

Adverse Childhood Experiences

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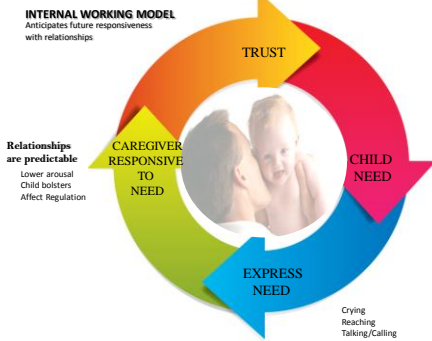
"Attachment relationships are formative because they facilitate the development of the brain's self-regulatory mechanism, which in turn allow the individual to perform effectively in society"

In fact, "the whole of child development is the enhancement of self-regulation"

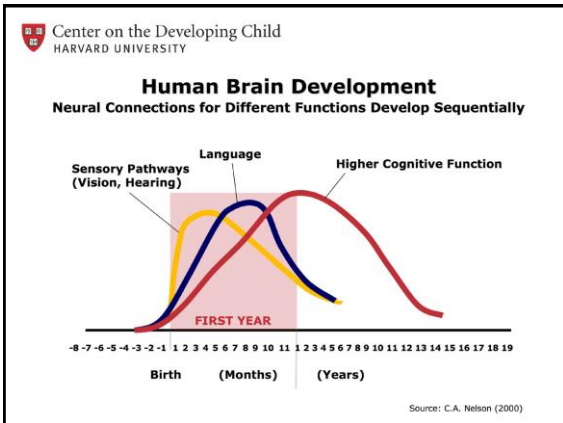
(Fonagy & Target, 2002)

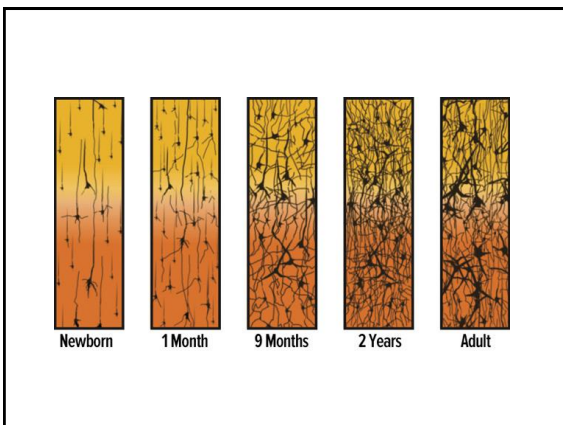


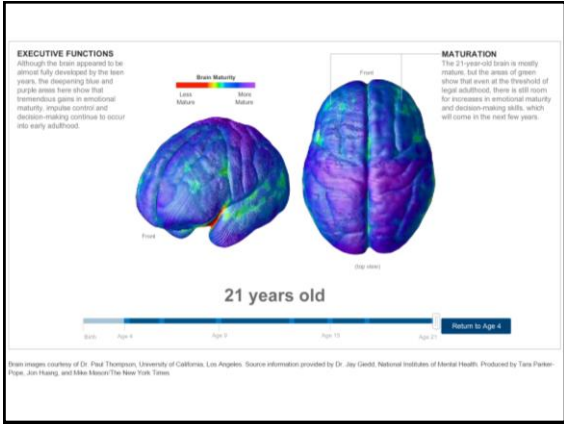
HEALTHY ATTACHMENTS





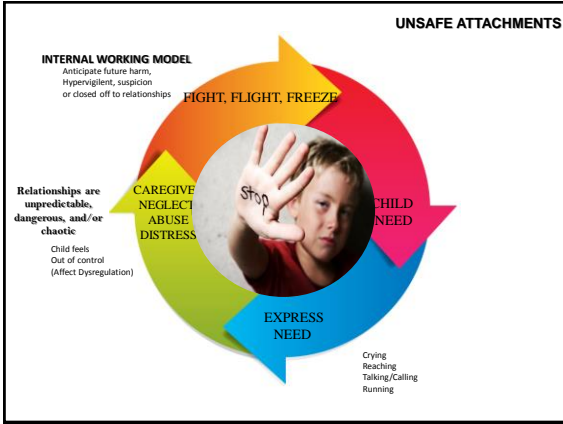












Installing Emotional System

Setup was unable to find a safe & available caregiver, system may not work properly

THE STRESS RESPONSE

- Mobilization of Energy
- Increased Cardiovascular Tone (heart rate)
- Suppression of digestion
- Suppression of growth
- Suppression of reproduction
- Suppression of immune system
- Sharpening of cognition, alertness, and pleasure.

Robert M. Sapolsky, Why Zebras Don't Get Ulcers: An Updated Guide To Stress, Stress-Related Diseases, and Coping, 2nd Rev Ed, April 15, 1998

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- Fat cells & liver to “empty the bank”
- This places sugar in the bloodstream

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- Accelerate movement of sugars through blood
- Increase intake of oxygen for bloodstream

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- Digestion is “slow and expensive” – shut down
- Mouth dry – shut down secretion of saliva

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Fighting infection is not priority – all resources to mobilized to deal with stressor.

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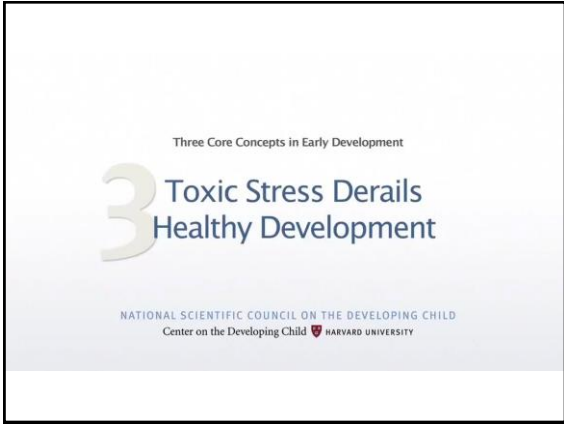
Three Levels of Stress Response

- Positive**
Brief increases in heart rate,
mild elevations in stress hormone levels.
- Tolerable**
Serious, temporary stress responses,
buffered by supportive relationships.
- Toxic**
Prolonged activation of stress response systems
in the absence of protective relationships.

Center on the Developing Child HARVARD UNIVERSITY

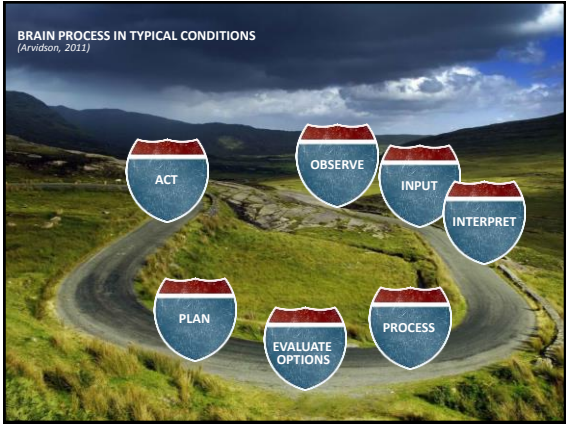
CHRONIC STRESS

- The stress response **continues to be active – uses all resources to stay in stay alert** (at the expense of using resources for other systems).
- The neurohormones released are **good for short stress periods** – but can become harmful when in the system for long periods of time.
- Each recurring stress event causes subsequent sensitivity to the sympathetic response so that the individual becomes **more vulnerable to depression and anxiety** (Post, Rubinow, & Ballenger 1986)
- When stress is prolonged or chronic, changes occur in the baseline production, availability, and homeostasis regulation of these neurochemicals. (Cozzolino 2002)
- The more a neural system is 'activated' the more the system changes to reflect the pattern or activation. (Perry 2001)



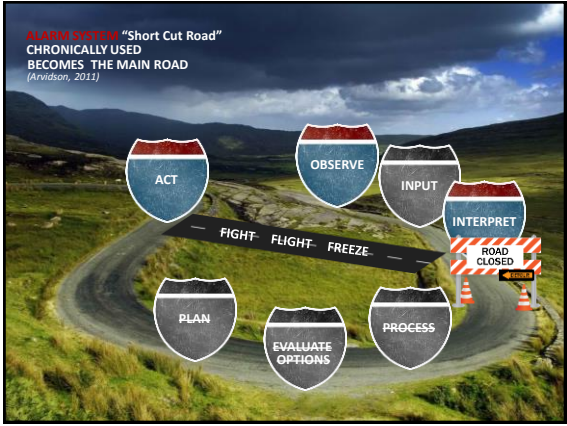










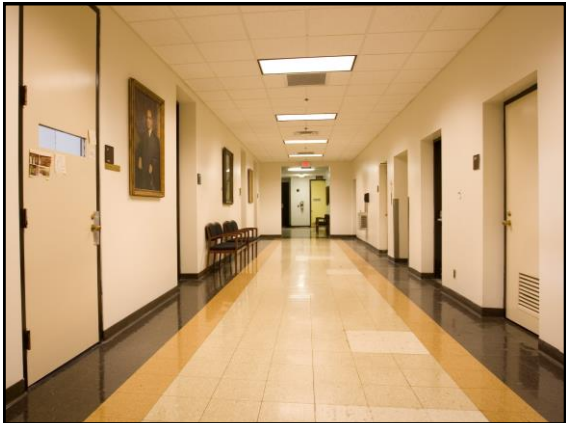


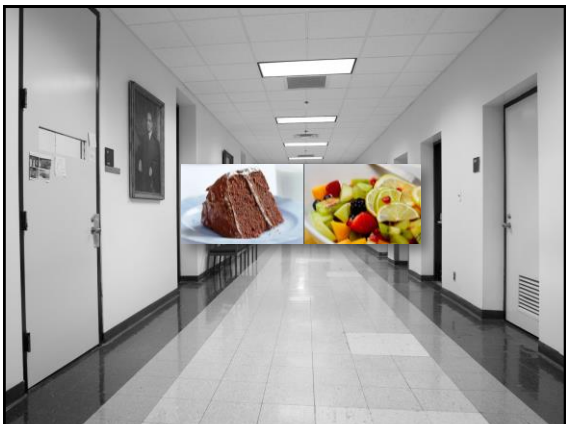




Given a 2-Digit Number to Remember
73

Given a 7-Digit Number to Remember
7324815



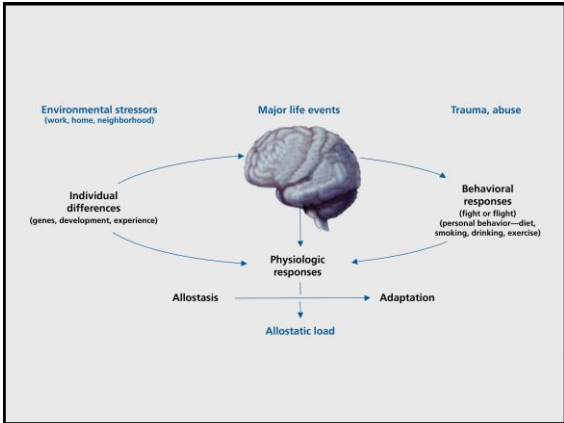


7-number memorizers were nearly 50% more likely to choose cake than the 2-number memorizers.

2x

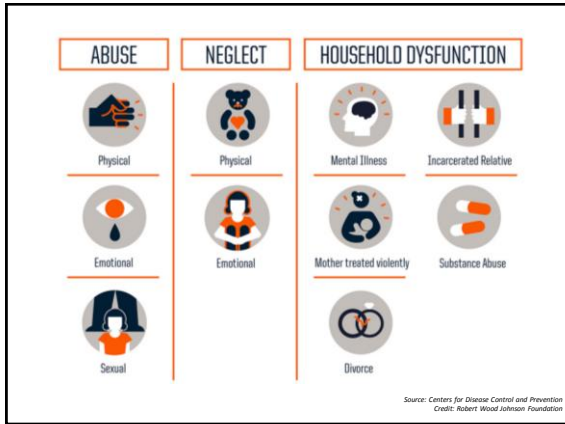
BAD FOR YOU

Given a 7-Digit Number to Remember
7 3 2 4 8 1 5



The Adverse Childhood Experiences (ACE) Study

The largest study ever done to examine the health and social effects of adverse childhood experiences 18,000 participants



ADVERSE CHILDHOOD EXPERIENCES

looking at how ACEs affect our lives & society

What are ACEs?

Adverse Childhood Experiences (ACEs) is the term given to describe all types of abuse, neglect, and other traumatic experiences that occur to individuals under the age of 18. The landmark Kaiser ACE study examined the relationships between these experiences during childhood and reduced health and well-being later in life.

WHO PARTICIPATED IN THE ACE STUDY?

Between 1995 and 1997, over 17,000 people receiving physical exams completed confidential surveys containing information about their childhood experiences and current health status and behaviors. The distribution of these surveys were combined with results from their physical exams to form the study's findings.

RACE

- White: 75%
- Black: 17%
- Hispanic: 5%
- Other: 1%

AGE

- 18-24: 31%
- 25-34: 20%
- 35-44: 20%
- 45-54: 20%
- 55-64: 1%
- 65+: 2%

EDUCATION

- High school: 36%
- Some college: 18%
- College graduate: 7%
- Postgraduate degree: 39%

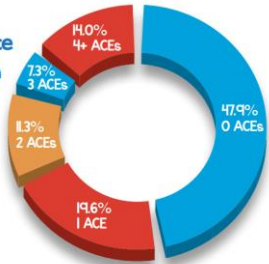
**Participants in this study reflected a cross-section of middle-class American adults.*

HOW COMMON ARE ACEs?

# of ACEs	Percentage
ZERO	36%
ONE	26%
TWO	16%
THREE	9%
FOUR OR MORE	12%

Almost two-thirds of adults surveyed reported at least one Adverse Childhood Experience – and the majority of respondents who reported at least one ACE reported more than one.

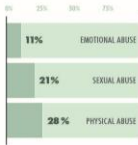
Figure 2:
Prevalence
of ACEs in
TN



TYPES of ACEs

The ACE study looked at three categories of adverse experience: **childhood abuse**, which included emotional, physical, and contact sexual abuse; **neglect**, including both physical and emotional neglect; and **family dysfunction**, which included exposure to substance abuse, mental illness, violent treatment of a mother or stepmother, parental separation/divorce or family member incarceration. Respondents were given an **ACE score** between 0 and 10 based on how many of these ten types of adverse experience they reported being exposed to.

ABUSE



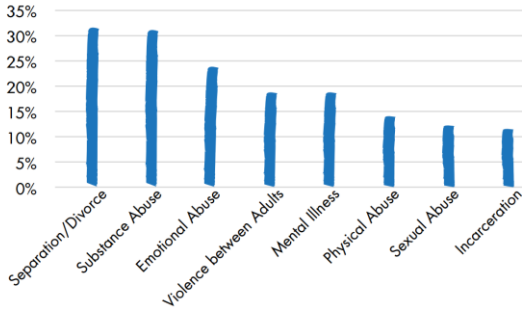
FAMILY DYSFUNCTION

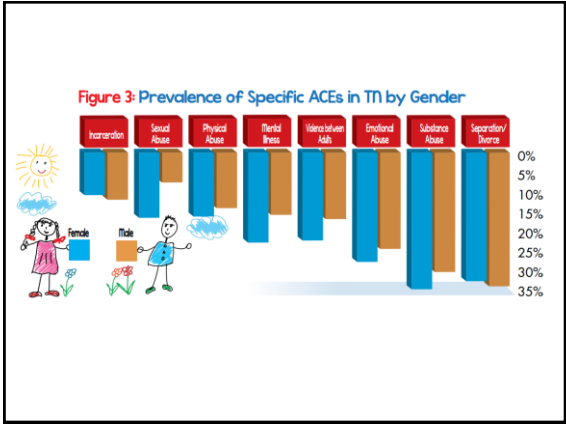


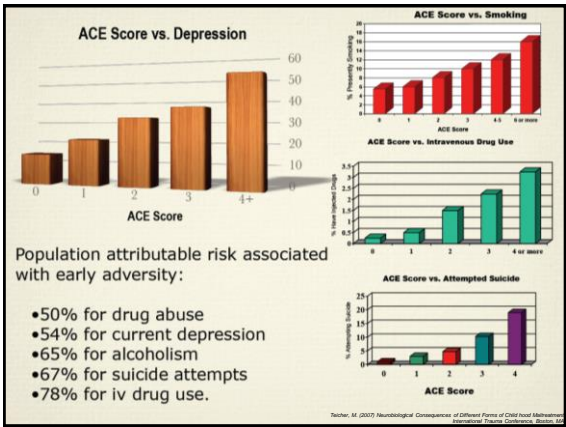
NEGLECT

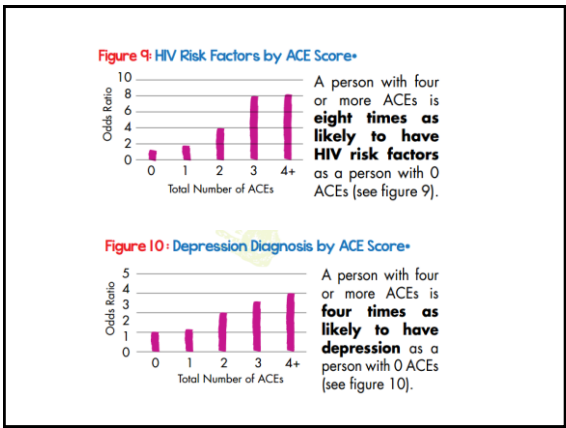


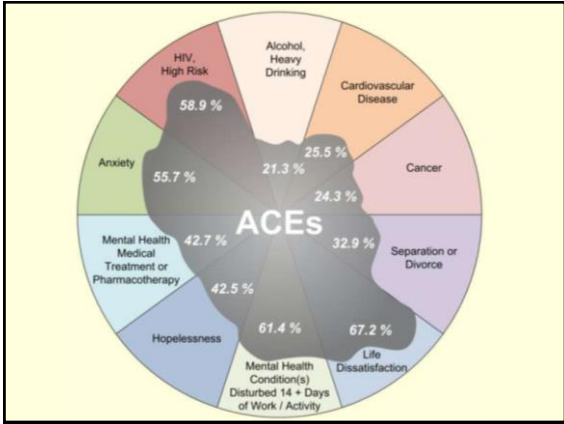
Figure 5: Prevalence of ACEs in TN by Category

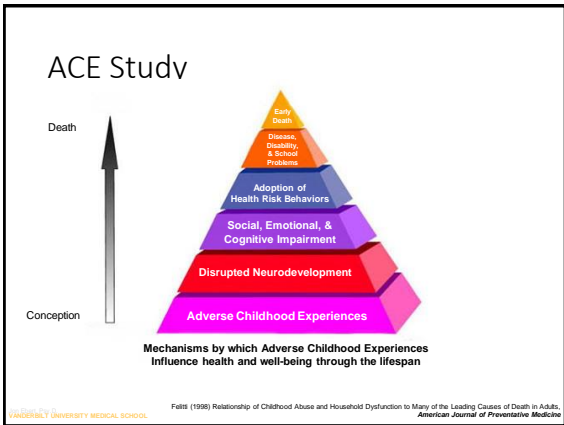


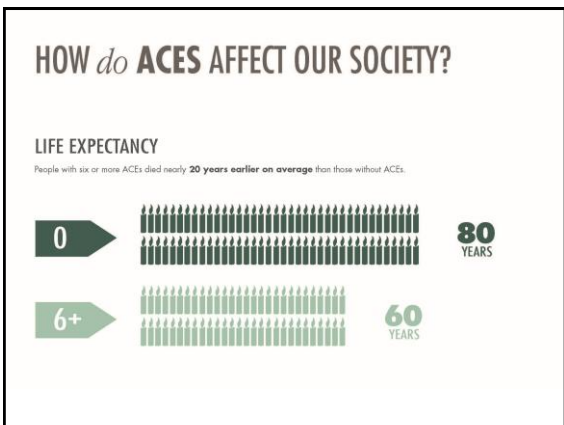










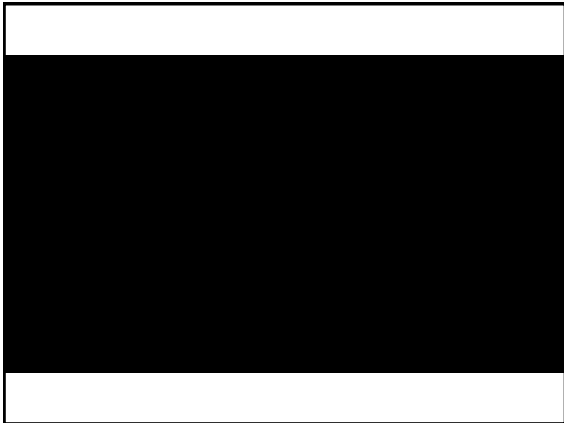


HOW *do* ACES AFFECT OUR SOCIETY?

ECONOMIC TOLL

The CDC estimates that the lifetime costs associated with child maltreatment are \$124 billion.





Supportive Relationships Restore Disrupted Stress Response

