

Breaking the Cycle: Trauma and Healing

Neil W. Boris, M.D.

The logo for Nemours Children's Hospital, featuring the word "Nemours." in blue with a red underline, followed by "Children's Hospital" in blue.

Nemours. Children's Hospital

My Charge for the Next 2 Hours

- Classic of and part system, physiolo systema treatment



Children
fare
d

Saying for the Day

- “Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it’s the only thing that ever has.”
 - Margaret Mead

Let's Meet Roxanne and Demarius

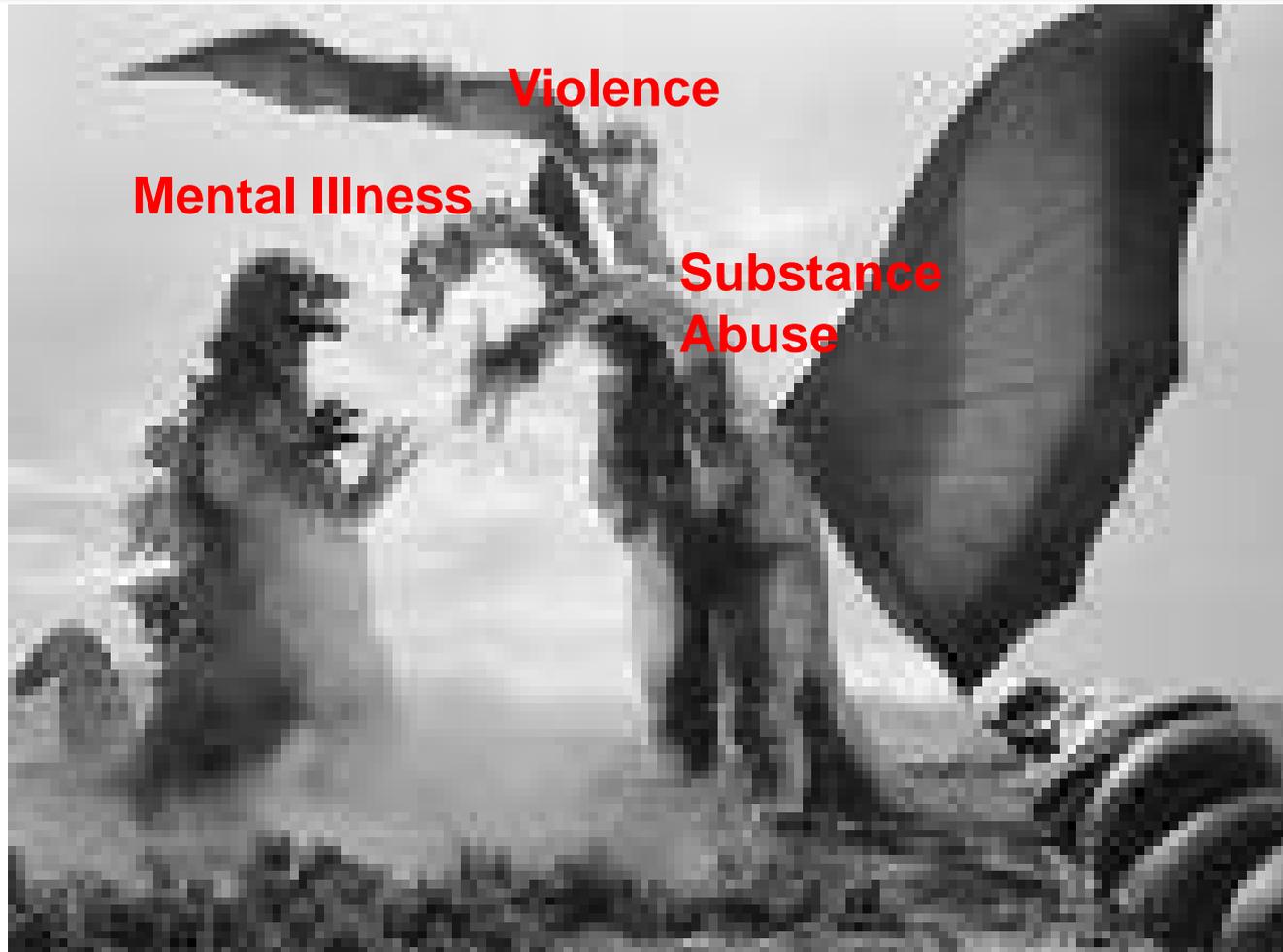
- Recent case at one of our Early Childhood Supports and Services Programs*
 - D. came to us in 2/08 at almost 4.5 years old
 - MaGM was primary caregiver; child protective services had placed him with her
 - At 24 months, D. sustained liver laceration, ruptured spleen, fractured ribs after being kicked by Mo' s BF
 - BF sentenced to jail

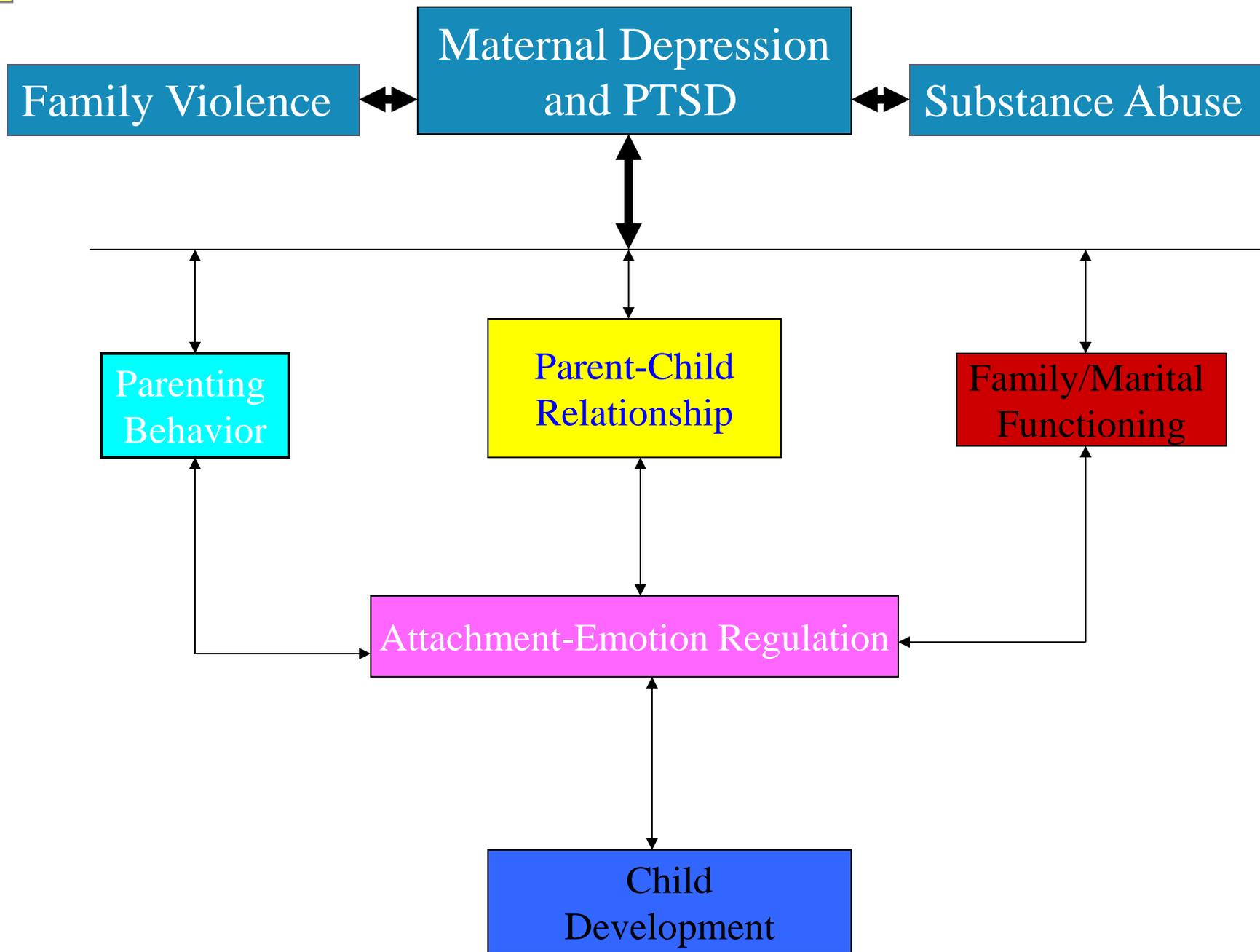
*IT IS AN INCREDIBLE GIFT THAT MOTHER AGREED TO LET ME PRESENT HER STORY

Case History

- Chief Complaint: “he’s all over the place”; “doesn’t listen.”
- Fights, hits and curses others; withdrawn from Head Start because of aggressive behavior
- In Pre-K was suspended for urinating on another child and impulsive aggression

Three-Headed Monster?





The Adverse Childhood Experiences (ACE) Study

- The largest study of its kind ever done to examine the health and social effects of adverse childhood experiences over the lifespan. (~18,000 participants)
- Conducted by a group at Kaiser Permanente led by Vincent Felitti, M.D.

Original Study: Categories of Adverse Childhood Experiences

Abuse by Category

Psychological (by parent)

Physical (by parent)

Sexual (by anyone)

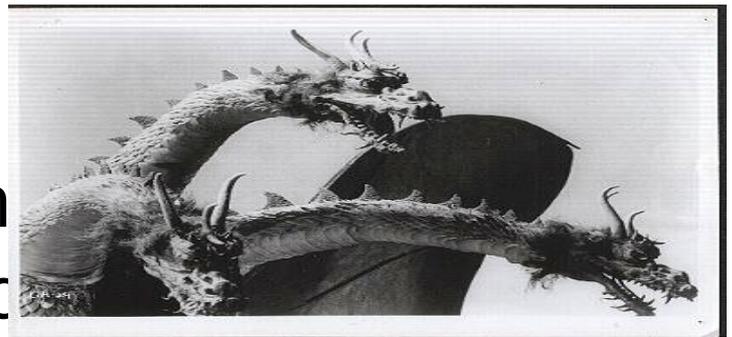
Household Dysfunction by Category

Substance Abuse

Mental Illness

Mother Treated Violently

Imprisoned Household Member



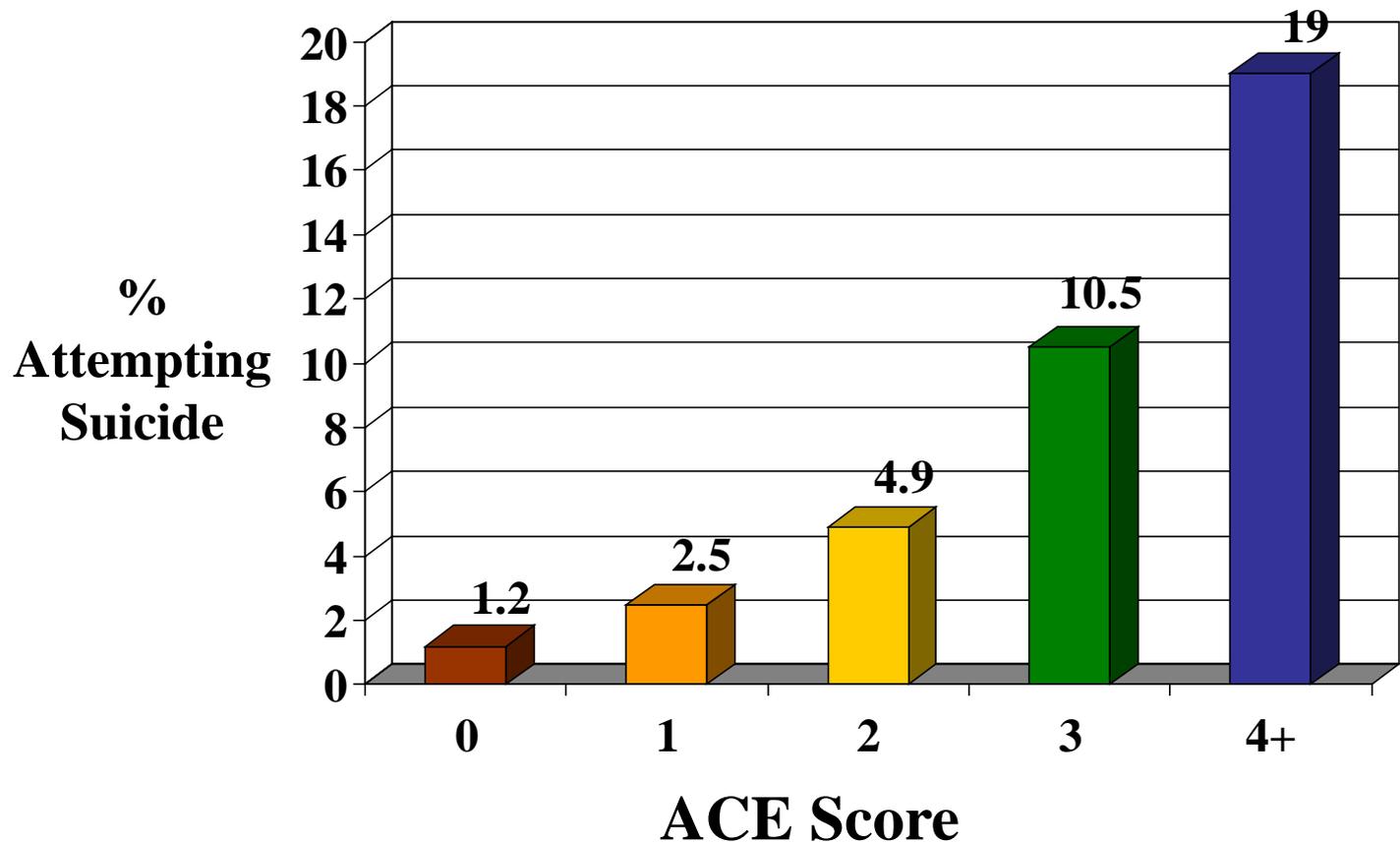
All-Star List of Health Indicators

- Smoking
- Severe Obesity
- Physical Inactivity
- Depression
- Suicide Attempt
- Alcoholism
- Illicit Drug Use
- Injected Drug Use
- 5+ Sexual Partners
- History of STDs

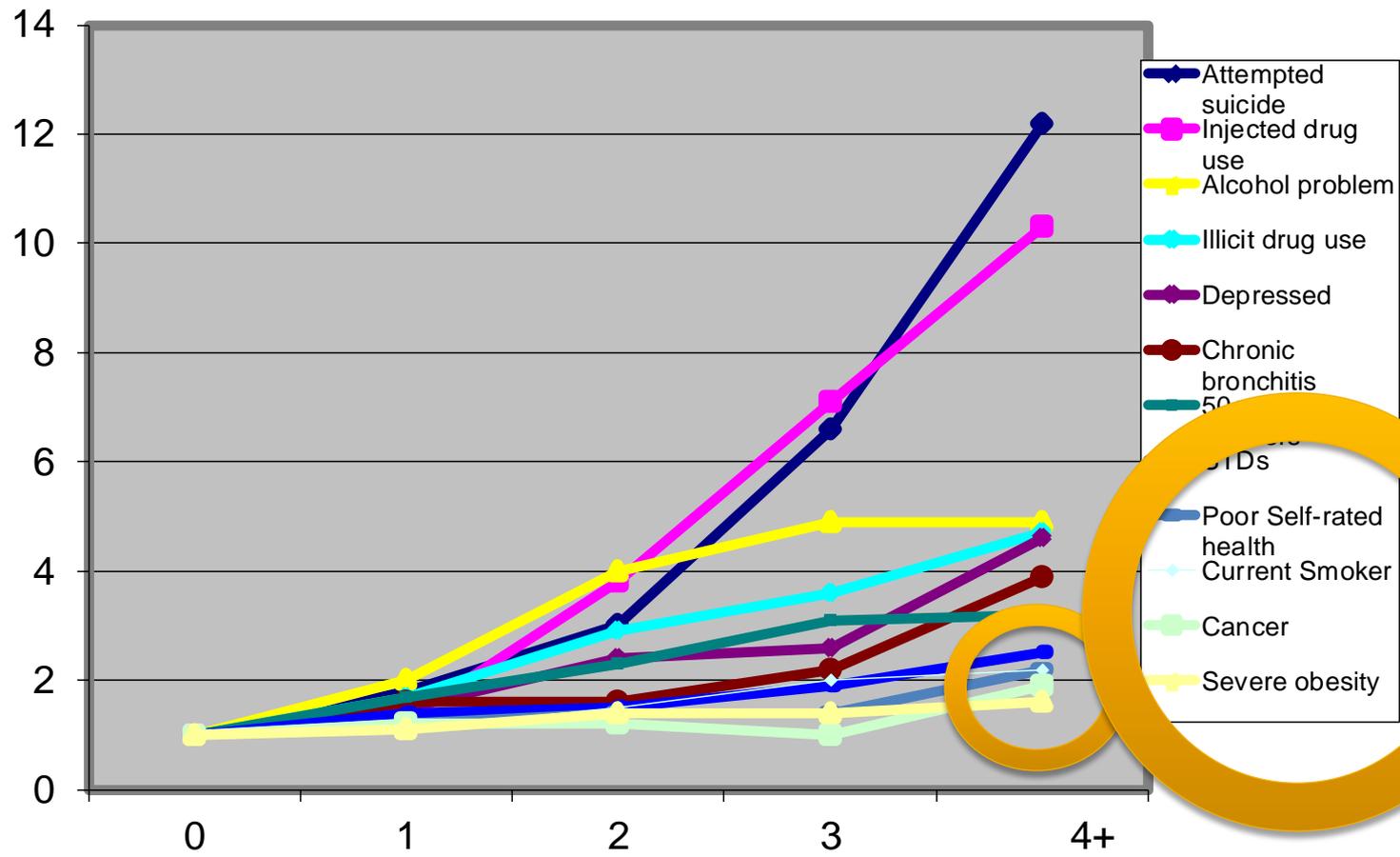
Research Questions

- How does exposure to adverse childhood experiences relate to all these major health indicators?

Adverse Childhood Experiences and Suicide



Cumulative ACEs Increase the Risk of Negative Outcomes

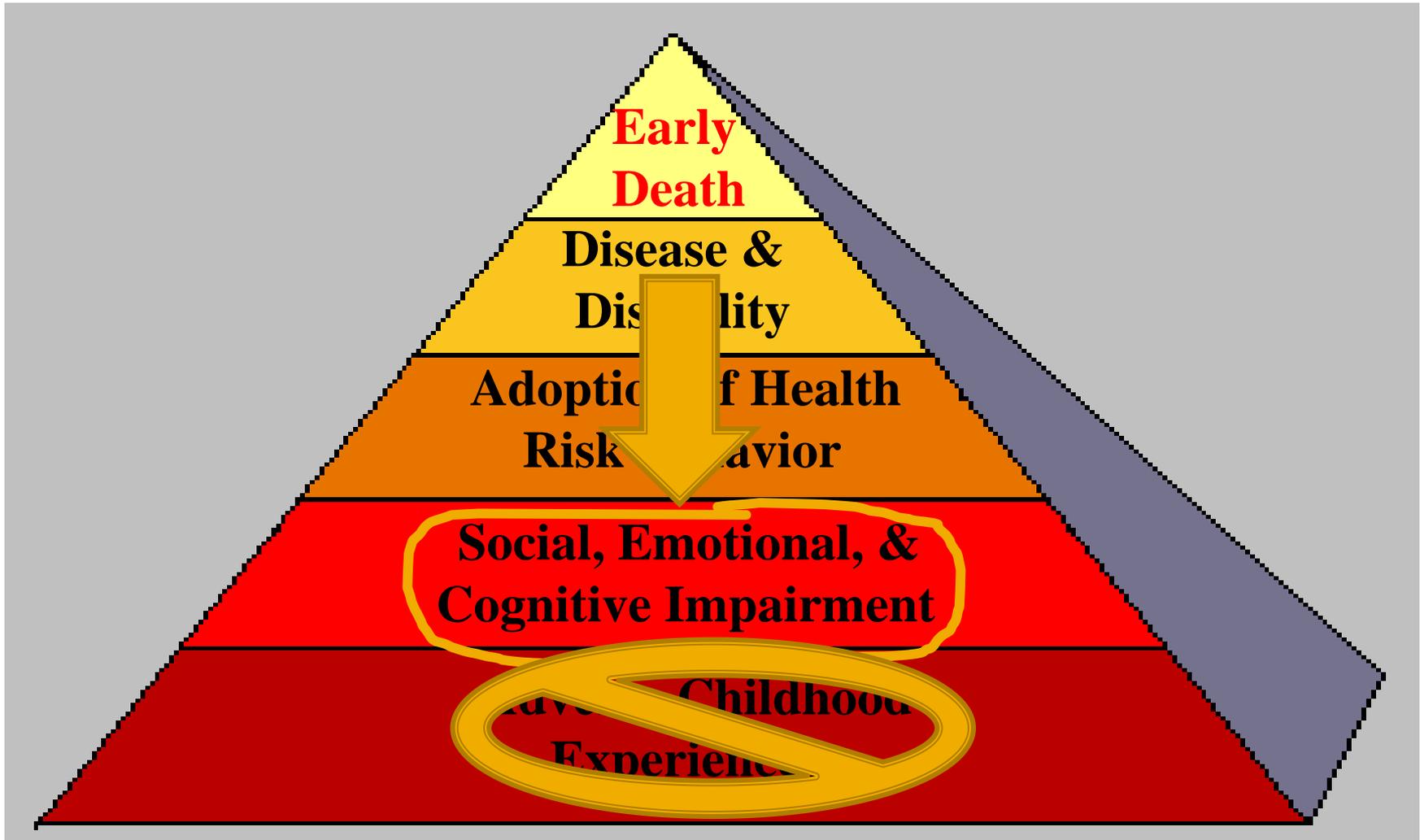


ACE Studies Summary of Findings

- Adverse Childhood Experiences are very common.
- ACEs are strong predictors of later health risks.
- This combination makes ACEs one of the leading, if not *the leading* cause of the health and social well-being of the population.



Felitti's General Model-Trauma Effects



**“It wasn’t using drugs that was the problem,
it was what happened to me as a child...”**



HEALING NEEN

It's NEVER Too Late....But

- The earlier in the life span we intervene, the better
- President's focus on preschool education in the State of the Union address is based on a solid scientific foundation
 - Nobel Prize winner James Heckman

James Heckman

- Nobel Prize winning economist (2000)
- Developed “a unified approach to human development” as a framework for policy interventions:
 - Health, Education and Employment
- http://fora.tv/2009/06/29/James_Heckman_An_Economists_Perspective_on_Education

Public Health Framework

- For early deaths, it is estimated that:
 - 40% are due to behavioral patterns
 - 30% are due to genetic predispositions
 - 15% are due to social circumstances
 - 10-15% are due to shortfalls in medical care

(McGinnis, Williams-Russo, and Knickman, 2002)
- Currently, 95% of the trillions of dollars the U.S. spends on health is on treatment, not prevention.
- “While it is possible that current resource allocations represent a social optimum, this seems unlikely.”

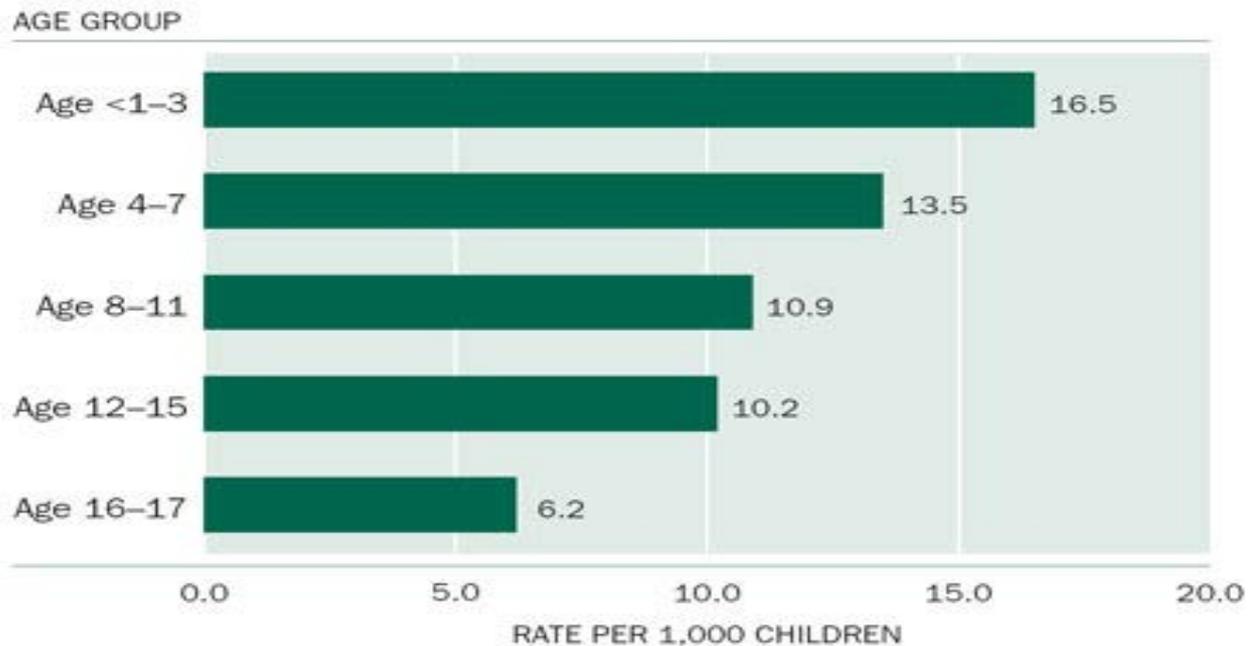
Heckman, 2008

Heckman's Central Argument

- Behaviors are shaped by abilities and motivations.
- These traits emerge early, and are strongly influenced by early relationships.
- Cognitive and non-cognitive skills (conscientiousness, self-regulation, motivation and the like) affect “health capital”
 - Such skills are developed through many means, but, data on early relationships and attachment are telling.
- A neglected avenue of health policy is early intervention programs that help form positive traits.

Young Children In Care

**Figure 3–3 Victimization Rates
by Age Group, 2005**

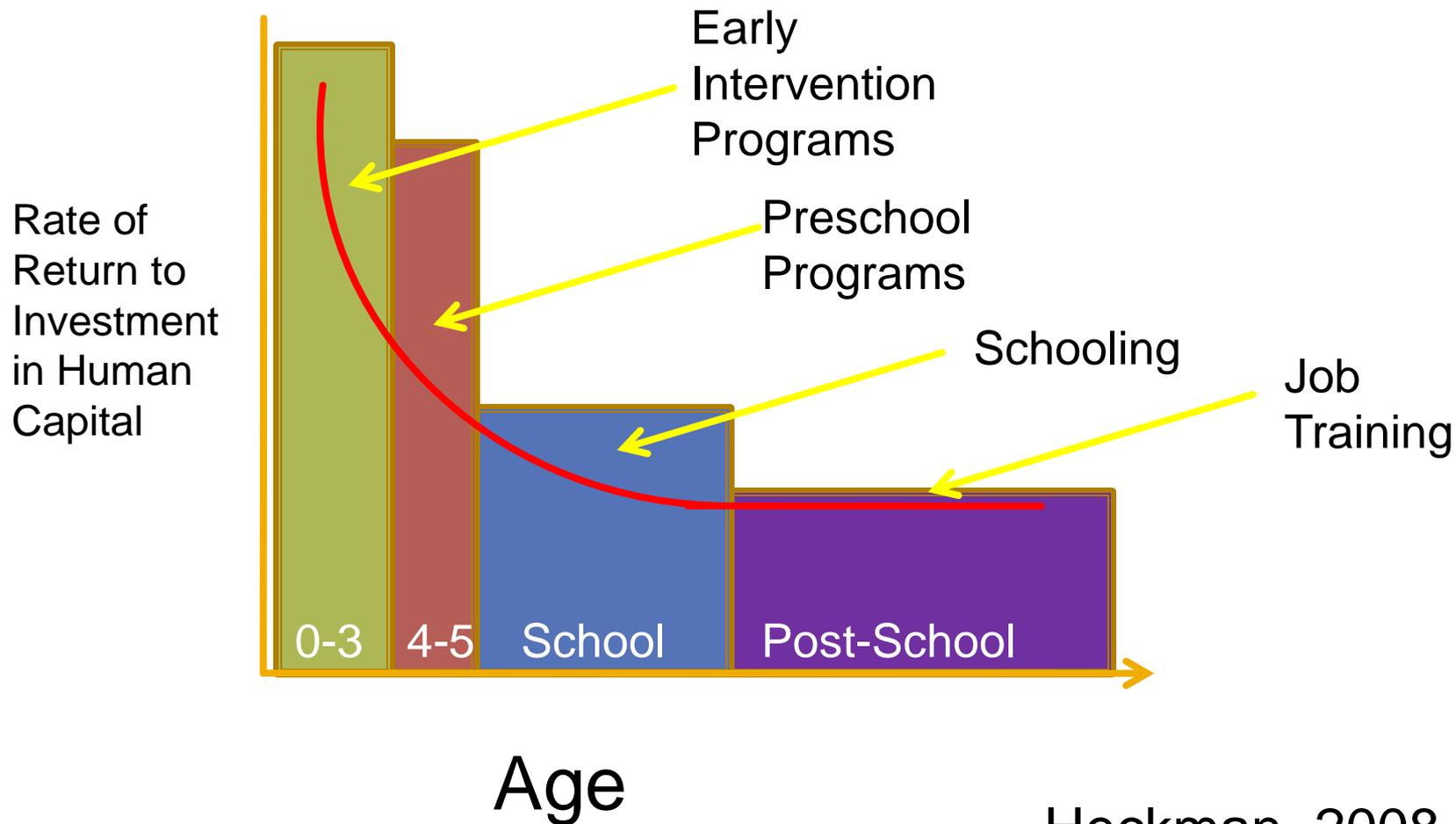


Based on data from table 3–9.

Trends

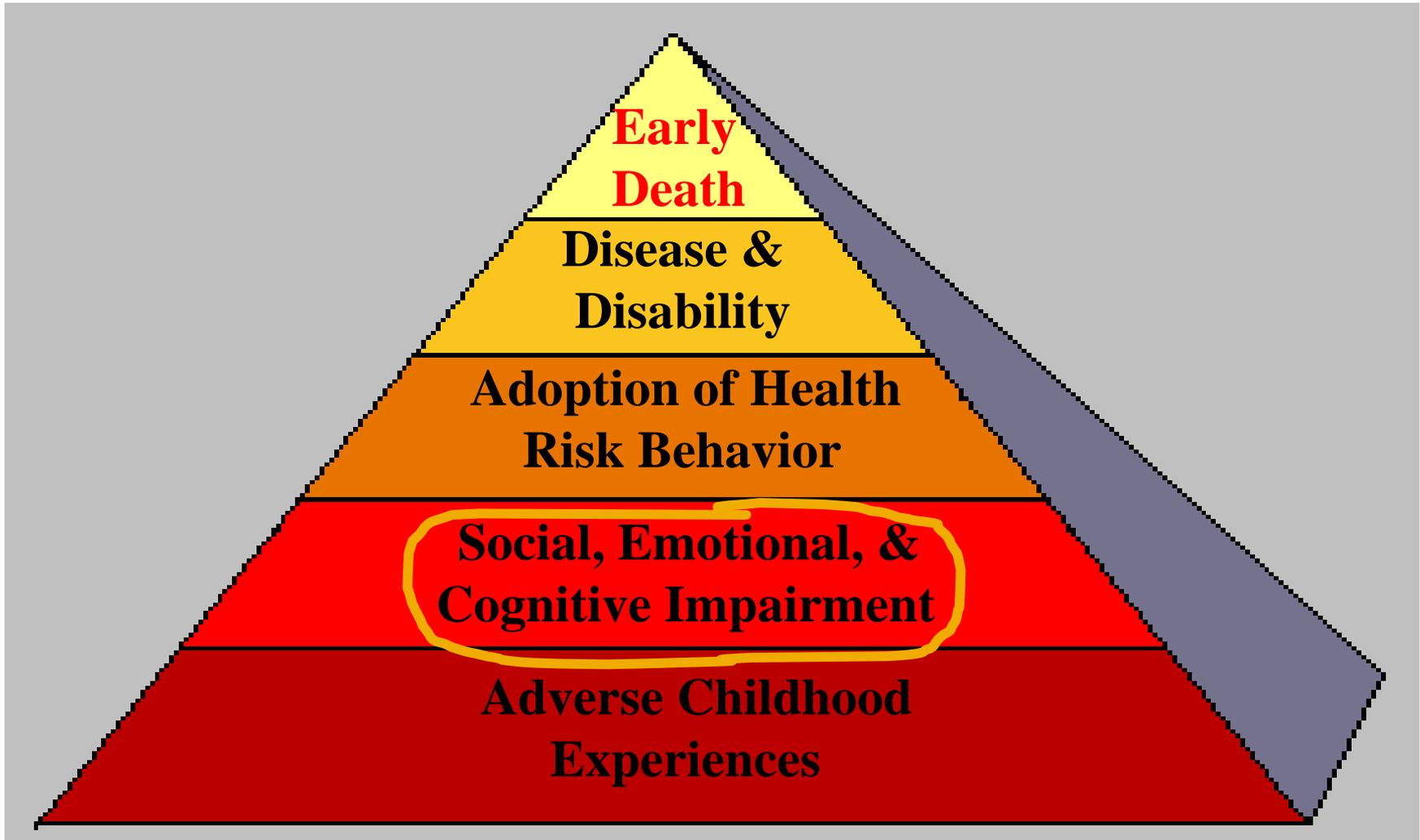
- Of the 510,000 U.S. children under age 18 in foster care, roughly 30% are 5 and under
- The percentage of preschool aged children in foster care is rising despite overall declines in rates of state-verified child maltreatment!

Figure: Return to a Unit Dollar Invested at Different Ages, Assuming One Dollar Initially Invested at Each Age



Heckman, 2008

Felitti's General Model-Trauma Effects



Trauma?



Trauma!



Demarius--Case Summary

- First came in with GM, who was disengaged and overstressed...
 - Used Play Therapy to help D. “manage” his experiences and help GM take his perspective
- Mother came in (suddenly) weeks later!
 - Switched to dyadic therapy (Parent-Child Interaction Therapy)
- Assessed for ADHD and placed on Ritalin
 - Worked directly with KG to help integrate to classroom

Violence shall synchronize your
movements like a tune,
And terror, like a frost, shall halt the
flood of thinking.

W. H. Auden



Direct and Indirect Trauma in Early Childhood...

- Young children ARE directly impacted by traumatic experiences
 - Very strong evidence for physiological arousal leading to longterm behavioral effects...starting BEFORE birth!
- Key to recovery is often how trauma impacts the family (especially key relationships!)

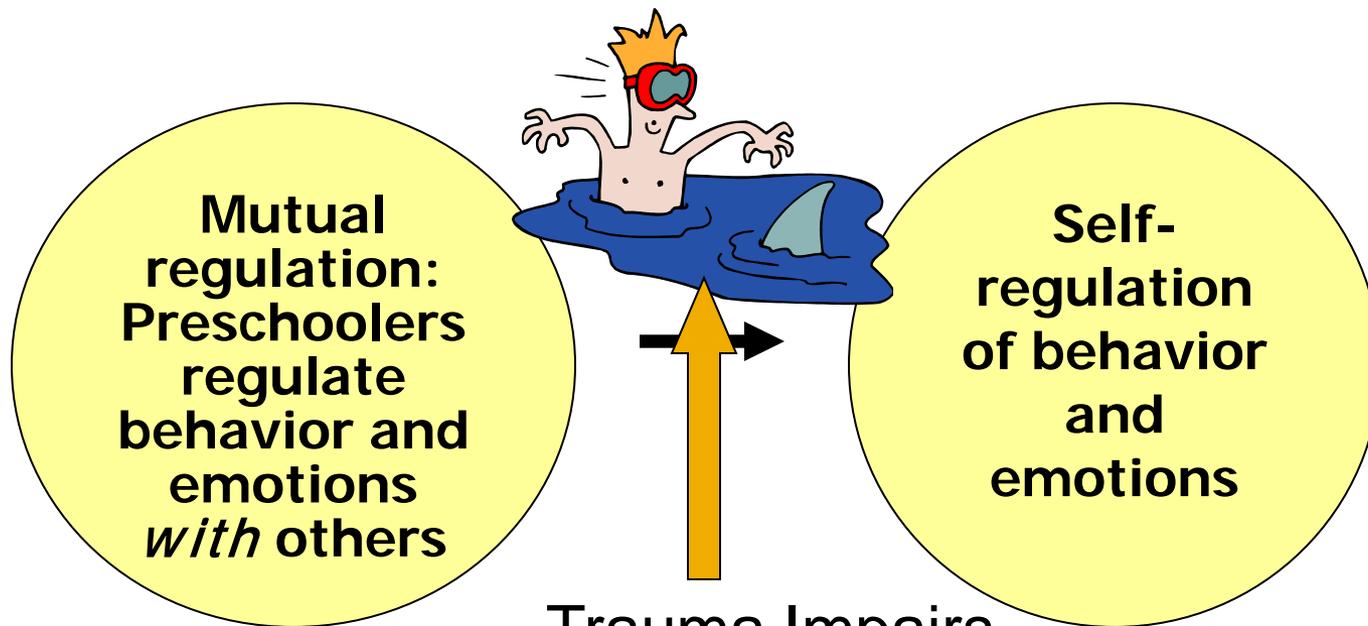
Taming the Three-Headed Monster?



Review: From Heckman to Florida...

- Trauma has lasting effects on human capital
- Family-based interventions that promote social and emotional functioning are key
- Investing in children EARLY in life gives the best return on that investment
- Recognizing that adult (parental) trauma can be traumatic to children (never mind frontline staff!)

Behavior and Emotion Regulation Across Development



Trauma Impairs
Mutual
Regulation and
Delays Self-
Regulation

Clinical Intervention Fueled by Science...

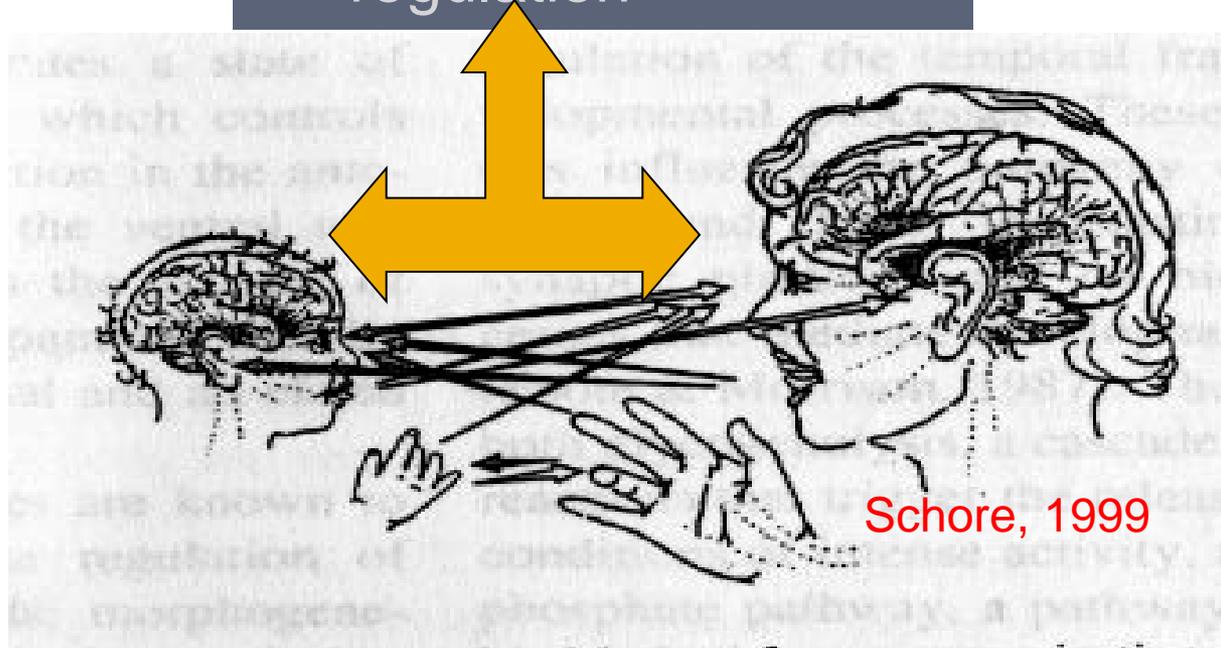
- The amazing capacity of infants and young children to detect social signals
 - Early imitation gives way to shared affect in the first year of life
 - Non-verbal signals guide infant's behavior...

NOSE Video



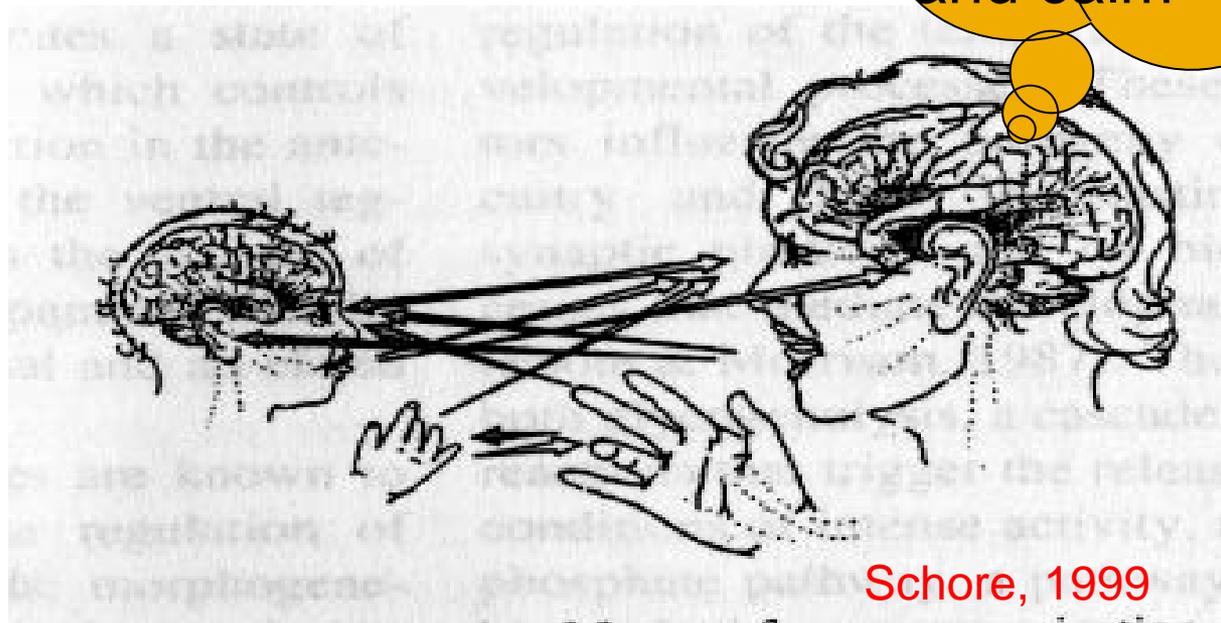
The Power of Interactions...

1. Selection of neuronal pathways
2. Emotions—
development and
regulation



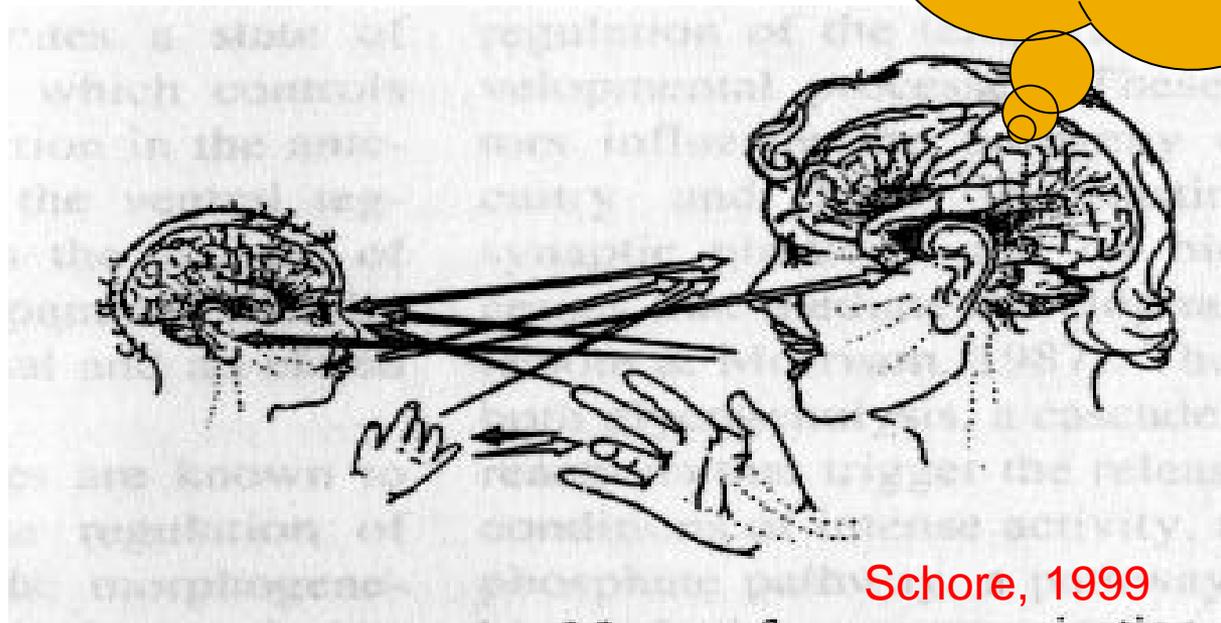
Interactions are Shaped by Expectations

He's just like his
Daddy...gentle
and calm



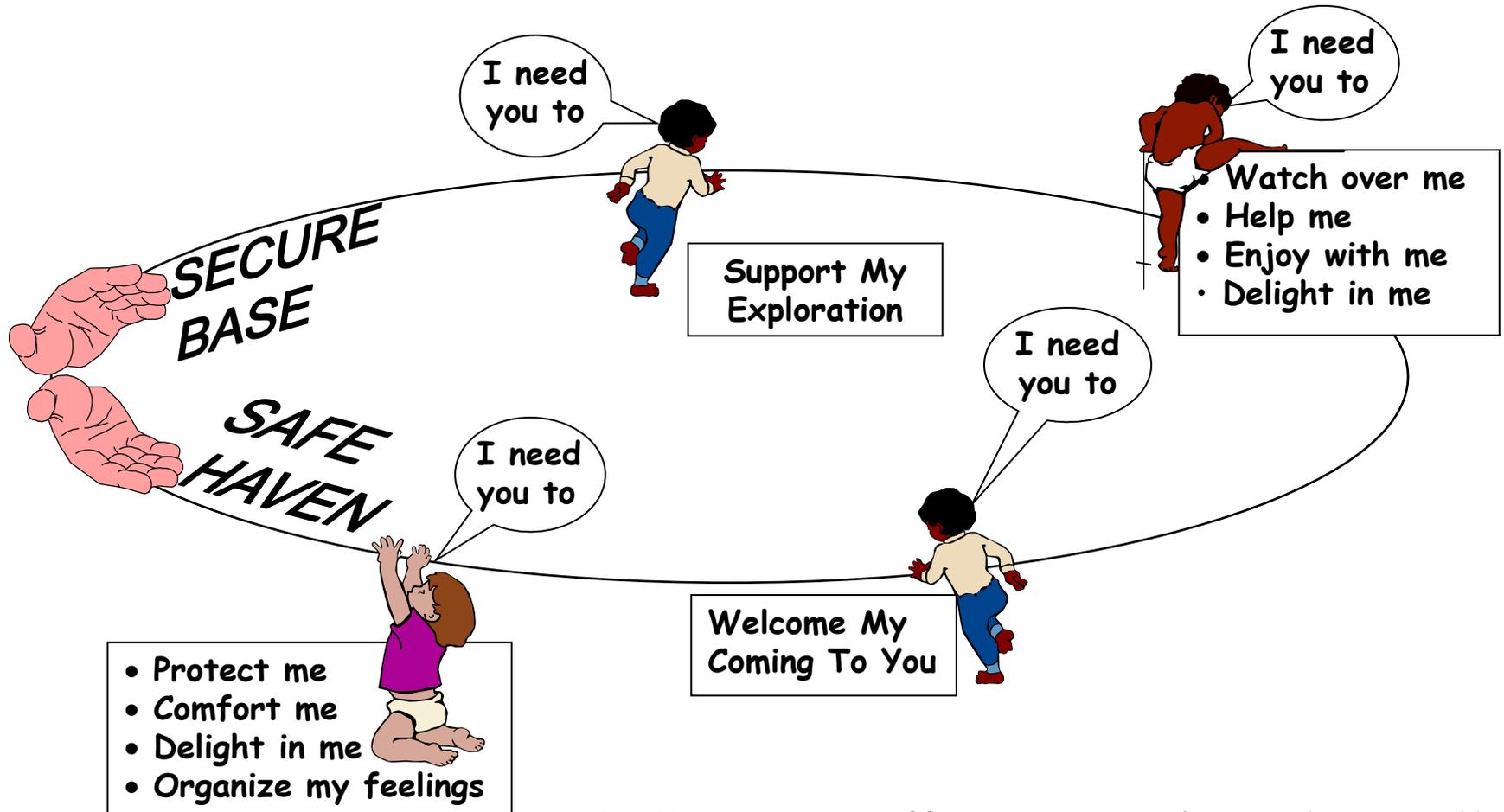
Interactions are Shaped by Expectations

He's just like his Daddy...and he's already getting out of control...



Circle of Security

Parent Attending to the Child's Needs





Definition of Attachment

- Inborn system— “feedback loop”
- Operative throughout life
- External goal in infancy is to balance exploration and proximity to caregiver (“the secure base” and “safe haven”)
- Internal goal to achieve sense of “felt security”

A Bio-Behavioral System



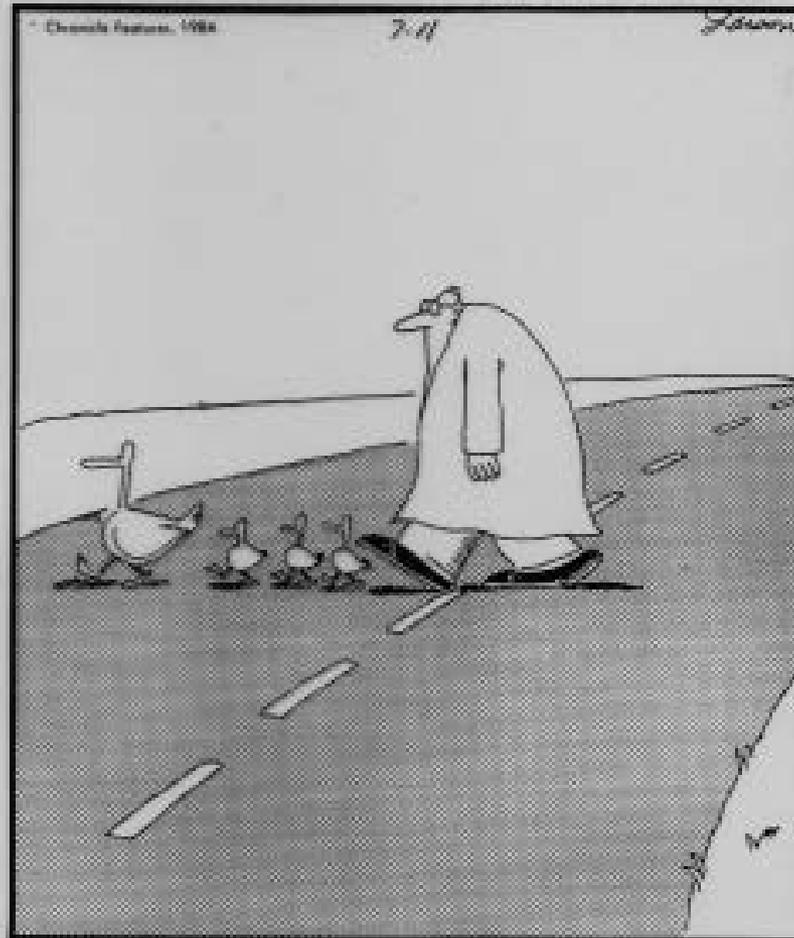
What Set Attachment Apart From Other Developmental Theories?

- Linked to natural selection as driving force:
 - Protection of young = protection of genes
- Based theory on observations
 - Ethology and Harry Harlow's monkeys
 - The concept of “imprinting” as a cross-species phenomenon



THE FAR SIDE

By GARY LARSON



When imprinting studies go awry...

THE FAR SIDE cartoon by Gary Larson is reprinted by permission of Chronicle Features, San Francisco, CA. All rights reserved.

Transmission of What?

- “As our understanding of the interface of brain development and early psycho-social experience increases, we see the role of the attachment relationship as far more than being there to protect the human infant. It also fulfills an evolutionary role in ensuring that the brain structures that come to subserve social cognition are appropriately organized and prepared to equip the individual for the collaborative existence with conspecifics for which his or her brain was designed...”

Fonagy, 2005

Translation, please?

- Attachment experiences shape our social brains
- “Social cognition” is what Heckman is talking about...it is the *foundation* of learning
- “collaborative existence with conspecifics” = relationships with each other

Roxanne's View of the World

Relationships are dangerous...I don't deserve love...I'm so ashamed...what did I do to my son?!



Demarius' View of the World...

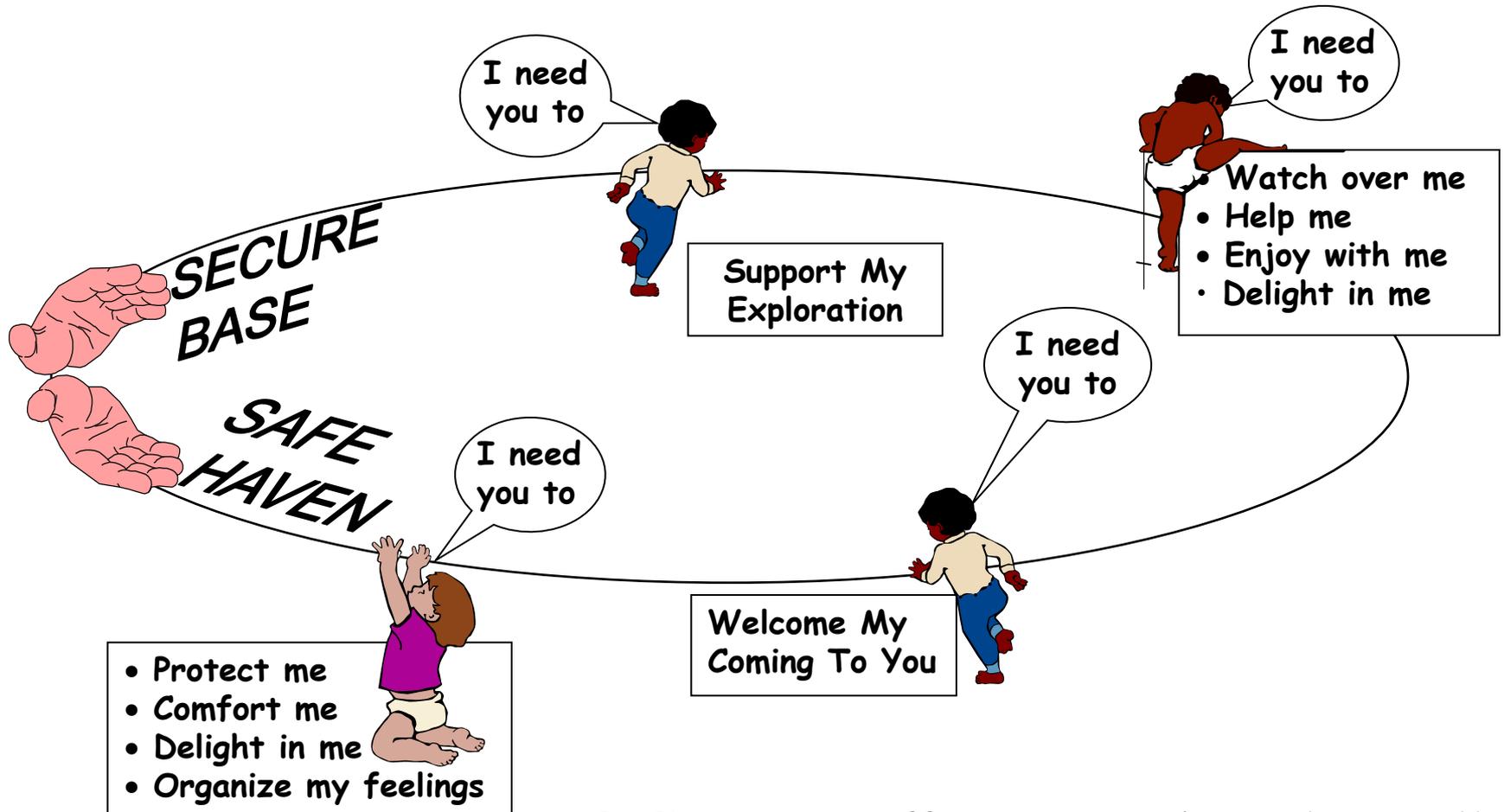
There are monsters everywhere.

I will get hurt if I don't watch out.



Circle of Security

Parent Attending to the Child's Needs



The Best Defense is a Good Offense



“I thought if I would prostitute for drugs, she would be proud of me...”



Pete's Charge

- “Trauma related to children and parents involved in the child welfare system, its emotional, behavioral and physiological impacts, and how to systematically mitigate it including treatment, policy and practice.”

Practice

- Identify families with [young] children at risk and engage them in change
 - Do frontline staff really “see” the impacts of trauma on parents and kids?
 - “baby was too young to be affected”
 - How well to we engage?
 - What do we have for such families to engage into?
- Cannot ignore foster families

What NOT to do, Part 1

Early on the morning of Dec. 13, police officers responding to a 911 call arrived at a house in Hull, Mass., a seaside town near Boston, and found a 4-year-old girl on the floor of her parents' bedroom, dead.

She was lying on her side, in a pink diaper, the police said, sprawled across some discarded magazines and a stuffed brown bear.

Last week, prosecutors in Plymouth County charged the parents, Michael and Carolyn Riley, with deliberately poisoning their daughter Rebecca by giving her overdoses of prescription drugs to sedate her.

The police said the girl had been taking a potent cocktail of psychiatric drugs since age 2, when she was given a diagnosis of attention deficit disorder and [bipolar disorder](#), which is characterized by mood swings.

September 16, 2002

What NOT
to do, Part
2...

Girl dies of drinking too much water in 'therapy'

By THE ASSOCIATED PRESS

SALT LAKE CITY — A couple have been charged with killing their 4-year-old adopted daughter by forcing her to drink large amounts of water.

The girl's parents said she was given the water as part of a form of therapy to promote family bonding. Prosecutors disputed that and said she was being punished for drinking Kool-Aid.

Are there evidence-based models?

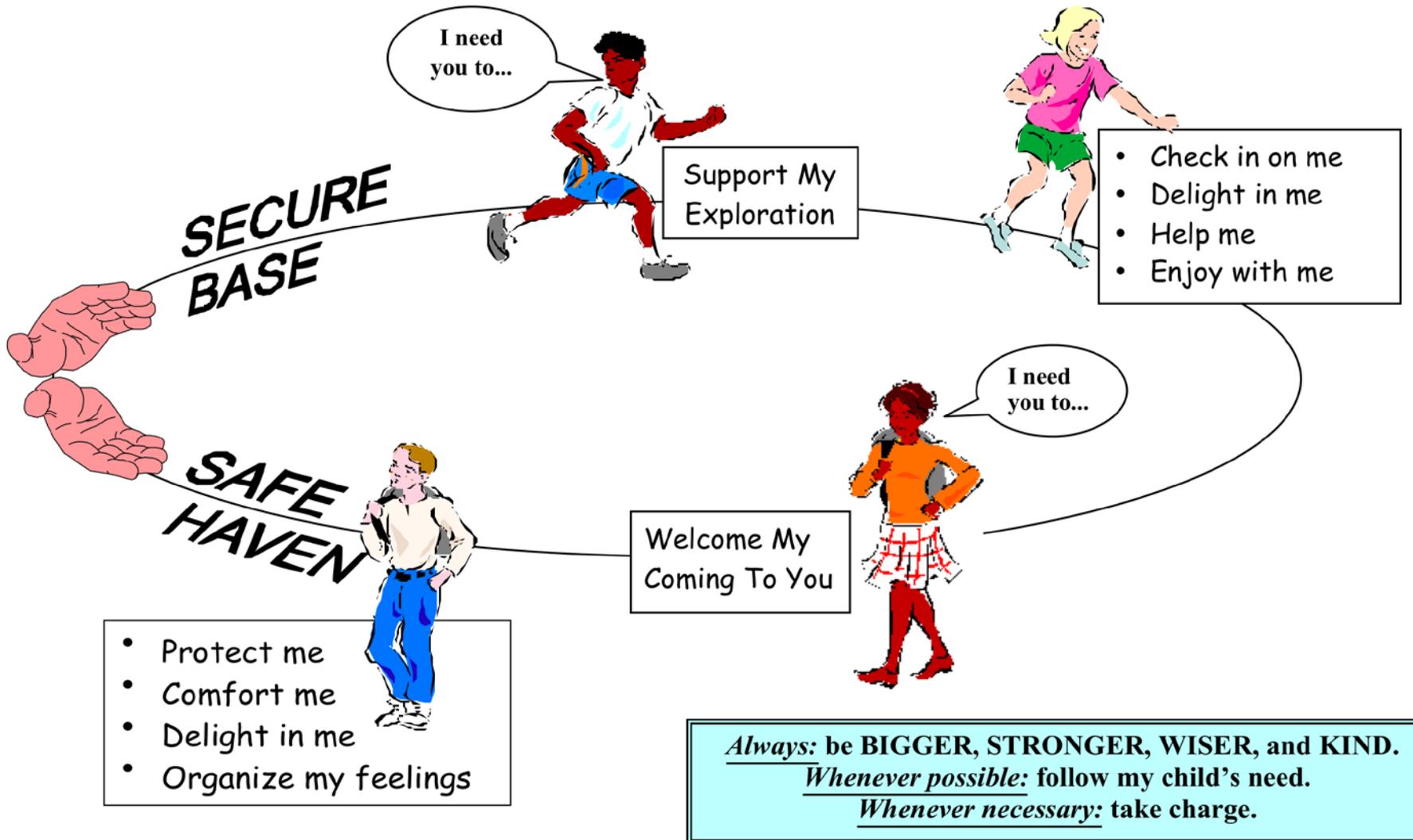
- YES
- Circle of Security is not just a diagram, it was created as part of one such intervention
- I am ill-informed about where things stand with practice and what capacity might be in the treatment sphere in FL...

Treatment Programs?

- Drug courts see lots of traumatized parents with young children...are these parents systematically engaged in treatment as part of their plan?
- Foster parents are clearly supported in FL—but is that support enough (when, not infrequently, more may be needed)?
- Group care facilities exist here—are these programs truly therapeutic?

CIRCLE OF SECURITY

PARENT ATTENDING TO THE CHILD'S NEEDS



Saying for the Day

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 - Margaret Mead

Acknowledgements

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