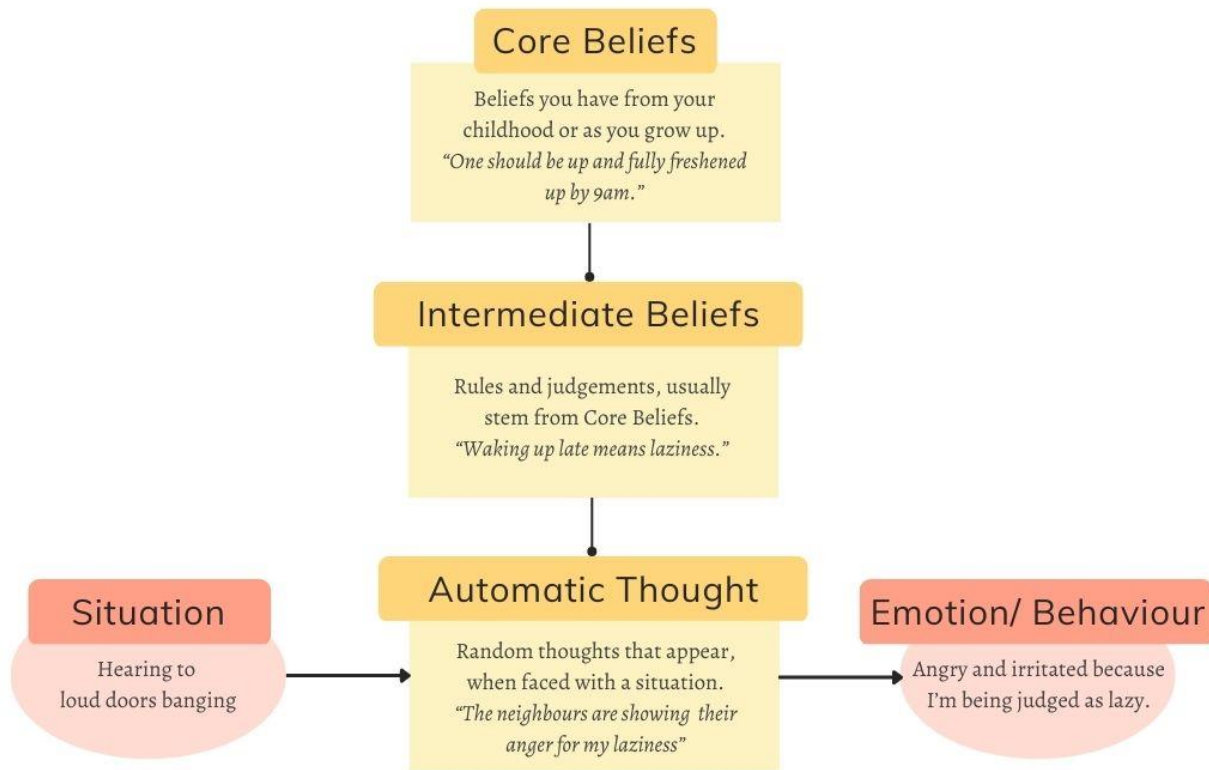
@I.A.M.MINDFUL_

Stage (phased)-Based Treatment

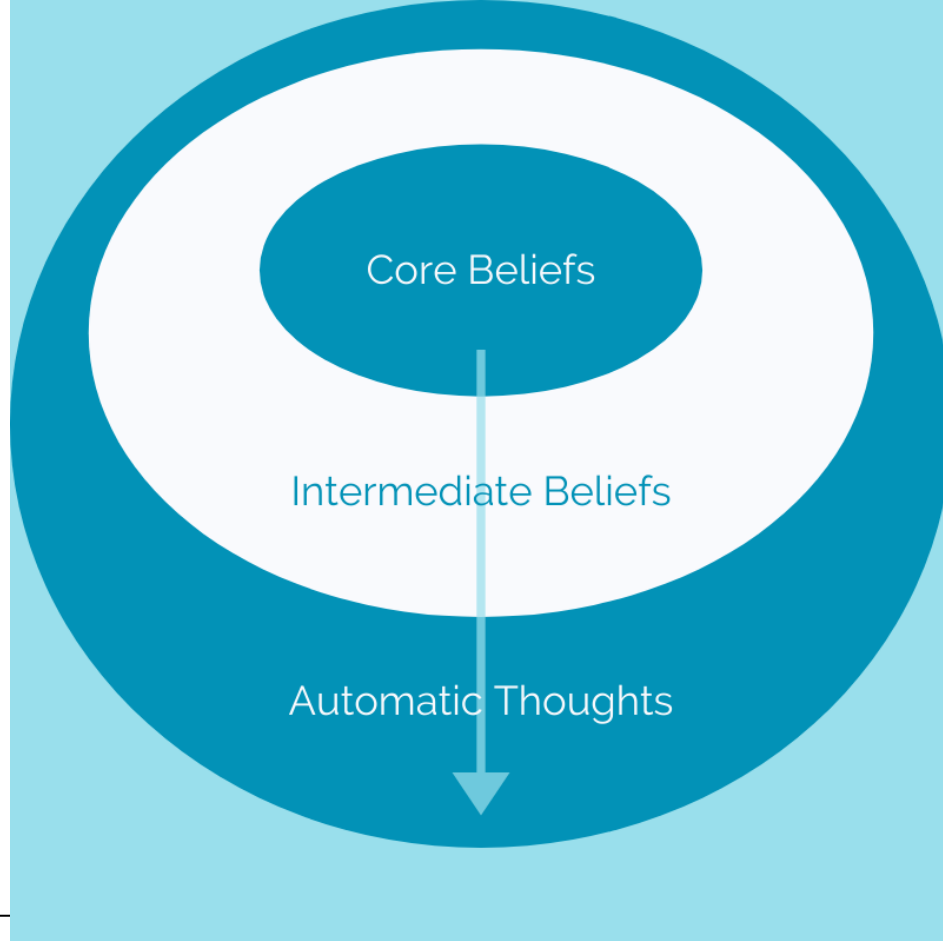
- Phase 2 – Exposure for PTSD/ CPTSD
 - Focuses on review of trauma
 - Aim is re-experiencing traumatic events in which the client feels safe
 - Evidenced based protocol ([APA Guidelines](#))
 - [TF-CBT](#)
 - [CPT](#)
 - Prolonged Exposure Therapy

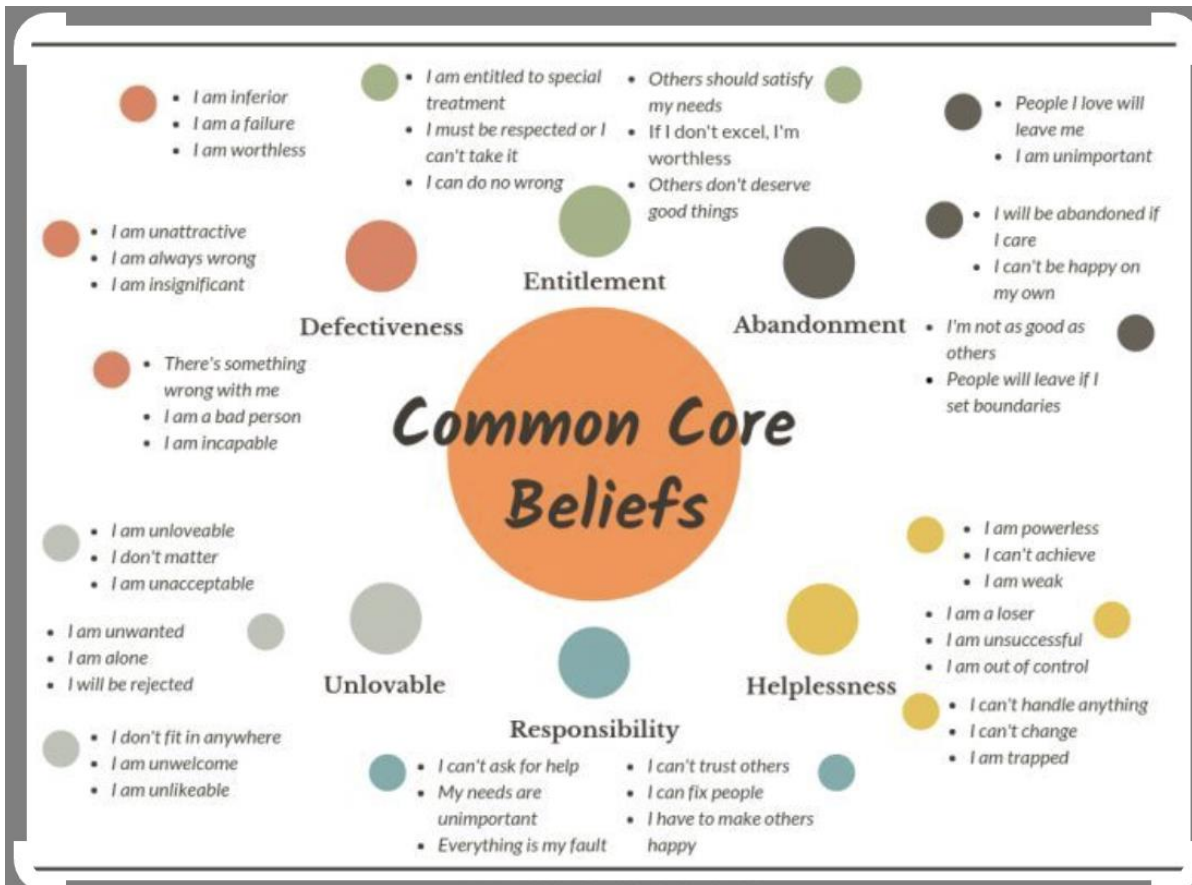
CBT

1. Personality is established based on information processing activating a person's cognitive, affective, motivational, and behavioral responses to the physical and social environment (APA). Pathology is caused by maladaptive beliefs, behavioral factors, and maintaining factors (Beck).
 2. People learn to evaluate their thinking in a more adaptive and realistic manner they experience a decrease in negative emotional and maladaptive behavior.
 3. Considered the "gold standard" for many disorders
-

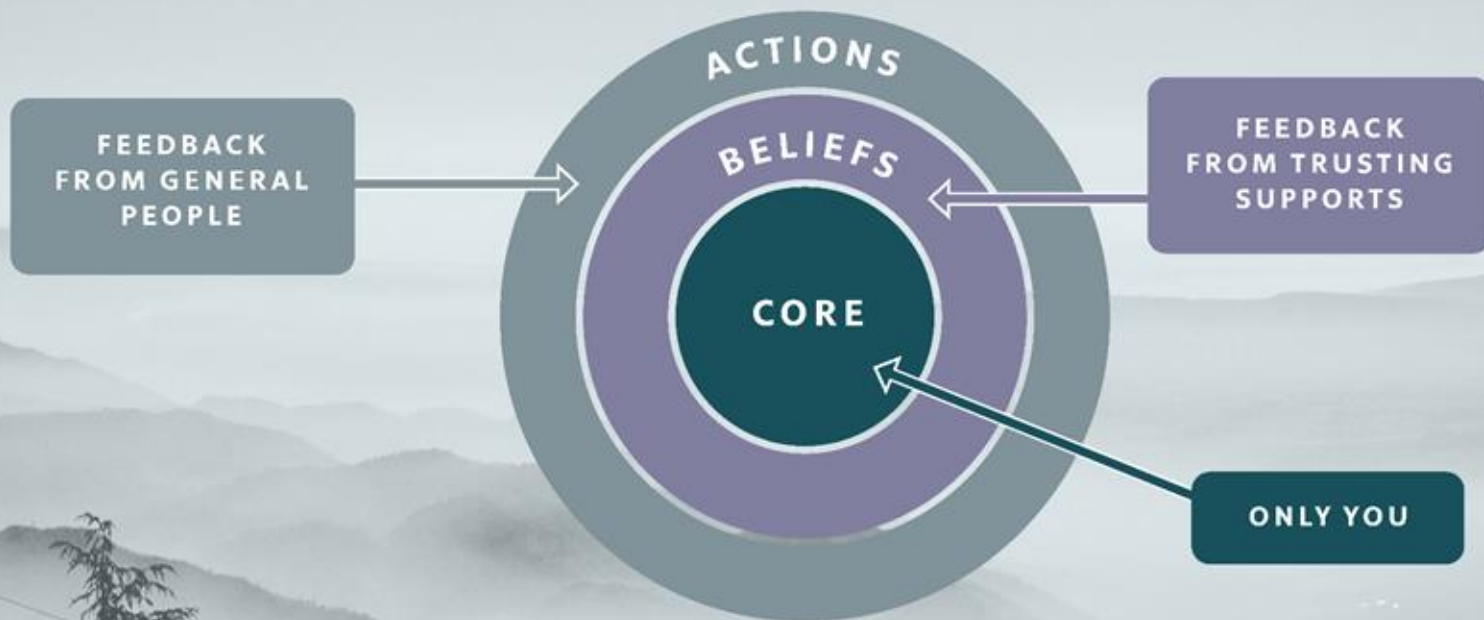


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CORE, BELIEFS, AND ACTIONS



Psychotherapy	Description
Recommended Trauma-Focused Psychotherapies	
Prolonged Exposure (PE)	A manualized therapy, including trauma psychoeducation, breathing training, <i>in vivo</i> exposure, imaginal exposure (repeatedly recounting traumatic memories during sessions and listening to audio recordings of these recollections), and discussion of thoughts and feelings related to those exercises. Uses principles of extinction learning, habituation, and desensitization to ultimately challenge catastrophic expectations.
Cognitive Processing Therapy (CPT)	A manualized adaptation of CBT that focuses on discussion and cognitive reprocessing of key posttraumatic cognitive themes, such as safety, trust, power, control, self-esteem, and intimacy. Also addresses shame, guilt, and mistrust.
Trauma-focused Cognitive Behavioural Therapy (TF-CBT) and Cognitive Therapy (CT) for PTSD	Includes CBT principles combined with trauma processing, which usually involves imaginal or graded <i>in vivo</i> exposure. In some studies, this term includes trauma-focused cognitive therapy, which focuses on addressing excessively negative appraisals of trauma, its consequences, or one's own responses to the trauma.
Eye Movement Desensitization and Reprocessing (EMDR)	Includes exposure to memories while applying a dual attention task, such as alternating eye movements or bilateral body tapping. Dual attention tasks are thought to tax working memory and thereby reduce vividness and emotionality of the memory. This facilitates processing and reconsolidation of new information into the memory. EMDR includes a desensitization phase, cognitive restructuring phase, and a phase that focuses on reducing bodily sensations associated with traumatic memories.
Narrative Exposure Therapy (NET)	Based on modifications to PE and TF-CBT, NET focuses on a person's life narrative, including that related to the trauma and to positive events, improving coherence and contextualization of the traumatic experiences within a person's whole life and overall identity. Also includes elements of trauma exposure, including experiencing cognitive, emotional, and sensory elements of trauma responses in the present moment.

Recommended Non-Trauma-Focused Psychotherapies

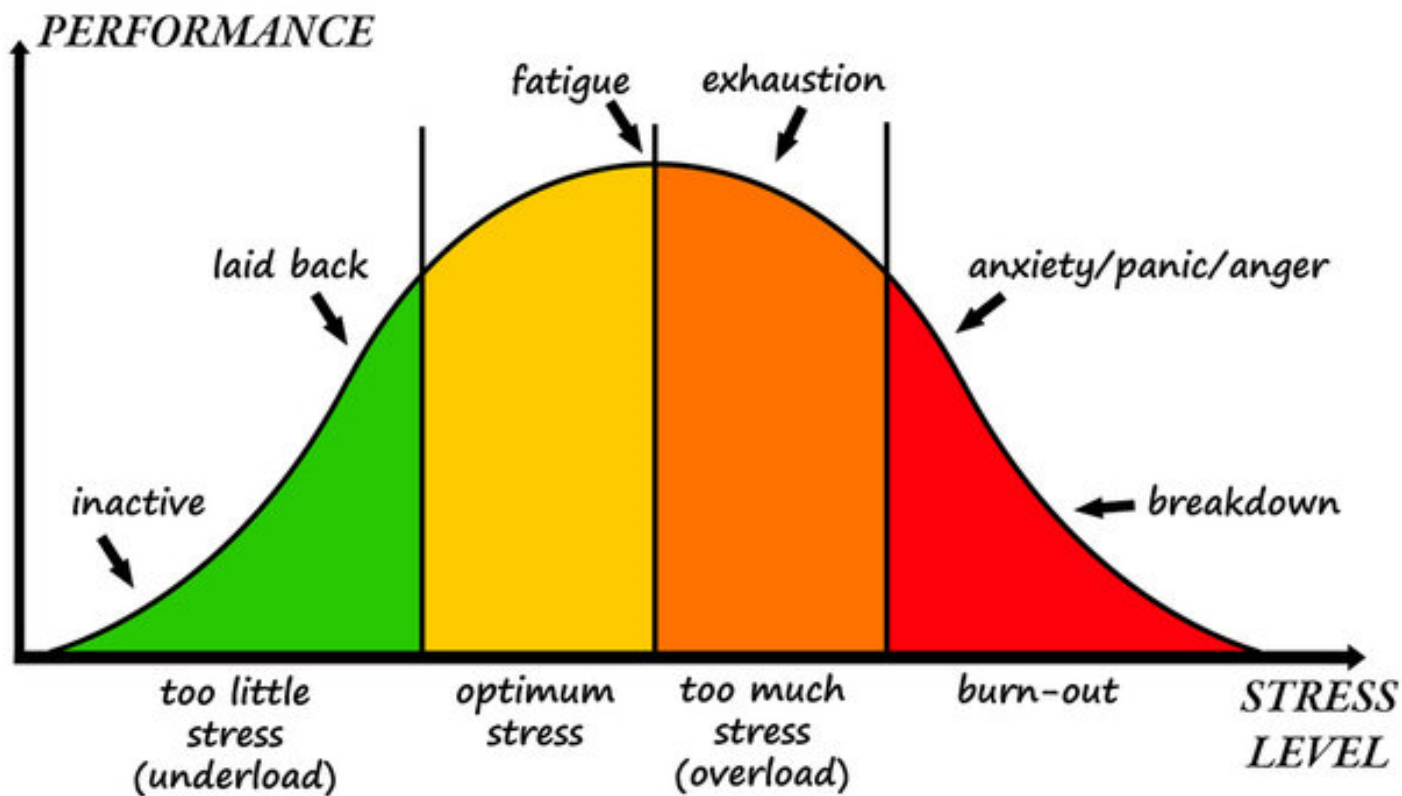
Interpersonal Psychotherapy (IPT)	Time-limited treatment, developed for Major Depression and adapted for PTSD, focusing on relational aspects contributing to illness, such as complicated bereavement following a death, role dispute (conflict with an important person in the patient's life), role transition (major life changes), and interpersonal deficits.
Present Centred Therapy (PCT)	Time-limited treatment focuses on increasing adaptive responses to current life stressors and difficulties that are directly or indirectly related to trauma symptoms. Includes common nonspecific psychotherapy techniques, such as psychoeducation, facilitating safety and hope, validation and support, expression of feelings, and problem-solving. Diaries are used to record problems of concern throughout the week.
Stress Inoculation Training (SIT)	Based on CBT, SIT involves helping people identify and track their stress and learn coping skills to better manage symptoms, such as deep muscle relaxation, cognitive restructuring, breathing exercises, assertiveness skills, thought stopping, and role play.

Cognitive Processing Therapy

- The engine of CPT is identifying and challenging “**Stuck Points.**” These are exaggerated or unhelpful beliefs created by the trauma that keep you from recovering.
- Individuals utilize internal mental frameworks, or schemas, to navigate and interpret the world
- Considered a “gold standard” for PTSD
 - MDD- found to reduce symptoms similar to CBT
 - BPD- effective for those with childhood trauma

Stage (phased)-Based Treatment

- **Phase 3 - Transition back to everyday life**
 - Goal is to reinforce the emotional, social, and relationship skills of the client
 - Positive psychology is the science of what is needed for a good life.
 - Assessment (Slade, 2010)
 - 1. Deficiencies and undermining characteristics of the person
 - 2. Strengths and assets of the person
 - 3. Lacks and destructive factors in the environment
 - 4. Resource and opportunities in the environment



Mental health is a state of well-being, in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively, and is able to make a contribution to his or her community.

World Health Organization

“Recovery is not about ‘getting rid’ of problems. It is about seeing people beyond their problems – their abilities, possibilities, interests and dreams – and recovering the social roles and relationships that give life value and meaning”

- Slade, 2010



Positive mental health as a predictor of recovery from mental illness

Matthew Iasiello ^{a, b}  , Joseph van Agteren ^{a, c}, Corey L.M. Keyes ^d, Eimear Muir Cochrane ^b

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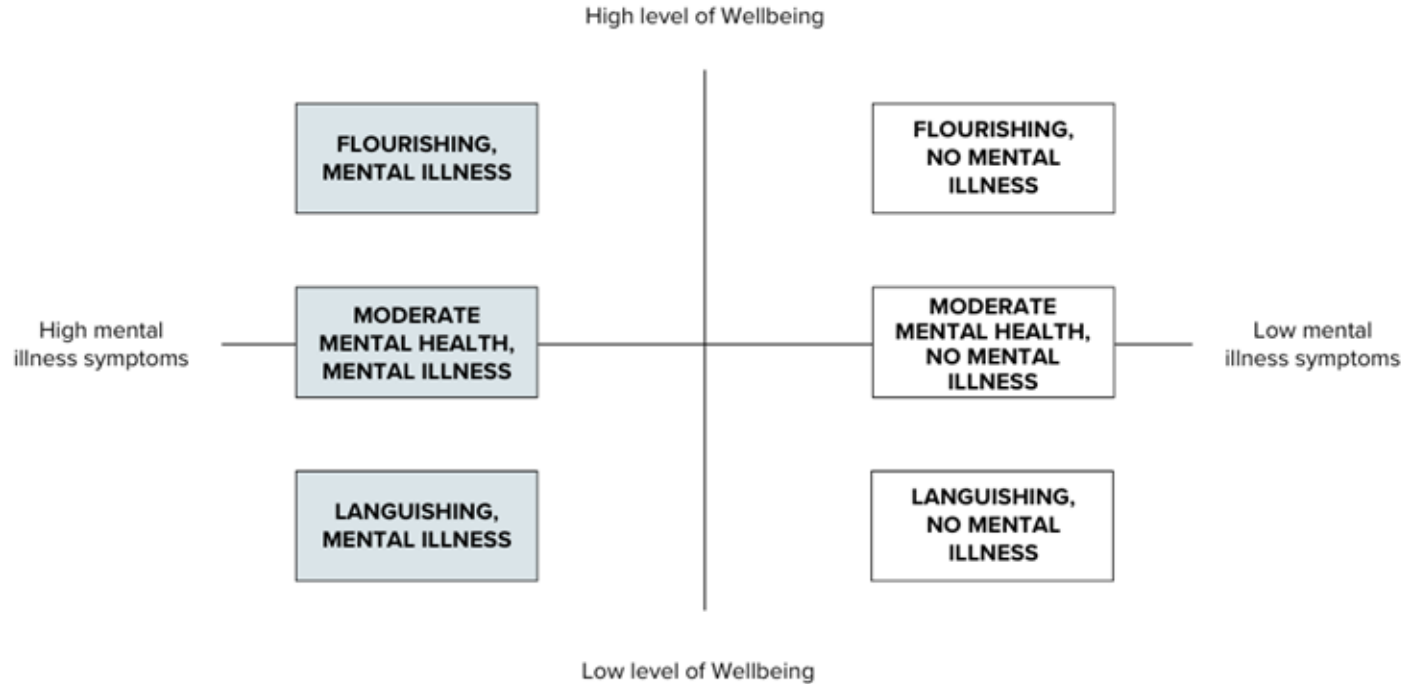
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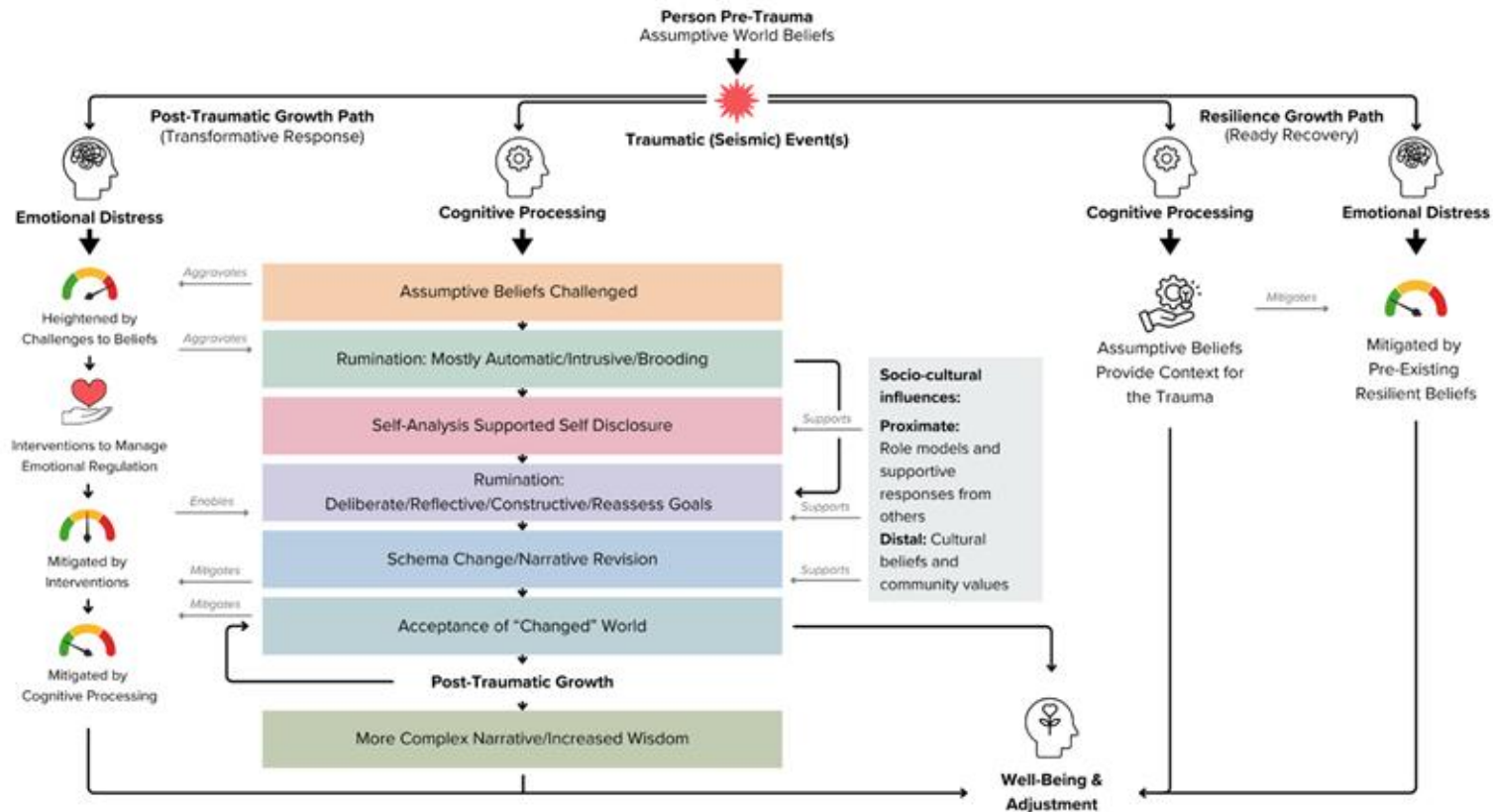
Highlights

- Individuals who gain or maintain high levels of positive mental health are much more likely to recover from an affective disorder than those with low positive mental health.
- Positive mental health and mental illness are separate constructs, and both should be included in the assessment of patients interacting with mental health care systems.
- Improving and maintaining positive mental health may be an important strategic focus for reducing the burden of mental illness.
- Mental health care systems should explore offering of services designed to improve positive mental health in addition to reducing mental distress.

Corey Keyes' Dual Continuum Model



Theoretical Model of Post-Traumatic Growth



Practical Solutions to Address Anxiety Disorders with Children and Adolescents

Dr. Carissa Muth
Clinical Director
Sunshine Coast Health Centre

Background

- Most common mental health disorder affecting children and adolescents
- Fears are a part of typical development
- Distinguished from expected anxiety by **persistent, disproportionate, and distorted** response leading to **impaired functioning**
- Coexist frequently
- Age of onset is associated with development stages

Basic Emotional System (see Panksepp 1998a)	Emergent Emotions	Emotional Disorders
SEEKING (+ & -)	Interest Frustration Craving	Obsessive Compulsive Paranoid Schizophrenia Addictive Personalities
RAGE (- & +)	Anger Irritability Contempt Hatred	Aggression Psychopathic tendencies Personality Disorders
FEAR (-)	Simple anxiety Worry Psychic trauma	Generalized Anxiety Disorders Phobias PTSD variants
PANIC (-)	Separation distress Sadness Guilt/Shame Shyness Embarrassment	Panic Attacks Pathological Grief Depression Agoraphobia Social Phobias
PLAY (+)	Joy and glee Happy playfulness	Mania ADHD
LUST (+ & -)	Erotic feelings Jealousy	Fetishes Sexual Addictions
CARE (+)	Nurturance Love Attraction	Dependency Disorders Autistic aloofness Attachment Disorders
The SELF—a substrate for Core Consciousness (see Panksepp 1998b).	A mechanism for all Emotional Feelings	Multiple Personality Disorders?

Based on Current DSM-5

9 Mental Disorders Under Anxiety Category

1. Separation Anxiety Disorder
2. Selective Mutism
3. Specific Phobia
4. Social Anxiety Disorder
5. Panic Disorder - Panic Attack
6. Generalized Anxiety Disorder
7. Substance/medication-Induced Anxiety Disorder
8. Anxiety Disorder due to another medical condition

Separation Anxiety

- A. Developmentally inappropriate and excessive fear or anxiety concerning separation from those to whom the individual is attached, as evidenced by at least three of the following:
1. Recurrent excessive distress when anticipating or experiencing separation from home or from major attachment figures.
 2. Persistent and excessive worry about losing major attachment figures or about possible harm to them, such as illness, injury, disasters, or death.
 3. Persistent and excessive worry about experiencing an untoward event (e.g., getting lost, being kidnapped, having an accident, becoming ill) that causes separation from a major attachment figure.
 4. Persistent reluctance or refusal to go out, away from home, to school, to work, or elsewhere because of fear of separation.
 5. Persistent and excessive fear of or reluctance about being alone or without major attachment figures at home or in other settings.
 6. Persistent reluctance or refusal to sleep away from home or to go to sleep without being near a major attachment figure.
 7. Repeated nightmares involving the theme of separation.
 8. Repeated complaints of physical symptoms (e.g., headaches, stomachaches, nausea, vomiting) when separation from major attachment figures occurs or is anticipated.

DSM-5 Criteria: Specific Phobia

- A. Marked fear or anxiety about a specific object or situation (e.g., flying, heights, animals, receiving an injection, seeing blood).
- B. The phobic object or situation almost always provokes immediate fear or anxiety. The phobic object or situation is actively avoided or endured with intense fear or anxiety.
- C. The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context.
- D. The fear, anxiety, or avoidance is persistent, typically lasting for 6 months or more.
- E. The fear, anxiety, or avoidance causes clinically significant distress or impairment in social occupational, or other important areas of functioning.
- F. The disturbance is not better explained by the symptoms of another mental disorder, including fear, anxiety, and avoidance of situations associated with panic-like symptoms or other incapacitating symptoms (as in agoraphobia); objects or situations related to obsessions (as in OCD); reminders of traumatic events (as in PTSD); separation from home or attachment figures (as in SepAD); or social situations (as in SAD).

Note: In children, the fear or anxiety may be expressed by crying, tantrums, freezing, or clinging.

SOCIAL ANXIETY DISORDER (SOCIAL PHOBIA)

Meaning and Overview

Social Anxiety Disorder (SAD), also known as **Social Phobia**, is a disorder characterized by an intense, persistent, and **marked fear or anxiety** about one or more **social situations** in which the individual is exposed to possible **scrutiny by others**. The fear is that they will act in a way or show anxiety symptoms that will be **negatively evaluated**, leading to **embarrassment, humiliation, or rejection**.

- This disorder causes **significant distress or impairment** in social, occupational, or academic functioning.
- The fear is out of proportion to the actual threat posed.
- In **children**, anxiety must occur in peer settings, not only with adults.

DSM-5 Diagnostic Criteria for OCD

A. PRESENCE OF OBSESSIONS, COMPULSIONS, OR BOTH:

Obsessions are defined by (1) and (2):

1. Recurrent and persistent thoughts, urges, or images that are experienced, at some time during the disturbance, as intrusive and unwanted, and that in most individuals cause marked anxiety or distress.
2. The individual attempts to ignore or suppress such thoughts, urges, or images, or to neutralize them with some other thought or action (i.e., by performing a compulsion).

Compulsions are defined by (1) and (2):

1. Repetitive behaviors (e.g., hand washing, ordering, checking) or mental acts (e.g., praying, counting, repeating words silently) that the individual feels driven to perform in response to an obsession or according to rules that must be applied rigidly.
2. The behaviors or mental acts are aimed at preventing or reducing anxiety or distress, or preventing some dreaded event or situation; however, these behaviors or mental acts are not connected in a realistic way with what they are designed to neutralize or prevent, or are clearly excessive.

Note: Young children may not be able to articulate the aims of these behaviors or mental acts.

DSM-5 Diagnostic Criteria for OCD

B. THE OBSESSIONS OR COMPULSIONS ARE TIME-CONSUMING (E.G., TAKE MORE THAN 1 HOUR PER DAY) OR CAUSE CLINICALLY SIGNIFICANT DISTRESS OR IMPAIRMENT IN SOCIAL, OCCUPATIONAL, OR OTHER IMPORTANT AREAS OF FUNCTIONING.

C. THE OBSESSIVE-COMPULSIVE SYMPTOMS ARE NOT ATTRIBUTABLE TO THE PHYSIOLOGICAL EFFECTS OF A SUBSTANCE (E.G., A DRUG OF ABUSE, A MEDICATION) OR ANOTHER MEDICAL CONDITION.

D. THE DISTURBANCE IS NOT BETTER EXPLAINED BY THE SYMPTOMS OF ANOTHER MENTAL DISORDER

Specify if:

With good or fair insight: The individual recognizes that obsessive-compulsive disorder beliefs are definitely or probably not true or that they may or may not be true.

With poor insight. The individual thinks obsessive-compulsive disorder beliefs are probably true. With absent insight/delusional beliefs: The individual is completely convinced that obsessive-compulsive disorder beliefs are true.

Specify if: Tic-related: The individual has a current or past history of a tic disorder.

Etiology

- Biological
 - Temperament, genetics, epigenetics
- Psychological and social
 - Adverse childhood experiences
- Additional factors
 - Parenting style, modelling of stress response
- High levels of anxiety symptoms are related to delayed development of neural circuits including the prefrontal cortex in children and adolescents (Xie et al., 2021)

Mean Age of Onset

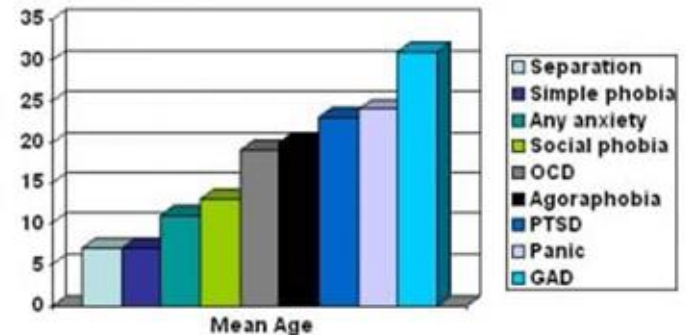
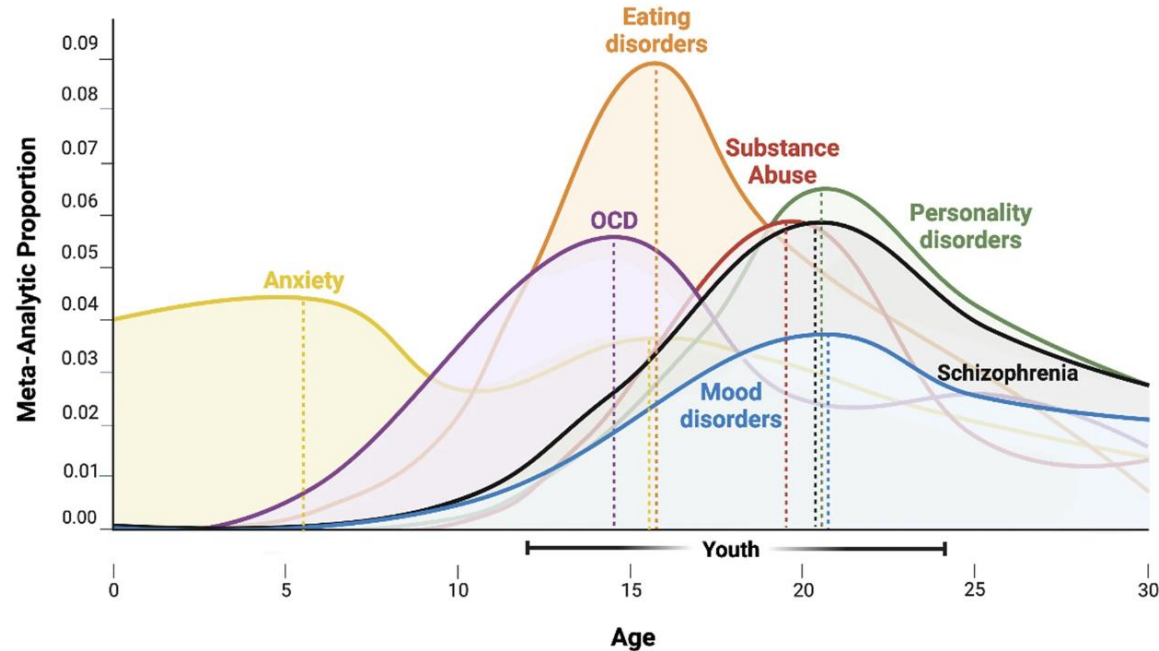
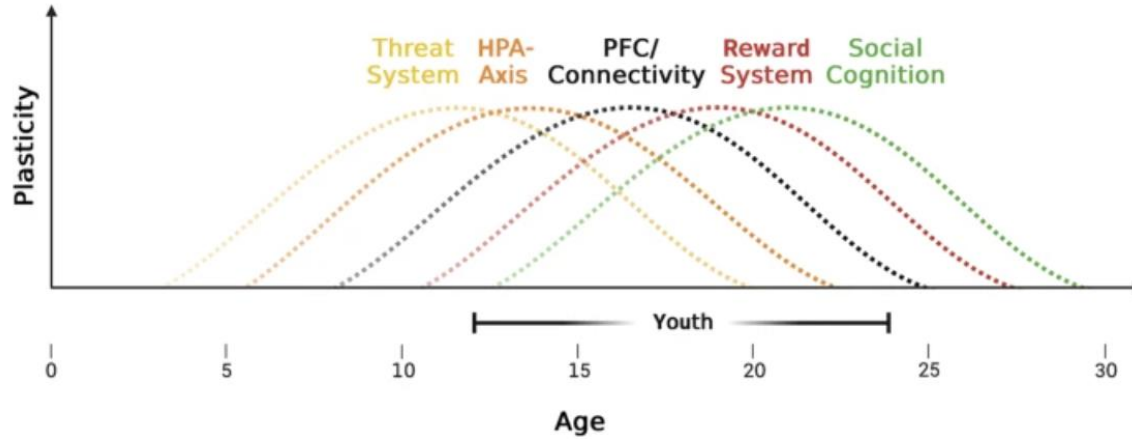


Fig. 1: Age of onset of mental disorders.From: [Towards a youth mental health paradigm: a perspective and roadmap](#)

Distribution of age of onset of mental disorders in the general population based on the meta-analysis by Solmi et al. [9]: Meta-analytic epidemiologic proportion (y-axis) for anxiety disorders (5.5/15.5 years), substance use disorders (19.5 years), schizophrenia/psychotic disorders (20.5 years), eating disorders (15.5 years), personality disorders (20.5 years), obsessive-compulsive (14.5) and mood disorders (20.5 years) (ICD-10 blocks). The dotted horizontal lines represent the peak age of onset for each diagnostic category.

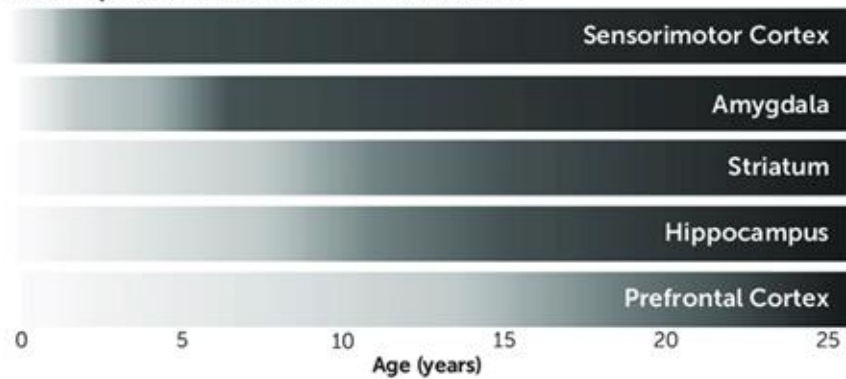
Fig. 2: Sensitive periods during brain development.



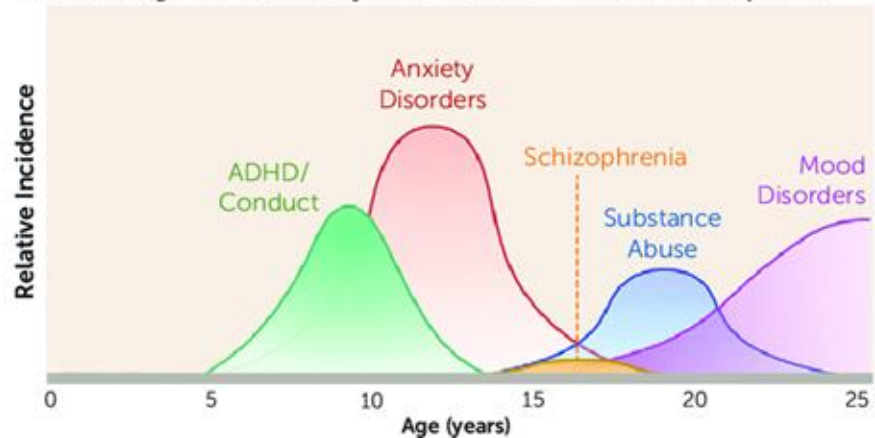
Overview of sensitive periods during brain development: The curves indicate the plastic potential for different neural systems between 0 and 30 years of age: (a) threat-regulation involving cortical-hippocampal-amygdala circuits (b) HPA-axis system (c) PFC/Connectivity subsumes local changes in PFC-properties (E/I-balance, Dopamine) as well as long-range connectivity with cortical-subcortical target regions (d) Reward System comprising striatum and connectivity with PFC and (e) social-Cognitive Processes. HPA-axis hypothalamic-pituitary-adrenal axis, PFC prefrontal cortex, E/I balance Excitation/Inhibition-balance, PFC prefrontal cortex.

[Full size image >](#)

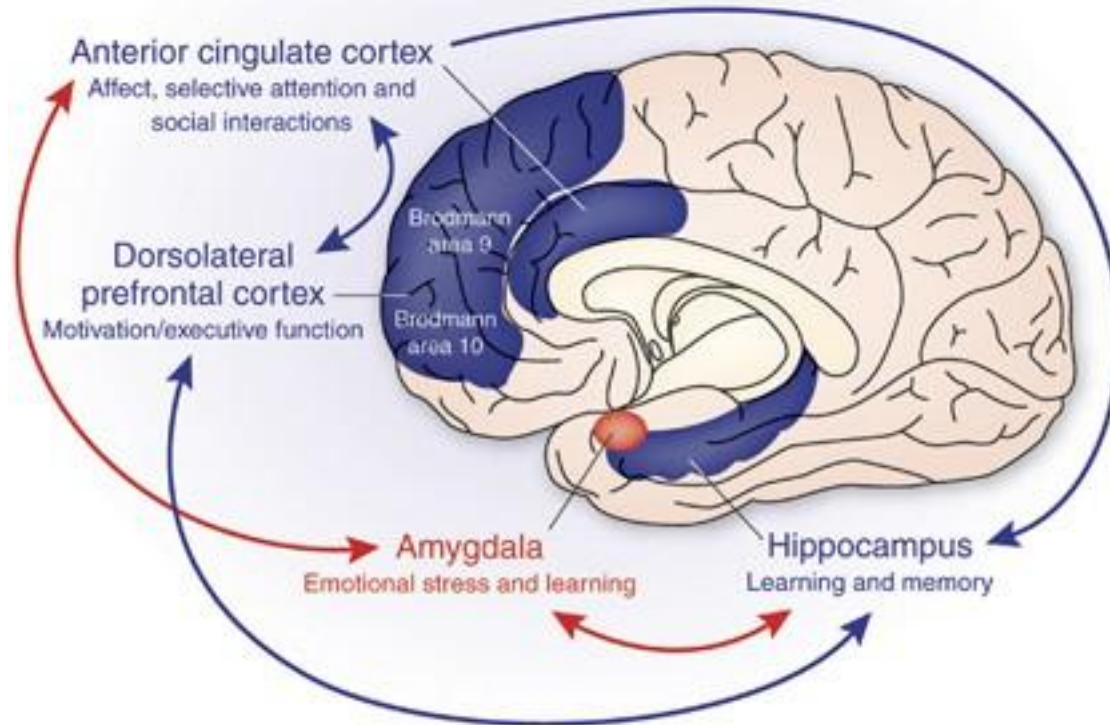
A. Developmental Course of Brain Maturation

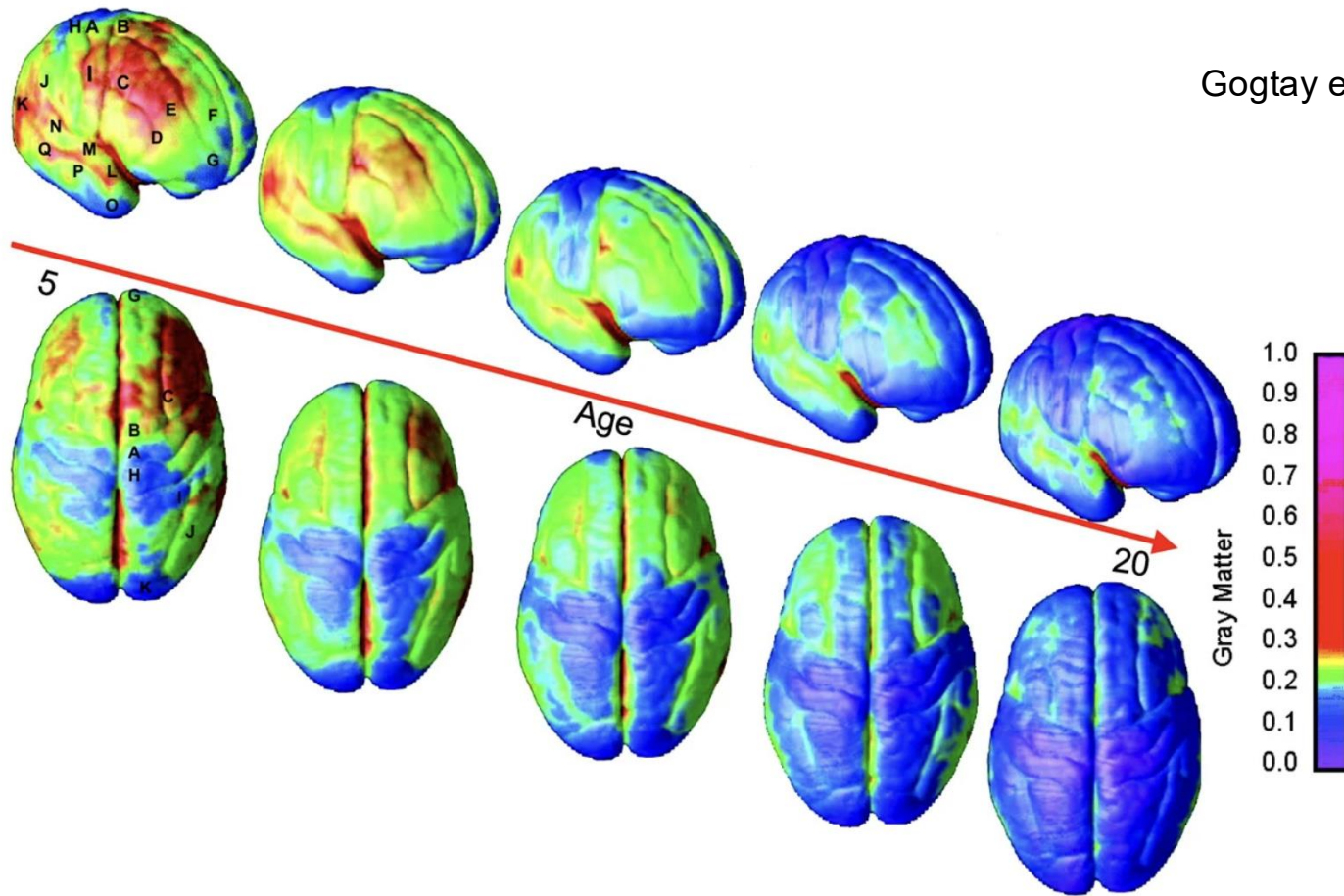


B. Median Age at Onset of Psychiatric Disorders Across Development



The corticolimbic system





Right lateral and top views of the dynamic sequence of GM maturation over the cortical surface. The side bar shows a color representation in units of GM volume. The initial frames depict regions of interest in the cortex as described for [Fig. 1](#). This sequence is available in Movies 1–4 in the [supporting information](#).

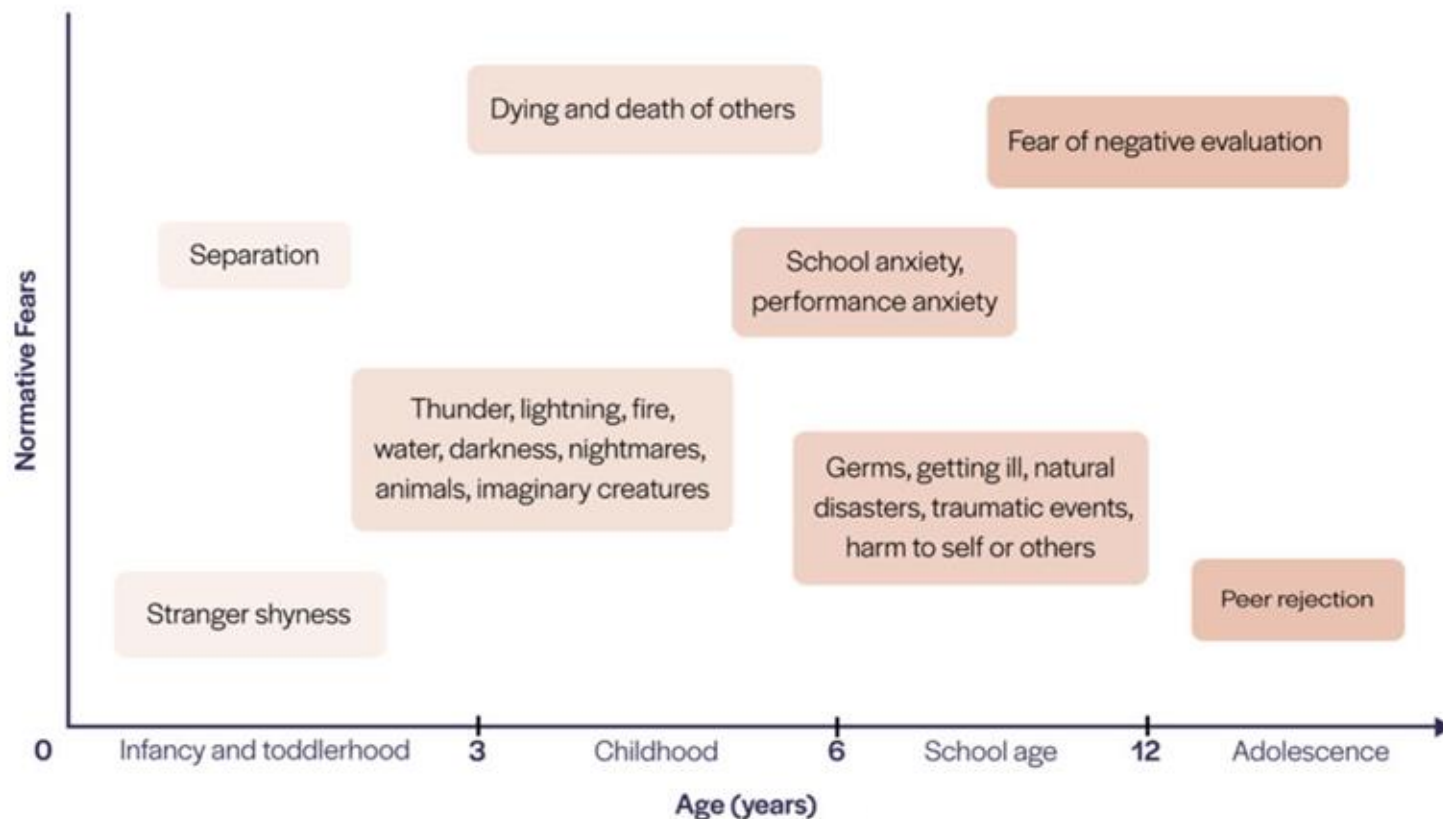
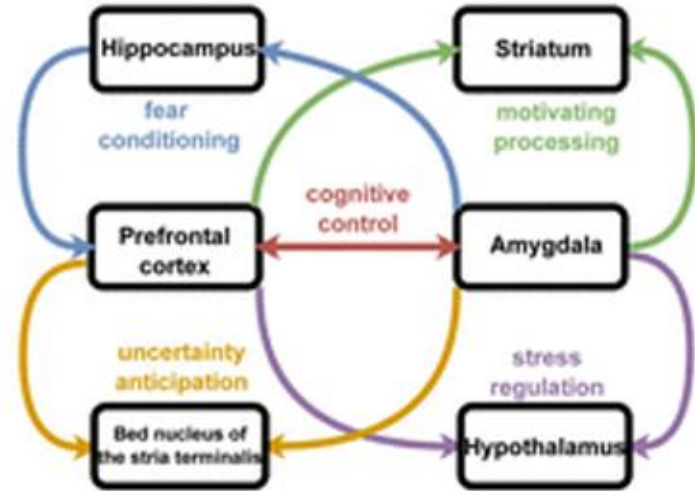
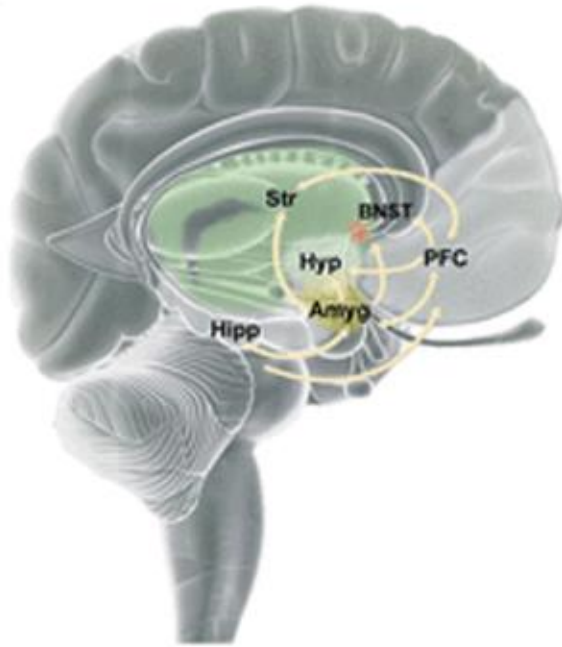


Table 3. Distinguishing developmentally appropriate anxiety features from symptoms of anxiety disorders

Anxiety disorders (typical age of onset)	Developmentally appropriate fears and worries	Symptoms suggestive of anxiety disorder
Separation anxiety disorder (Preschool)	Self-limiting distress around new separations from parent (e.g., for child care)	<ul style="list-style-type: none">– Clinging or closely following a parent– Inconsolable distress, somatization during transitions– Unfounded worries about parent injury, illness, or death
Selective mutism (Preschool)	Taking time to ‘warm up’ in social situations	<ul style="list-style-type: none">– Being unable to speak in specific situations (e.g., in school)
Specific phobia (Preschool to school age)	Time-limited fear of new objects or situations (e.g., dogs, noise, or high places)	<ul style="list-style-type: none">– Fears persist and appear out of proportion to actual risk, leading to avoidance and diminishing quality of life or function
Social anxiety disorder (social phobia) (Late school age, early adolescence)	Discomfort or hesitation around social events or requests to ‘perform’	<ul style="list-style-type: none">– Excessive, persistent fear of scrutiny– Avoidance (e.g., of school, social events) or compromised involvement in family or community activities– Somatization with social interactions or performance
Panic disorder (Adolescence, young adulthood)	Transient concerns about physiological symptoms (e.g., worrying about recurrence after an episode of vertigo)	<ul style="list-style-type: none">– Recurrent panic attacks (feeling out of control, with somatic symptoms)– Fear of panic attacks and avoidance of associated situations– Worries about associated health risks (e.g., for heart attack)
Agoraphobia (Late adolescence, young adulthood)	Transient reluctance to use public transportation, to be in crowded or enclosed places, crowds, or to be outside of the home alone	<ul style="list-style-type: none">– Persistent avoidance of two or more locations based on fears of not being able to escape or summon help
Generalized anxiety disorder (Late school age through young adulthood)	Transient worries about grades, health, or world events that do not impair participation in school, family, or community	<ul style="list-style-type: none">– Constant, excessive worry about risk that impairs participation in multiple events or activities– Trouble sleeping, physical restlessness, irritability, trouble concentrating, muscle tension



- Adolescence = peak period for anxiety
- Immaturity of the neural networks underlying emotional regulation
- In adolescence, emotional control system is hypoactivated, fear conditioning system is immature while reward and stress response systems are hypersensitive

Assessing Anxiety

- Core signs
 - Hyper-arousal (being nervous, scared, irritable, agitated)
 - Avoidance (clinging to avoid separation, avoiding fears)
 - Cognitive distortions (repeatedly asking worried questions, seeking reassurance, asking “what if...”)
- May present as physical symptoms (stomach aches, nausea)
- Behaviours such as picky eating, sleep problems, and substance use can be driven by anxiety
- Stimulant medications for ADHD, caffeine, decongestants, and bronchodilators can mimic symptoms of anxiety

- Other symptomatology that overlap with anxiety (fatigue, heart rate differences, chest pain)
 - Cardiac disorders
 - Respiratory Disease
 - Adrenal insufficiency or anemia
 - Hyperthyroidism
- Any medical conditions causing pain or discomfort can increase anxiety

Box 1. Five essential components of an anxiety-focused assessment

1. Patient history and parent-reported symptoms and functioning
2. Focused medical, developmental, and mental health history
3. Results from standardized rating scales (13), which can be downloaded at the Canadian Paediatric Society website at no cost
4. Review past assessments (e.g., reports from allied HCPs, early child care, or school settings)
5. Direct observation of the child and parent-child interactions

Table 2. Differential diagnosis and common comorbidities for anxiety

Child temperament/Emotional regulation development	Behavioural inhibition and low adaptability from a young age are both 'normal' variations of temperament and risk factors for anxiety (24,25). Adolescence is a crucial developmental period for emotion regulation but is also associated with increase in affective instability (26).
Environmental adversity	ACEs have a cumulative negative association with mental health outcomes, including anxiety (22,27–30).
School problems	School problems, and learning disabilities specifically, have been strongly associated with later mental health problems, difficult peer and family relationships, and lower quality of life in the longer term (31–33).
ADHD	An estimated 25% of children with ADHD also have anxiety disorders (34), possibly related to effects of ADHD on early development (23).
OCD and tics or TS	Anxiety disorders are often comorbid with OCD (in 26–75% of cases (35)) or tic disorders (in 30% of cases (36)). While these conditions overlap phenomenologically, they appear to have distinct mechanisms (36,37).
ASD	ASD is associated with higher levels of anxiety (38). ASD features, such as sensory over-responsiveness, repetitive behaviours (39), and social skill deficits (40), overlap with anxiety symptoms (41).
Eating disorders	High rates of comorbidity exist between eating disorders and anxiety disorders. Anorexia nervosa is associated with features of anxiety around body weight or shape perfectionism, and bulimia nervosa is associated with low self-esteem (i.e., social anxiety symptoms) and ineffectiveness (i.e., general anxiety symptoms) (42).
Somatic symptom disorders	Somatic symptoms vary widely but include anxiety around becoming ill or functional symptoms, and anxious or excessive health-related behaviours (either health promotive or to prevent illness) (43,44).

ACE Adverse childhood experience; ADHD Attention-deficit hyperactivity disorder; ASD Autism spectrum disorder; OCD Obsessive compulsive disorder; TS Tourette syndrome.

- Low evidence music therapy helps (Belski et al. 2021)

Psychoeducation

- Normalizing and labelling experiences of uneasiness
- Explaining symptoms of anxiety
- Balancing facing fears and having empathetic responses
- Modelling and supporting adaptive coping (avoid avoidance)
- Healthy routines
 - Regular exercise
 - Limited screen time
 - Limited Caffeine

Box 1. Positive parenting tips for managing anxiety

1. Help children and adolescents recognize, acknowledge, and name feelings, including how they feel physically, and label them (e.g., as worrisome, anxiety-provoking, or scary).
2. Avoid avoidance by using gentle but firm encouragement. Take time to talk about strong emotions and sensitive topics, try *“You look worried. Is something on your mind?”*, or *“It sounds like you’re really angry. Would you like to talk about that?”*
3. Empathize and validate anxieties, but try not to reinforce them (*“I know you’re feeling scared, AND I know you’re brave to do this”*).
4. Connect and maintain secure attachment by engaging in child-led, free play with younger children, and staying aware of, and involved with, adolescents (14,17):
 - Spend one-on-one time together,
 - Know and show interest in who their friends are, and
 - Encourage community and extra-curricular activities.
5. Foster self-confidence (positive affect) through effective praise:
 - Start statements of praise with ‘You ...’ instead of ‘I ...’.
 - Be specific about how they’ve earned your special notice.
 - Recognize brave, helpful, or kind acts as soon as possible after they happen. For younger children, notice brave behaviours—no matter how small and (ideally) every day.
6. Encourage opinions and choices. Acknowledge growing independence in older children, and promote and celebrate sound decision-making and problem-solving (17).
7. To make anxiety more manageable, break the task of facing it into small, practical steps (if possible), and positively reinforce each one.
8. Reward attempts and approximations, and compliment process as much as end results. Focus on strengths rather than shortcomings.
9. Model coping skills and techniques such as deep breathing, muscle tension relaxation, imagery, mindfulness, distraction, and positive self-talk.

10. Be involved with schooling. For a child or teen with anxiety, help teachers understand its sources and related behaviours. For example, explain that when your child avoids classroom tasks or appears oppositional, that this is likely due to anxiety, and ensure that necessary supports or accommodations are in place.
11. For young children showing signs of child care or school avoidance:
 - Prepare the night before so mornings are not rushed and stressful.
 - Encourage bringing a favoured toy from home to ease transition.
 - Take time to say a warm goodbye but avoid repeated goodbyes.
12. Model positive ways of handling conflict or distress when managing anxiety by:
 - Slowing down speech.
 - Taking time to calm down.
 - Being respectful of others' beliefs and feelings.
 - Being assertive rather than aggressive (18).



MEET THE BRAIN TEAM



**AMY
AKA AMYGDALA**

HI, I'M AMY THE JUMPY SUPERHERO. I PROTECT YOU FROM DANGER BUT SOMETIMES NOT IN THE RIGHT WAY.

HOWDY, I'M TEX THE SMART SHERIFF. I TAKE TIME TO STOP AND THINK OF A WAY TO SOLVE PROBLEMS AND MAKE GOOD CHOICES.



**TEX
AKA PREFRONTAL CORTEX**

HI, I'M HIPPO THE LIBRARIAN. I REMEMBER HOW TO SOLVE A PROBLEM OR ASK FOR HELP.



**HIPPO
AKA HIPPOCAMPUS**



**Sunshine Coast
Health Centre**

A Non-12 Step Mental Health Program

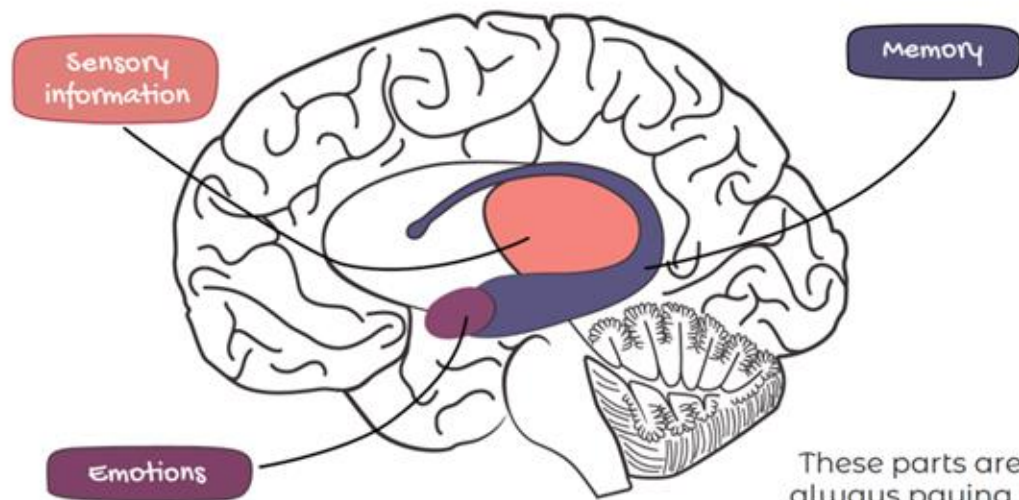
Georgia Strait | WOMENS
CLINIC

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Blissful Kids

In the middle of your brain there are parts in charge of emotions, memory, and getting information from your senses.



These parts are always paying attention to the world around you. They help keep you safe.

CBT

- Recognizing signs of anxiety
- Managing physical symptoms (relaxation, deep breathing, imagery)
- Identify patterns of anxious thinking and replace with more positive thoughts
- Exposure and desensitization to anxiety triggers

Thought diary

What happened?	Emotions	Automatic thoughts	Behaviour resulting from automatic thoughts	Alternative thoughts/ coping	Behaviour resulting from alternative thoughts	How do you feel now?
What made you upset? Event or situation. Date and time.	Be precise about what you are feeling: sad/ anxious/angry. How much do you feel it? (0-10)	Write down the thoughts that come just before these feelings. How much do you believe these thoughts? (0-10)		Write down your alternative/ coping thoughts in response to automatic thoughts. Rate belief 0-10.	What plan of action will you now take?	Re-rate emotions 0-10. Re-rate belief in automatic thoughts 0-10.

Step	Focus and Goal	Key Techniques and Activities
1. Rapport and Psychoeducation	To establish a secure relationship and introduce the core CBT concept.	* Build Trust with the child and caregivers. * Use simple language/metaphors (e.g., the CBT Triangle) to explain how thoughts, feelings, and actions connect. * Collaborative Goal Setting (What does the child want to change?).
2. Identifying & Monitoring Patterns	To help the child become aware of their own cognitive, emotional, and behavioral reactions to specific triggers.	* Situation/Trigger Identification (e.g., when this happens...). * Feeling/Thought Log: Simple diaries or drawing exercises to track feelings and automatic thoughts. * Recognizing Physical Sensations related to emotions (e.g., tummy ache for worry).
3. Cognitive Restructuring	To challenge and modify unhelpful or irrational thoughts, replacing them with more balanced alternatives.	* Identify Thinking Traps (e.g., all-or-nothing thinking, fortune-telling). * Fact vs. Feeling: Teach the child to question the evidence for their thoughts. * Positive/Balanced Reframing (Finding "middle ground" thoughts).
4. Behavioral Skill Acquisition	To teach and practice functional skills for coping with distress and managing specific emotions.	* Relaxation Skills: Deep breathing (e.g., "belly breathing"), grounding exercises. * Problem Solving Training (A step-by-step approach). * Social Skills/Assertiveness Training through role-playing.
5. Exposure and Practice	To apply the learned skills in real-life situations and change behavioral responses.	* Behavioral Experiments: Trying out a new behavior to test a thought (e.g., "If I try, I will fail"). * Fear Ladder/Hierarchy (for anxiety): Gradually facing fears, starting with the easiest step. * Homework/Practice: Assigning skills to be used between sessions.
6. Relapse Prevention and Generalization	To ensure skills are maintained after therapy ends and prepare the child for future challenges.	* Review Successes: Acknowledge and celebrate the progress made. * Create a "Coping Toolkit" or plan for using skills when old problems return. * Caregiver Involvement in reinforcing skills at home.

Cognitive-behavioural therapies for children and adolescents

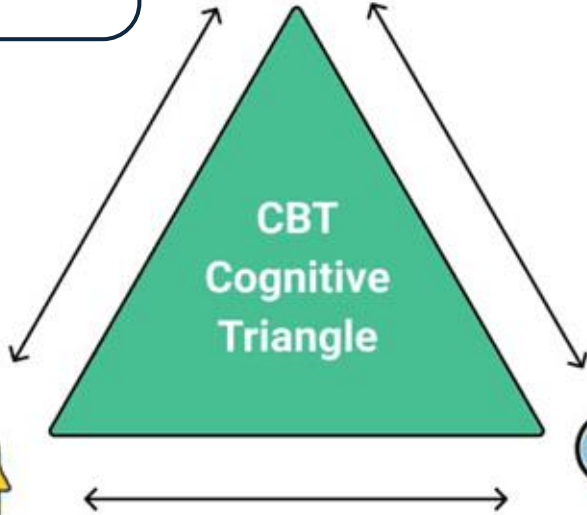
Veira Bailey

- Higher proportion of behavioural activities
- Use developmentally appropriate language





Thoughts

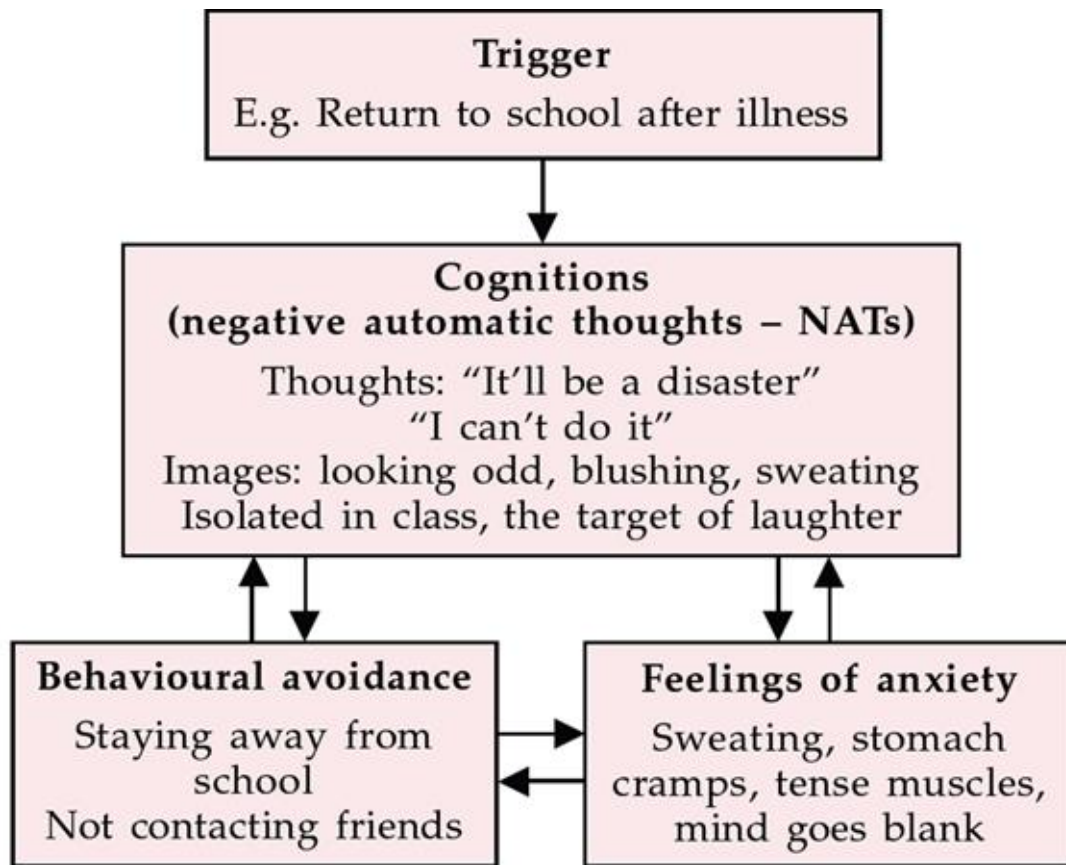


Behaviors



Feelings





with older children



STOP skill

S

Stop: instead of reacting, stop, freeze, don't move a muscle. Stay in control of your emotional urges.

T

Take a step back from the situation. Take a break. Take a deep breath and avoid impulsive emotional actions.

O

Observe: notice what is going on inside and outside you. What is the situation? What are your thoughts/feelings? What are others doing?

P

Proceed mindfully: act with awareness. Think about your goals. Ask your wise mind what will make this worse or better?

@SHEPERSISTEDPODCAST

TIPP skill

T

Temperature: submerge your face in ice water or put ice packs under your eyes to stimulate your vagus nerve and lower your HR

I

Intense exercise: raise your HR through intense cardio, causing your body to lower your physical arousal + symptoms of anxiety

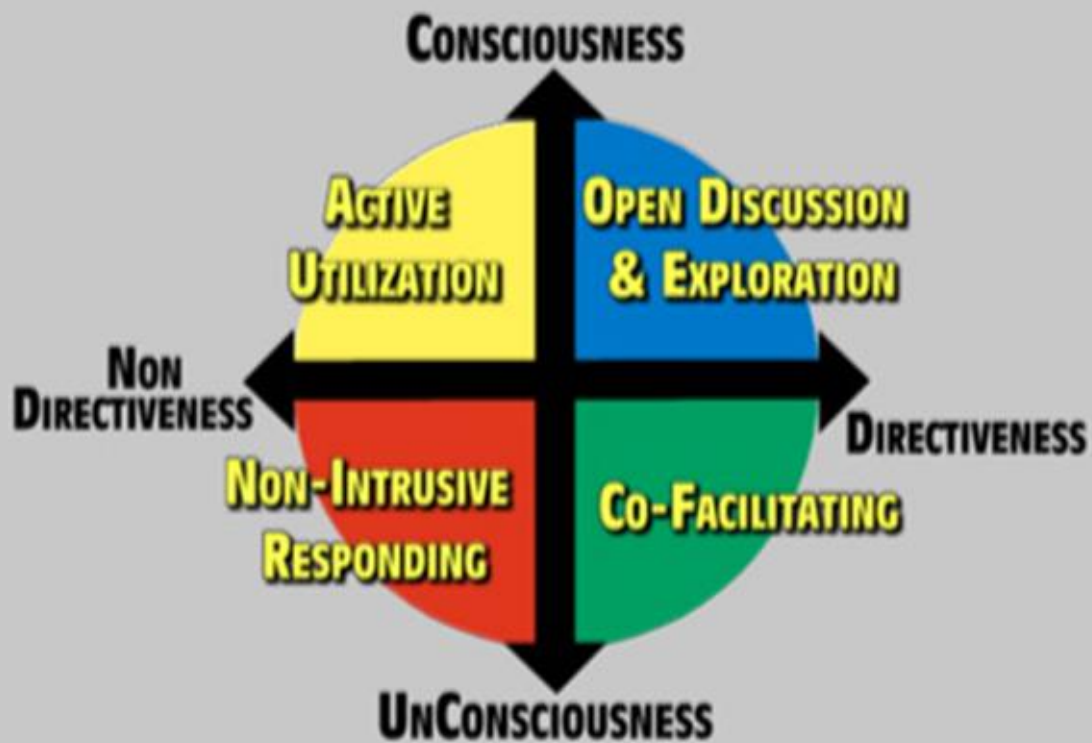
P

Paced breathing: breathe in time with counts, making your exhale longer than your inhale

P

Paired muscle relaxation: clench your muscles on your inhale, release on your exhale, letting go of tension from anxiety

@SHEPERSISTEDPODCAST



Phase	Step	Focus and Goal	Play Techniques and Activities
I. Foundation & Assessment	1. Building Trust and Rapport	To create a safe, consistent, and permissive environment where the child feels accepted and secure.	Non-directive Play: Allow the child free choice of toys (e.g., dollhouse, puppets, sand tray). The therapist reflects the child's feelings and actions ("You are making the mommy doll leave and the baby doll is crying.").
	2. Assessing the Anxiety Theme	To observe and identify the specific fears, thoughts, and triggers related to separation and abandonment.	Themed Play: Observe recurrent themes, such as hiding, abandonment, rescue, or strong resistance to characters leaving/entering the space.
II. Exploration & Insight	3. Externalizing the Anxiety	To help the child distance themselves from the overwhelming feeling by giving the anxiety a physical or symbolic form.	Directive Play: Drawing/Painting: "Draw a picture of what worry looks like." The anxiety can be named (e.g., "The Worry Monster"). Clay/Play-Doh: Sculpting the feeling.
	4. Processing Feelings/Fears	To help the child safely express feelings of sadness, anger, fear, and worry related to separation.	Puppet Shows/Storytelling: The child acts out separation scenarios with puppets or characters. The therapist introduces coping characters or scripts for the anxious puppet.
III. Skill Building & Practice	5. Developing Coping Skills	To introduce and practice developmentally appropriate emotional regulation and cognitive skills within the play context.	Calm-Down Kit: Create a box with sensory items (squishy balls, essential oils) to use when feeling anxious. Role-Play: Practice saying goodbye and reuniting with dolls or action figures.
	6. Therapeutic Rehearsal	To gradually introduce and practice short separations, integrating the learned coping skills.	"Hide-and-Seek" Games: Brief, controlled separations in the room (therapist hides/leaves for 10 seconds). Dollhouse/Sand Tray Rehearsal: The child directs the characters to separate, use a coping skill, and then successfully reunite.
IV. Generalization & Termination	7. Caregiver Consultation	To transfer the coping strategies from the therapy room to the home and school environment.	Caregiver Coaching: Teach parents how to use the "Coping Kit" and practice brief, consistent goodbyes with clear return times (e.g., "I will be back after you build your tower").
	8. Termination/Relapse Prevention	To conclude therapy and reinforce the child's self-efficacy (belief in their ability to cope).	"Memory Book": Create a book of all the coping strategies and successful moments from therapy. Discuss a plan for using the strategies if the anxiety returns.



Parents in Session

- Parents as a resource
- Co-regulating
- Enmeshment to Avoidant