

Addiction Exchange

News from the worlds of clinical practice and research

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Welcome to *Addiction Exchange*, a forum for the exchange of clinical practice and research information among clinicians, scientists, educators, and administrators in the field of addiction. In this issue, we review a recent address delivered at the Mid-ATTC's regional conference, *Substance Abuse Treatment & Prevention for Adolescents* by Michael Nerney, a consultant in substance abuse prevention and education with over 17 years of experience.

Adolescent substance abuse treatment has typically used adult male models of therapy. Although recognizing the effectiveness of the group dynamic with this population, adolescent-specific treatment models are still emerging. Clinicians are integrating developmental theory, substance abuse/addiction treatment dynamics and science to provide services better suited to the needs of a population functioning differently from adult addicts. Nerney highlighted some of the differences in adolescent development with implications for treatment design and interventions. We will review three of these differences: processing emotions, self-esteem and learning needs.

Processing emotions - The adolescent brain functions at twice the activity level of adults in all areas, particularly the amygdala (Giedd). The amygdala is the prime location for base emotions: mad/sad/glad/afraid. This portion of the brain is larger and more active during adolescence than any other phase of life (Witelson), and is the first area stimulated during perception of risk. In adults, the cortex is first activated. It links quickly to the limbic system and immediately to the prefrontal cortex to allow solutions to be generated concurrent to feelings. The adolescent brain perceives risk and experiences anxiety, but has no pathway from the limbic area to the pre-frontal cortex. As a result, a state of emotional intensity elicits feeling, but there is no ability to think through the consequences of action. Emotions generally are experienced in this very active brain at least twice as intensely as adults with shifts in emotional states occurring up to 28 times a day. (Witelson). According to Nerney, a good intervention teaches adolescent clients how to manage high emotional states by first enduring strong feelings. After the emotional intensity has lessened, a strategy for solutions can be explored. Another implication in the treatment setting is the importance of creating an "emotionally safe" environment for clients. Nerney describes an "emotionally safe" environment as one where "the adolescent feels secure that an adult is in charge and that violent or disrespectful language and behaviors will not be tolerated." This type of treatment environment is also critical when addressing self-esteem issues.

Self-esteem - Research indicates that self-esteem figures for students decline during ages 12-20 (Sadker). These numbers are also gender and ethnic specific: African American male self-esteem declines 20 points vs Caucasian rates of 12 points. Females experience an even more dramatic effect with esteem diminishing by 20 to 38 points; third generation Asians have the slightest decline, while Latina females have the greatest. Statistics vary by individual family, geography and cultural influences. In light of a more fragile sense of self, Nerney notes that this is why these young people require clinicians and treatment settings that have zero tolerance for negative comments about appearance (size, skin color, weight, muscle mass, acne). Self-esteem measures indicate a rebound to pre-adolescent levels in males at age 23-24, with females rebounding at age 28-30.

Learning needs - Remembering that the adolescent brain is operating at twice the capacity of adults, Nerney emphasized the importance of accommodating learning differences in the treatment setting. Adults have an abstract learning capacity not yet available or fully developed in adolescent clients. Adults are able to find commonalities and internalize information shared with them by members of therapy or support groups. Adolescents function with both implicit and explicit learning dimensions and maintain positive associations of drug experiences for up to two years. Nerney's recommendations for addressing these differences include: (1) limit clients' sharing of details of drug use and the euphoric associations in group settings; (2) focus on the immediate emotional and social consequences of use, particularly the impact on close relationships; (3) monitor therapy and support groups (for at least two years) for relapse-triggering information, i.e. detailed drug information.

Conclusion - The specific models of treatment tailored to the developmental challenges of an animated adolescent brain continue to emerge in the substance abuse field. The timely delivery of skills-based training immersed in an activity driven milieu is recommended by Nerney to strengthen healthy social bonding and reduce relapse rates in this population. Clinicians who integrate developmental knowledge within substance abuse treatment practices provide for the age-specific needs of adolescent clients.

Resources - Sadker, David and Myra. *Failing at Fairness: How Our Schools Cheat Girls*. Simon and Schuster, New York. Ongoing research: Brain Chemistry in Teens: Sandra Witelson, McMaster University, Ontario, Canada. Ongoing research: Brain Chemistry in Teens, amygdala Function: Jay Giedd, National Institute of Mental Health. Other resources: <http://www.mid-attc.org/adolescents.html>

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