Detecting Toxic Trauma:

Screening Children and Youth for Adverse Childhood Experiences

Priya Watson, MD, FRCPC
priya.watson@camh.ca

camh | Cundill Centre for Child and Youth Depression

Psychiatry
UNIVERSITY OF TORONTO

Conflicts of Interest

None to disclose

John's ADHD

- 10 year old boy who presents with longstanding disruptive behavior at home and school
- He is restless, hard to redirect, and has aggressive outbursts
- John lives at home with his mother and maternal grandmother. His father is incarcerated on drug-related charges.
- His mother has a history of depression, and states that John's father was aggressive towards her before their divorce

Learning Objectives

1. Describe the mental and physical health impacts of the most common psychological traumas experienced by children and youth;
2. Appraise the knowledge-to-action gaps around trauma in clinical practice;
3. Identify tools and techniques for screening young people for psychological trauma.

What is Trauma?

Clinically Significant Trauma= PTSD?

- 4% of 13-18 year olds report PTSD symptoms [1] but most do NOT have PTSD

- Symptoms = Fight, Flight or Freeze due to trauma

1. National Comorbidity Survey Replication- Adolescent Supplement a nationally representative sample of over 10,000 adolescents aged 13-18

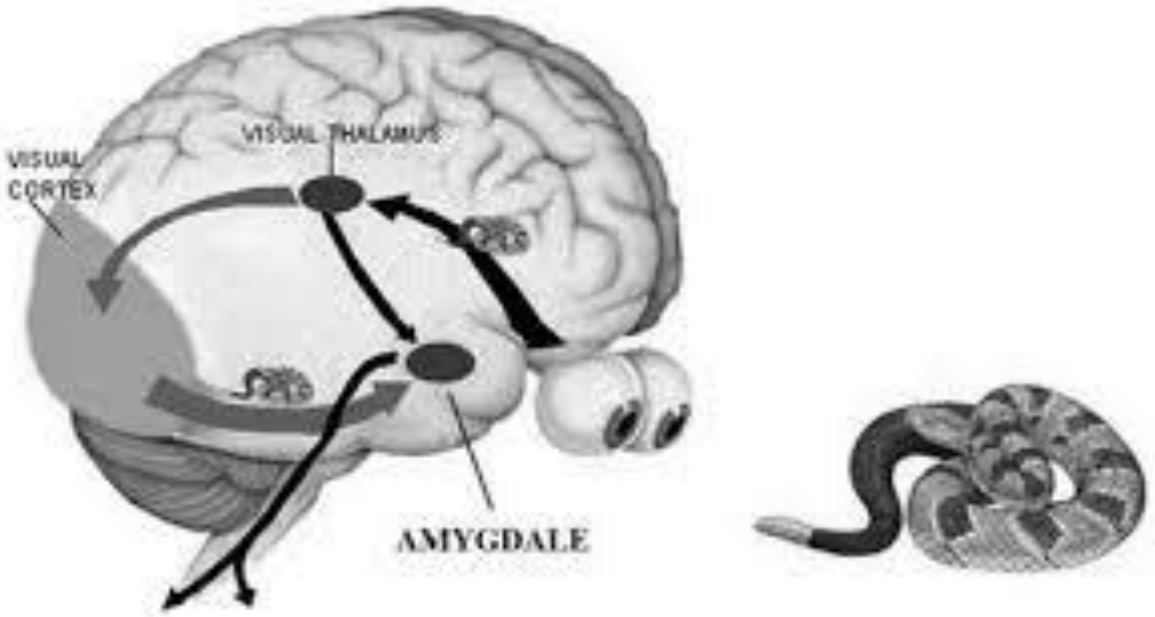
Painful or frightening affect becomes traumatic when the attunement that the child needs to assist in its tolerance, containment, and integration is profoundly absent.

Stolorow, Trauma and Human Existence, 2007

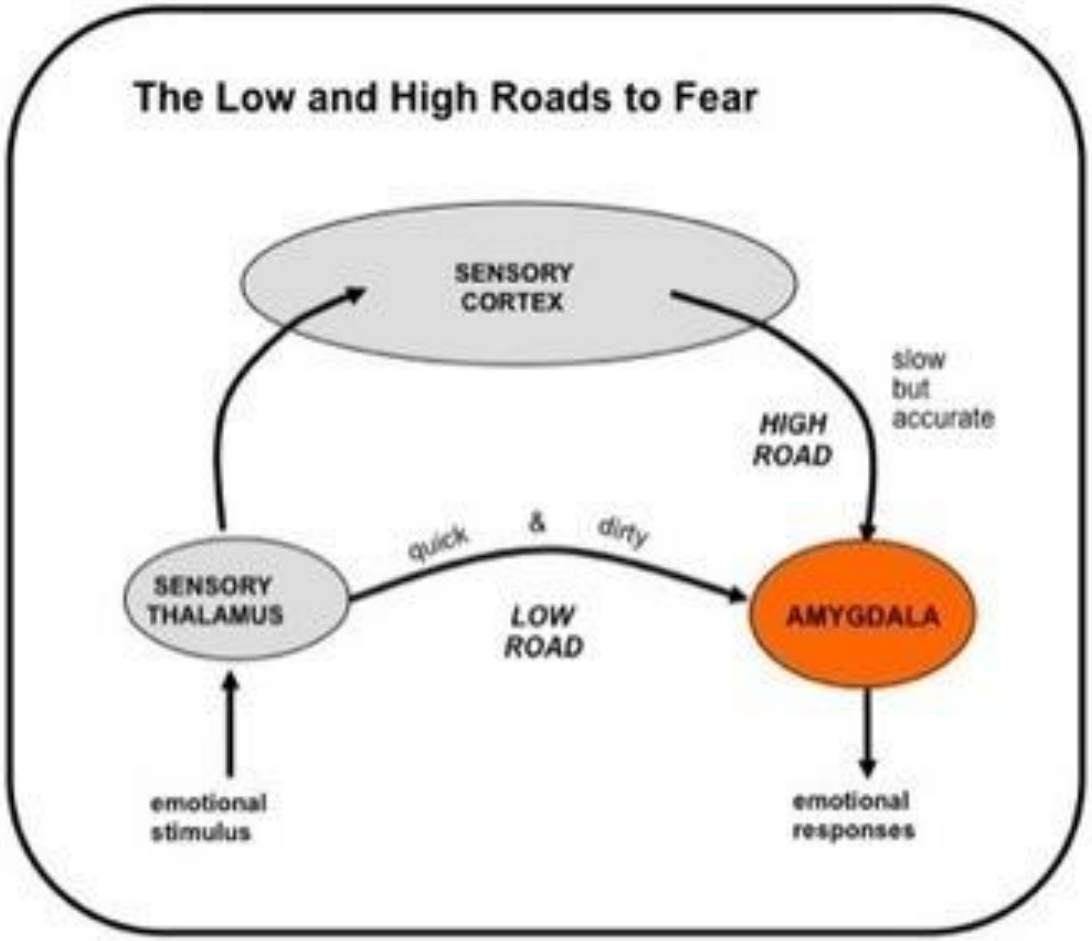
Trauma ⟹ Fight Flight Freeze

- FFF symptoms are ADAPTIVE in the short term
- Occur in ‘primitive’, survival-oriented parts of the brain
- SLOW pathways: Meaning, story, analysis, organization
- FAST pathways: Survival

Joseph LeDoux and The Emotional Brain



Fast and Slow Pathways for Processing Threat



Repeated bypassing of slow pathways in favor of fast pathways

Bypassing Slow Pathways

Decreased

- Analysis: make “sense” by making story
- Memory
- Planning

Increased

- baseline physiologic arousal (fast body response)
- “snap” judgments w/ emotion reactivity (fast mind response)

Chronic DevelopmentalTraumas: Adverse Childhood Experiences

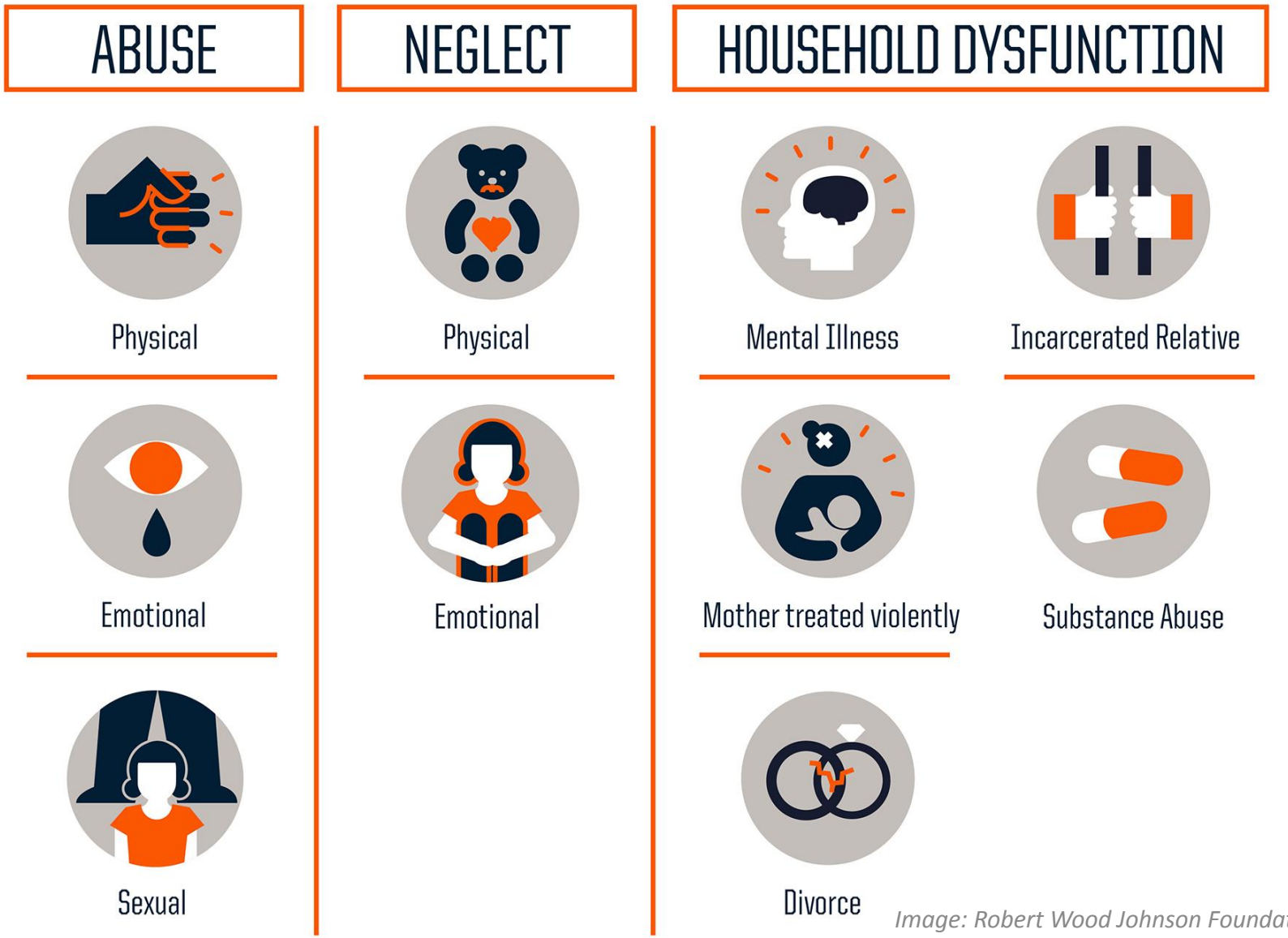


Image: Robert Wood Johnson Foundation

Adverse Childhood Experiences

ACE STUDY

17,000 middle class, >80% white, Americans

- Avg age 57 years, 75% Uni/College
- Examined current health against childhood trauma
- Prospectively followed for 14 years for ER visits, pharma costs, hospitalization & death

ADVERSE CHILDHOOD EVENTS	PREVALENCE
Abuse:	
• Emotional	**11%**
• Physical	**28%**
• Sexual	**22%**
Neglect: • Physical • Emotional	**10%** **15%**
Household Dysfunction • Substance abuse Parent	**27%**
• Mentally ill or Suicidal Parent	**17%**
• Violence against mother	**13%**
• Parent served time in prison • Not raised by both biological parents	**6%** **23%**

(Felitti et al Am J Prev Med 1998 and revised)

ACEs Prevalence in Canada

Ontario Health Supplement:

- Physical abuse as children: **31%** males, **21%** females
- Sexual abuse as children: **4%** of males, **13%** of females

Canadian Community Health Survey (2012):

- Physical, sexual or domestic abuse: **32%**
- Strong dose-response for mental illness & suicide

– Affifi T, MacMillan H

ACEs are

- Chronic
- Developmentally Adverse
- Prevalent
- Within child's caregiving system
- Usually do not result in PTSD

- Other terms: complex trauma, developmental trauma, toxic stress

WHAT IMPACT DO ACEs HAVE?

As the number of ACEs increases, so does the risk for negative health outcomes

Possible Risk Outcomes:

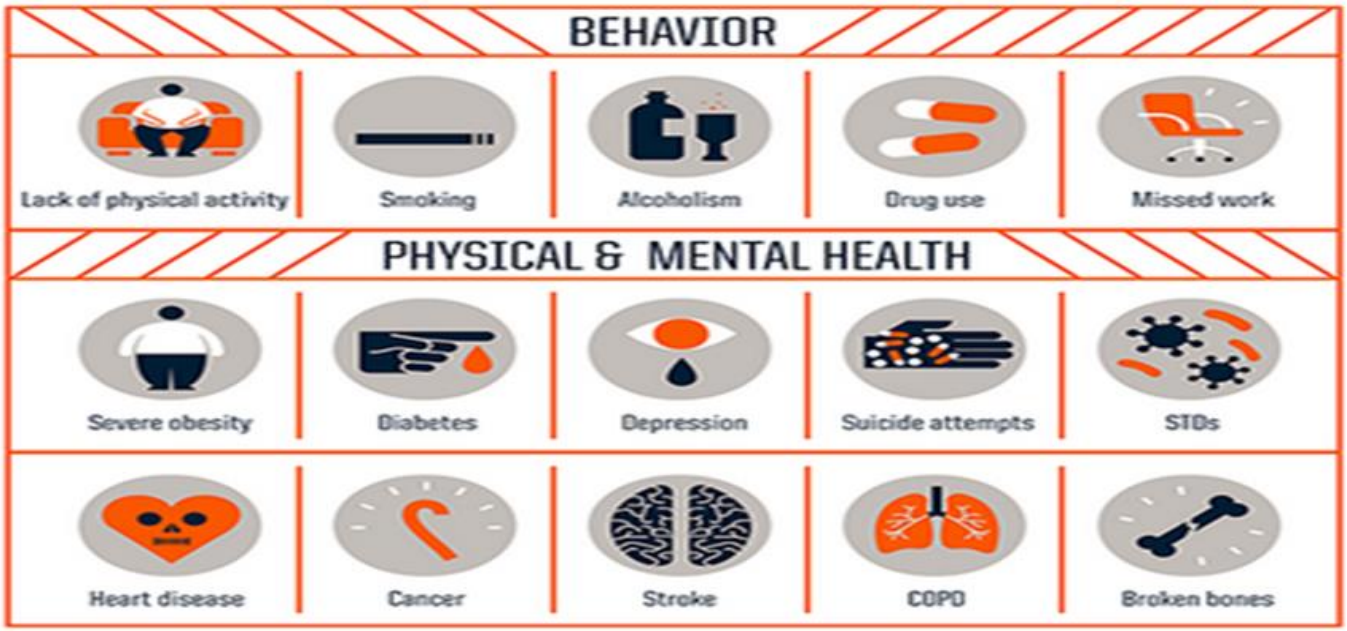


Image: Robert Wood Johnson Foundation

ACEs Impacts: Lifelong Illness

4+ ACE: ↑ 4-12 x - alcoholism, drug abuse, depression and suicide attempts

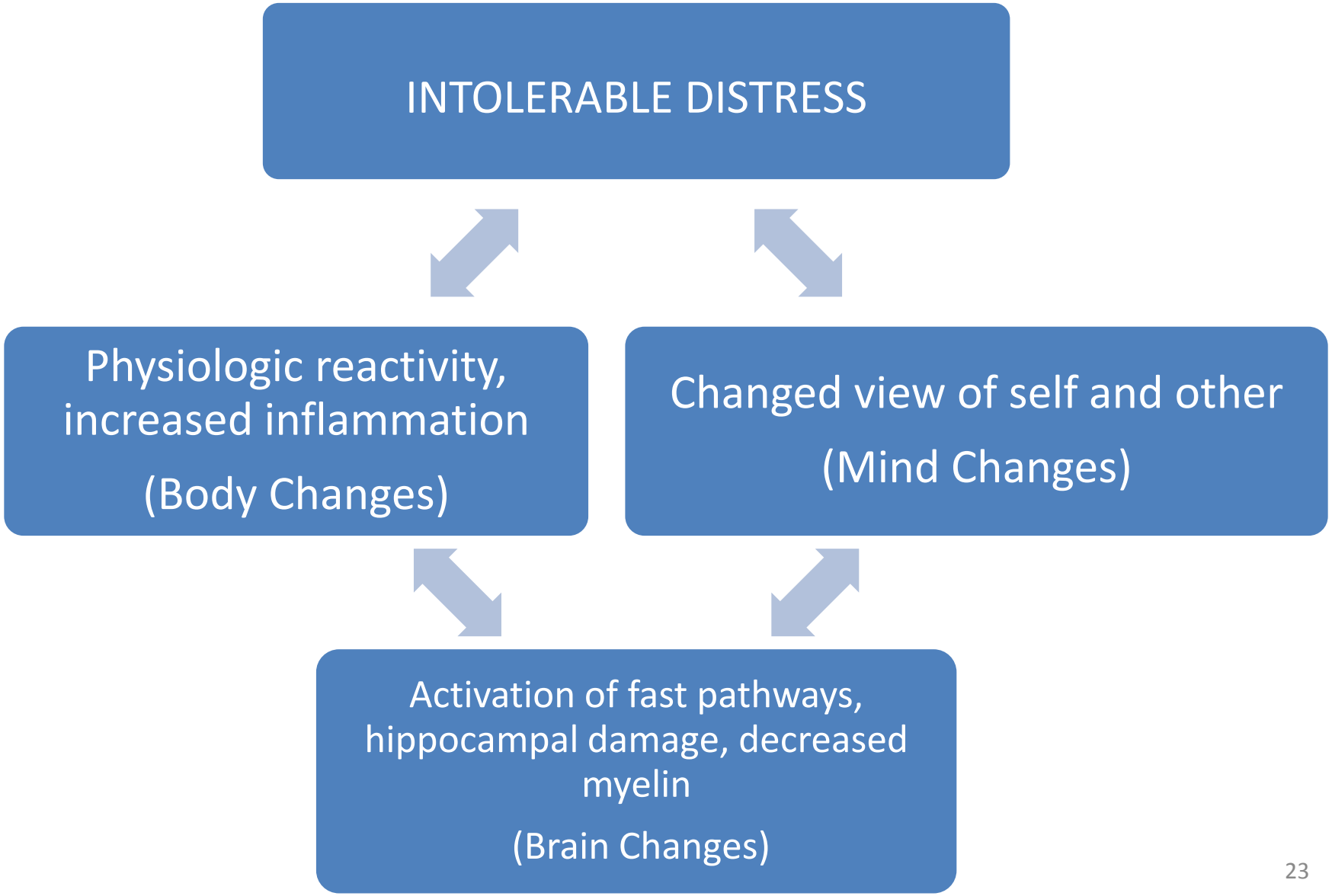
4+ ACE : ↑ 2-4 x - smoking, poor self-rated health, ≥ 50 sex partners, history of STIs

Morbidity and Mortality

- ACE 6+ have a 20 year lower life expectancy than those with an ACE=0
- 3x risk of cardiac disease
- ↑ Cancer, stroke, diabetes, skeletal fractures, liver disease.

ACE study showed the enduring effects of “ordinary trauma” - the kind children experience at high rates in their own homes

Childhood Impacts of ACEs



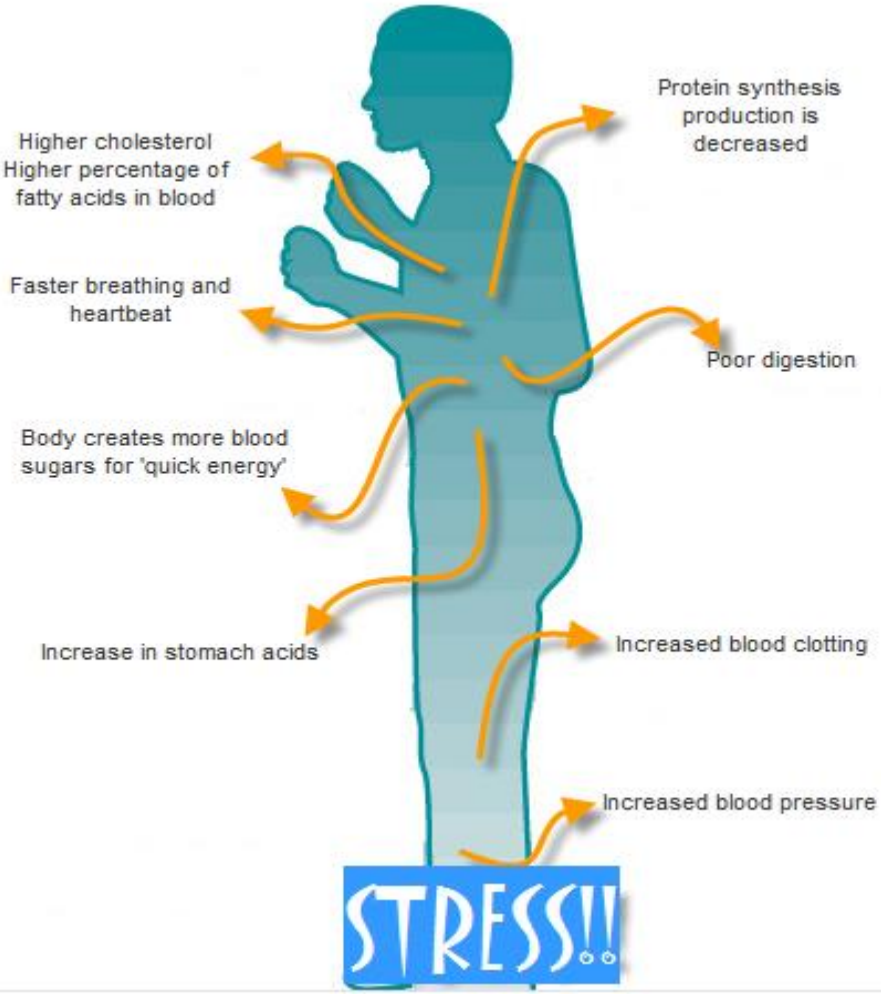
Cognition

- ↓ volume of emotional processing centers and prefrontal cortex in brain – greater brain changes with earlier and chronic traumas
- Problems integrating sensory, emotional and cognitive information into cohesive whole
- Attention/focus problems
- Memory problems
- Executive functioning deficits: planning, problem solving, impulsivity, creating a narrative/explaining

ACEs and the Body

Chronic Trauma ⟹ Chronic Stress Response

- ⬆ Cortisol+Adrenaline
- ⬆ Inflammation
- ⬆ Lipids
- ⬆ BMI
- ⬆ Heart Disease
- ⬆ Cancer
- ⬆ Stroke



Emotion

Problems modulating arousal

Absent, inconsistent, intrusive, violent or neglectful caregivers

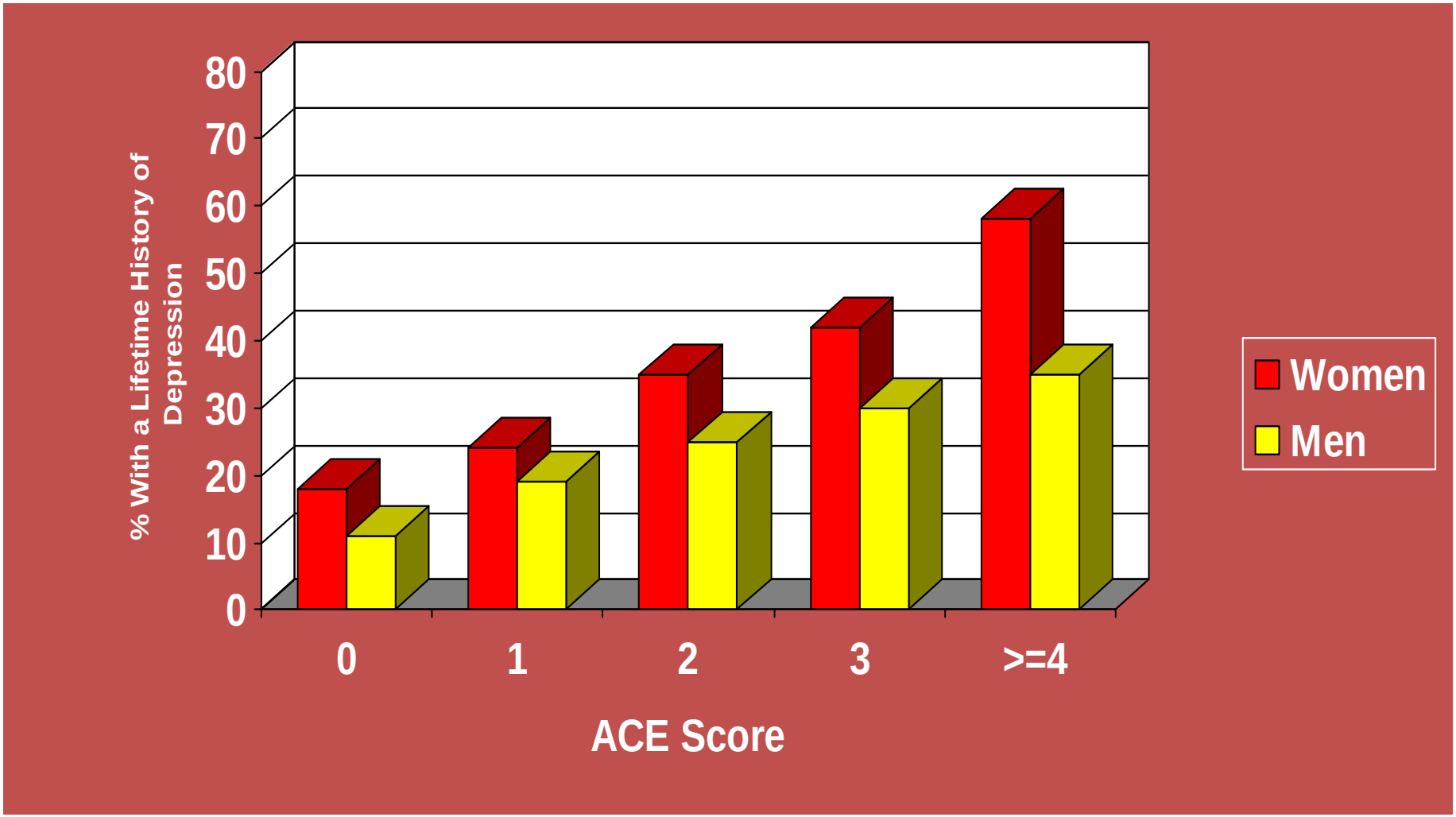
→ intolerable distress.

Child cannot regulate through attachment

Less able to modulate internal states

- Dissociation
- Aggression
- Disorganized affect
- Social skills deficits
- Anxiety, Depression, Anger, Oppositionality

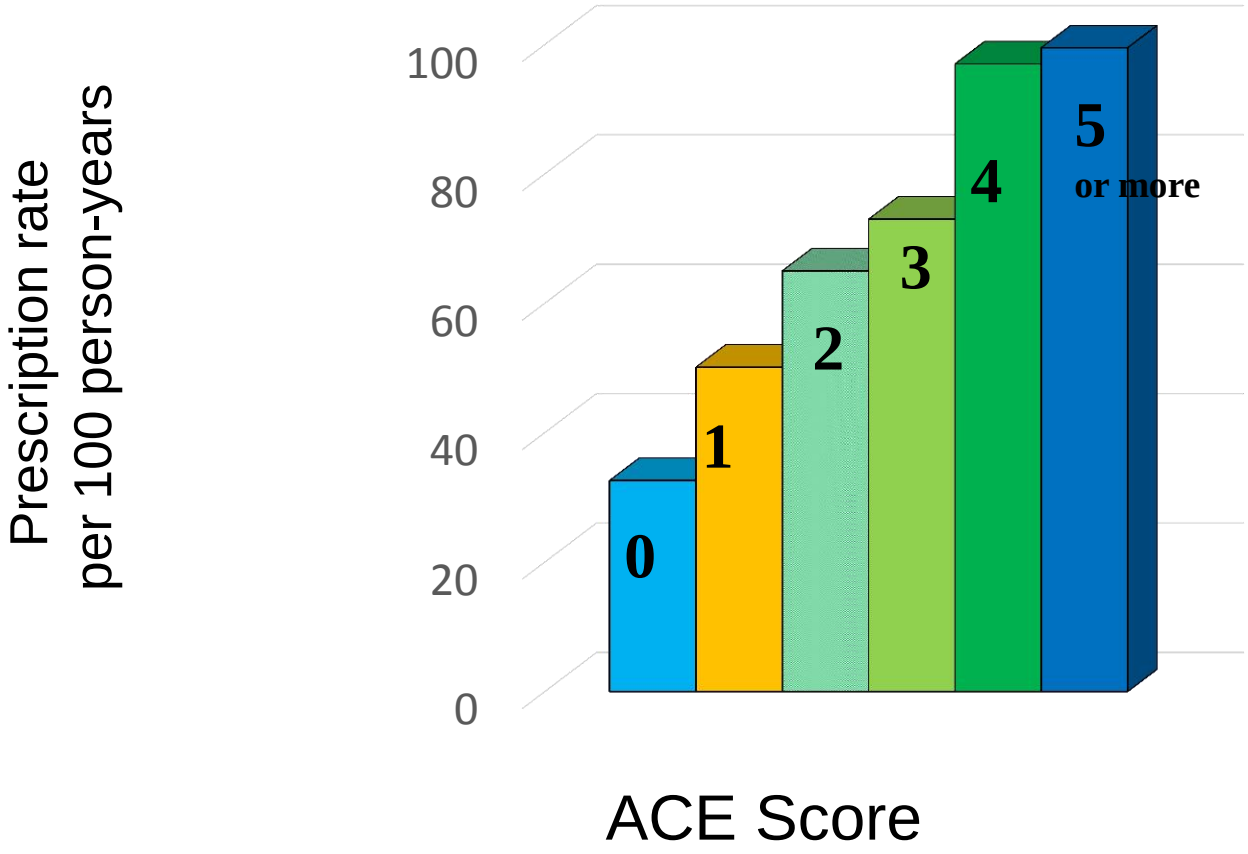
ACE Score and Adult Chronic Depression



P = 0.001

ACE Score and Rates of Antidepressant Prescriptions

approximately 50 years later, after a 10 year follow up



C. Pain

ACEs & Child/Youth Depression

Trauma is transdiagnostic

Associated with worse outcomes in depression –

- Earlier age of onset
- Suicidal ideation and behaviours
- Treatment resistance (adult literature)
- Increased relapse (young adults)
- Comorbid substance use

Should We Screen for ACEs?

- Prevalent
- Significant
- Has effective treatment
- Early intervention results in better outcomes

Ask Yourself

Is systematic screening for ACEs trauma (not only reportable abuses) in your routine practice?

If not, what are the barriers?

-not knowing WHAT to ask

-not knowing HOW to ask

-not knowing what to DO with the info

-time constraints

-concern it will worsen outcome/rupture alliance

-other issue?

Canadian Training Programs

- Pediatrics, Nursing, Family Medicine, Social work, Psychology, Psychiatry, – do not require ACEs trauma training beyond reporting requirements
- Training curricula on trauma focus on PTSD
- CPD resources also focus on PTSD

Knowledge-to-Action Gap

- Large research literature on lifelong impacts of ACEs
- Large research literature on interventions for ACEs and their associated conditions
- Minimal clinical engagement with ACEs – not systematically addressed or assessed

What to Ask: Using Screening Tools

- Systematic assessment, ‘checklist’ process
- Data sharing/comparing
- Provides a ‘narrative’ and rationale for discussing trauma with families
- Integrating trauma into treatment plan may improve treatment course, decrease comorbidities
- Supporting resilience

What to Ask: Using Screening Tools

- Domains:
  - Physical, emotional or sexual abuse
  - Physical or emotional neglect
  - Family dysfunction (intimate partner violence, substance abuse, mental illness, loss of parent)
- Brief, clinically-oriented
- Guide clinical assessment, ensure screen for common traumatic exposure
- For list of validated measures: https://www.nctsn.org/resources/complex-trauma-standardized-measures

Screening Tools

- **ACE questionnaire (CDC)**

  -10 items

  -available free and online

  -large international data sets

  -research literature to help contextualize and discuss the ACE ‘score’

  -designed as retrospective survey for adults, but now increasingly adapted into pediatric practices

Adverse Childhood Experiences Questionnaire
Adapted for Use in Pediatric Practice
To be completed by Clinician with Parent/Guardian or Child/Youth

Item	1= Yes/0= No
A parent or adult in the household often or very often acted in a way that made the child/youth afraid that they would be hurt (e.g., sworn at, insulted, put down, humiliated)	
A parent or adult in the household often or very often hit, pushed, grabbed, or slapped the child/youth so hard that they had marks or were injured	
A parent or adult in the household touched the child/youth's private parts or asked them to touch their private parts	
Child/youth often or very often felt that people they lived with did not love them, look out for each other, feel close to each other, or were a source of strength and support	
Child/youth often or very often did not have enough to eat or clean clothes to wear, and did not have someone to take care of and protect them	
Child/youth's parents or guardians were separated or divorced	
Child/youth witnessed a person in the household being pushed, grabbed, hit, or physically threatened	
A parent or adult the child/youth lived with had a problem with drinking or used street drugs	
A parent or adult the child/youth lived with was depressed, mentally ill or attempted suicide	
A parent or adult the child/youth lived with served time in prison	
Total:	

Screening Tools

- **Childhood Trauma Questionnaire Short Form (CTQ - SF)**
  - 25 items (original was 78 items)
  - validated in clinical and community samples
  - license to purchase
  - designed as retrospective survey for adults
  - used in adult trauma literature

Screening Tools

- **CTAC Trauma Checklist (National Child Traumatic Stress Network)**
  - Screening for trauma in children 0-5 & 6-18
  - Four main domains, with 41 subquestions
  - Free and online
  - Designed for parent to respond about child
  - Also screens for mood, behavior, attachment and school problems, as ‘flags’ for trauma

Southwest Michigan Children's Trauma Assessment Center

NCTSN The National Child Traumatic Stress Network

Trauma Informed System Initiative

CTAC Trauma Screening Checklist: Identifying Children at Risk
Ages 0-5

Please check each area where the item is known or suspected. If history is positive for exposure and concerns are present in one or more areas, a comprehensive assessment may be helpful in understanding the child's functioning and needs.

1. Are you aware of or do you suspect the child has experienced any of the following:
   - _____Known or suspected exposure to drug activity *aside from parental use*
   - _____Known or suspected exposure to any other violence *not already identified*
   - _____Impaired Parenting (i.e. Parent Mental Illness or Parental substance abuse)
   - _____Multiple separations from parent/ caregiver, including out of home placement (s)
   - _____Frequent and multiple moves or homelessness
   - _____Suspected neglectful home environment
   - _____Suspected or known Prenatal Exposure to Alcohol/Drugs or Maternal Stress
   - _____Physical abuse
   - _____Emotional abuse
   - _____Exposure to domestic violence
   - _____Sexual abuse or exposure
   - _____Hospitalization (s) Age? _____
   - _____Significant loss of people, places etc.
   - _____Other_____

If you are not aware of a trauma history, but multiple concerns are present in questions 2, 3, and 4, then there may be a trauma history that has not come to your attention.
Note: Concerns in the following areas do not necessarily indicate trauma; however, there is a strong relationship.

2. Does the child show any of these behaviors:
   - _____Excessive aggression or violence towards self or others
   - _____Repetitive violent and/or sexual play (or maltreatment themes)
   - _____Explosive behavior (excessive and prolonged tantruming)
   - _____Disorganized (sudden changes/extremes) in behavioral states (i.e. attention, play)
   - _____Very withdrawn or excessively shy
   - _____Bossy and demanding behavior with adults and peers
   - _____Sexual behaviors not typical for child's age
   - _____Difficulty with sleeping or eating
   - _____Regressed behaviors (i.e. toileting, play)
   - _____Lags in social/developmental skills
   - _____Other _____
3. Does the child exhibit any of the following emotions or moods:
   - _____Chronic sadness, doesn't seem to enjoy any activities.
   - _____Very flat affect or unresponsive behavior
   - _____Quick, explosive anger
   - _____Other _____
4. Is the child having relational and/or attachment difficulties?
   - _____Lack of eye contact
   - _____Sad or empty eyed appearance
   - _____Overly friendly with strangers (lack of appropriate stranger anxiety)
   - _____Vacillation between clinginess and disengagement and/or aggression
   - _____Failure to reciprocate (i.e. hugs, smiles, vocalizations, play)
   - _____Failure to seek comfort when hurt or frightened
   - _____Other _____

When checklist is completed, please fax to:
Child's First Name:_____Age:_____ Gender: _____
County:_____Date: _____

Henry, Black-Pond, & Richardson (2010), rev:11/13
Western Michigan University
Southwest Michigan Children's Trauma Assessment Center (CTAC)

Southwest Michigan Children's Trauma Assessment Center

Trauma Informed System Initiative

CTAC Trauma Screening Checklist: Identifying Children at Risk
Ages 6-18

Please check each area where the item is known or suspected. If history is positive for exposure and concerns are present in one or more areas, a comprehensive assessment may be helpful in understanding the child's functioning and needs.

1. Are you aware of or do you suspect the child has experienced any of the following:

_____Known or suspected exposure to drug activity *aside from parental use*
_____Known or suspected exposure to any other violence *not already identified*
_____Impaired Parenting (i.e. Parental alcohol/substance abuse or Mental Illness
_____Multiple separations from parent or caregiver
_____Frequent and multiple moves or homelessness
_____Physical abuse
_____Suspected neglectful home environment
_____Emotional abuse
_____Exposure to domestic violence
_____Sexual abuse or exposure
_____Bullying
_____Prenatal Exposure to Alcohol/Drugs or Maternal Stress
_____Out of Home Placement(s) including Hospitalization/Foster Care Placement
_____Loss of Significant people, places etc.
_____Other _____

If you are not aware of a trauma history, but multiple concerns are present in questions 2, 3, and 4, then there may be a trauma history that has not come to your attention. Note: Concerns in the following areas do not necessarily indicate trauma; however, there is a strong relationship.

2. Does the child show any of these behaviors:

_____Excessive aggression or violence towards self
_____Excessive aggression or violence towards others
_____Explosive behavior (Going from 0-100 instantly)
_____Hyperactivity, distractibility, inattention
_____Very withdrawn or excessively shy
_____Oppositional and/or defiant behavior
_____Sexual behaviors not typical for child's age
_____Peculiar patterns of forgetfulness
_____Inconsistency in skills
_____Other _____

3. Does the child exhibit any of the following emotions or moods:

_____Excessive mood swings
_____Chronic sadness, doesn't seem to enjoy any activities.
_____Very flat affect or withdrawn behavior
_____Quick, explosive anger
_____Other _____

4. Is the child having problems in school?

_____Low or failing grades
_____Inconsistent or sudden changes in performance
_____Difficulty with authority
_____Attention and/or memory problems,
_____Other _____

When checklist is completed, please fax to:

Child's First Name:_____Age:_____ Gender: _____
County/Site:_____Date:_____

Henry, Black-Pond, & Richardson (2010), rev: 11/13
Western Michigan University
Southwest Michigan Children's Trauma Assessment Center (CTAC)

HOW to Ask:
Using Trauma-Informed Principles

- **Safety**
  - purpose of the questionnaire
  - limits of confidentiality
  - setting the 'container'
- **Trustworthiness and Transparency**
  - what will the info be used for
  - clarity about actions being taken
- **Choice**
  - non-mandatory, can skip certain questions, shared decision-making

HOW to Ask:
Using Trauma-Informed Principles

- **Collaboration and Mutuality**
  - we'll speak together about what to do with info, you are the 'expert on you' or the 'expert on your child', healing happens in relationships
- **Empowerment**
  - recognition of strengths, building **resilience**
  - emphasize family strengths and resilience as well as child resilience

Screening Strategies

- Screen parent as well, if willing
  - Intergenerational trauma transmission
  - Increased relevance of child findings
- Emphasize the purpose of screening – to gather information about stresses that may:
  - Explain part of the child's current health issue
  - Impact the child's lifelong physical and mental health (decrease stigma)
  - Shape the treatment plan

After Screening, then What?

- Education/discussion of results, emphasis on recovery and resilience
- Integration into treatment as usual
- Recruitment of further treatment resources
- Periodic reassessment + re-education

Resilience

- Dimensions of coping (intrinsic)
  - Temperament
  - Cognition
  - Locus of Control
  - Self-Regulation
- Culture and Context influence expressions of resilience
- Resilience (extrinsic)
  - Family and school supports
  - Cultural and family traditions

Trauma Treatments with Evidence

- Child Resilience and Recovery

  Trauma Processing and Self-Regulation:

  – Trauma focused-CBT

  – Prolonged Exposure Therapy

  Self-Regulation and Relationships:

  – Dialectical Behavioural Therapy (DBT)

  – Mindfulness-based therapies

  – Longer-term relationally-based therapies to address attachment disorders

  School intervention – increase the safety

Trauma Treatments with Evidence

- Family Resilience and Recovery
  - Psychoeducation
  - Family or Parenting therapy
  - Social systems advocacy
  - Mindfulness-based therapies
  - Connect parent with mental health supports

Common Factors in Treatment

- Psychoeducation
- Creating a narrative about the trauma
- Emotional regulation and expression
- Cognitive processing
- Behaviour management
- Parent-child sessions

John's ACE Score

- 10 year old boy who presents with longstanding disruptive behavior at home and school
- He is restless, hard to redirect, and has aggressive outbursts
- John lives at home with his mother and maternal grandmother. His father is incarcerated on drug-related charges.
- His mother has a history of depression, and states that John's father was aggressive towards her before their divorce

WHAT IS JOHN'S ACE SCORE?

Item	1= Yes/0= No
A parent or adult in the household often or very often acted in a way that made the child/youth afraid that they would be hurt (e.g., sworn at, insulted, put down, humiliated)	
A parent or adult in the household often or very often hit, pushed, grabbed, or slapped the child/youth so hard that they had marks or were injured	
A parent or adult in the household touched the child/youth's private parts or asked them to touch their private parts	
Child/youth often or very often felt that people they lived with did not love them, look out for each other, feel close to each other, or were a source of strength and support	
Child/youth often or very often did not have enough to eat or clean clothes to wear, and did not have someone to take care of and protect them	
Child/youth's parents or guardians were separated or divorced	
Child/youth witnessed a person in the household being pushed, grabbed, hit, or physically threatened	
A parent or adult the child/youth lived with had a problem with drinking or used street drugs	
A parent or adult the child/youth lived with was depressed, mentally ill or attempted suicide	
A parent or adult the child/youth lived with served time in prison	
Total:	

What are the Next Steps for John?

Further Assessment of…?

Treatment planning

Fostering recovery and resilience

-family

-child

Which trauma-informed principles will be emphasized and why?

-Safety

-Transparency

-Choice

-Collaboration

-Empowerment

Policy/System Change: an example

Alberta Health Services, Child & Adolescent Addiction, Mental Health and Psychiatry Program (CAAMHPP)

By September 1, 2016

All clients and families seen within CAAMHPP will be asked about Adverse Childhood Experiences and their score will be centrally recorded in an electronic database.

By March 31, 2017

Information collected and used to clinically inform treatment will help identify service gaps and inform program planning.

By March 31, 2020

Service provision will be targeted to help families prevent FURTHER accumulation of Adverse Childhood Experiences and mitigate potential health risks associated with toxic stress

Services: Trauma-Focused Cognitive Behavioral Therapy (TFCBT), Parent-Child Interaction Therapy (PCIT), Prolonged Exposure Therapy, Eye Movement Desensitization and Reprocessing (EMDR)

…The costs of increased training and expanded services in early childhood mental health are substantial, but the money "saved" by not treating emotional problems in early childhood is likely to be modest in comparison to the greater long-term costs of serious adult mental illness and/or criminal behavior."

-National Scientific Council on the Developing Child

Harvard University Working Paper

Effecting Change

- **Education** – training programs, CPD, research into evidence-based early interventions

- **Policy** - expanding the mandate for “trauma-informed trauma assessment”

- **Implementation** – ongoing supports, capacity building in treatment resources

Resources/Selected Reading

- National Child Traumatic Stress Network website
- **ACE study:** Felitti V et al. *Am J Prev Med* 1998.
- **Center for Youth Wellness** website
- **Alberta Family Wellness** website
- **Neurobiology of trauma:** Excessive Stress Disrupts the Architecture of the Developing Brain, Center on the Developing Child, Harvard University
- **Childhood Trauma Toolkit:**
  - https://www.porticonetwork.ca/web/childhood-trauma-toolkit/home

Acknowledgments

- Cundill Foundation
- CAMH Medical Education Office
- Patsy and Jamie Anderson Chair in Child and Youth Mental Health
- AMS Phoenix Grant: Bringing Compassion to Healthcare
- Mentorship: Peter Szatmari, Peter Selby, Sophie Soklaridis