

# The Adolescent Brain:

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APPLYING EMERGING SCIENCE TO OUR WORK  
WITH OLDER YOUTH IN FOSTER CARE

# Older Youth and Young Adults in Foster Care

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- One quarter of all children who enter foster care are age 14 and older.
- These have longer stays in foster care than do younger children.
- High numbers of youth are placed in congregate care settings (61,000 in FY 2010).
- Youth of color are overrepresented in foster care
- Since FY 2002, more than 200,000 young people “emancipated” from foster care. Emancipation is more common among those who enter care as older youth.

# The Emerging Knowledge Base

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**A FOUNDATION FOR DEVELOPMENTALLY  
APPROPRIATE CHILD WELFARE PRACTICE  
WITH OLDER YOUTH AND YOUNG ADULTS IN  
FOSTER CARE**

# Some Key Concepts and Findings

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- **Connected by 25**
- **Emerging adulthood**
- **Social capital**
- **Adolescent brain development**
- **The impact of trauma on brain development**
- **Resilience**
- **Neuroplasticity**
- **Positive youth development**

# Connected by 25: Interconnected Needed Supports

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## RELATIONAL SUPPORTS

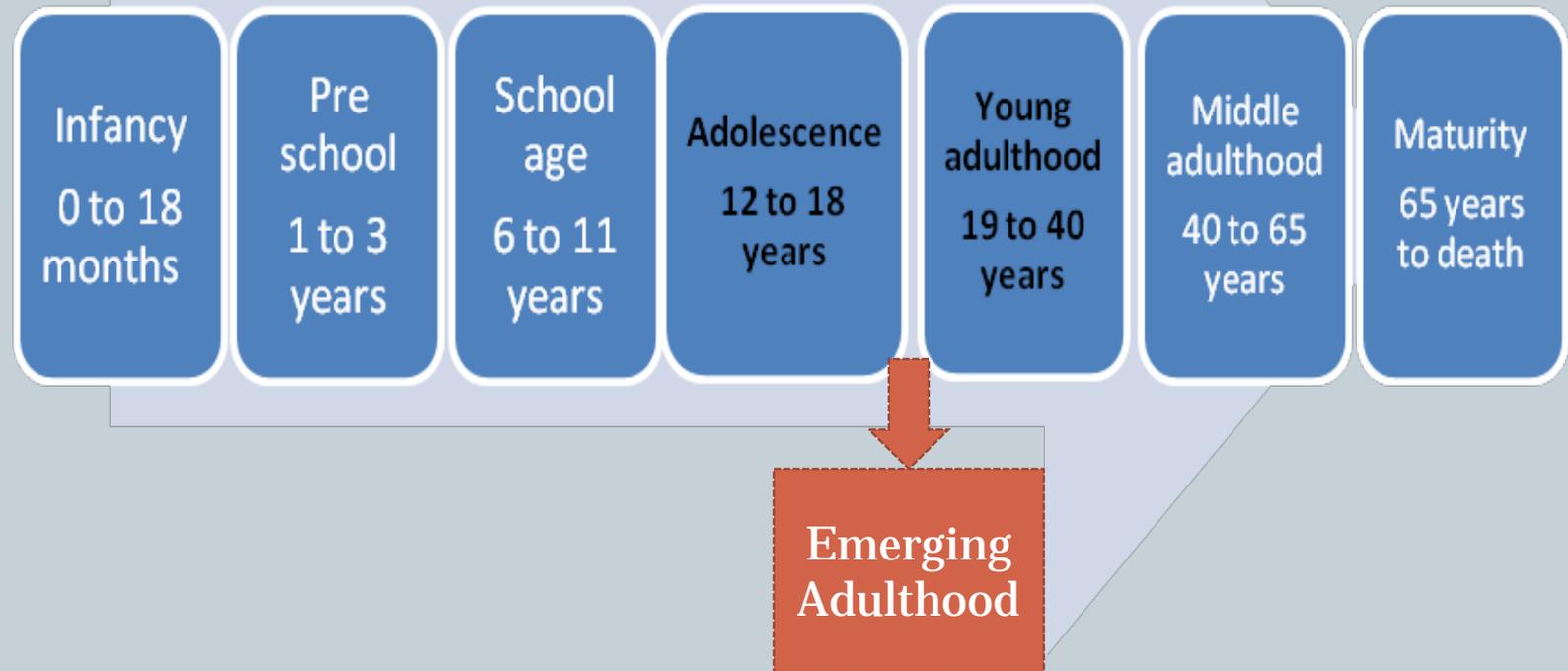
- Family supports
- A web of supportive relationships that give meaning to life
- Social and civic engagement and opportunities to connect to one's community

## PREPARATION FOR ADULTHOOD

- Education and training opportunities
- Employment as a link to a career path
- Adequate health and mental health supports

# Emerging Adulthood

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# Emerging Adulthood

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- Gradual transition to adulthood: linear increases over time in separation and gradual independence
- Interdependence
- Gradually completing the many developmental tasks necessary to transition from adolescence to adulthood

# Emerging Adulthood

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“For today’s young people, the road to adulthood is a long one. . . . From their late teens to their late twenties, they explore the possibilities available to them in love and work, and move gradually toward making enduring choices. Such freedom to explore different options is exciting and this period is a time of high hopes and big dreams. However, it is also a time of anxiety and uncertainty because the lives of young people are so unsettled, and many of them have no idea where their explorations will lead.”

Arnett, 2007

# Developmental Tasks in Adolescence and Emerging Adulthood

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## The adolescent/emerging adult is expected to:

- Adjust to a new physical sense of self
- Adjust to new intellectual abilities
- Meet increased cognitive demands at school
- Expand verbal skills
- Develop a personal sense of identity
- Consolidate the capacity to control impulses, calibrate risks and rewards, regulate emotions, project the self into the future, and think strategically
- Establish adult vocational goals
- Gain emotional and psychological independence from parents
- Develop stable and productive peer relationships
- Learn to manage sexuality and a sexual identity
- Adopt a personal value system
- Develop increased impulse control and behavioral maturity

# Emerging Adulthood and Social Capital

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- Social networks and social relationships; a bonding between similar people and a bridging between diverse people
- The value created by investing in relationships with others through processes of trust and reciprocity

**Sources of social capital for youth:**  
family, school, community and peers

# Emerging Adulthood and the Role of Family

*“Ongoing positive family connections are protective factors against a range of health risk behaviors. Although the nature of relationships is changing, the continuity of family connections and a secure emotional base is crucial for the positive development of young people. Adolescents are moving towards becoming independent physically, emotionally and cognitively, and yet they are still growing. Young people still require stability in a home environment and a secure emotional base from which to explore and experience the world. This also provides them with somewhere to come back to for reassurance, support, and unconditional love in tough times.”*

Howe, et al., 1999

# Emerging Adulthood and Adolescent Brain Development

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## The Brain in Adolescence:

- A period of gradual and continuing brain maturation – beginning in puberty and continuing through the mid-20s
- The brain is not “fully cooked”
- A period like early childhood – a need for rich opportunities to support youth through a cognitive, social and emotional development process – experiences that can lead to healthy and constructive adulthood

# The Adolescent Brain

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*“Adolescence is a time of enormous opportunity and of enormous risk. And how the teens spend their time seems to be particularly crucial. If the ‘use it or lose it’ principle holds true, then the activities of the teen may help guide the hard-wiring, actual physical connections in their brain.”*

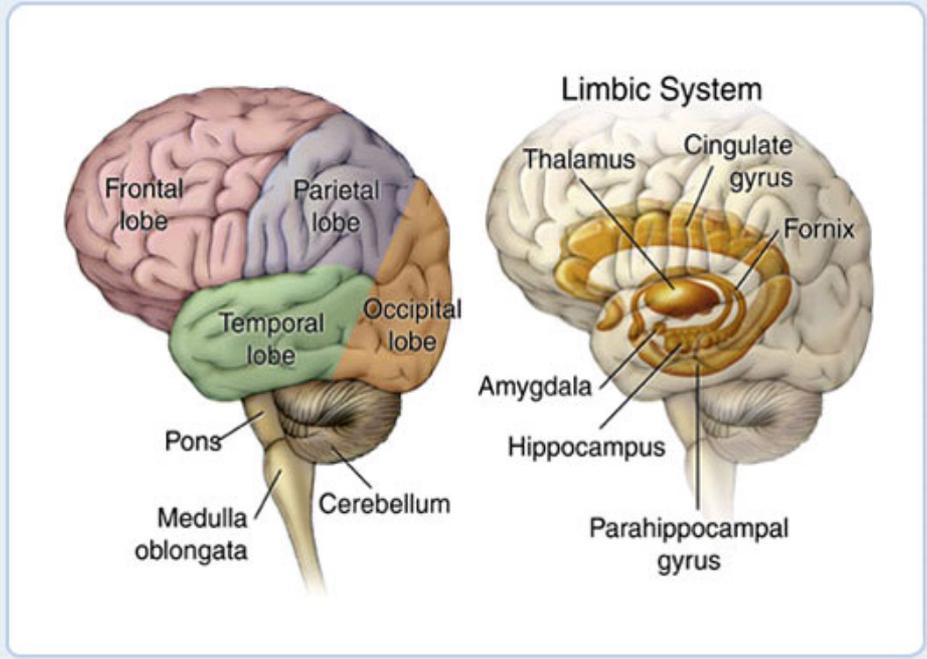
Dr. Jay Giedd

# Adolescent Brain Development: A Brief Science Lesson!

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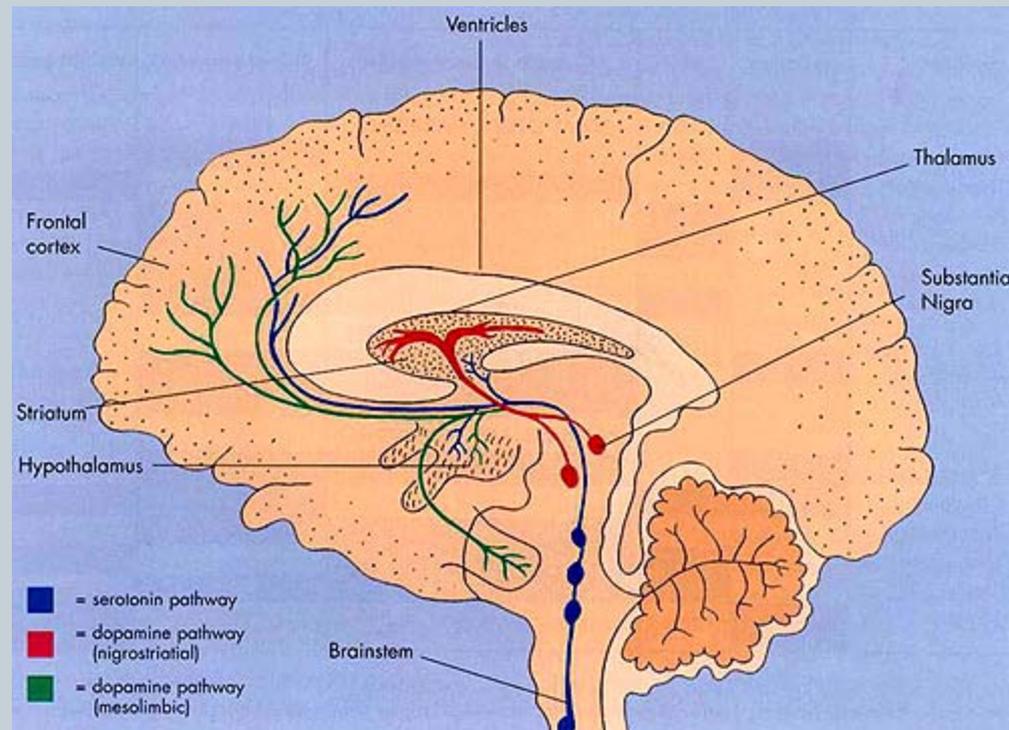
- Gradual development of the prefrontal cortex
- Shifting levels of dopamine
- Pruning and myelination

# Gradual Development of the Prefrontal Cortex



# Shifting Levels of Dopamine

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# Shifting Levels of Dopamine

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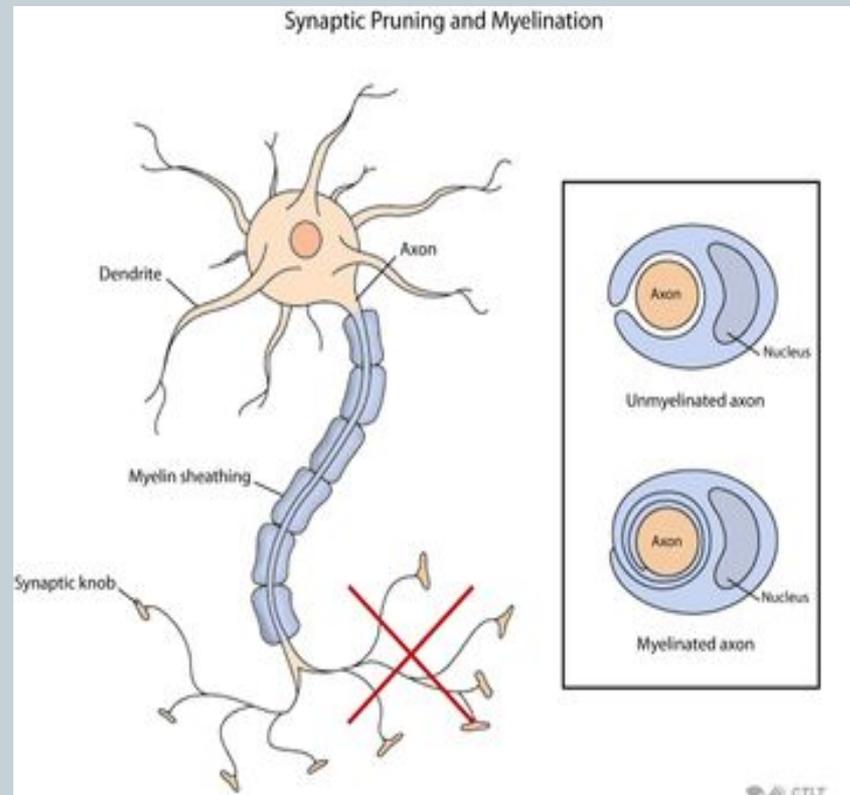
## Risk Taking

- Unhealthy risk taking
- Healthy risk taking



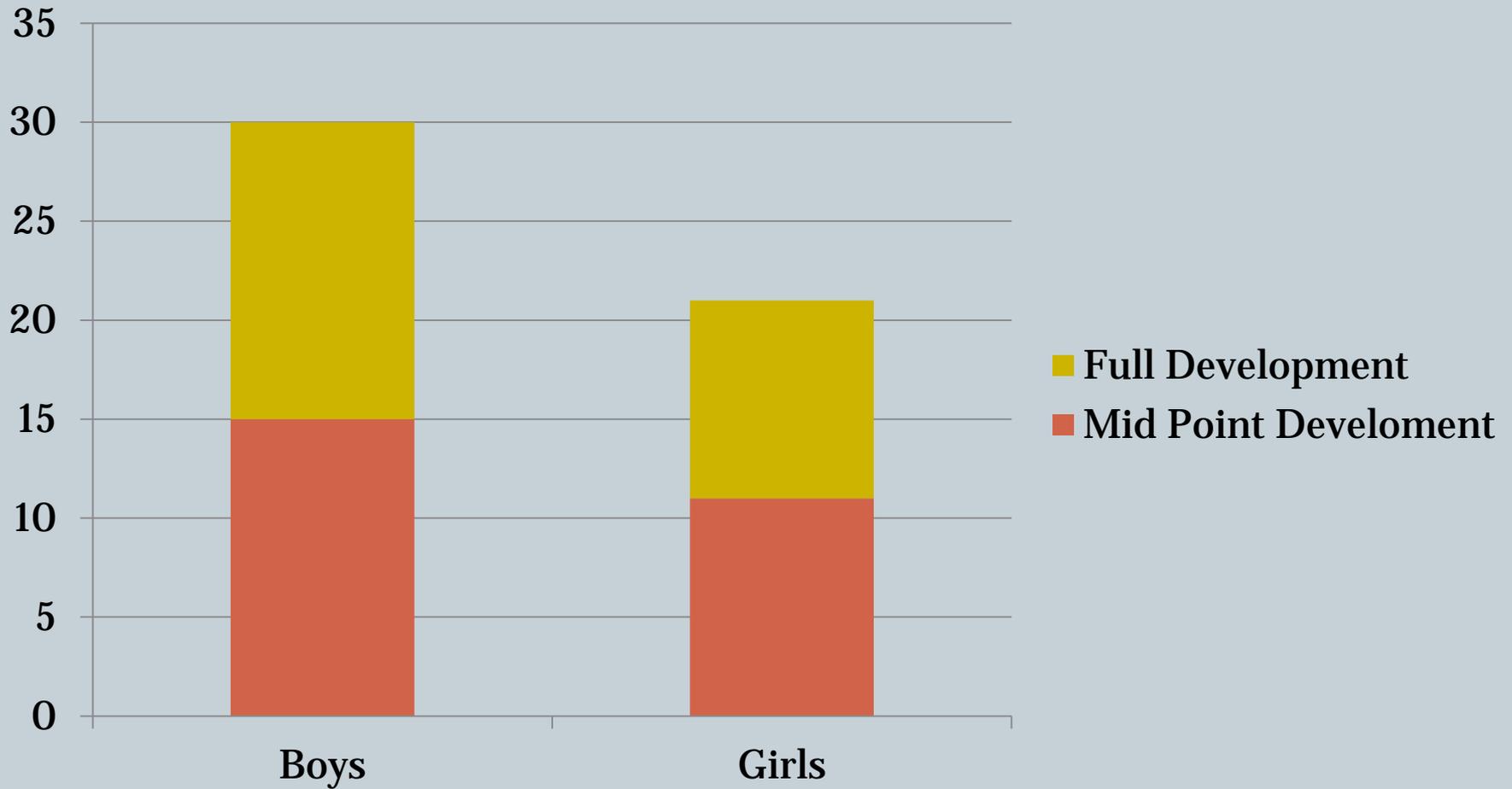
# Pruning and Myelination

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# Brain Development in Boys and Girls

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# The Adolescent Brain

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*“Neuroscience, the scientific study of the biology of the brain, has made great strides over the past decade in revealing that remarkable changes occur in the brain during the second decade of life. Contrary to long-held ideas that the brain was mostly grown up – “fully cooked” – by the end of childhood, it is now clear that adolescence is a time of profound brain growth and change.”*

Weinberger, Elvevag, & Giedd, 2005

# Trauma and Brain Development: Key Concepts

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- **Early relational experiences**
- **Synaptic pruning in early childhood**
- **Toxic stress and trauma**
- **Delays in brain maturation**
- **Reactions in adolescence to earlier trauma**

# Complex Trauma

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- **The dual problem of the child's exposure to multiple traumatic events (persistent poverty, discrimination, abuse or neglect, separation and loss of family, multiple moves, relationship disruptions) and the impact of this exposure on immediate and long term outcomes**

# Complex Trauma

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- 40% to 85% of youth in foster care have a mental health disorder in their lifetimes
- *Casey Field Office Mental Health Study: Youth between the ages 14 and 17*
  - 63% of youth had at least one diagnosis of a mental health disorder in their lifetimes compared with 46% of the youth population
  - 23% of youth in care has had 3 or more diagnoses in their lifetimes compared to 15% of general population

# PTSD

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- **Northwest Alumni Study:** Examined outcomes for 659 young adults who had been placed in family foster care as children.
- One of the most remarkable things they discovered was that one in four (25.2%) of these foster care “alumni” had experienced posttraumatic stress disorder (PTSD) within the previous 12 months. This rate of PTSD is nearly double that of US war veterans.

# Ambiguous Loss

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- No verification of death or no certainty that the person will come back
- No clear boundaries, no clear ending, often no culturally recognized rituals for grieving or acknowledging what has been lost
- Gina Samuels' study: Relationships for a reason, a season or a lifetime ...

# Symptoms of Trauma and Loss: Youth in Foster Care

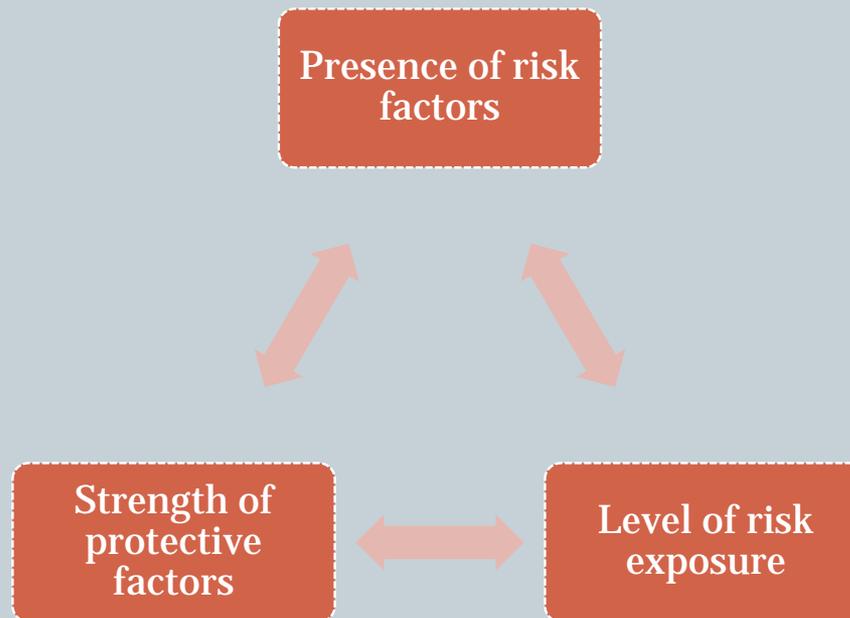
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Behavioral Responses		Grief-Related Responses
Internalized Behaviors	Externalized Behaviors	
<ul style="list-style-type: none"> <li>•Depression</li> <li>•Hopelessness</li> <li>•Anxiety</li> <li>•Fear</li> <li>•Insecurity</li> <li>•Somatic complaints</li> <li>•Attachment concerns</li> <li>•Delayed conscience development</li> </ul>	<ul style="list-style-type: none"> <li>•Hostility</li> <li>•Anger</li> <li>•Aggression</li> <li>•Control battles</li> <li>•Frustration</li> <li>•Lack of self-awareness</li> <li>•Over-compensation</li> <li>•Indiscriminate affections</li> <li>•Poor eye contact</li> <li>•Non-age appropriate behaviors</li> <li>•Sexualized behaviors</li> </ul>	<p>Feelings of:</p> <ul style="list-style-type: none"> <li>•Shock</li> <li>•Denial/isolation</li> <li>•Guilt/shame</li> <li>•Anger</li> <li>•Bargaining</li> <li>•Depression and despair</li> <li>•Eventual adjustment and acceptance</li> </ul>

# Resilience

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- The ability to overcome adverse conditions and to function normatively in the face of risk
- Interactive process:



# Resilience

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Young people who have experienced abuse, neglect, or separation from family in early childhood can develop resilience when supported by safe, nurturing, and caring adults.

Young people can learn to thrive when provided with positive new learning experiences and developmental opportunities.

# Building Resilience

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## Internal Assets

- Social competence
- A strong self image
- A sense of purpose

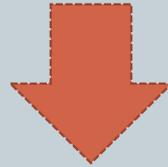
## External Assets

- Caring relationships
- High expectations
- Opportunities to meaningfully contribute

# Rewiring the Brain After Trauma: Neuroplasticity

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- Changes in the brain caused by trauma are not necessarily permanent.
- The brain is constantly forming new neural pathways, removing old ones and altering the strength of existing connections.



**NEUROPLASTICITY:**  
The ability of the brain to alter its structure in response to experience.



# Rewiring the Brain

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- **Healthy relationships with caring adults**



- **Programs and services that provide young people with opportunities to learn through experience and develop skills and abilities that they can carry throughout their lives**

# Positive Youth Development

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- Positive youth development focuses on providing young people with information, skills, and supports so that they can be fully involved partners in their own planning and decision-making.
- Science has begun to document the outcomes of positive youth development programs, demonstrating that positive youth development is more than a useful practice—**it is a neurological imperative.**

# Positive Youth Development

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- **Capitalizes on the processes of adolescent brain development**
  - Development of the prefrontal cortex
  - Supports healthy risk taking
  - Supports adaptive pruning and myelination
- **Encourages the formation of internal and external assets so that young people build resilience**
- **Maximizes the opportunities of neuroplasticity**

# Positive Youth Development

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- Supports young people in developing the capacity to reach for the relationships that family and community offer
- Provides multiple positive interactions as a means for young people to uncover, recognize, and be supported in pursuing their own unique aspirations
- Provides them with adults who can offer teaching, role modeling and guidance towards competence

# Positive Youth Development with Youth in Foster Care

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- Adults work with young people to develop caring relationships with family members and others.
- Youth are actively engaged in their own case planning that creates an opening for clinical work related to loss, grief, and trauma.
- Adults clearly communicate high expectations across all life domains and provide young people with opportunities to participate meaningfully in their own planning and decision-making.

# Positive Youth Development with Youth in Foster Care

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- **Young people are seen as:**
  - Experts on themselves and their families
  - The best resource for identifying caring adults in their lives

# What We Can Do

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Acknowledge family and caring adults as essential *social capital for young people* as they gradually transition to adulthood



# What We Can Do

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Focus on *relationships and networks* when providing all services to promote permanency and prepare young people for adulthood



# What We Can Do

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Develop *youth-engagement practices* that are informed by the emerging science of adolescent brain development



# What We Can Do

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Understand the impact of trauma on the developing brain—in particular, the concepts of *resilience and neuroplasticity*, which must inform trauma-specific mental health services and supports



# What We Can Do

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- Recognize the essential role of *positive youth development* in supporting healthy brain and social development
- Take a *youth development approach* to developing services



**Questions? Comments?**

**THANK  
YOU**

**Madelyn Freundlich**

**[mdf@excalconsulting.com](mailto:mdf@excalconsulting.com)**

**212.371.0800, ext. 222**