

Potts Family Foundation

Raising Resilient Oklahomans: A Summit with the Experts 3-7-18

Laura McGuinn, MD

Associate Professor of
Pediatrics
Developmental and
Behavioral Pediatrician

*President, OK Chapter of
American Academy of
Pediatrics*

Email: laura-mcguinn@ouhsc.edu
Office Phone: 405 271-5700



Mary Anne McCaffree, MD

Professor of Pediatrics
Neonatologist

*Past President, OK Chapter
of American Academy of
Pediatrics*

Email: mary-mccaffree@ouhsc.edu
Office Phone: 405 271-5215



The Impact of ACEs on Health Outcomes of OK Children and Adults

Adverse Childhood Events

Domestic Violence

Awareness, family screening, referral

Relevant Disclosure

Mary Anne McCaffree, M.D.

I have no relevant financial relationships or affiliations with commercial interests to disclose.

National Child and Maternal Health Education Program, NIH

National Health Collaborative on Violence and Abuse, Chair

ACE during childhood

? % of Oklahoma children experience ACE

Oklahoma's rank is # ? Of 50 states?

Post partum Intimate partner violence

Supportive therapy is not useful

Resources not available.

Adverse Childhood Events Outcomes

- *Emotional abuse*
- *Physical abuse*
- *Sexual abuse*
- *Emotional neglect*
- *Physical neglect*
- *Household mental illness*
- *Household substance abuse*
- *Parental separation or divorce*
- *Incarcerated household member*
- *Mother/parent treated violently*

Teen mother, twins

- 15 year old, lives with her parents; c-section delivery of preterm twins
- Older sibling planned to assist at discharge, refused after infants delivery
- Grandparents, homeless, not supportive
- Grandparents slept in NICUN bed, mother in chair, post surgery
- Demanding grandparents, berated nursing staff, insisted on new nurse daily
- Social services, case managers involved
- DHS custody

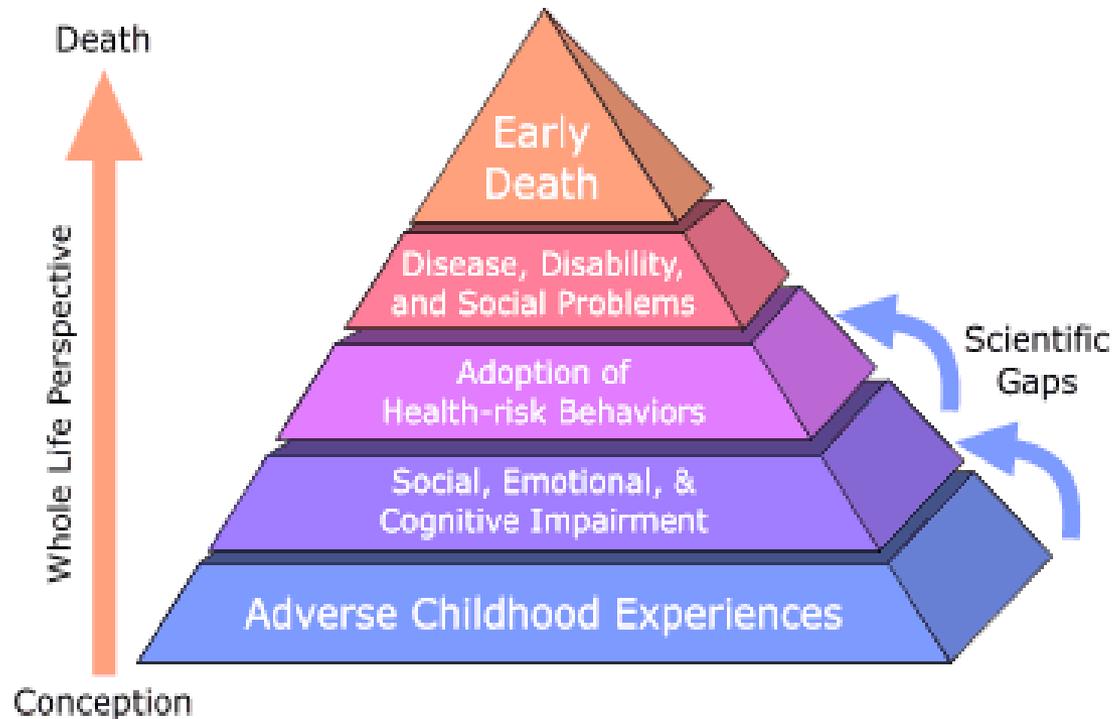
Infant of a Diabetic Mother, poor feeding

- Mother, primagravida, amphetamine abuse during pregnancy
- Mother enrolled in a recovery program
- Father of infant has an active DHS/abuse case of his 5 year old
- County DHS/Court did not recommend custody for infant

Perinatal Events

- Postpartum Depression
- Maternal Adverse Childhood Experience
- Incarceration
- Substance Use Disorders
- Active DHS involvement

Adverse Childhood Events



ACE effects children

- Learning and behavioral issues
- Early initiation of sexual activity, adolescent pregnancy
- Toxic stress reaction
- Long term impairment
- Fight/Flight reaction to stress
- Impaired immune response
- Can be reversed in a nurturing, loving environment

OU NICU postpartum depression

- Mother from rural Oklahoma, infant improved, Mother did not
- “I think she might be depressed”, launched a study with Psychology
- Infants length of stay increased by 7days/unit increase in stress associated with infant’s appearance.
- Postpartum depression was significantly correlated with trait anxiety.
- Postpartum depression is the most common complication of childbirth affects 20% of women
- Occurs after infant is discharged and prior to 1st well child visit
- NICHD program developed material for awareness

Postpartum Depression, most common morbidity of pregnancy

- 15-20% of all deliveries
- Onset 7-21 days post partum
- AAP recommends routine screening of parent at well child evaluation
- Symptoms: Anxious, sad or angry without warning
- Difficulty completing tasks
- Has lost interest in her previous favorite things
- Seems robotic, going through the motions
- Trouble sleeping; cannot care for infant.
- Concerned that she might hurt the infant

Adults with ACE

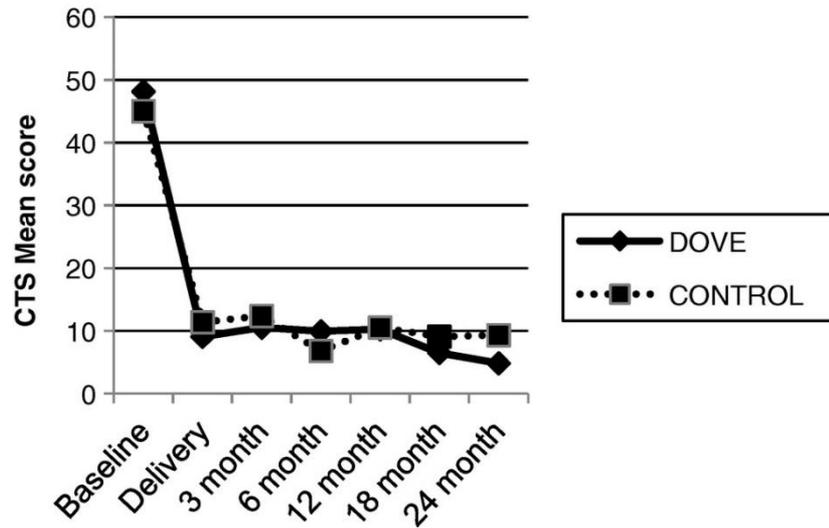
- Obesity, Cardiovascular disease, hypertension
- Alcoholism, substance abuse
- Tobacco use
- Poor school performance
- Low socioeconomic status

USPSTF

Domestic Violence screening

- USPSTF 2016 Domestic Violence Screening
- D.O.V.E. Trial Home nurse visits with counseling
- DV decreased; a structured IPV intervention, DOVE, and support from participating home visiting agencies, can be incorporated into existing perinatal home visiting programs, improve the health and safety of women and children. Home visiting programs can implement universal screening for perinatal IPV, and this evidence-based DOVE intervention used to mitigate the effects of IPV during the perinatal period.

A IPV change over time – Continuous Outcome



B IPV change from baseline

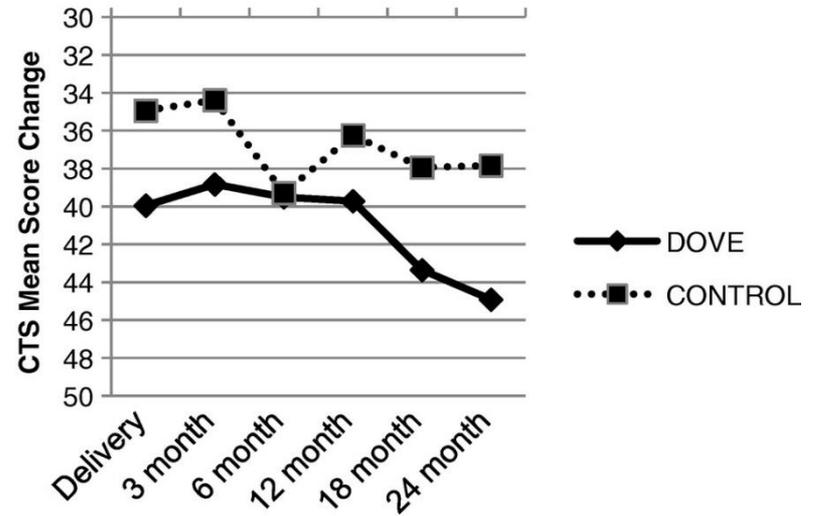


FIG. 2. IPV change measured continuously as a score **(A, B)**. **(A)** IPV change over time—continuous outcome; **(B)** IPV change from baseline. IPV, intimate partner violence.

Summary

- Screen and advise families, adverse events
- Postpartum depression screening AAP guideline
- NIH/NICHD posters in patient and family area
- Refer to Psychology, Oklahoma Department of Mental Health and Substance Abuse
- Some families require additional treatment/referral
- Child Protection Committee resources

Adverse Childhood Events

- Oklahoma children ACE 33%, rank #50
- Recent TED Talk on ACE and treatment of children
- Nadine Burke-Harris, MD, MPH Epigenetics
- <https://youtu.be/95ovlJ3dsNk>

% of children that have experienced 2 or more adverse childhood events

- ***frequent socioeconomic hardship, parental divorce or separation, parental death, parental incarceration, family violence, neighborhood violence, living with someone who was mentally ill or suicidal, living with someone who had a substance abuse problem or racial bias.***
- ***Data Source: Child Trends analysis of data from the U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau, National Survey of Children's Health. 2017***
- ***Kids Count data***

Summary Questions

Oklahomans experience trauma

33% of Oklahoma children have 1 or more ACE

Domestic Violence intervention and support is possible

Adverse childhood events have significant morbidities

AAFP, AAP and USPSTF recommend screening

DOVE trial intervention decreases ACE

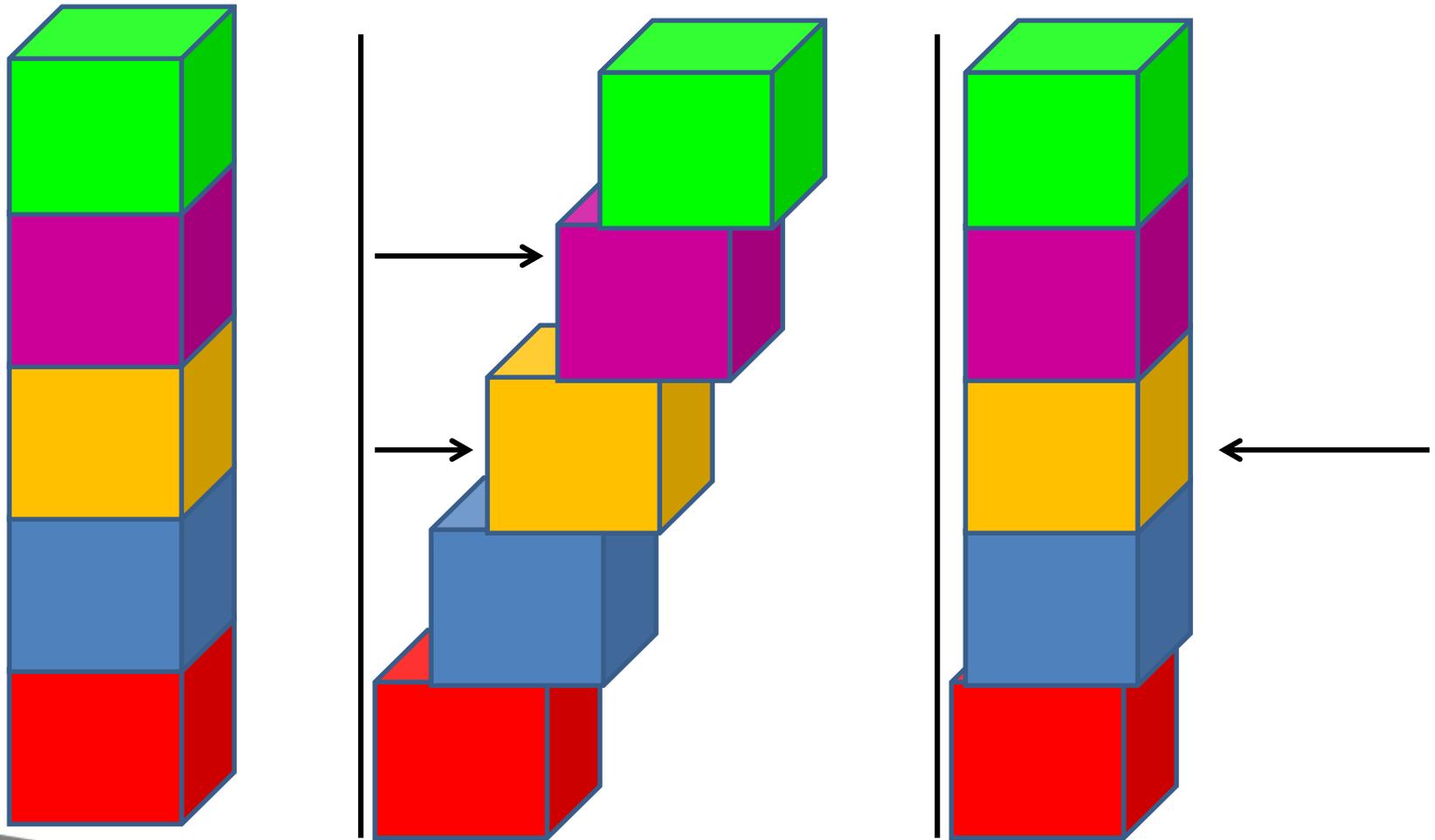
Implement plans to screen our patient/families

Screen for IPV

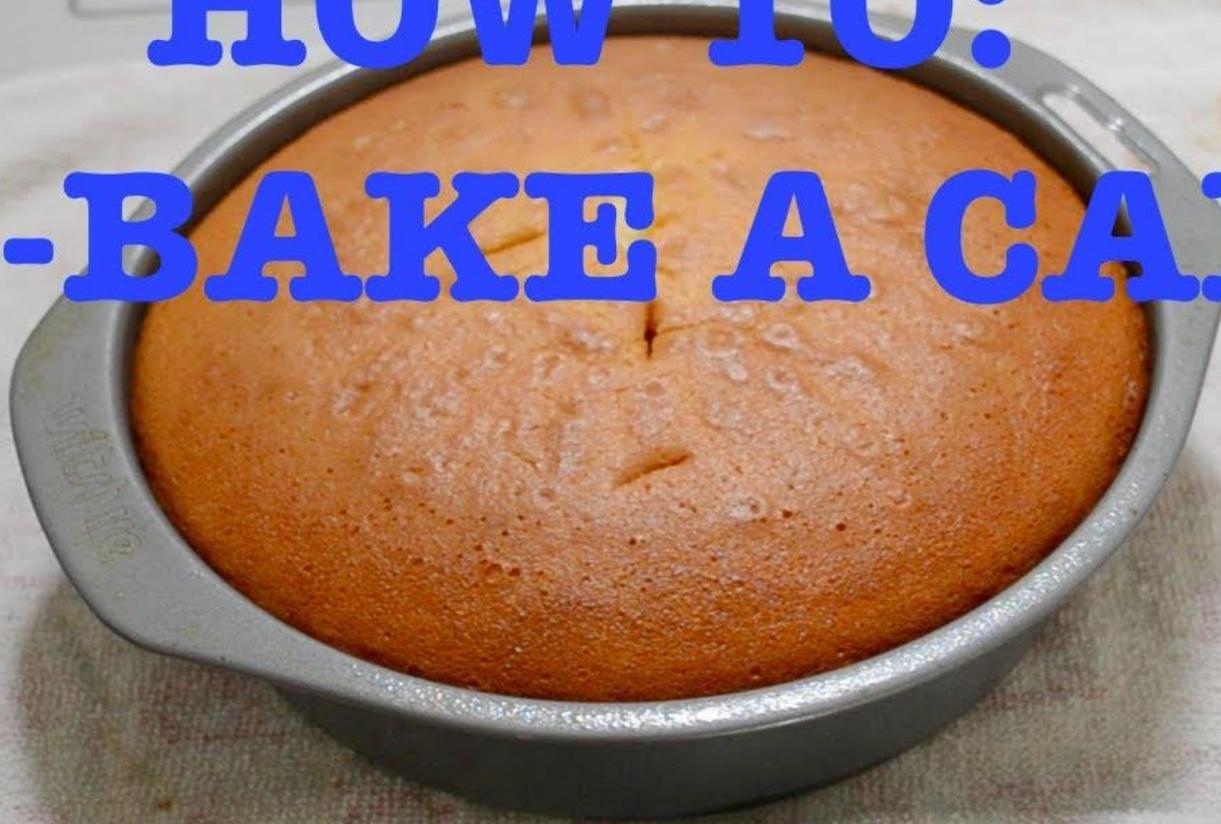
- Recommended by AAFP, AAP
- Home health nurse visits incorporate this
- Lemonade 4 Life
- Important that staff are trained
- Resources are available: ODMHSAS, Visiting Nurses, Women's shelters.

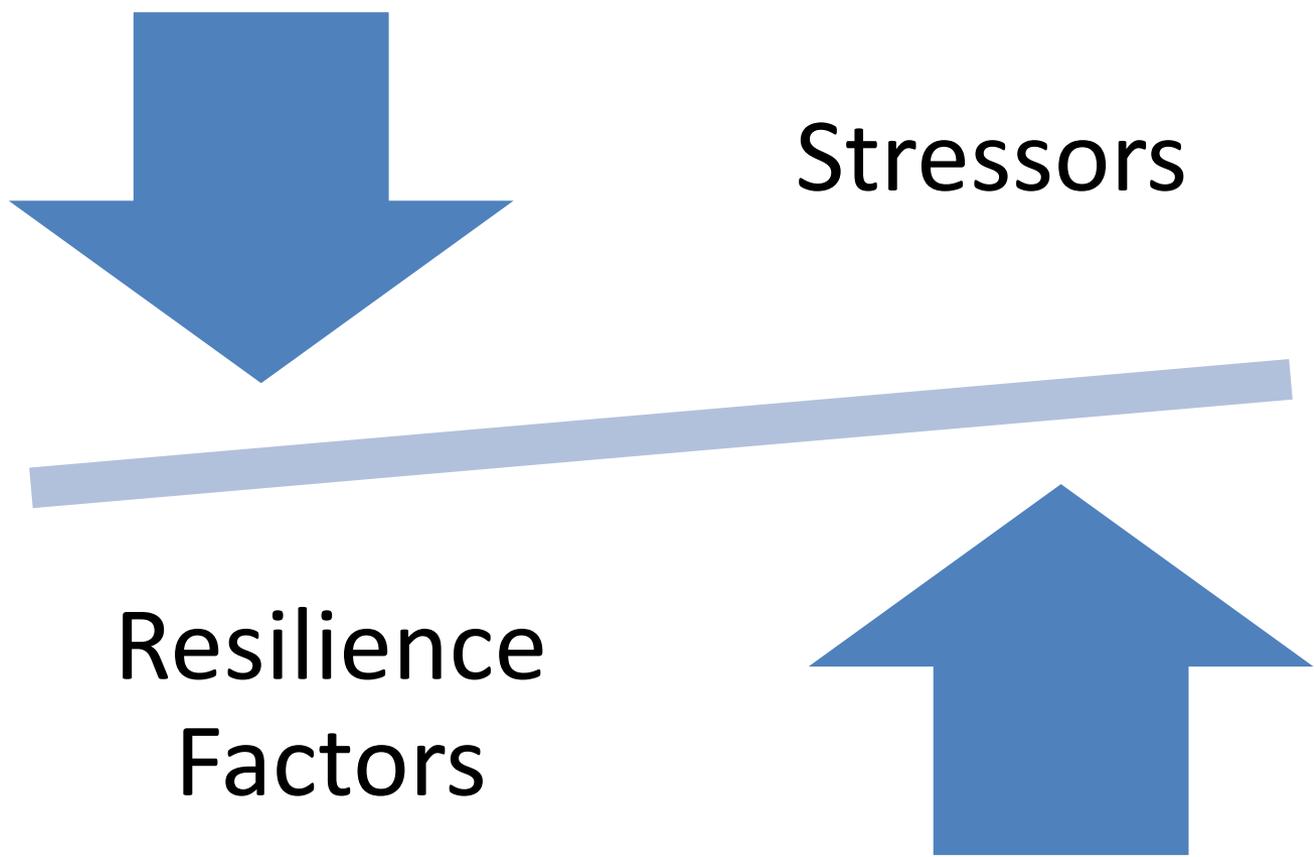
Developmental Impact of Early Intervention:

Prevention of cascading effects is the goal



HOW TO: UN-BAKE A CAKE





Stressors

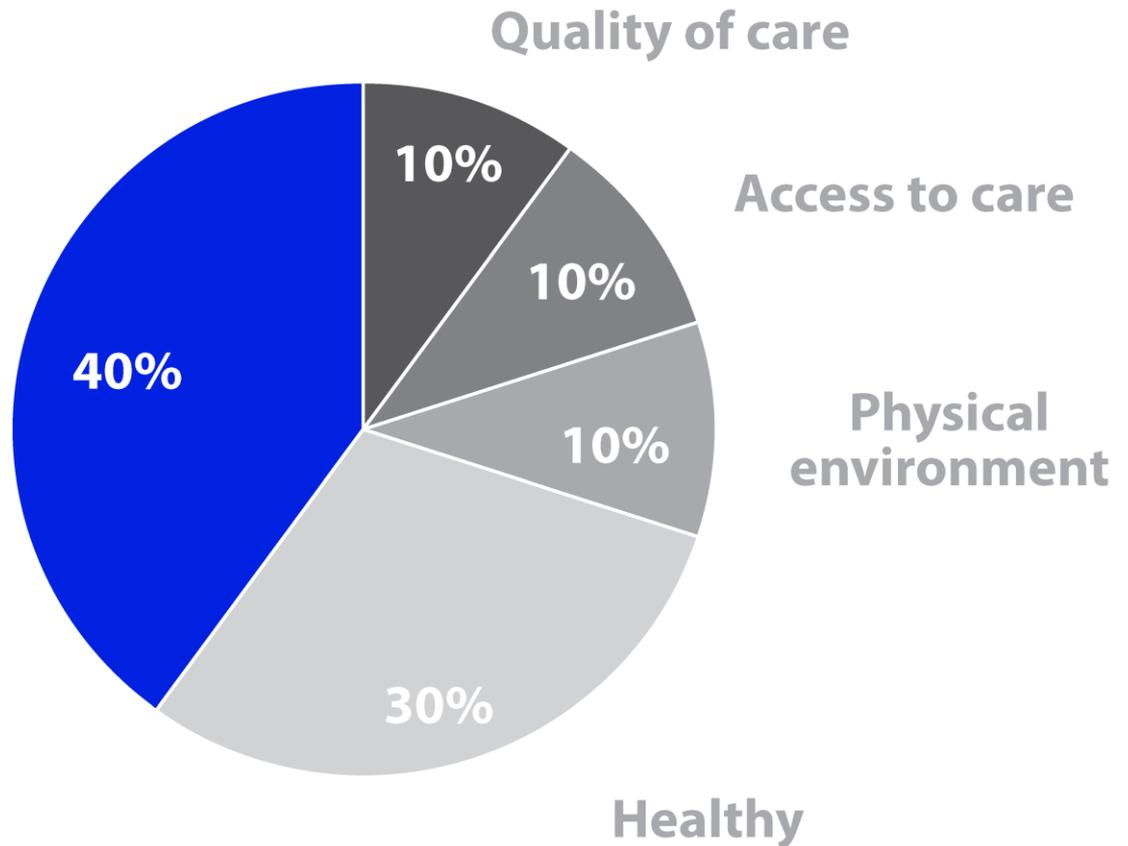
Resilience
Factors

The Social Determinants of Health

To address health inequalities, you must address social and economic inequities.

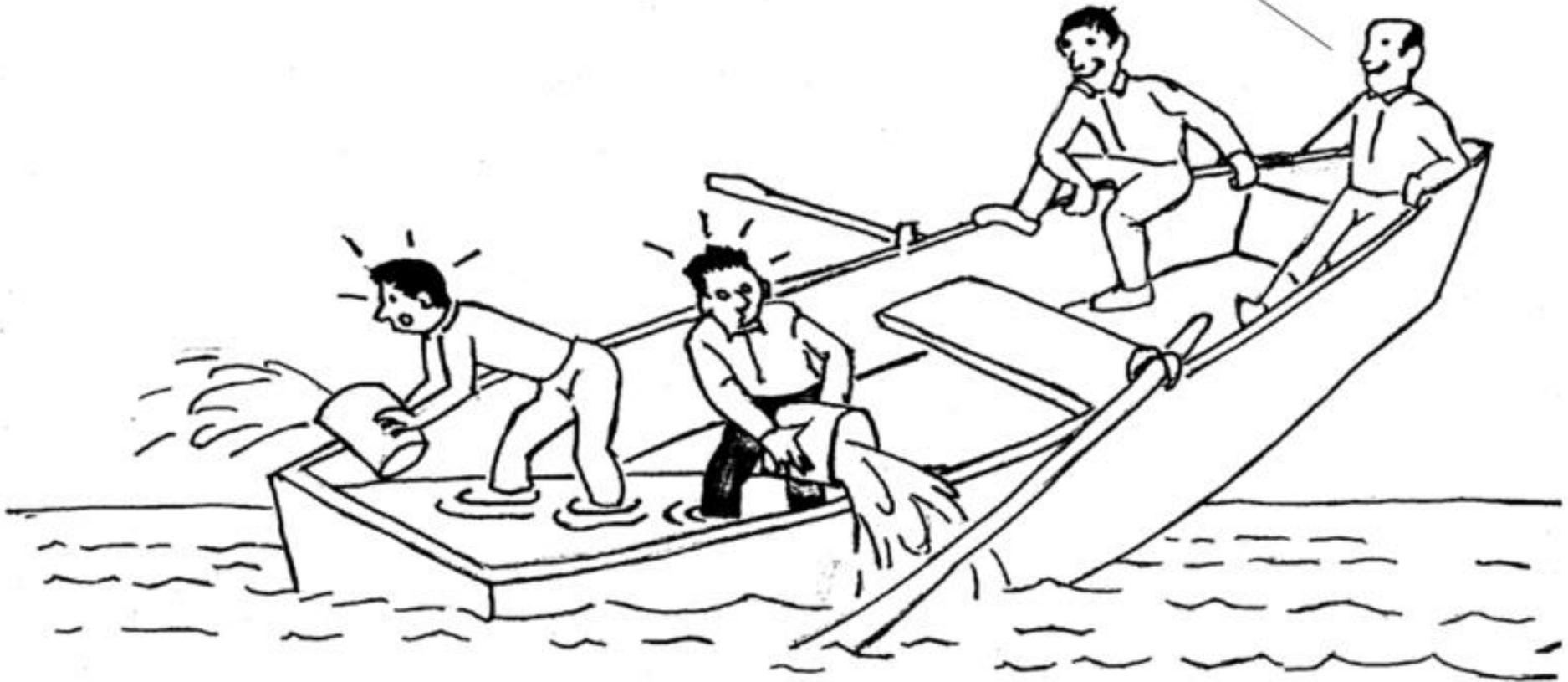
Social & Economic Factors

- Education
- Employment
- Income
- Family & Social Support
- Community Safety



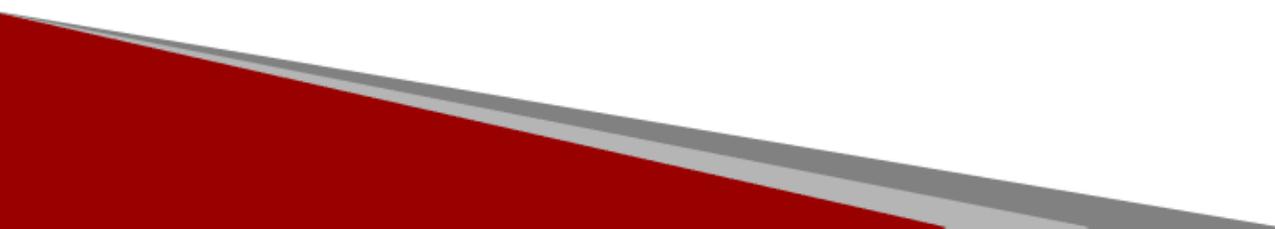
Quality is Everyone's Responsibility

Sure glad the hole isn't at our end.

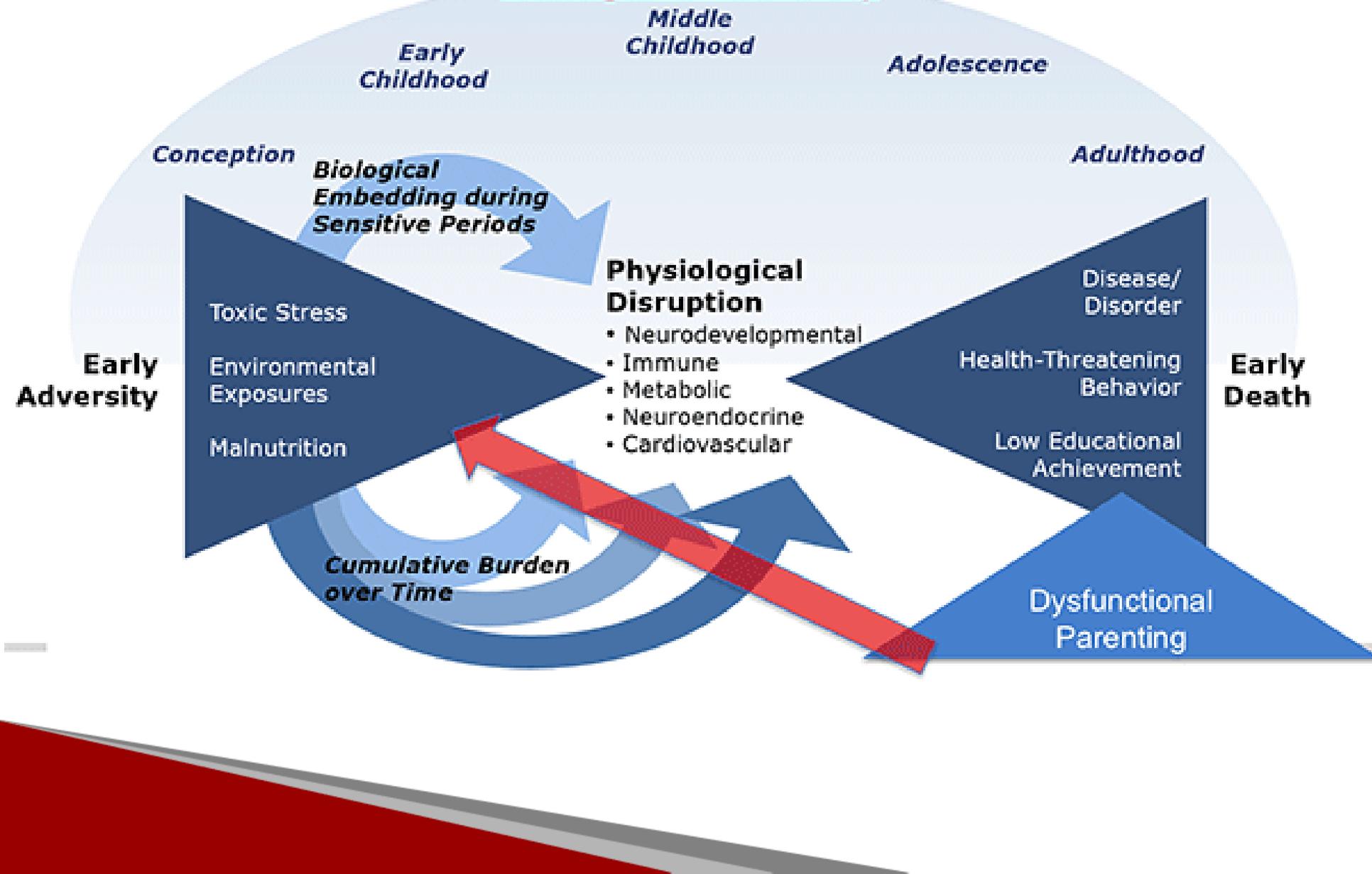




One bite at a time!

- How does social inequality “get under the skin?”
 - biological embedding of social and economic adversity
- 

The Childhood Roots of Health and Parenting Disparities: How Adversity is Built Into the Body and Transmitted Intergenerationally



Is it Nature or Nurture?



Is it Nature or Nurture?



Pop Quiz: Who is this man?

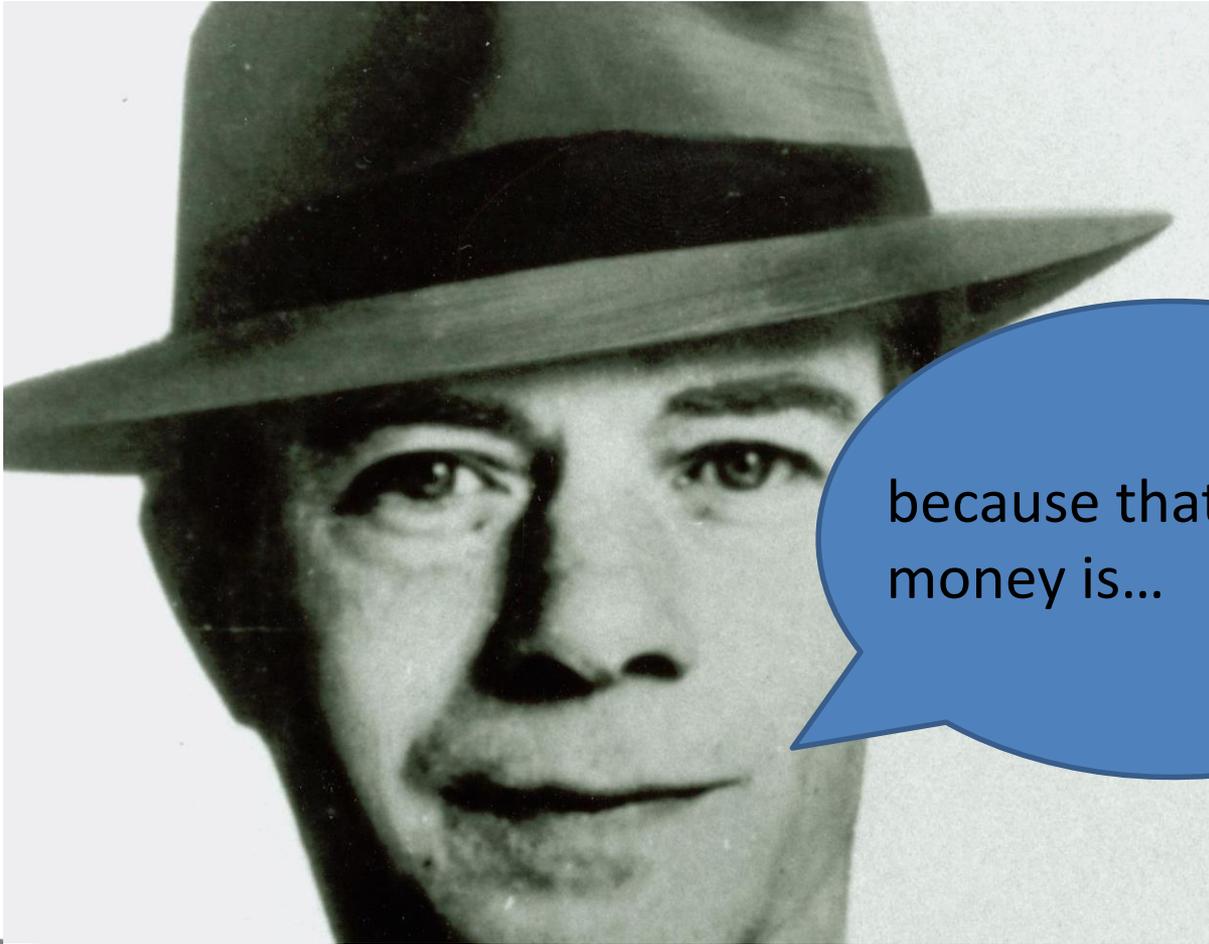


Answer: Willie Sutton,
bank robber

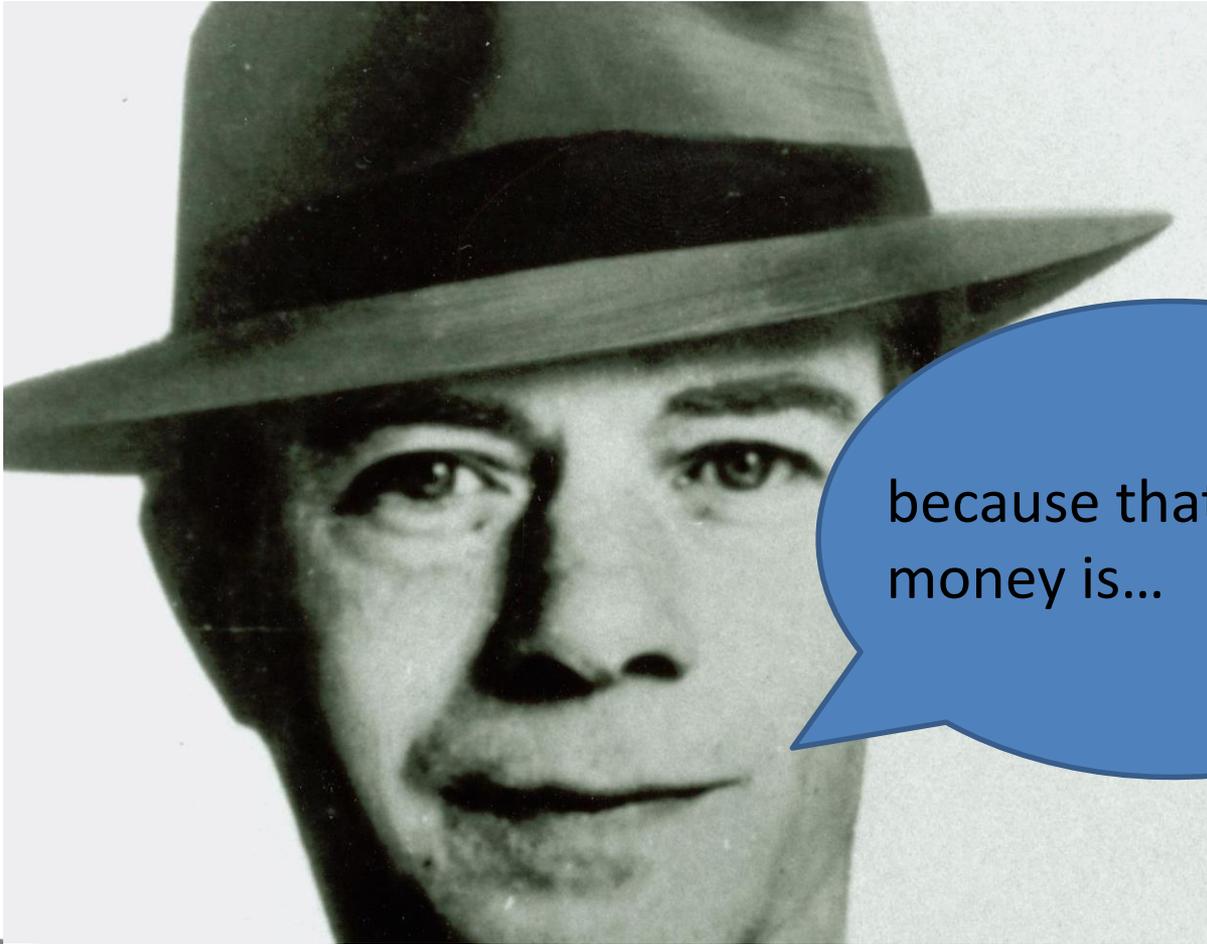


Mr. Sutton, why do you rob banks?





because that's where the
money is...



because that's where the
money is...

In Sutton's 1976 book *Where the Money Was*, he denies having said this.

Serve and Return

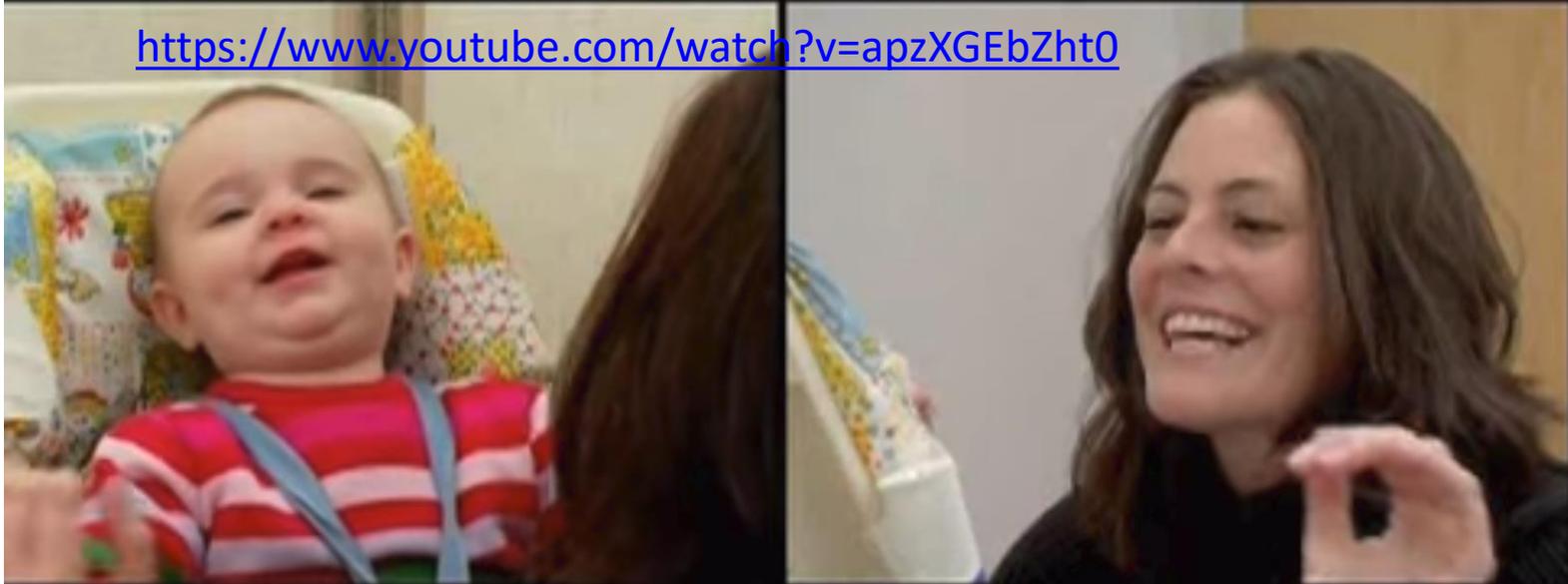
- Neural connections are made through the interaction of genes and an infant's environment and experiences, especially through “contingent reciprocity” (serve and return) with adults



Still Face Experiment: Dr. Edward Tronick



<https://www.youtube.com/watch?v=apzXGEbZht0>



▶ ⏪ 🔊 0:34 / 2:48



Beauty & Style > Skin & Body > Tattoos



IS IT POSSIBLE FOR TATTOS TO GET PASSED ON GENETICALLY FROM PARENT TO CHILD? ★

I was wondering if it was possible that if i were to get a tattoo for example and I had a baby with someone who has tattoos too the child could be born with those tattoos or develop them later someone told me it was true... is it ?

Lick Your Rats

<http://learn.genetics.utah.edu/content/epigenetics/rats/>

Some mother rats spend a lot of time licking, grooming, and nursing their pups. Others seem to ignore their pups. Highly nurtured rat pups tend to grow up to be calm adults, while rat pups who receive little nurturing tend to grow up to be anxious.

It turns out that the difference between a calm and an anxious rat is not genetic, □ it's epigenetic. The nurturing behavior of a mother rat during the first week of life shapes her pups' epigenomes. And the epigenetic pattern that mom establishes tends to stay put, even after the pups become adults.



The screenshot shows an interactive educational interface. On the left, a box titled "GR Gene" displays a 3D model of a DNA double helix with green spheres representing methyl groups attached to the blue DNA strands. Below the model is a slider labeled "Activity: Low" on the left and "High" on the right, with a blue bar indicating the current level. To the right of this box is a "Timeline" from "birth" to "7 days" with tick marks at each day. Below the timeline is a 3D illustration of a white rat pup. At the bottom of the interface is a "START" button, the text "You get to be the rat mom!", and an "AUDIO" button with a speaker icon.

Deep in the brain of a newborn rat pup, methyl molecules (green) silence the GR gene. When it's active, the GR gene produces a protein that helps the body relax after a stressful event. The type of care a pup receives from its mother during the first week of life can change the expression of this gene.

Timeline birth 1 2 3 4 5 6 7 days



START

You get to be the rat mom!

AUDIO

Surveillance
and screening
sort
those who
probably have
problems
from
those who
probably don't



What Can I Do Right Now?

- Screen for ACES
 - Identify existing intervention resources in Stillwater and OK
 - Assess and build community resources together
 - Consider collocation of
 - the pediatrician(s), the psychologist(s), the social worker(s), the home visitor(s), and the case manager(s) to coordinate care
- 

"Failure is an opportunity to grow"

GROWTH MINDSET

"I can learn to do anything I want"

"Challenges help me to grow"

"My effort and attitude determine my abilities"

"Feedback is constructive"

"I am inspired by the success of others"

"I like to try new things"

"Failure is the limit of my abilities"

FIXED MINDSET

"I'm either good at it or I'm not"

"My abilities are unchanging"

"I don't like to be challenged"

"I can either do it, or I can't"

"My potential is predetermined"

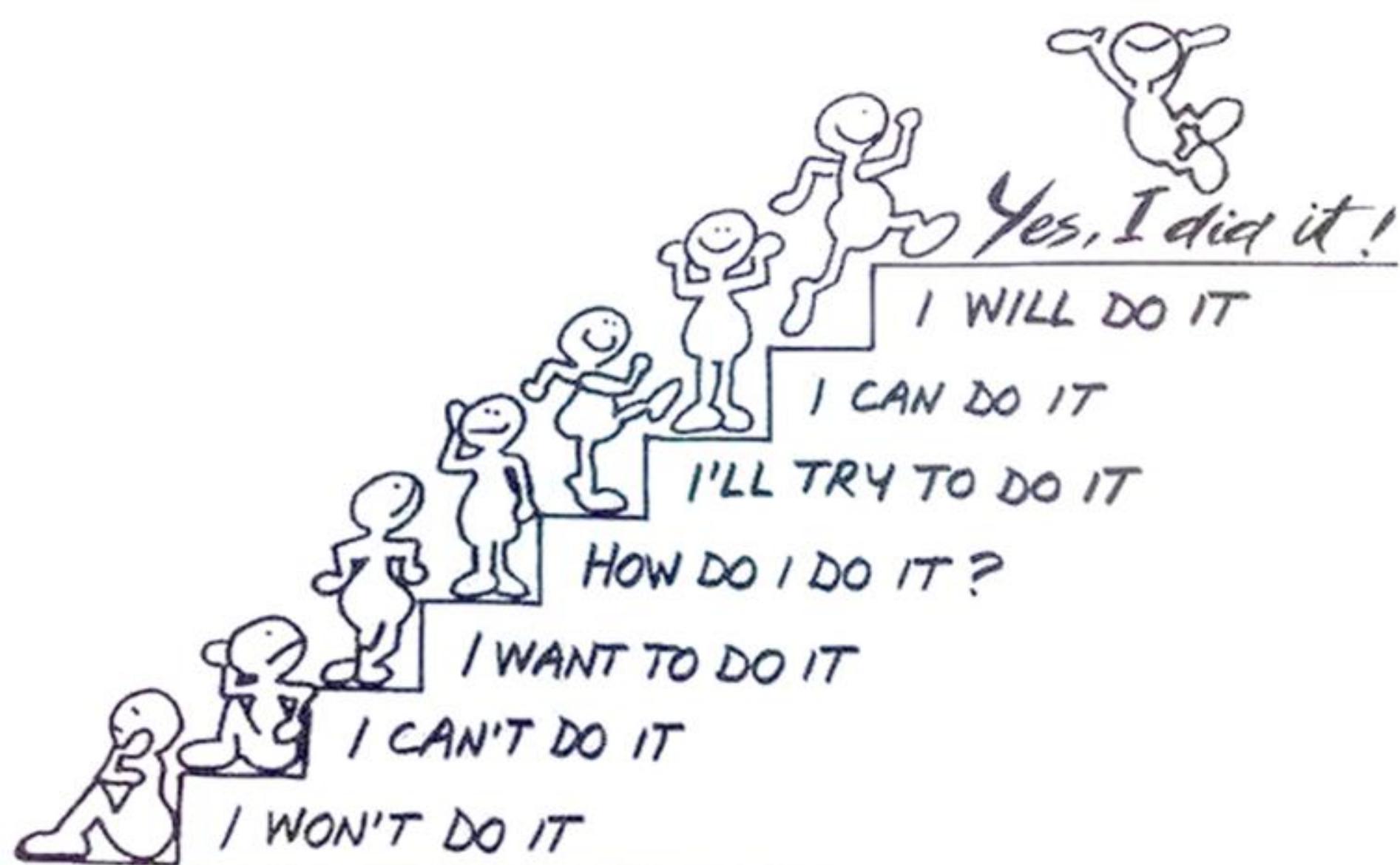
"When I'm frustrated, I give up"

"Feedback and criticism are personal"

"I stick to what I know"

DEVELOPING A GROWTH MINDSET

INSTEAD OF...	SAY THIS...
I'm not good at this	What am I missing?
I give up	I'll use a different strategy
It's good enough	Is this really my best work?
I can't make this any better	I can always improve
This is too hard	This may take some time
I made a mistake	Mistakes help me to learn
I just can't do this	I am going to train my brain
I'll never be that smart	I will learn how to do this
Plan A didn't work	There's always Plan B
My friend can do it	I will learn from them



WHICH STEP HAVE YOU REACHED TODAY?



The Resilience Project

About

Children Exposed to Violence and Toxic Stress

Addressing the Different Types of Violence

Policy and Education

Improving Practice

Resources



-A +A

About the Project

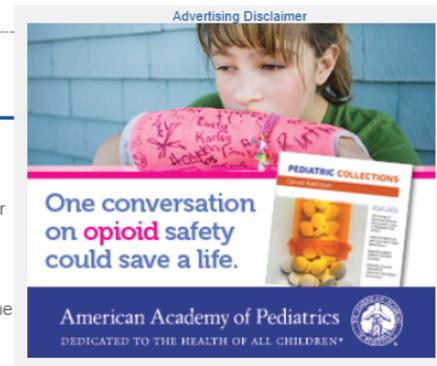
The National Survey of Children's Exposure to Violence (2008) indicates that 60% of the children surveyed had been exposed to violence—directly or indirectly—in the past year. Almost half (43%) of the children had experienced an assault. The effects of this violence can be seen not only in the present moment, but often for many years to come. Health problems, mental health issues, and substance use issues are just some of the common trends seen in older children and adults affected by violence.

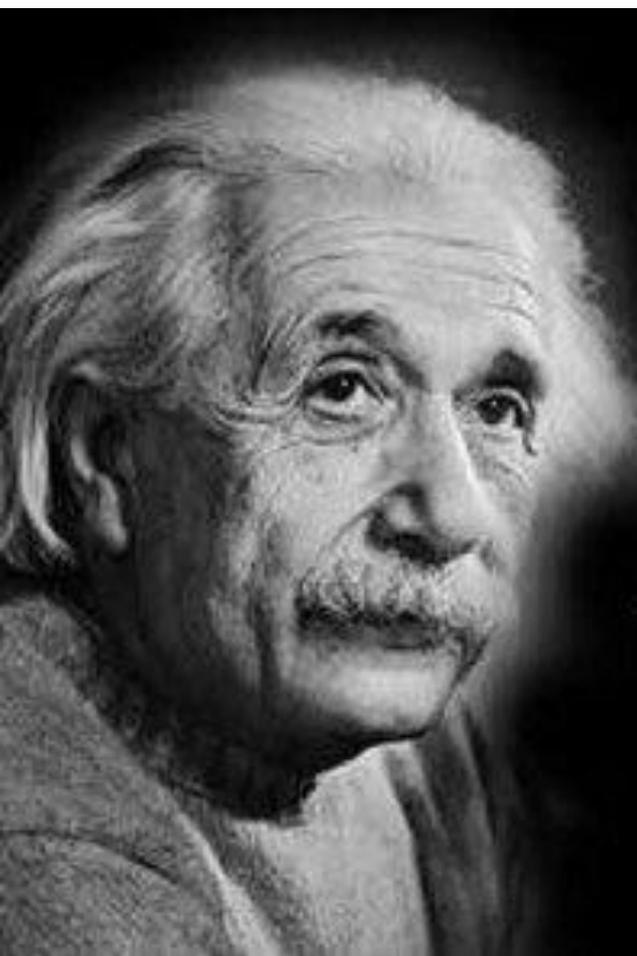
Pediatricians and other members of the medical home team have a unique opportunity to identify and treat the children and youth with these challenges. The pediatrician has a historical and ongoing relationship with the child and family that allows her to see changes in behavior or health that may indicate the child is experiencing the effects of violence. A trusted source of information, the pediatrician can provide guidance to the child's parents or speak directly to the child or youth to determine the best way to keep the young person safe and begin to heal from these experiences. A strong medical home has the resources, as well, to make the necessary referrals when other psychosocial services may be required.

Through funding from the Department of Justice, the American Academy of Pediatrics has developed resources for pediatricians and medical home teams to more effectively identify and care for children and adolescents who have been exposed to violence. The Resilience Project Website is designed to provide pediatricians and medical home teams with information and resources needed to modify practice operations to more effectively identify, treat, and refer children and youth who have been exposed to or victimized by violence. While exposure to violence is traumatic, children and youth can heal and continue to thrive with the support of their medical home and the community around them.

Project Advisory Committee

M. Denise Dowd, MD, MPH, FAAP, Chairperson
Children's Mercy Hospitals and Clinics





**"Insanity is doing the same
thing over & over again &
expecting different results."**

Albert Einstein