



Changing the Odds: Increasing Protective and Compensatory Experiences for Children Exposed to Toxic Stress

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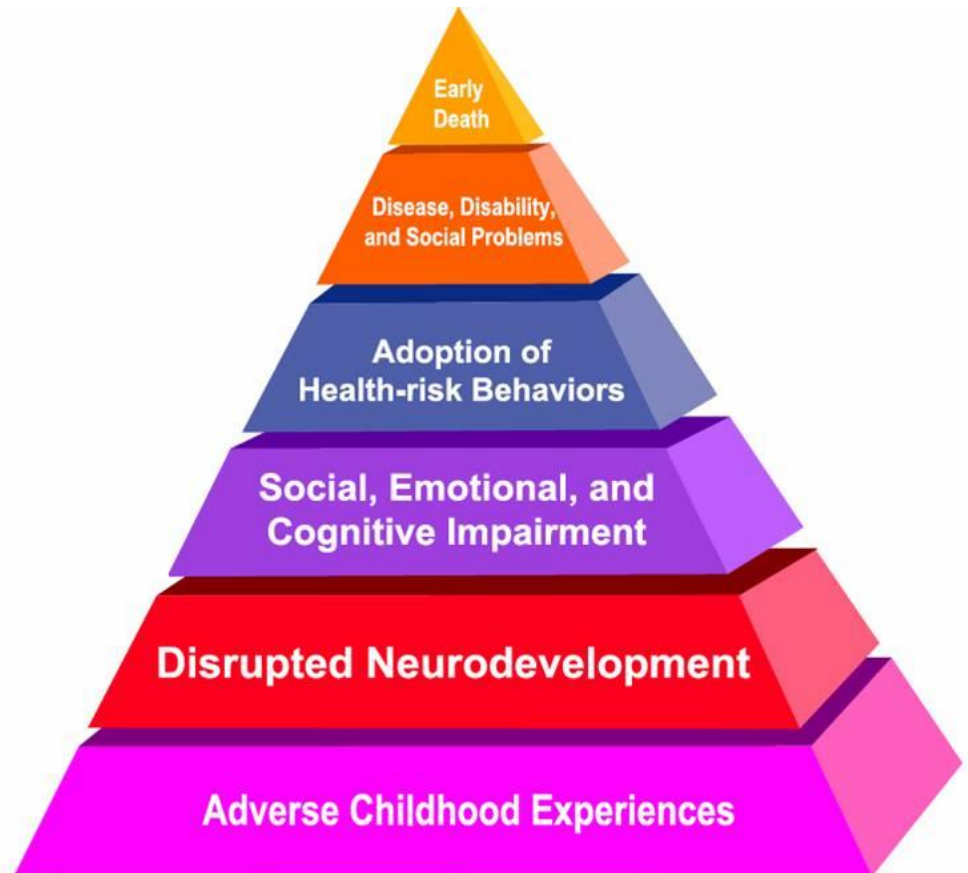
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Adverse Childhood Experiences (ACEs)

In multiple studies, ACEs predicted

- Risky health behaviors (smoking, obesity, alcohol/drug abuse)
- Chronic health problems
Heart disease, cancer, diabetes, fractures, hepatitis, COPD
- Mental health
Depression, anxiety, panic reactions



Mechanisms by Which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan

Abuse/Neglect and Family Dysfunction

- Verbal Abuse
- Physical Abuse
- Sexual Abuse
- Physical Neglect
- Emotional Neglect
- Witness IPV
- Substance Abuse in Home
- Separated/Divorced Parents
- Family Member Incarcerated
- Family Member Mentally Ill or Suicidal



<https://www.cdc.gov/violenceprevention/cestudy/>

ACEs are prevalent in Oklahoma

ADVERSE CHILDHOOD EXPERIENCES: NATIONAL AND STATE LEVEL PREVALENCE. Vanessa Sacks, M.P.P., David Murphey, Ph.D., and Kristin Moore, Ph.D.

“States vary in the pattern of specific ACEs. Connecticut and New Jersey have some of the lowest prevalence rates nationally for all ACEs, while Oklahoma has consistently high prevalence.”

http://www.childtrends.org/wp-content/uploads/2014/07/Brief-adverse-childhood-experiences_FINAL.pdf

Oklahoma ACEs – Survey 2011-12

National survey by state about child's ACEs

- 30% - Economic Hardship (ranked 45th)
- 30% - Divorce (ranked 50th)
- 17% - Parent abused alcohol or drugs (49th)
- 11% - Witnessed domestic violence (50th)
- 12% - Had a parent with a mental illness (43rd)
- 10% - Had a parent incarcerated (48th)
- 13% - Was a victim of or witnessed neighborhood violence (49th)
- 17% - Already experienced 3 or more ACEs (49th)
- Highest rates (with Montana and W. Virginia) of children with ≥ 4

Oklahoma history of trauma & stress



Tulsa Children's Project

- Initially based at Tulsa Educare
- Highly integrated set of interventions
- Improve child outcomes by supporting teachers and parents
- Partnership between OSU, OU-Tulsa, Harvard's Center for the Developing Child, local agencies
- Funded by George Kaiser Family Foundation



Tulsa Children's Project - *EduCareers*

*Early success followed
by repeated failure*

Cohort 1

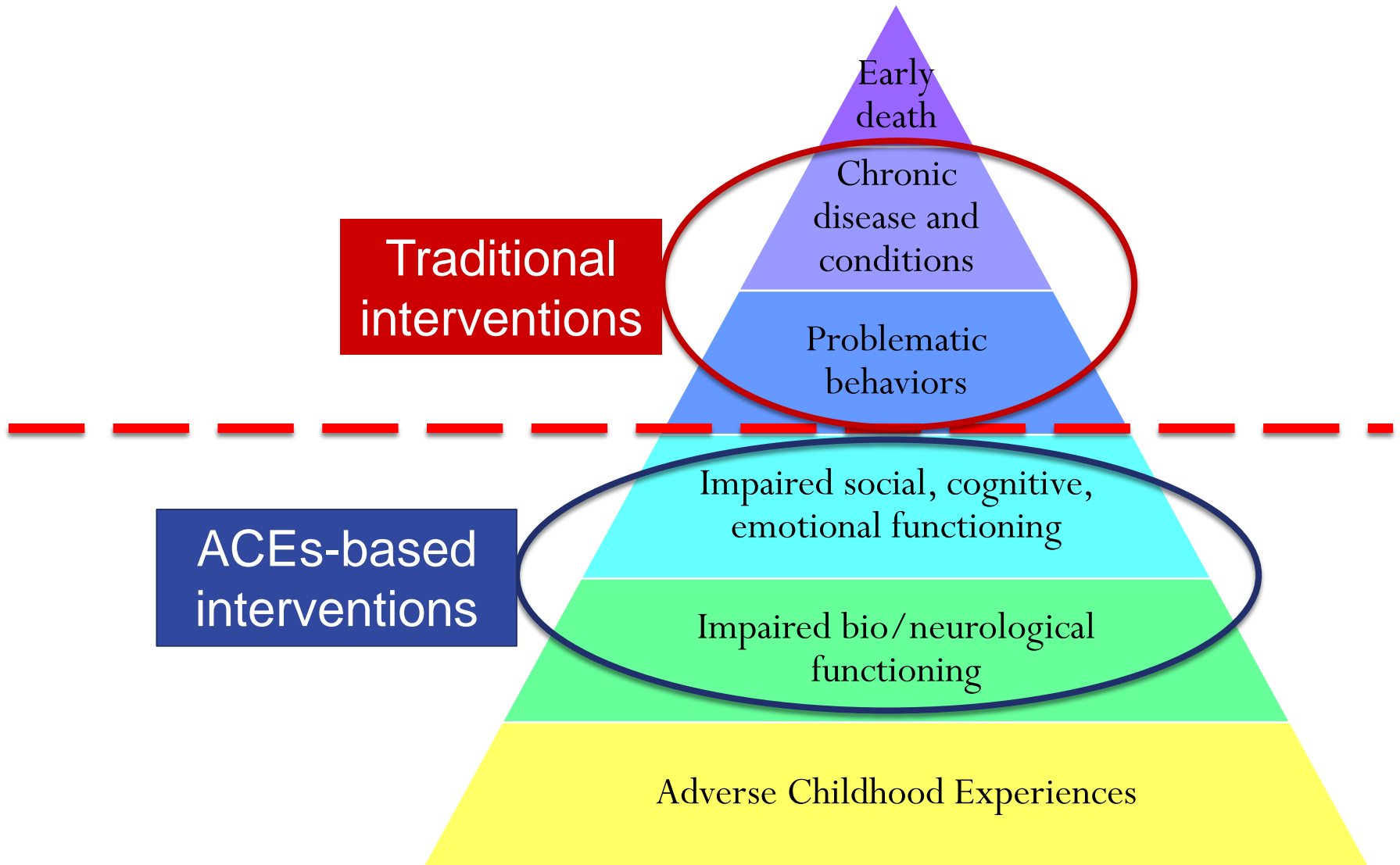
- 9 of 9 passed CNA exam
- 2 of 9 completed LPN training

Cohort 2

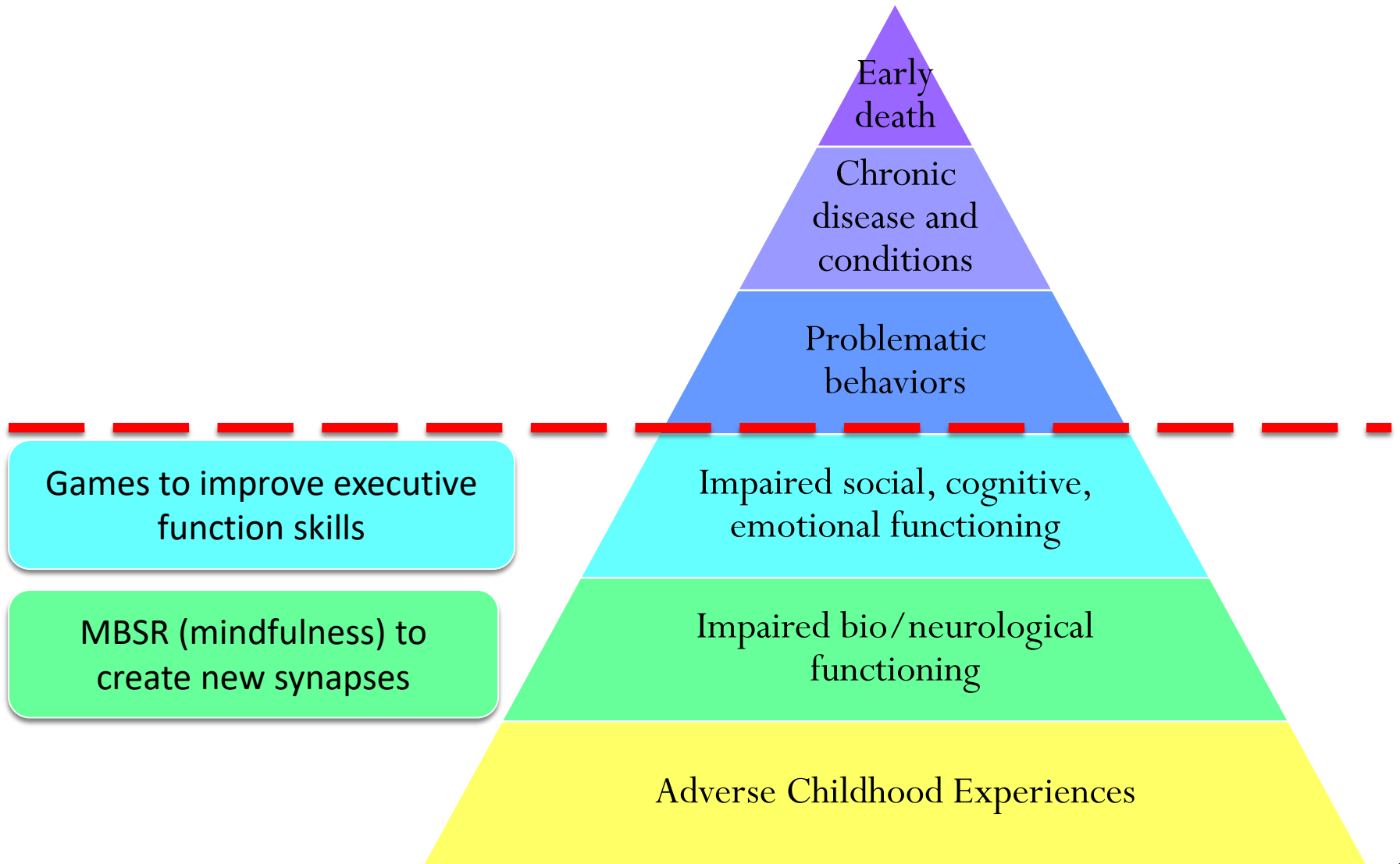
- 12 of 12 passed CNA
- 10 of 12 failed at least 1 required class or prerequisite for LPN
- 2 progressed to BSN; 1 graduated



Since ACEs affect neurodevelopment...

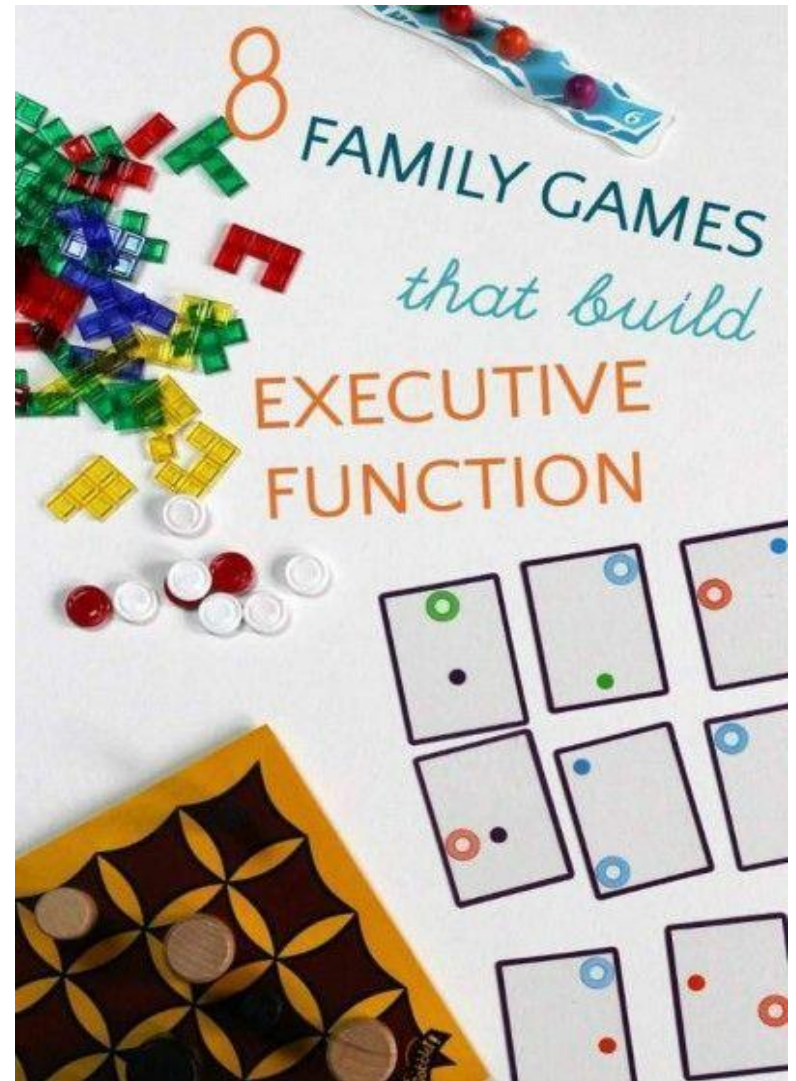


ACEs-informed interventions



Assume brain plasticity: MBSR + EF

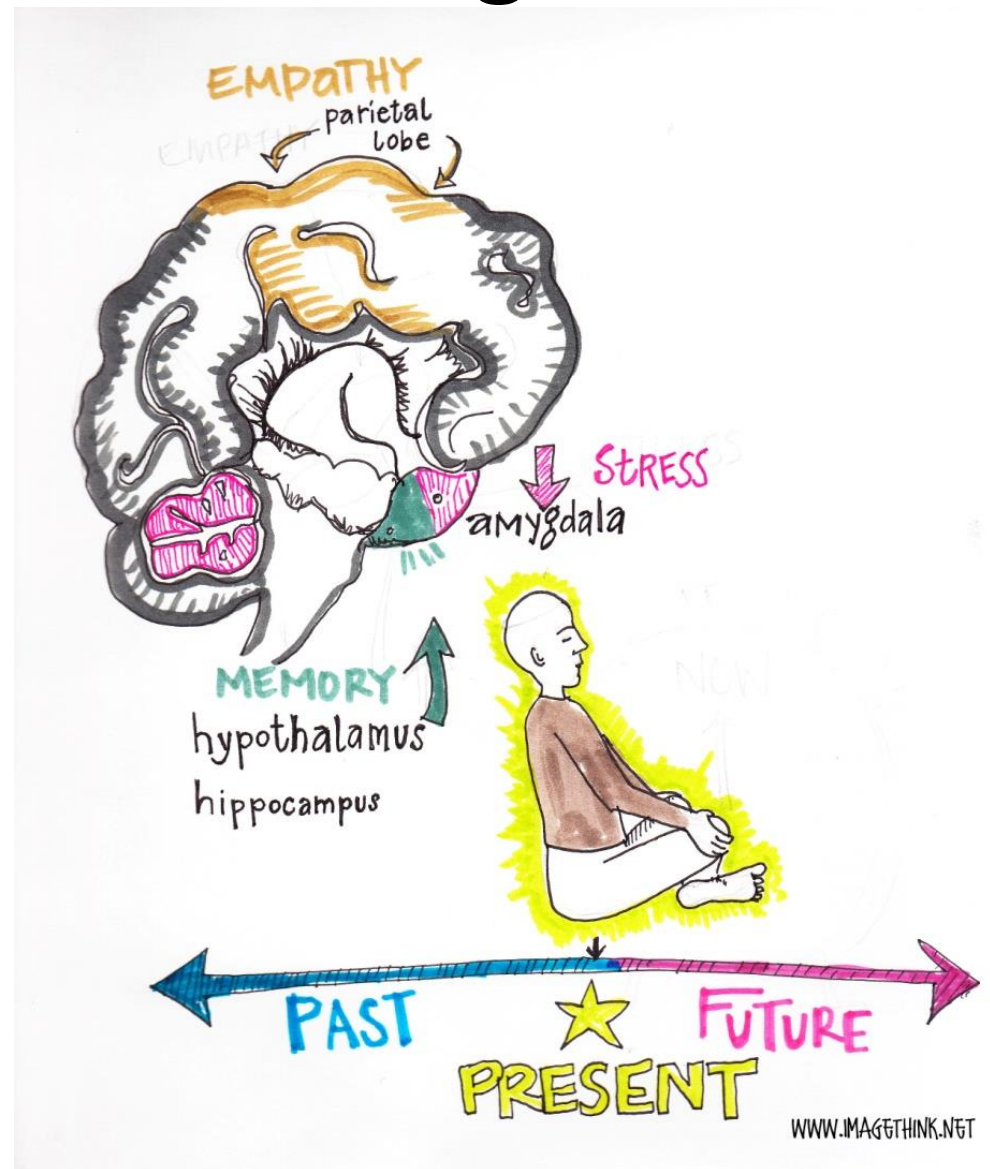
M INDFULNESS
B ASED
S TRESS
R EDUCTION



MBSR increases self-regulation

- Medical research: improved survival with mindfulness practice
- What fires together, wires together
- Resulting brain changes in structure and function

<http://www.nmr.mgh.harvard.edu/~lazar/>



Super Parents Evaluation

- 1,2,3,4 Parenting + Tulsa Children's Project
 - Mindfulness training and practice
 - Family games promoting executive function skills
- Comparisons of pre- and post-test measures showed
 - **significant increases** in
 - positive parenting attitudes
 - parenting efficacy
 - parent executive function
 - **significant decreases** in
 - child emotional problems and hyperactivity.

Three-month comparisons showed

- **significant increases** in
 - parenting efficacy
 - parent self-compassion
 - parent mindfulness
- **significant decreases** in
 - parent perceived stress
 - child emotional problems

Now in the revision of Active Parenting program (AP: First Five Years)

Slocum, Bosler, Hays-Grudo & Morris, 2016

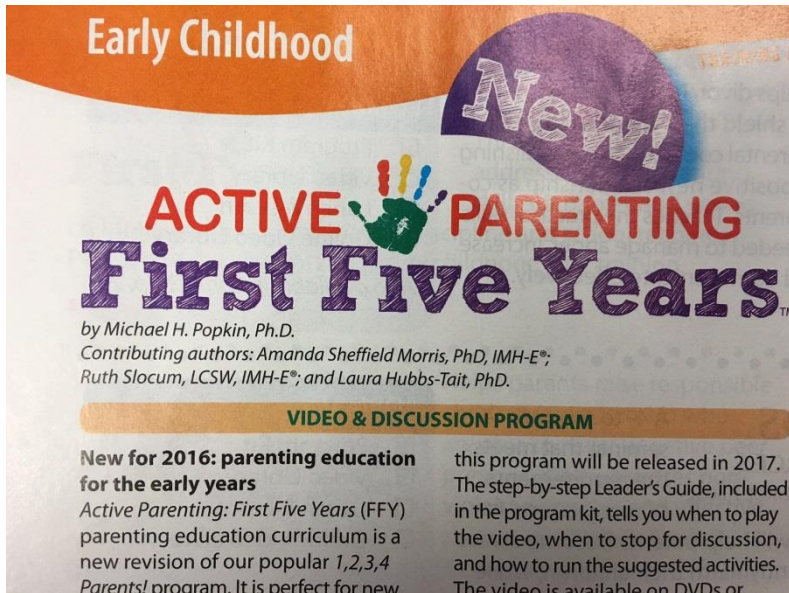
Super Parents: Active Parenting Plus

“It’s a critical class for all parents. It’s incredibly empowering and encouraging.”
– Parent

“I learned very good tips to talk with my children. It will improve my family relations.”
– Parent

“The examples given made the topics come to life.”
– Staff

I love the information and games about how to help children develop their executive function.” – Staff



Early Childhood

New!

ACTIVE PARENTING

First Five Years™

by Michael H. Popkin, Ph.D.
Contributing authors: Amanda Sheffield Morris, PhD, IMH-E®;
Ruth Slocum, LCSW, IMH-E®; and Laura Hubbs-Tait, PhD.

VIDEO & DISCUSSION PROGRAM

New for 2016: parenting education for the early years

Active Parenting: First Five Years (FFY) parenting education curriculum is a new revision of our popular 1,2,3,4 *Parents!* program. It is perfect for new

this program will be released in 2017. The step-by-step Leader's Guide, included in the program kit, tells you when to play the video, when to stop for discussion, and how to run the suggested activities. The video is available on DVDs or



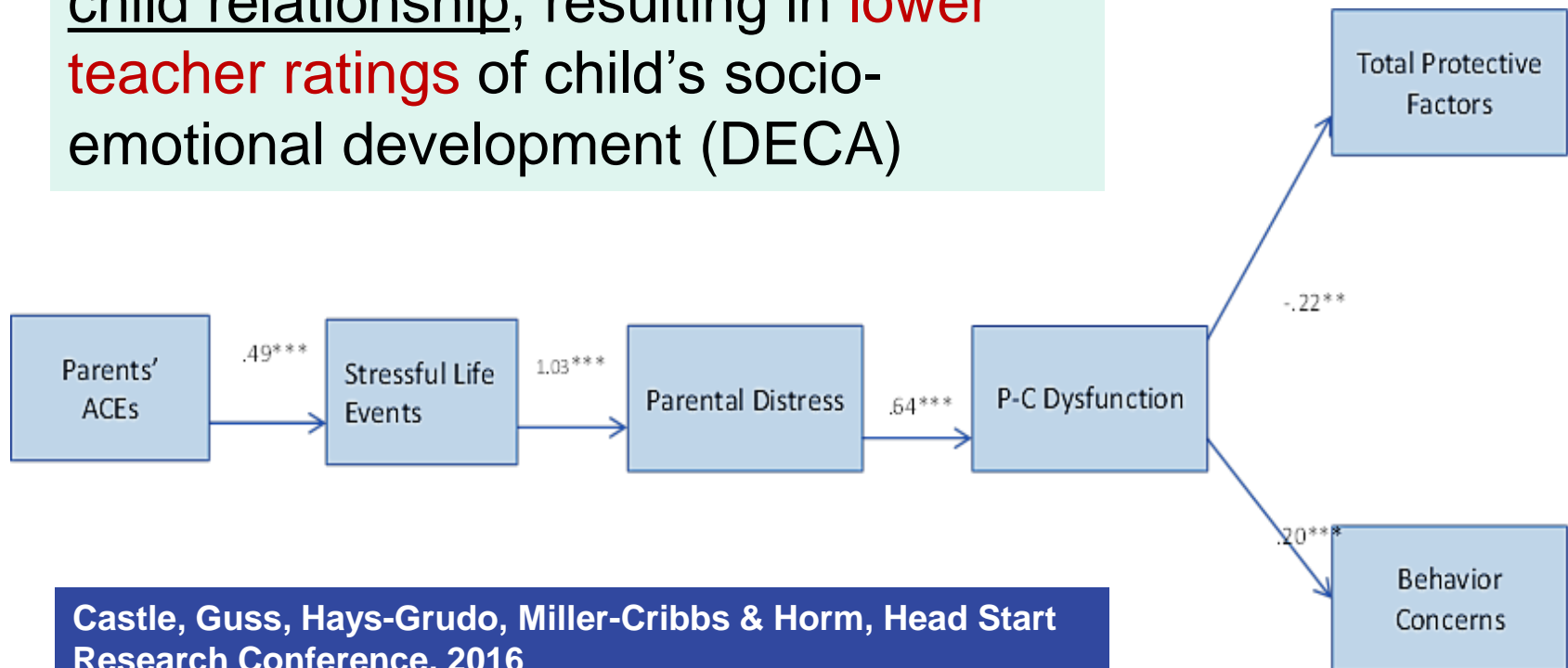
Next question: Do parents' ACEs affect their children's development?

- Parent measures
 - ACE scores, stress
 - Health status
 - Access to care
- Child measures
 - Behavioral dysregulation (DECA scores)
 - Biological dysregulation (salivary cortisol)
- Partners: OU ECEI, SSW, Educare
- Funded by GKFF



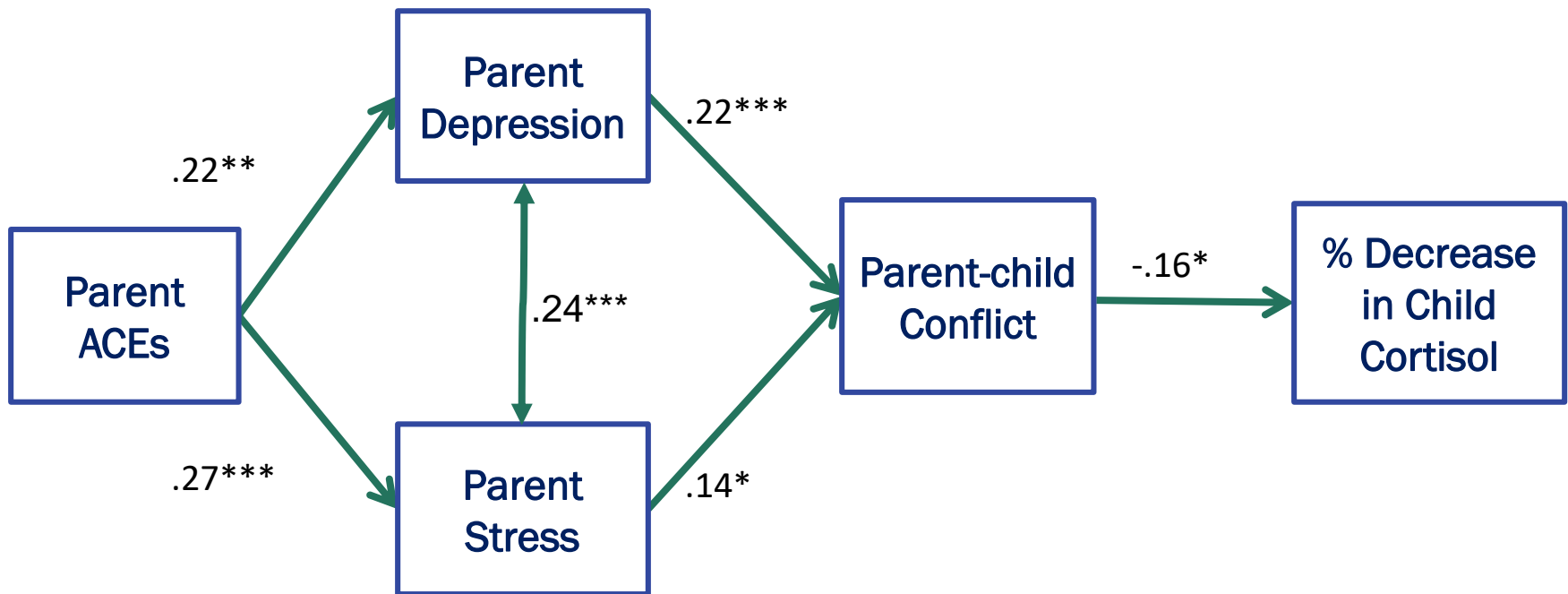
ACEs and behavioral dysregulation

Parent's ACEs predict current stress, which increases parenting distress, and decreases perceived the parent-child relationship, resulting in **lower teacher ratings** of child's socio-emotional development (DECA)



Castle, Guss, Hays-Grudo, Miller-Cribbs & Horm, Head Start Research Conference, 2016

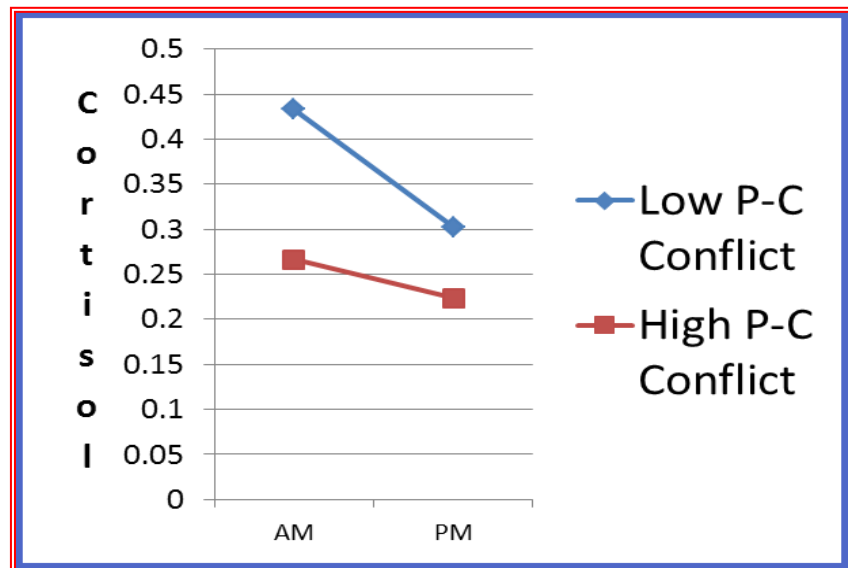
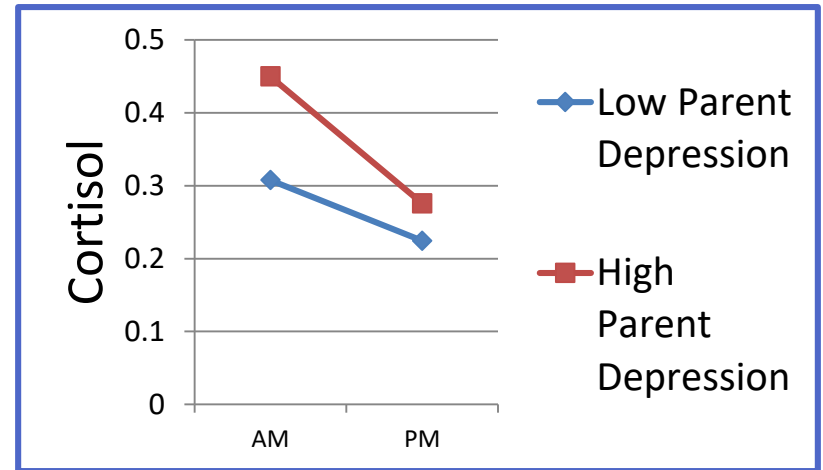
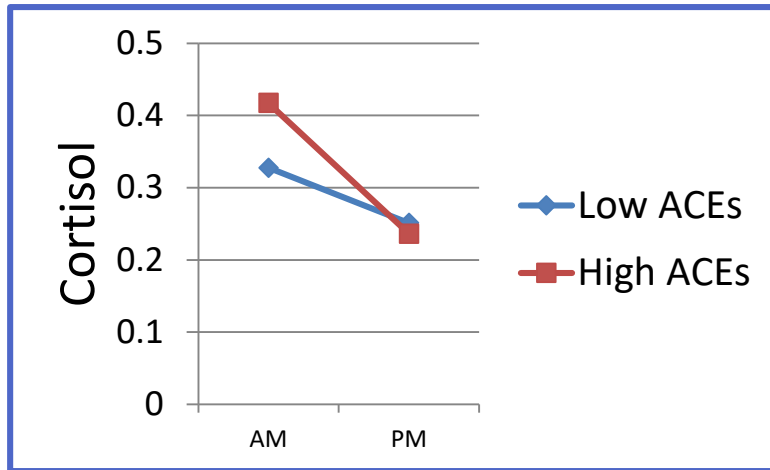
ACEs and stress hormone dysregulation



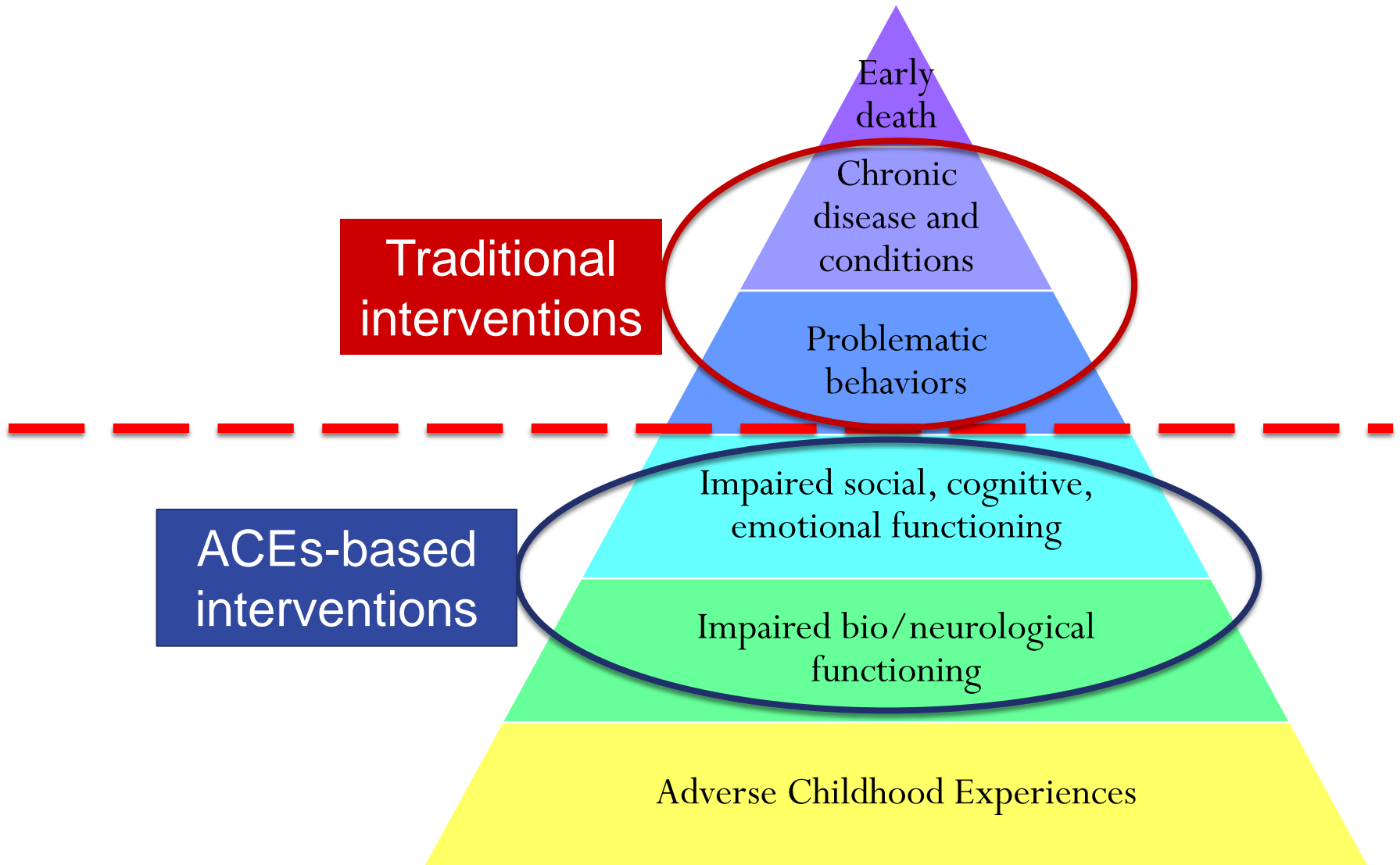
Note: *** $p < .001$, ** $p < .01$, * $p < .05$; model fit: $\chi^2(4) = 3.87$, $p = .42$, RMSEA = .00, CFI = 1.00, TLI = 1.01.

Hays-Grudo, Bosler, Teague, Castle, Guss, Miller-Cribbs, Morris & Horm, World Congress on Infant Mental Health, Prague, June 2016.

Parent ACEs, depression, relationship and child cortisol

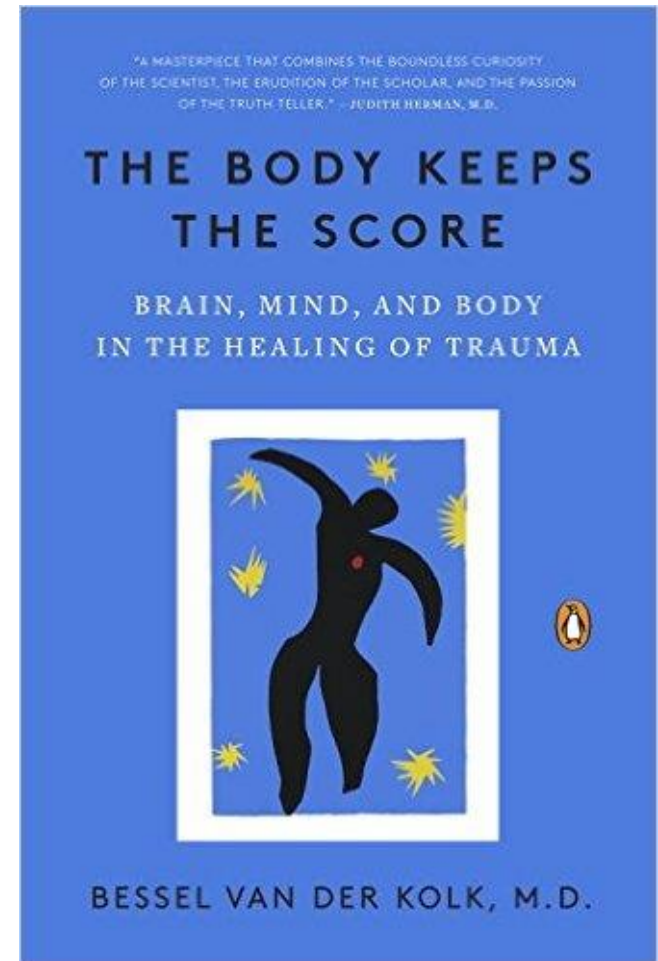


Since ACEs affect neurodevelopment...



Trauma changes the brain

- Trauma compromises brain:
 - Decreases ability to **filter** relevant from irrelevant information
 - **Hypervigilance**: alters brain's alarm system
 - Increases **stress hormone** activity
 - Prevents **learning**
 - **Interoception**: the physical, embodied feeling of being alive



Three avenues to treat trauma

- **Top down** – by talking, (re-connecting with others, allowing past and current experiences to be acknowledged and processed)
- **Medications** that shut down inappropriate alarm reactions, or other technologies that change the way the brain organizes information
- **Bottom up** – by allowing the body to have experiences that viscerally contradict the helplessness, rage, or collapse that result from trauma.

B. Van Der Kolk (2014). *The Body Keeps the Score*.

Preventing Effects of Trauma:

What enables children to be resilient?

- Individual qualities – intelligence, sense of humor, finding meaning, attractiveness, optimism, hope
- **Relationships** – nurturing, unconditional love, peer friendships, caring for others
- **Experiences** that promote the development of physical skills, talents, knowledge and competencies

Because the brain is constantly creating new networks of synapses, creating protective relationships and environments can help at any age.

Protective and Compensatory Experiences (PACEs) (Morris, Hays-Grudo et al., 2015)

Relationships	Environment and experiences
Had someone who loved you unconditionally.	Lived in a home that was typically clean AND safe with enough food to eat.
Had at least one best friend (someone you could trust, had fun with).	Was regularly involved in organized sports or other physical activity.
Did something regularly to help others or participated in community projects to help others.	Went to a school that provided the resources and experiences you needed to learn.
Had an adult (not your parent) whom you trusted and could count on for help or advice.	Had an engaging hobby, artistic or intellectual pastime that you enjoyed and were good at.
Was an active member of at least one civic group or a non-sport social group.	Had rules in your home that were clear and fairly administered.

Unconditional Love

- Children and adults need to feel loved, and know that they are cared about, no matter what.
- Attachment research (see the work of John Bowlby and Mary Ainsworth) and research on authoritative parenting (see the work of Diana Baumrind and Larry Steinberg) supports the importance of unconditional love, warmth, and nurturance.
- When parents withdraw love, this sends a message that love is contingent on behavior and performance, often leading to guilt and shame, which over time can lead to depression and anxiety.

Having a Best Friend

- Having a best friend protects children from peer rejection, bullying, and victimization.
- When children are young, friends provide opportunities to learn through play and social interaction. Children can try out new skills and learned behaviors among equals.
- As children develop into adults, they must transition from their family of origin to their own family or supportive peer network.

Volunteering

- Helping others provides us with a sense of connection to the community.
- It helps children learn about the needs of others, helps them to see a world outside of their own. This fosters empathy, altruism, and perspective taking.
- There is a tremendous amount of research on the positive effects of volunteering, particularly among adolescents. When children volunteer with their parents, it has an even a stronger impact.

Having a Mentor

- A coach, teacher, or relative can protect children who are living in troubled families, and make-up for much of the negative outcomes often associated with poor parenting.
- Even if children have wonderful parents, an adult outside of the home can be a role model for children to aspire to, and can signal to a child that someone other than a parent loves her or cares about him.

Being Part of a Group

- Membership in a group or civic organization fosters a sense of belongingness outside of the family.
- Group membership can also help with identity development, and aid children in developing their own values and morals.
- Being involved in groups like scouts or church means that children are spending time in positive activities. Being active and involved is associated with better academic achievement and greater self-esteem.

Clean, Safe Home with Enough Food

- This creates a sense of control, predictability, and orderliness.
- Interestingly, there is research that indicates that children who live in homes that are cluttered and unclean, have worse outcomes even when other things like parenting and other resources are equal.
- As we all know, nutrition is important for brain health and development, and children should not have to worry about food. Despite this basic understanding, 1 out of every 4 children go to bed hungry every night.

Being Physically Active

- Being physically active helps children handle the physiological effects of stress on the body.
- Sports can also provide a sense of mastery and can lead to better self-regulation, competence, and self-esteem.
- Being part of a team sport provides an opportunity for social development and connection, working together toward a goal.
- Organized sports can provide both security and connection.

Good School

- Attending a school that provides the resources and opportunities to have positive academic experiences helps children facilitate mastery of knowledge.
- When children attend a good school, they are typically among peers who do well in schools and families who value education. Being among such peers amplifies students' performance, and students tend to fall or rise in performance, based on those around them.
- Evidence across many disciplines (psychology, economics, sociology) finds that quality education is one of the best predictors of later life success and happiness.

Having a Hobby

- Having a hobby teaches discipline and self-regulation. It can lead to a sense of mastery, competence, and self-esteem.
- Creative hobbies provide an outlet for expression and identity exploration, and allow children to have a voice and be recognized for the abilities.
- Having a hobby can provide connection, and can teach children persistence and how to cope with the challenges related to their hobby or a developing skill.
- Practicing every day can be part of a routine, and can help children learn the value of practice and improvement.

Having rules and routines

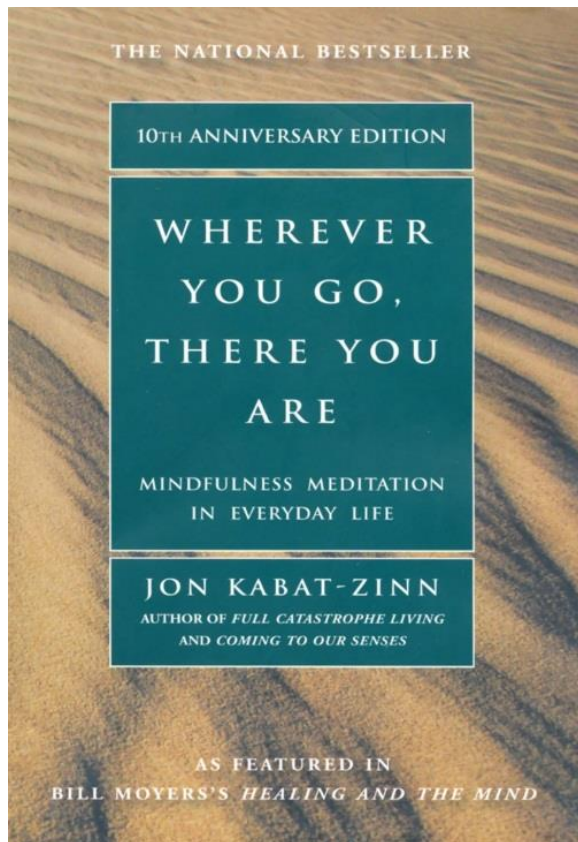
- Rules that are clearly communicated and fairly administered foster security and help children develop self-control
- Routines promote order, a sense of safety and healthy habits
 - Bedtime routines
 - Exercise and active leisure routines
 - Mealtime routines

Summary

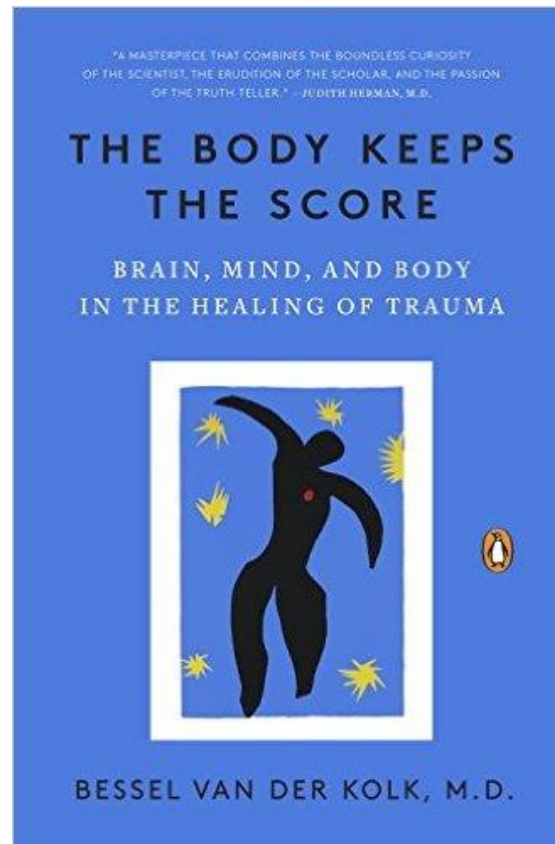
- Cumulative risk, such as ACEs, is common in Oklahoma
- The effects of cumulative risk include deficits in **emotion regulation, executive function skills** (memory, focused attention), increased vigilance and **difficulty connecting** with others, as well as **risky health habits**, altered metabolic and immune functioning, chronic illness and premature death.
- Programs increasing **mindfulness** are effective at augmenting other established treatments, such as psychotherapy and medications.
- **Protective and compensatory experiences** (PACES) are also common and buffer the negative effects of ACEs.
- It is never too late to build the protective habits and environments that promote resilience and recovery.

Resources

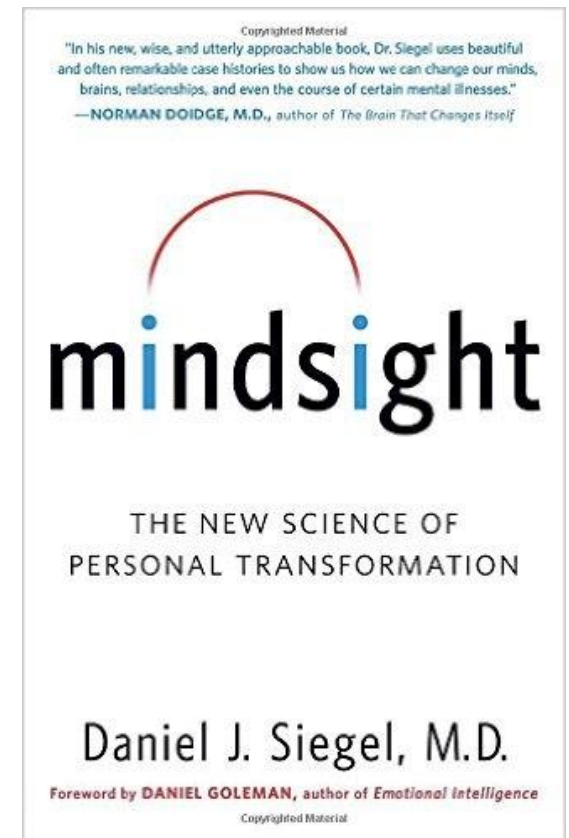
Jon Kabat-Zinn



Bessel Van Der Kolk



Dan Siegel





**CENTER FOR INTEGRATIVE RESEARCH
ON CHILDHOOD ADVERSITY**

Purpose: Identify and address childhood sources of
disparities in health and development
Build research program in Oklahoma
Funded 2016 for five years for \$11.3M
OSU Center for Health Sciences, OSU-Stillwater ,
OSU-Tulsa, OU-Tulsa