



Adolescent Neurodevelopment: Implications for the Foster Care System and Policy

Adriana Weyandt, Psy.D
Child Intensive Outpatient
Manager, Kaiser Permanente
South Sacramento

[Objectives]

- Discuss the developmental milestones reached and progressed through during adolescence.
- Briefly reference the implications of the developmental information on practice and policy.

Stages of Development: Ages 16-25

- Not until the late 1960's and early 1970's was it shown that neurodevelopment continues until age 25; even 26 for males.
- The area of the brain undergoing the most significant change during this time is the pre-frontal cortex.
 - Due to the myelination of the neurons in the prefrontal cortex after puberty.
- Pruning in most other areas of the brain is completed prior to puberty, but not in the prefrontal cortex.

[Adolescent Neurodevelopment]

- Pruning in the prefrontal cortex doesn't stop until around age 25; some research even says up to age 32.
- Application of this information:
Adolescents are still malleable in their thinking, skill level, impulse control, social ability, speech fluency and learning capacity.

[Areas of Adolescent Development]

- Broca's and Wernicke's Areas
- Corpus Callosum
- Parietal Cortex
- Pre-frontal Cortex, Dorsal portion

What do these areas of the brain do?

- Broca's and Wernicke's Areas
 - Broca's area is associated with expressive language.
 - Wernicke's area is responsible for receptive language and integration of receptive and expressive language to make coherent and understandable sentences.

What do these areas of the brain do?

■ Corpus Callosum

- The connection between the two hemisphere's in your brain.
- It helps in maintaining the balance of arousal and attention.
- The “highway” between the two lobes of the brain.

[What do these areas do?]

- Parietal Cortex

- Made up of two lobes that are responsible for perception, sensation and spatial organization.
- This assists in the transition from concrete thinking to more abstract thinking in adolescents and young adults.

[What do these areas do?]

- Pre-frontal Cortex – the last area to develop fully
- Responsible for:
 - Abstract reasoning
 - Executive Functions
 - Multi-tasking
 - Impulse control

What does adolescent development look like in real life and for my clients?

- Acting out in big ways.
- Engaging in risky behavior with long-term impacts.
- Place blame on the wrong person/group because of misperception.
- Find it difficult to completely communicate what they're feeling or thinking.
- May have mood swings ≠ Bipolar D/O
- Find it difficult to multi-task; especially with new skills.
- Find it difficult to attend to most or all stimuli in a situation.
- Find it difficult to solve some simple or complex problems with multi-step solutions; they also don't have the practice that adults do solving problems.

[How else can it look?]

- Figuring out how to analyze data and form their own firm opinions.
- May question authority and societal standards through testing boundaries.
- Develops their own preferences separate from family preferences.
- Use of planning and problem-solving at a level that still results in mistakes or holes in plans.
- Thought processes can include thoughts about the effects of their behavior on others but thinking usually continues to be more self-focused.
- In late adolescence, the start of long-term thinking is developing.
- Also in late adolescence, will start to consider his/her/their role in society.

Threats to Typical Neurodevelopment

- Trauma
 - Physical → TBI
 - Emotional → PTSD
- Substance use/abuse
- Medical problems
 - Cancer, accidental injuries, etc.
- Pre-existing conditions/Vulnerabilities
 - Genetic disorders, predispositions, etc.

Research on Threats to Development

- Those who have been abused do not have an increased likelihood to be criminals.
- Those who are physically abused are **not** more likely than others to perpetrate abuse on their own children.
- Those who experience neglect and/or sexual abuse **are** more at risk to abuse their own children.

[How do I adapt to this?]

- Be aware of “too high” expectations.
- Help with multi-step projects, in a concrete way, that they can reference later.
- Ask for one thing at a time, especially if the processes are complicated.
- Help them calmly, through validation, think through an offensive situation.
- Give them information they should know when entering a potentially risky situation.
- Give them time and multiple opportunities to communicate an emotion or opinion.
- Encourage, through questions and conversation, the development of their own perspective with intention.
- Include them in decision-making at an appropriate level.
- Create an ATTACHMENT that is as secure as possible.

Attachment Stages in Adolescent Development

- Hormonal changes do not account for the rapid changes in mood or behavioral lability – neurodevelopment does.
- Attachment is not just the connectedness between a parent and child, it is a *protective factor* for children when they are securely attached to any caregiver.
- There is a normal process of differentiation and the continued need for attachment.

Benefits of Secure Adolescent-Parent Attachment

- In females, fewer weight related difficulties and lower rates of teen pregnancy.
- Among all adolescents, lower rates of depression, drug use, risky sexual behavior, inattention, conduct disorder, delinquency and aggression.
- Higher rates of graduation from high school, less family conflict and use of appropriate coping skills.

[Things to Remember]

- “You can’t get blood from a turnip.”
- Give some extra time, especially when expressive communication is involved.
- Don’t assume. Ask and explain.
- Be consistent in your actions and follow-through.
- Relationship covers a multitude of sins.

Needed Shifts in Practice and Policy

- Child-centered, not family-centered, planning for treatment.
 - No mutual exclusion – it can't be one over the other. This has been shown to be unsuccessful.
- Educated approach to each case with a multi-disciplinary team.
 - This could include a psychologist or therapist, social worker, family members (both birth and foster), the child (if appropriate) and legal team members.

[An ounce of prevention....]

- Research shows that policy should be shaped and monies directed toward prevention as the most cost-effective intervention for youth in foster care.
- When children are identified as neglected or abused, it is important that they get the services they need immediately to stop this “cycle of violence.” There is good research history that says this shift in funding will likely also result in the reduction of overall “delinquency” during the adolescent and following years.

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