



### Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: Adverse Childhood Experiences (ACE) Study

- ACEs influence a child's emotional, social, and cognitive functioning for years after the event(s) occurred.
- Sentinel study that examined the relationship between childhood adversity and increased rates of chronic diseases in adulthood.

RESILIENCY

# **MAIN CATEGORIES OF ACE's**

- Abuse  $\rightarrow$  emotional, physical, sexual
- **Neglect**  $\rightarrow$  emotional, physical
- Household Challenges → i.e. Domestic violence, substance abuse, mental illness, parental divorce, incarcerated parent

## How Common Are ACE's?

- 67% of the population have at least 1 ACE.
- 12.5% of the population has >4 ACEs.

# Pathophysiology of Toxic Stress

- This occurs when a child experiences severe, frequent, or prolonged adversity without the necessary support of a caregiver.
- The hypothalamus-pituitary-adrenal axis is primarily affected, resulting in elevated cortisol, epinephrine, and norepinephrine levels leading to a chronic stress response.
- Toxic stress causes long-lasting changes in the hippocampus, amygdala, and prefrontal cortex - areas important in regulating fear, reward, memory, and impulse control.

# **Relevance: ACEs Linked to Higher Rates of Chronic Health Conditions**

- An ACE score 4 or more was associated with...
  - 11x the level of intravenous drug abuse
  - 2-4x more likely to have 50+ sexual partners
  - 14x the number of suicide attempts and 4.5x higher rates of depression
  - 2x the level of liver disease
  - 3x the level of lung disease \_\_\_\_\_

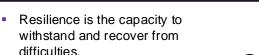


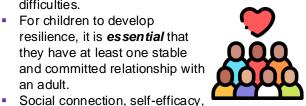
# MANAGEMENT

- Healthcare providers should be trained to recognize ACEs and provide trauma informed care to alleviate further stress and re-traumatization for patients.
- Core principles of trauma informed care include safety, trustworthiness, peer support, collaboration, empowerment, humility and responsiveness.
- Early recognition of ACEs allows us to advocate for and implement supports for positive childhood experiences (PCEs) that may help mitigate negative long-term effects.

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difficulties.

an adult.

For children to develop

resilience, it is essential that they have at least one stable

and sources of culture, tradition,

and faith help foster resiliency.