This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike License. Your use of this material constitutes acceptance of that license and the conditions of use of materials on this site.
Resilience in Adolescence

Robert Wm. Blum, MD, MPH, PhD
Johns Hopkins University
Section A

First Generation Resilience Research
First Generation Resilience Research

- Emmy Werner: Children of Kauai Study
- Norm Garmezy: Resilience
- Michael Rutter: Isle of Wight Study
### First Generation Components of Risk and Resilience

<table>
<thead>
<tr>
<th>Factors</th>
<th>Risk</th>
<th>Resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dispositional (personal</td>
<td>• Prenatal/perinatal stress</td>
<td>• Spirituality</td>
</tr>
<tr>
<td>characteristics)</td>
<td>• Poor expressive language</td>
<td>• Positive social skills/orientation to other person</td>
</tr>
<tr>
<td></td>
<td>• Physical impairment</td>
<td>• Internal locus of control</td>
</tr>
<tr>
<td></td>
<td>• Aggressive temperament</td>
<td>• Higher intelligence (e.g., average)</td>
</tr>
<tr>
<td></td>
<td>• External locus of control</td>
<td>• Positive self-concept</td>
</tr>
<tr>
<td></td>
<td>• Lower intelligence</td>
<td>• More androgynous</td>
</tr>
<tr>
<td></td>
<td>• Learning problems</td>
<td>• Higher self esteem</td>
</tr>
<tr>
<td></td>
<td>• More traditional sex role</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Changes of puberty</td>
<td></td>
</tr>
</tbody>
</table>
### First Generation Components of Risk and Resilience

<table>
<thead>
<tr>
<th>Factors</th>
<th>Risk</th>
<th>Resilience</th>
</tr>
</thead>
</table>
| Dispositional (personal characteristics) | • Prenatal/perinatal stress  
• Poor expressive language  
• Physical impairment  
• Aggressive temperament  
• External locus of control  
• Lower intelligence  
• Learning problems  
• More traditional sex role  
• Changes of puberty | • Spirituality  
• Positive social skills/orientation to other person  
• Internal locus of control  
• Higher intelligence (e.g., average)  
• Positive self-concept  
• More androgynous  
• Higher self esteem |
First Generation Components of Risk and Resilience

<table>
<thead>
<tr>
<th>Factors</th>
<th>Risk</th>
<th>Resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>• Low maternal education&lt;br&gt;• Family discord&lt;br&gt;• High maternal stress&lt;br&gt;• Poverty&lt;br&gt;• Family mental illness&lt;br&gt;• Overcrowding&lt;br&gt;• Lack of a positive mother-child relationship&lt;br&gt;• Family chaos&lt;br&gt;• Large family size</td>
<td>• Connectedness with at least one parent&lt;br&gt;• Family cohesion&lt;br&gt;• Family structure&lt;br&gt;• Sibling closeness</td>
</tr>
</tbody>
</table>
### First Generation Components of Risk and Resilience

<table>
<thead>
<tr>
<th>Factors</th>
<th>Risk</th>
<th>Resilience</th>
</tr>
</thead>
</table>
| External     | • Few, if any, external supports (formal or informal)  
  • More than four stressful life events | • Caring adult other than parents  
  • Involvement with school and/or community  
  • Friendship network  
  • Fewer negative life events  
  • More caregivers during childhood |

---
Conclusions from First Generation of Research

- Resilience and happiness are not synonymous
- Individual developmental and environmental factors interact, resulting in adolescent behaviors
- Young people do not consistently show resilience across all domains of their life
- Failure to address emotional needs can derail resilience
Section B

Definitions
Resilience Defined

- **Resilience**: a dynamic process whereby individuals display positive adaption despite experiences of significant adversity or trauma (Luther and Craccetti, 2000)
Vulnerability and Protection

- **Vulnerability**: a state which results from the presence of factors (neurodevelopmental, familial, environmental) that increase the odds of maladaptive behaviors occurring

- **Protection**: results from the presence of factors that diminish negative outcomes and increase the odds of positive adaption
Stress

- **Stress**: state where the well-being (or integrity) of an individual is endangered and he must devote all his attention to its protection (Cofer and Appley, 1964)
Stress Demands Response

- Four stages of stress response
  - Problem confrontation
  - **Tension**: the inner response to problem confrontation
  - **Tension management**: the speed with which problems are confronted and resolved
  - **Stress**: the state in which energy is consumed in dealing with problems above the energy required for a resolution (Antonovsky, 1979)
Section C

Factors That Buffer and Exacerbate Stress
Factors That Buffer and Exacerbate Stress

- Compensatory factors
- Protective factors
- Vulnerability processes
Without Stress …

- … There is no test of resilience
A Model of Resilience in Adolescence

Macro level
Environmental factors

Proximal level
Environmental factors
Individual factors

Response

Outcome

Stress

Biological factors

Temperament and cognitive factors

Adaptive vs. maladaptive behaviors

Neighborhood
Poverty
Discrimination
Inequality

Family
Peers
School

Involuntary response
Voluntary response

Involuntary response
Voluntary response
A Model of Resilience in Adolescence

Stress → Outcome

Adaptive vs. maladaptive behaviors
A Model of Resilience in Adolescence

Macro level
Environmental factors

Neighborhood  
Poverty  
Discrimination  
Inequality  

Stress

Outcome

Adaptive vs. maladaptive behaviors
A Model of Resilience in Adolescence

Macro level
- Environmental factors
  - Neighborhood
  - Poverty
  - Discrimination
  - Inequality

Stress

Outcome
- Adaptive vs. maladaptive behaviors
Neighborhood Factors: Poverty

- Lower grades
- Lower educational attainment
- More school drop out
- More delinquency
- More precocious sexual activity/child bearing
How Does Poverty Impact Outcomes?

- Less social and financial capital
- More social disorganization
- Less collective efficiency
- More discrimination
- More inequality
A Model of Resilience in Adolescence

Macro level
Environmental factors

Proximal level
Environmental factors

Outcome
Adaptive vs. maladaptive behaviors

Neighborhood → Stress
Poverty → Stress
Discrimination → Stress
Inequality → Stress
Family ← Stress

Stress → Outcome
Family Factors

- Globally, family has consistently been shown to be the most protective factor in the lives of young people
Elements of Positive Parenting

- Behavioral monitoring
- Closeness and connectedness
- Emotional responsiveness
- Knowing child’s friends, their friends’ parents, their teachers
- Setting high behavioral and educational expectations
Parenting Styles

- Authoritative
- Authoritarian
- Lazier-faire
- Neglectful

Source: Baumrind. (1965).
Parenting Styles

- Authoritative
- Authoritarian
- Lazier-faire
- Neglectful

Source: Baumrind. (1965).
Dimensions of Parenting

- Connection
- Control
- Regulation

Source: Barber et al. (2005).
A Model of Resilience in Adolescence

Macro level
Environmental factors

Proximal level
Environmental factors

Outcome
Adaptive vs. maladaptive behaviors

Neighborhood
Poverty
Discrimination
Inequality

Stress

Family
School
School Factors

- Young people who are attached to school appear to be less involved in every risk behavior.
Factors That Appear to Influence School Attachment

- Having a sense of being part of the school
- Liking school
- Perceiving teachers as supportive and caring
- Having good friends in school
- Being engaged in one’s own future
- Believing discipline is fair
- Being engaged in extra-curricular activities

Behavioral Consequences of School Engagement

- Less disruptive and violent behavior
- Less weapon carrying
- Less drug use
- Less tobacco use
- Less drunkenness
- Less emotional distress
- Fewer suicide attempts
- Later age first sex

Four Principles of Engaging Schools

- High academic standards
- Personalized learning
- Relevance
- Flexible

A Model of Resilience in Adolescence

Macro level
Environmental factors

Proximal level
Environmental factors

Outcome
Adaptive vs. maladaptive behaviors

Stress

- Neighborhood
- Poverty
- Discrimination
- Inequality

- Family
- Peers
- School
Peers

- Peers tend to be a positive socializing force
Close Prosocial Peer Relationships Are Associated With …

- Decreased stress
- Less tobacco use, later age first sex (more religious peers)
- Less depression
- Less drug use
- Better academic performance
Influence of Peers

- Youth are more likely to conform behaviorally to the views of peers than parents
**Cliques and Crowds**

- **Clique**: a small group of friends who hang out together and are personally close
- **Crowd**: reputation-based collectives

Rank-Order Factors Associated with Popularity

1. Cool clothes
2. Attractive
3. Funny
4. Good in sports
5. Outgoing
6. Self-confident
7. Tough
8. Not attentive in school

A Model of Resilience in Adolescence

Macro level
- Environmental factors
  - Neighborhood
  - Poverty
  - Discrimination
  - Inequality

Proximal level
- Environmental factors
- Individual factors
  - Family
  - Peers
  - School

Biological factors

Outcome
- Adaptive vs. maladaptive behaviors
Brain Development

- Brain development occurs within the context of the environment
- Toxic environments impede normal brain development
The Process of Toxic Stress

Stress → Hypothalamus

Hypothalamus → GRF-

GRF- → Pituitary (ACTH)

Pituitary (ACTH) → +

+ → Adrenal (cortisol +)

+ → Adrenal (cortisol +)

- → Adrenal (cortisol +)
Persistently Elevated Cortisol in Adolescence

- Decreased synaptic and dendritic density early in life
- Decrease in pubertal hormones
- Diversion of brain resources away from learning to survival (e.g., fight or flight)
- Interruption of normal neurotransmitters (e.g., serotonin)
The Neurodevelopmental Impact of Chronic Abuse

- Diminished hippocampal volume
- Impaired development of frontal lobe (executive functioning)
- Diminished emotional control
- Problems with social relations and academic performance
A Model of Resilience in Adolescence

**Macro level**
- Environmental factors
  - Neighborhood
  - Poverty
  - Discrimination
  - Inequality

**Proximal level**
- Environmental factors
- Individual factors
  - Family
  - Peers
  - School

**Outcome**
- Adaptive vs. maladaptive behaviors

**Biological factors**
- Temperament and cognitive factors
Temperament

- **Temperament**: relatively stable, early appearing, biologically rooted individual differences in behavioral traits (Rothbart and Bates, 1998)
Temperamental Factors Associated with Resilience

- Easy temperament
- Emotional reactivity
- Sociability
- Self-regulation
- Attention/focus
Traits Associated with Resilience

- Sound cognitive, attention, and problem-solving skills
- Effective emotional and behavior regulation
- Positive self-perceptions of efficacy and worth
- Hopefulness
- Religious faith and affiliations
- Aptitudes and characteristics valued by society (e.g., talent, attractiveness)
Traits Associated with Resilience

- Prosocial friends
- Socioeconomic advantage
- Effective school, school bonding
- Effective community
- One or more effective parents
- Connections to other competent, caring adults
Cognitive and Self-Regulatory Attributes of Resilience

- Self-regulation
- Executive function
- Emotional regulation
- Attachment to prosocial adults, peers, community institutions
- Opportunities for regulatory capacity building

(Source: Masten, A. (2004).)
Thriving in the Face of Adversity

- Flexible coping strategies
- Internal locus of control
- Intelligence
- A sense of humor
- Social responsiveness

A Model of Resilience in Adolescence

Macro level
- Environmental factors
  - Neighborhood
  - Poverty
  - Discrimination
  - Inequality

Proximal level
- Environmental factors
- Individual factors
  - Family
  - Peers
  - School

Response
- Involuntary response
- Voluntary response

Outcome
- Adaptive vs. maladaptive behaviors

Biological factors
- Temperament and cognitive factors