Resilience-Science Review Papers

These two papers are the best review articles on Resilience-Science that I have found. Here are some notes from each review.

My editorial comments are in red:

Article #1:

Resilience in Children: Developmental Perspectives. Masten and Barnes. July 2018

Review:

- Their definition of resilience: capacity of a system to adapt successfully to challenges that threaten the function, survival, or future development of the system. Applies to person, family, health care system, community, etc.
- Review of ACEs: adversities that occur during a sensitive period in early neurobiological development which are prolonged and cumulative.
- Emphasis in the definition of resilience over the years have shifted the definition of resilience – from resilience being a particular phenomenon to that of resilience being a dynamic, nonlinear developmental system of involving complex interactions in individuals, families, organizations, etc. Resilience is not a trait, but it is an adaptive capacity that can be drawn upon during current or future challenges.
- Close attachment bonds with a caregiver and effective parenting protect a young child in many ways that are not "located in the child". Multiple backup systems increase a child's capacity for resilience through relationships with other people in their homes or community.

Methods in Developmental Resilience Science

- Initial studies took the form of case studies or descriptions. Many different ACEs have been studied individually or as multiple negative life events. Many studies look at the cumulative risk of ACEs.
- Core questions posed by resilience studies
  - What are the challenges, the risks? Trauma, neglect, ACEs, poverty, etc.
  - How is the person doing? What are the criteria for adaptive success?
    - Developmental tasks, mental health, physical health, happiness, caregiving, etc.
  - What processes support success?
    - Promotive or Protective factors. Neurobiological, behavioral, family, community, cultural, societal.
- **Promotive factors:** factors that help over all levels of risk
  - This is the vaccine theory of resilience-building that MP and CHA are utilizing: to build strength and resilience in ALL individuals before trauma occurs.
- **Protective factors:** play a special role in the context of high adversity or risk.
  - Factors that ameliorate the effect of traumatic stress that has occurred.
- Some of the most widely studied factors appear to have both promotive and protective effects.

- Extensive data suggests that parenting quality is an important promoter and protector for child development.
- This is why MP and CHA have chosen resilience building through anticipatory guidance. To teach parents how to build resilience in their children.

What are the findings from the literature?

Dose of adversity matters

Cumulative risk makes a difference

Variation among individuals exists.

Nature AND nurture. We all have inner capacity for resilience that can be nurtured by our relationship with others.

Study of those individuals who demonstrated strong inner resilience motivated questions of "how" they were successful.

Promotive and Protective Influences: The Shortlist (per Masten)

- This short list is accumulated from a broad review of resilience research regarding resilience factors for a child. Masten then compared the shortlist to the independent literature on family resilience.
- Though the literature on resilience of an individual is "surprisingly independent" of the literature on family resilience, striking parallels were found:

Resilience factors for Child Development in black. *Resilience factor for families in blue*

1. Caring family, sensitive caregiving (*nurturing family member*)
2. Close relationships, emotional security, belonging *(family cohesion, belonging)*
3. Skilled parenting *(skilled family management)*
4. Agency, motivation to adapt *(active coping, mastery)*
5. Problem-solving skills, executive function skills *(collaborative problem-solving, family flexibility)*
6. Self-regulation, emotional regulation *(co-regulation, balancing family needs)*
7. Self-efficacy, a positive view of self *(positive view of family or family identity)*
8. Hope, faith, optimism *(hope, faith, optimism, positive family outlook)*
9. Meaning-making, believing life has meaning *(coherence, family purpose)*
10. Routines and rituals *(family routines and rituals, family role organization)*
11. Engagement in a well-functioning school
12. Connections with well-functioning communities

Timing Matters

- Just as there has been acknowledgement that timing of ACEs matters, research also shows that there are windows of opportunity for facilitating resilience through preventive interventions.
    - Preschool years, social-emotional development, KG readiness

- Research science also has identified the transition years of late adolescence to early adulthood as an opportunity for intervention. This time frame is when brain development is rapidly maturing, and executive functioning improving. Mentor programs, executive function skills building, military service, apprenticeships have been useful during this time period in youths who turned their lives in a more positive direction.

Research on resilience suggests three basic strategies for intervention:

1. Risk-focused. E.g. screening depression in parents, reducing family violence, preventing homelessness.
2. Asset-focused Promotive Interventions. Boosting resources and assets available to children and families. Reach Out and Read. Sit Down and Play. Minnesota funding learning scholarships to low-income children to attend high quality early childhood programs.
3. Nurturing Resilience in Pediatric Systems.
    a. [CHA'S RESILIENCE-BUILDING CURRICULUM FITS IN THIS CATEGORY].
    b. Asset/Strength Screening. Family Asset Survey.
    c. Child and Youth Resilience Measure (CRYM) - for older children.
    d. Devereux Early Childhood Assessment-Clinical Form (DECA-C). For younger children age 2-5 years.

Summary from the author: " ***Just as we need Trauma-Informed Care to provide compassionate care to trauma survivors, we also need "resilience-informed care" utilizing strengths-based models of resilience-building."***

- [CHA IS LEADING THE WAY REGARDING THIS STATEMENT]

Article #2:

Modifiable Resilience Factors to Childhood Adversity for Clinical Pediatric Practice. Traub and Boynton-Jarrett. November 2016.

This article was voted by the editors of *Pediatrics* as "Best of 2019" for impact on pediatricians

40 years of research has identified protective factors for traumatize children that improve health outcome.

Authors review peer-reviewed studies published in the last 5 years:

1. Longitudinal studies of traumatized children showing resilience factors.

2. Randomized control trials with resilience as a primary outcome.

Resilience review. Zolkoski reviewed resilience literature identified 3 waves of research:

- Understanding and preventing psychopathology
- How resilience factors lead to good outcomes
- How to promote resilience through prevention, intervention and policy change

5 MODIFIABLE RESILIENCE FACTORS:

1. Positive appraisal style and executive function skills
2. Parenting
3. Maternal mental health,
4. Self-care and household routines
5. Enhancing Trauma understanding

The most practical aspect of this review is that the authors gave us 10 recommendations that allow leveraging of the 5 modifiable factors. It is rewarding to see that the pediatricians of MP and CHA are clearly on the right path and have been fulfilling some of these recommendations already in the last three years.

10 RECOMMENDATIONS FOR LEVERAGING THE 5 MODIFIABLE FACTORS

1. **Train all staff in Trauma-informed care.**
    a. CHA clinics have done this, and we are maintaining this training with updates via webinars.
2. **Screen pediatric patients for ACEs, resilience, maternal psychopathology and ACEs**
    a. MP should be ready to provide this for all clinics within the year.
3. **Employ nonphysicians for screening and education**
    a. CHAOS is the one CHA pediatric clinic that has done this, to my knowledge. I agree with this recommendation and think more of us should do this.
4. **Create a medical home for children with ACEs**
    a. Done.
5. **Integrate Behavioral health.**
    a. Many CHA clinics have this, but not all.
6. **Offer group-based education and support.**
    a. The author is talking about anticipatory guidance towards parents: in office, through parenting classes, or group sessions
7. **Offer peer-based group education and anticipatory guidance**
    a. The author suggests that support groups for adults and families with previous ACEs help to establish a community of healing and improve outcome.
8. **Customize pediatric health care to the family considering trauma's effects.**

    a. This can be accomplished through Care Management within the Medical Care Home
9. **Familiarize pediatric staff with resources in the community.**
    a. This is ongoing at this time.
10. **Be cognizant of barriers facing families with ACEs: perceptions, stress, lack of social support, logistics.**
    a. This is a part of our Compassion-Informed Care training.