The Primal Teen

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"How can we ever help kids with problems if we don't know what normal is?" (p. 14)

Discussion Notes:

- 1. Crazy by Design
 - Teen brain going through drastic transformation; brain in flux; intense
 - Develop true empathy for the first time

2. The Passion Within

- Massive brain structure remodeling affecting language, logic, impulse, intuition
- Should be careful what brain is exposed to at this time
- Frontal lobe- peak in growth, age 11 for girls and 12 for boys; growth continues past age 20.
- Brain discombobulation for teens similar to "terrible twos" brain

3. The Age of Impulse

- Teen brain- passion and strength but "no brakes," may not get good brakes until age 25
- Myth of the "Adult Child;" parents trying to be friends, don't set boundaries (p. 33)
- Teens have difficulty learning from experience until brain structure is developed.
- Adults should function as teens prefrontal lobe-- talk them through situations (no lecturing)

4. Altered States

- Brain development at a critical time; because of plasticity, experiences matter
- Brain is responding to experiences; experiences changing very structure of the brain
- Important to have varied, new experiences

5. Making Connections

- Gray matter growth heightened ages 8-11 and declines in teen years (p. 63). Importance of sports, music, and language practice-- "lock in" skills early.
- "Exuberance"- firing synapses=chaotic behavior
- Later "pruning" of synapses, teens stabilize and settle down
- Teen brain uses 20% of body's energy
- Teens process emotion in different part of brain than adults; have difficulty identifying emotions and see world differently than adults.
- Quote: "People think that in high school, all we have to do is stuff the right information into them and they'll make all the right decisions. But their brains are functioning differently." (p.69)

6. The Adolescent Animal

- Difficulties with early onset puberty-- disconnect between brain and body (p. 81)
- Key to teen success: having 1 adult who cares about them and being connected to school

7. Risky Business

- Teens can't explain why they do dumb stuff
- Older teens rationalize their behavior but may not be connected to reality
- Choose friends with similar risk patterns (peers don't get them in trouble, they choose those peers)
- Early physical developers- have "an engine without a driver."
- Risk taking a part of teen development, plan for risk taking. Goal- have them take risks in more pro-social, safe way.
- Discuss: are we removing too many risks, not allowing teen brain to work through brain induced need for risk taking? Is this leading to increases in drug use, depression, suicide?
- Quote: "teenagers who do experiment in a wide range of areas-- even drugs and alcohol
 in a limited way-- often adjust better in the long run than those who completely hold
 themselves back." (p. 89) Discuss.

8. Corny Jokes and Cognition

- Young teens-- cognition more concrete, simplistic: "she frowned at me, she hates me."
- Increase in lying-- linked to brain cognition underdevelopment (frontal lobe)
- View of world and self changes with development of frontal lobe
- "To understand what goes wrong in teenagers who fire guns, you have to understand something about the biology of the teenage brain..." (p. 114)

9. Swept Away (hormone surge)

- Hormones make behavior but behavior also make hormones
- Hormones+teen brain development=chaotic behavior. Hormones are not the single event causing behavior, just a part of cause.
- Low and high testosterone in males and females linked to depression and high risk behaviors when poor parent relationships (p. 142)

10. The Neurons of Love

- Love formula-- lust, attraction, attachment (p. 146)
- Brain function as much a factor as hormones in love and sexuality
- Sexuality, and acting on sexual impulses, develops in stages; teens don't suddenly become sexual beings.

11. Wake Up

- Teens stay up later, sleep later due to biology-- melatonin secretion 2 hours later than adults. (p. 159)
- Teens need 9 hours of sleep
- First prescribed treatment for moody teens-- sleep
- Lack of sleep impacts thinking, ability to curb emotions, and hormonal dysfunction

12. Falling off the Tracks

- Teens who drink excessively have 10% less memory recall, even years later
- Teen brain more sensitive to alcohol
- Teen substance abuse impairs learning ability, impact for life.

13. Into Another World

- Schizophrenia
- Depression
- Anxiety

14. Coming of Age

- Adolescent brain is a work in progress
- Expect and plan for risky behaviors
- Recognize and address need for more sleep
- As adults, turn down the pressure and attempts to over-regulate teen's lives
- Adults- act as teen's frontal lob until their develops
- In education-- recognize early teens difficulty with abstract concepts may be brain development, not intelligence. They haven't gotten there yet.