

Resilience despite ACEs



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**ACEs and Mental Health:
Broadening the Conversation**
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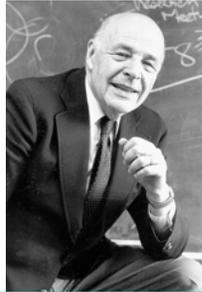
Overview

- **Resilience in the context of ACEs**
- Origins of resilience science
- ACEs and cumulative risk gradients
- Variation within levels of risk
- Protective factors
- Future directions

Pioneering insight 5 decades ago

Risk researchers – realizing what we could learn from the study of resilience in individuals threatened by adversity
launched resilience science

Norman Garmezy



Emmy Werner



Sir Michael Rutter



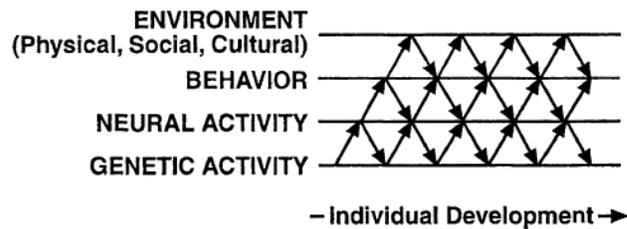
RESILIENCE

Capacity of a system (child, family, community...)
to adapt successfully to threats that could destroy or harm the
life, function, or development of the system

See Masten, 2011, 2014, 2015

Developmental systems perspective

Development emerges from interactions of many systems across levels



Gottlieb

From this perspective...

- Resilience changes – it's dynamic
- Capacity for adaptation to adversity is distributed across systems
- Individual resilience depends on resilience of other systems
- Resilience is not a trait

Risk	Adaptation
Trauma	Achievement
Neglect	Mental health
Poverty	Physical health
War	Happiness
Natural disaster	Developmental task success
ACEs	Adjustment

What are challenges threatening the system?

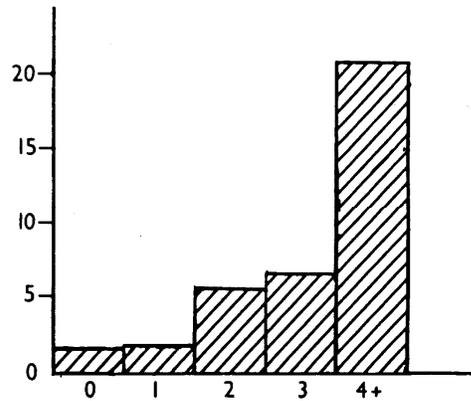
How is the system doing?

Cumulative Risk

- Total effect of multiple risk factors combined
- Piling up of multiple risks in a concentrated window
- Dose gradients

Multiplicity of risk factors and child psychiatric disorder

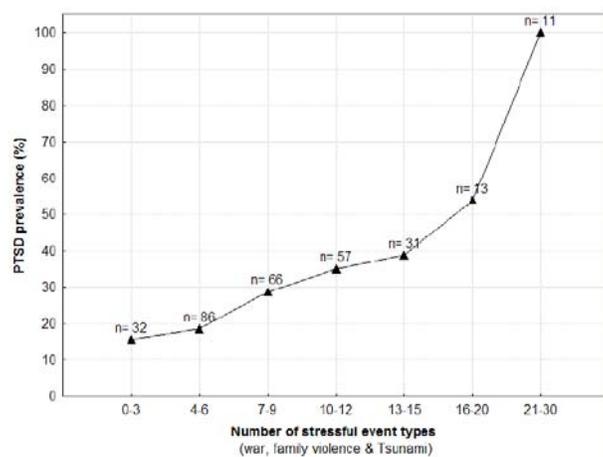
Classic data



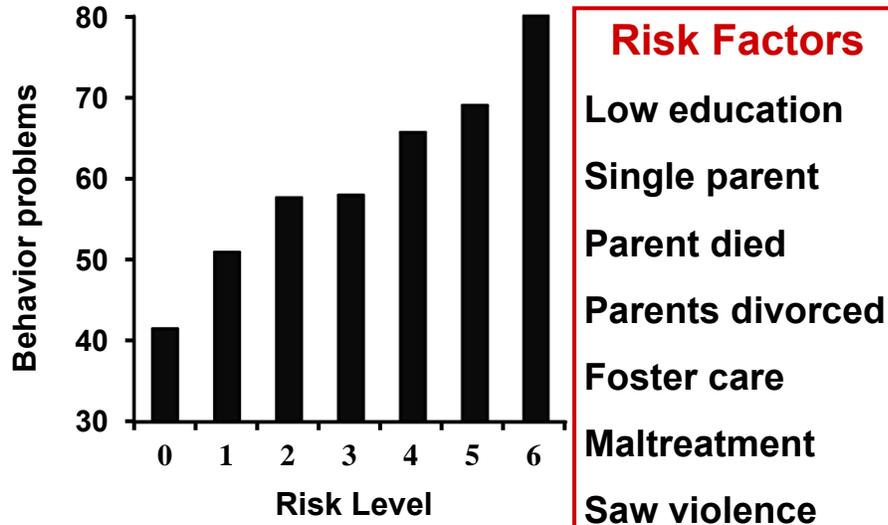
Sir Michael Rutter

Tsunami + war + family violence

Catani et al. BMC Psychiatry 2008



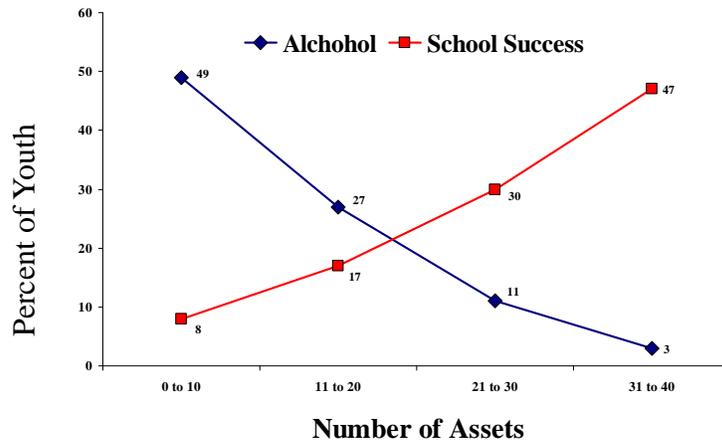
Risk gradient in a homeless sample

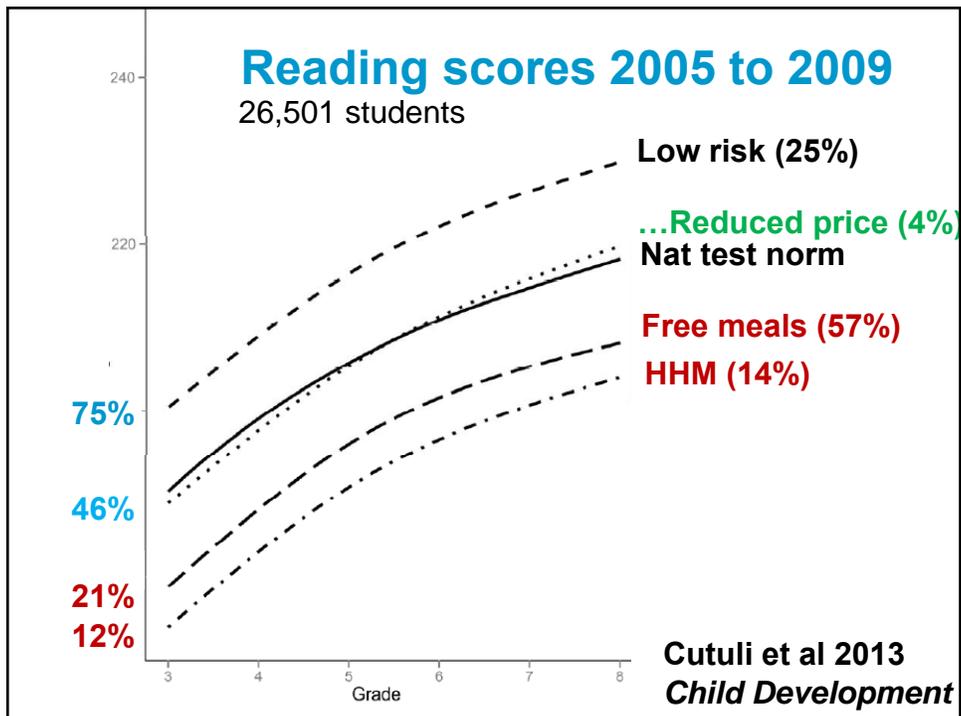
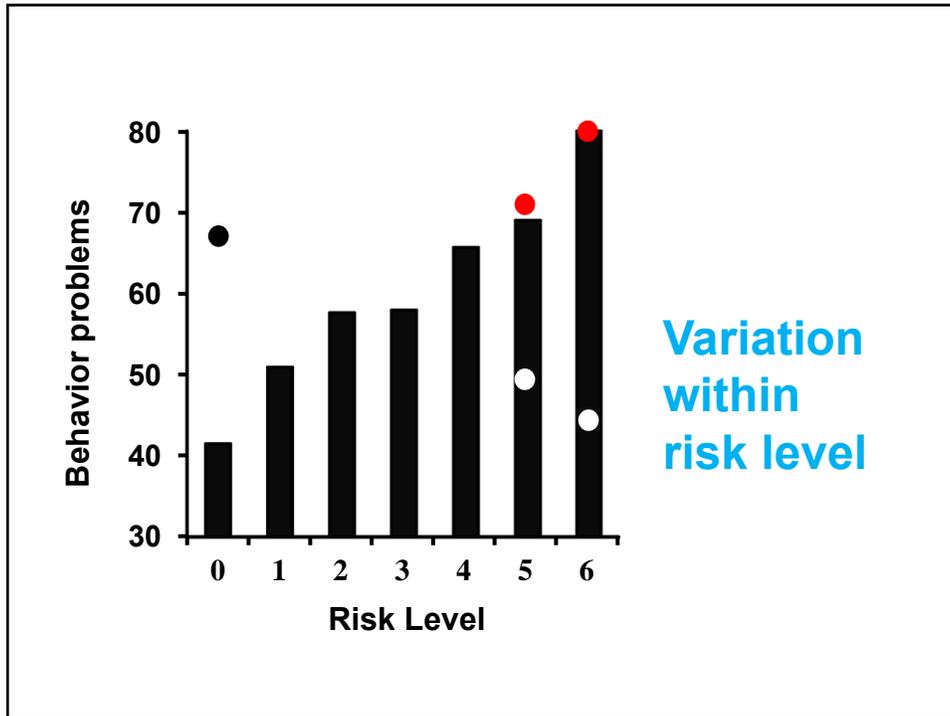


Masten & Sesma 1999

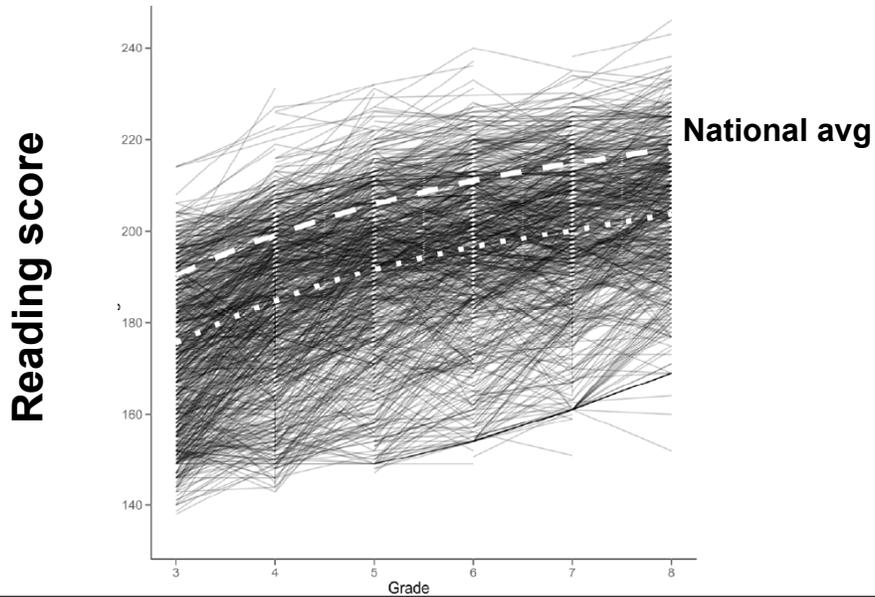


Asset Gradients





HHM student individual reading scores N>3000



ACE scores in homeless parents compared with national data

Total ACEs	ACEs in Homeless Sample	ACEs in National Sample
0	15.0%	36.1%
1	17.8%	26.0%
2	12.1%	15.9%
3	7.5%	9.5%
4 or more	43.0%	12.5%

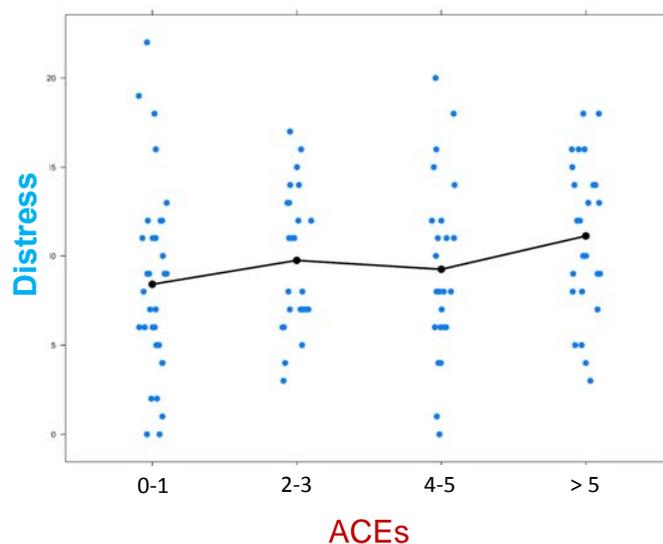
<http://www.cdc.gov/ace/prevalence.htm>

Frequency of specific ACEs in homeless parents vs MN adults

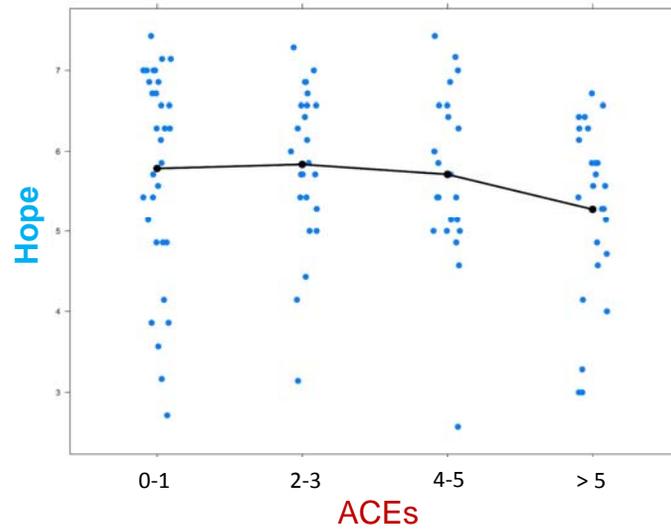
Abuse and Neglect	Homeless Parents	MN Adults
Physical Abuse/Neglect	39%	16%
Sexual Abuse	31%	10%
Emotional Neglect/Verbal Abuse	58%	28%
Household Dysfunction		
Mental Illness	22%	17%
Divorce/Separation	50%	21%
Domestic Violence	29%	14%
Parental Incarceration	17%	7%

Minnesota Department of Health (2011)

Variation in **distress** within levels of ACEs among homeless parents



Variation in **hope** within levels of ACEs among homeless parents

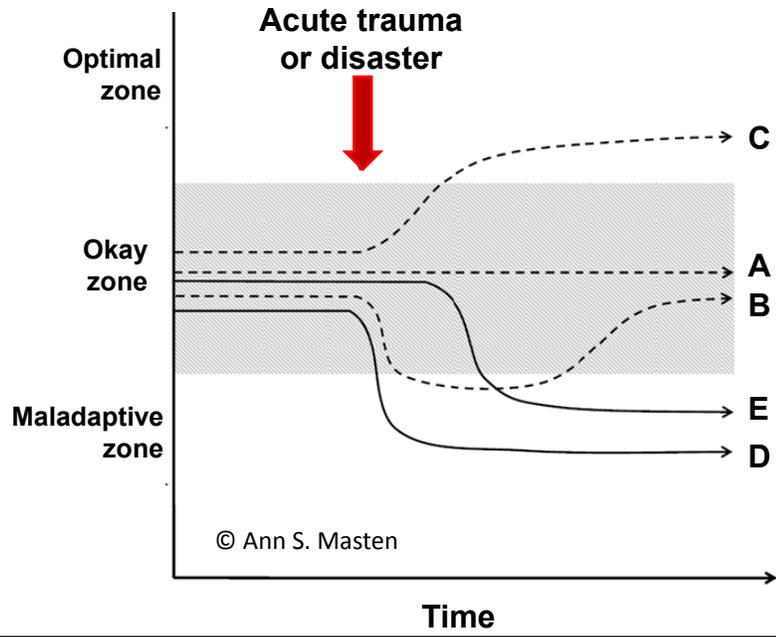


Pathways

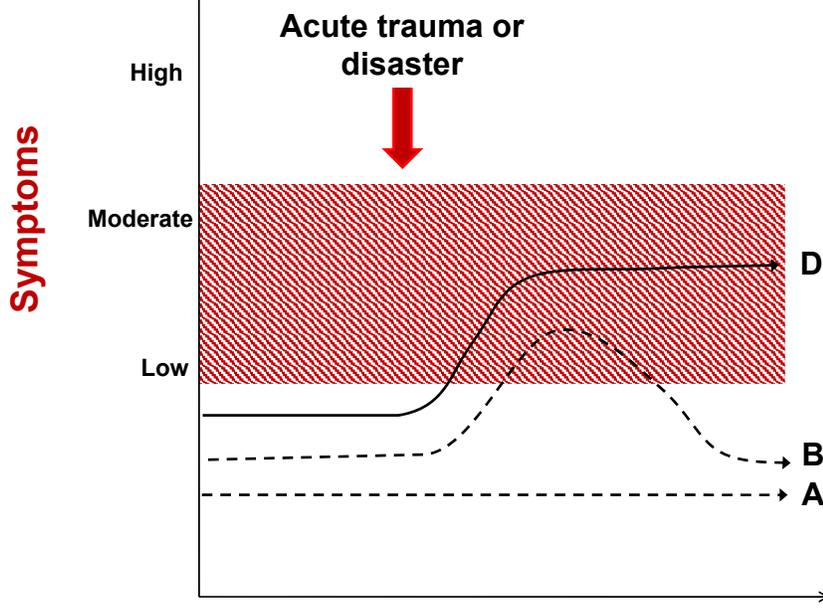
How do patterns of adaptive function vary over time in relation to challenges?



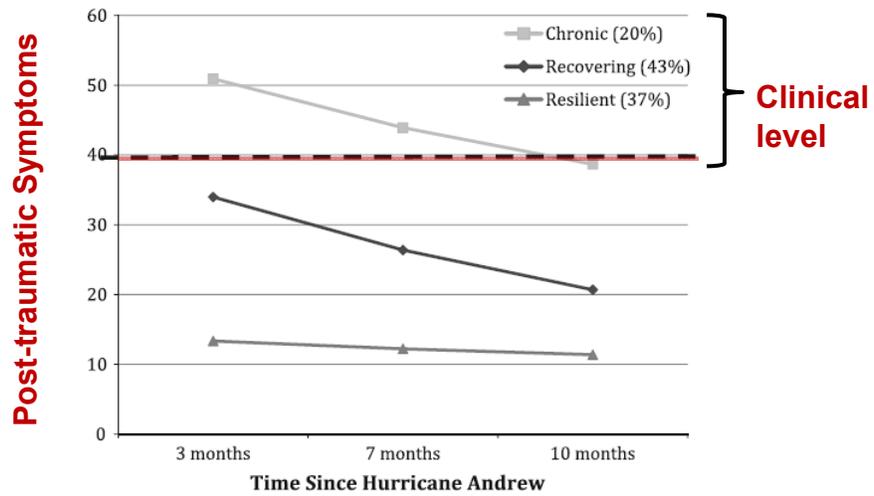
Multiple influences → multiple pathways



Masten et al 2016
Masten & Narayan 2012
Masten & Obradović 2008

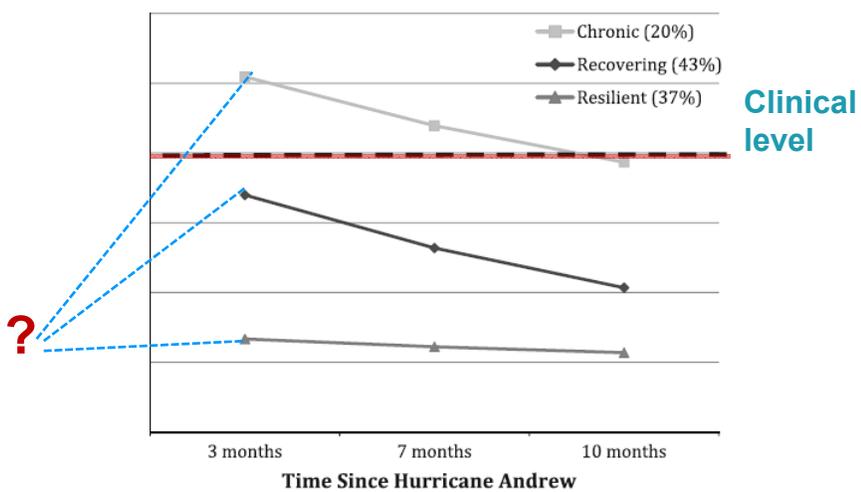


After Hurricane Andrew 1992

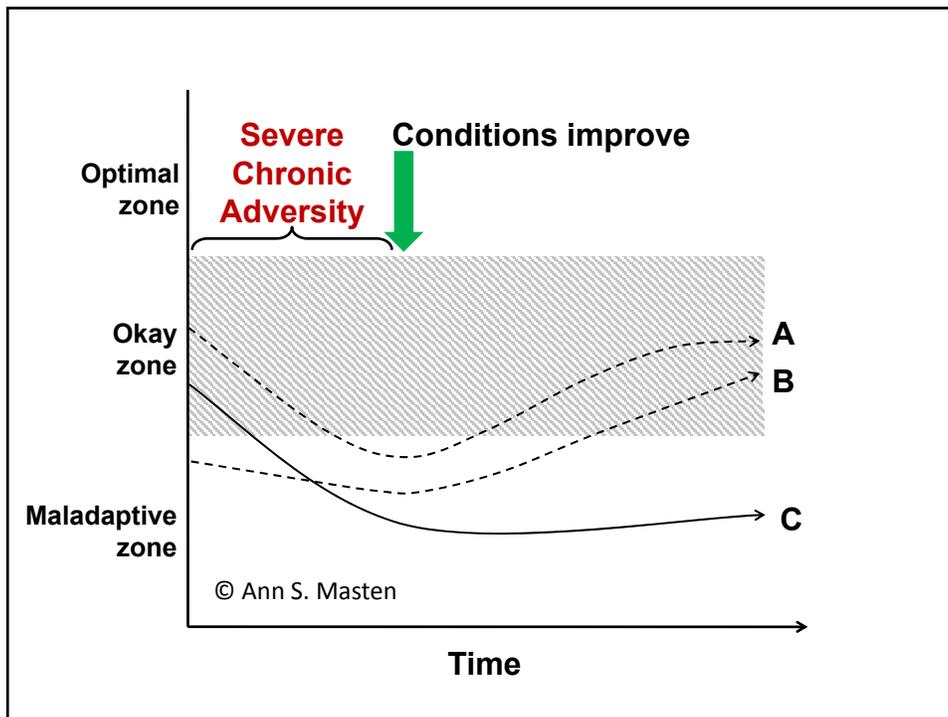


La Greca et al. (2013) *Child Youth Care Forum*, 42, 351-369

After Hurricane Andrew 1992

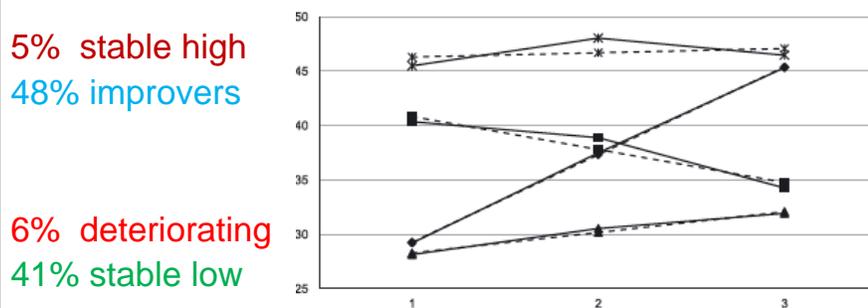


La Greca et al. (2013)



Trajectories of Internalizing Symptoms in War-Affected Sierra Leonean Youth 2002-2008

Betancourt et al (2013) Child Development



After Katrina & Deepwater Horizon oil spill

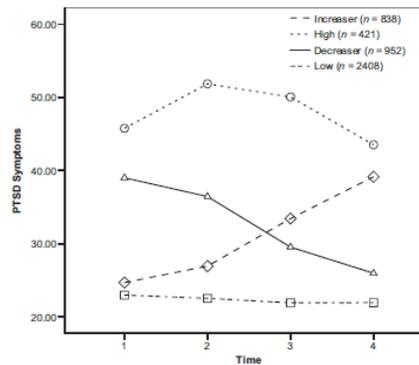
Osofsky et al 2015

Stable high 9%

Steep decreasing 21%

Low increasing 18%

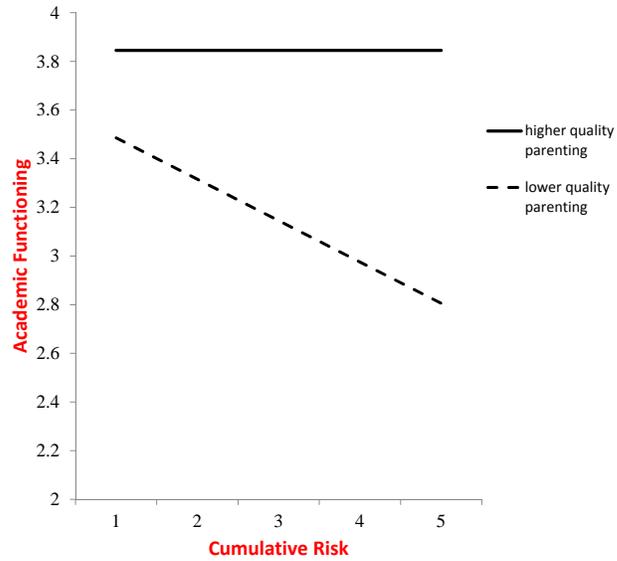
Stable low 52%



Accounting for resilience

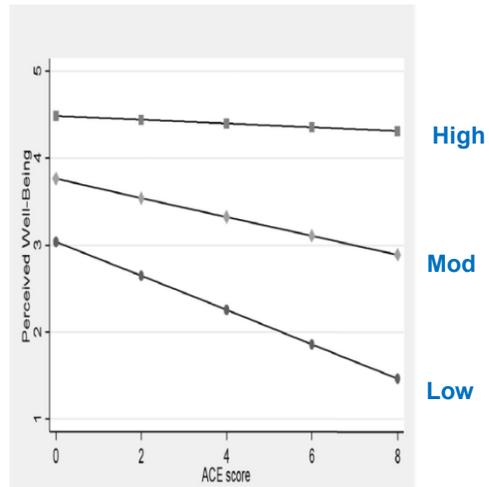
- What counters or mitigates risk?
- What are protective processes?

Parenting protective for achievement



Herbers et al., 2011

“Sense of community”
moderates link of ACEs
to adult well-being
Nurius et al 2015



2010 Behavioral Risk Factor Surveillance System BRFSS for Washington State (random dialing)
N over 13,000

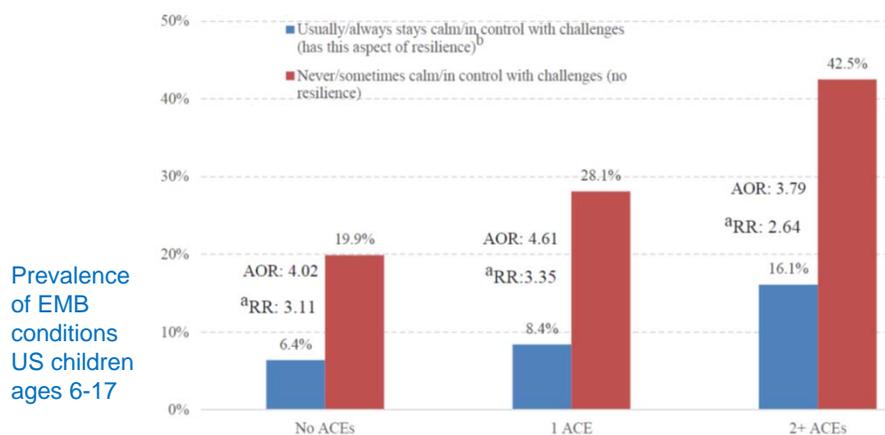
Moderators of ACEs

2011/12 National Survey of Children's Health

- **Good family functioning** mitigated risk of ACEs on adolescent health and well-being
 - Balistreri & Alvira-Hammond 2016

- **Able to stay calm** in face of challenge associated with lower risk for emotional, mental, or behavioral conditions
 - Bethell et al 2016

Relative risk for EMB - emotional, mental, or behavioral - conditions for more & less calm children
(Bethel et al 2016)



What makes a difference?

- Decades of research
- Diverse populations and situations
- Disagreement about concepts
- Inconsistent methods
- Yet...

Striking consistency in findings

Risk & resilience in young people linked to

Dose of exposure (ACEs and other indicators of adversity)

- Current and cumulative

Recovery environment

- Physical, psychological, social, spiritual

Resilience in other systems

- Family and other relationships
- Schools and other community systems

Individual differences

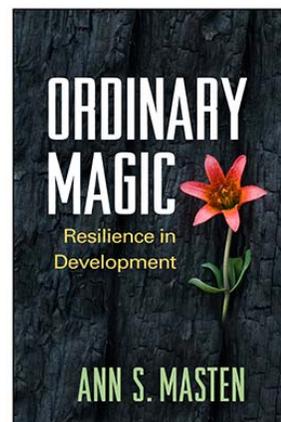
- Biological health and stress systems
- Age, sex, personality, sensitivity to experience

The short list

- Capable caregiving and parenting
- Other close relationships
- Problem-solving skills
- Self-regulation skills
- Motivation to succeed
- Self-efficacy
- Faith, hope, belief life has meaning
- Effective early childhood education, schools
- Effective communities
- Effective cultural practices

What does the short list mean?

- Basic adaptive systems are important for resilience under many different circumstances
- Adaptive capacity extends beyond the person into other social and cultural systems



Resilience science has transformed practice in many fields

- Clinical psychology
 - Psychiatry
 - School psychology
 - Counseling
 - Social work
 - Family social science
 - Pediatrics
- Shifting the focus**
- Positive outcomes
 - Strength-based
 - Promotive & protective processes
 - Building capacity at multiple levels

Strategies for positive change

Risk-focused

- Prevent or reduce exposure to ACEs

Asset-focused

- Increase resources or access to resources

Process-focused

- Restore, mobilize, or harness the power of adaptive systems for resilience

Beyond ACES

- Variation – the missing story
- Assess assets, resources, & protections

These are the clues to mitigating risk and promoting resilience!

New Horizons

- **Neurobiology of ACEs and resilience**
- **Intergenerational transmission**
- **Linking individual, family, and community resilience**
- **Prevention studies to test theory**
- **Empirical capture of pathways**

Integrating resilience across systems, disciplines, applications

In theory

- Molecular & global
- Individual & family
- Family & community
- Psychosocial & ecological
- Human & electronic
- Social & economic

In action

- Public health
- Disaster response
- Humanitarian aid
- Prevention science
- Climate change
- Peacebuilding

Including integration of ACEs and other approaches to assessment of adversity

Enduring lessons

- Resilience is common despite ACEs
- There are many paths of resilience
- Ordinary adaptive systems are powerful
- ACEs can and should be prevented
- Resilience can be supported and promoted



RESILIENCE

[Invitation to a MOOC on Coursera.org](#)

**Resilience in Children Exposed to Trauma, Disaster
and War: Global Perspectives**