

Adolescent Brain: Development and Trauma

“4 State Northeast Tour”

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New York, February 22, 2010

New Hampshire, February 23, 2010

Massachusetts, February 24, 2010

Maine, February 25-26, 2010

Point: The teen brain needs protection and coaching

Workshop Content Summary:

“Brain-friendly Corrections”

- Work in concert with the way the brain functions and develops
- Are based on an understanding of behavior chemistry and adults’ roles in the development process
- Prepare youth for life on the outside rather than just controlling their behavior while in residence
- Use proven development and habilitation strategies

“Challenges”

- Adolescence is challenging even if you are not in a correctional setting
- The majority of youth in correctional settings have little experience with trust – especially with adults - and adults in authority.
- They have grown up with distrust as part of their reality
- Their brains have been “trained” to distrust
- Their brain chemistry is “stuck” in the fight/flight or appease/freeze mode, which means they are unable to form rational thoughts and to learn from experience. Some can obey “inside” but fail outside.
- Adults are responsible for teaching youth how to “un-stick” and “shift” their brain chemistry.
- Youth cannot get un-suck or shift on their own.
- The vast majority of youth in corrections have no one to teach them the skills to “unstick” and “shift” their brain chemistry so they can change behaviors.
- Most youth in corrections require coaching and constant practice to learn new behavior skills

“Good News”

- The “Development Door” is still open - timing is on our side!
- The teen brain experiences a major peak of neural plasticity – allowing neurons to be reshaped (literally) and new neural connections to be made and others to be rewired.

“Summary”

- A combination of trust, coaching, practice, and support un-sticks and shifts brain chemistry and makes learning and positive youth development possible.

Things Adults Needs to Know:

- How the brain functions
- The parts of the brain responsible for behavior
- How learning, development, mental health, and behavior are related
- That development and growth are related but are not the same
- That 30% of people learn by observation and feedback; 70% require coaching and support to learn

- Development is the building period of life; DNA provides the plan and schedule; neurons are the building materials; and experience is the builder
- Different parts are built at different times
- Adolescents are supposed to add “executive functions”, but trauma, substance abuse and behavioral health problems can interrupt the natural timing for development, requiring intervention and learning how to compensate

“Research”

- The NIH and UCLA MRI study (Giedd and Thompson, 2004) on healthy brain development revealed that the human brain continues to develop throughout adolescence and into young adulthood
- There are peaks of plasticity where the brain is more at risk
- That “typical, healthy” adolescent behaviors can be attributed to massive brain reorganizations as well as a surge of reproductive hormones
- Neurotransmitters Serotonin, Norepinephrine and Dopamine play major roles in learning and behavior
- Stephen Porges (2007) demonstrated how stress works within the nervous system
- Constant doses of Norepinephrine and the resulting dose of cortisol can compromise thinking, learning, behavior
- The ACE Study demonstrated the relationship between adverse childhood experiences and child traumatic stress, and the relationship to future behavioral, mental, and physical health problems. The study also demonstrated that the closer to home the trauma is, the more it affects the child. Traumatic stress restructures neurons and changes the trajectory of a child’s mental and physical health, academic performance and social relationships.

“Questions”

- 1. Do our correctional settings work in concert with the way the brain functions & develops? Who’s trained?**
- 2. Are the interventions used based on an understanding of behavior chemistry and adults’ roles in the development process? Are the adults serving as models of what we want youth to be?**
- 3. Do the approaches prepare youth for life on the outside rather than just controlling their behavior while in residence?**
- 4. Do our institutions provide an environment that engenders trust?**
- 5. Are we using proven development & “habilitation” strategies – teaching youth how to shift from survival to thinking and controlling – Self-regulating behavior?**

“Closing”

- The purpose of “corrections” is to IMPROVE the outcome. Youth can only learn what we model and teach.
- We are their life coaches