Adolescents and Substance Abuse

It’s All About Engagement
A Grand Attempt To:

- Better understand the nature of adolescence as a developmental period and the implications for substance abuse
- Look into the dynamics of the Adolescent brain
- Consider some treatment engagement strategies and how they fit into treatment components
- Consider the relationship between SA and MH Issues in adolescents
Adults Vs. Adolescents

- 6-18 month progression
- Mostly psychological dependence
- Glorification of use
- “Garbage can” syndrome
- Substance use is often the social activity
- Developmental issues can obscure identification of C/D
- Early arrest of emotional development
- Morning use not indicative of chemical dependency

- 5-10 year progression
- Tolerance/withdrawal
- Minimization of use
- May have a single preference
- Social activities often include substance use
- Social/professional standing obscures problem identification
- Minimal arrest of emotional development
- Morning use often indicates dependence

Gust, D. & Smith, T. Effective outpatient treatment for adolescents.

www.newhopefoundation.org
Adolescence

• The transition from childhood to adulthood
• A time for the acquisition and practice of skills
• A period of experimentation and novelty seeking
• A period of emotional, behavioral and physical instability
• The experience of changes in diet, sleep, mood, weight, attitude
• Insecurities, external locus cause for shifting likes and dislikes, difficulty experiencing pleasure
Adolescence

• Shift in influence from and time spent with family to increased peer influence
• Risk-taking and exploration toward identity formation
• Drive for independence cause for conflicting views of authority
Adolescence

• *Now I am a man?*
  – No distinct start or end
  – 12-18; 10-20 or until early to mid 20s
  – Environmentally/culturally determined
  – Many biological and behavioral changes (Puberty)
  – The initiation of adult Identity formation
Experimental thinking

- From the concrete to the abstract
- Hypothetical thinking
- Introspective (what does it mean about me)
- Self-consciousness (Am I ok)
- Here and now focus (without firm self can’t imagine the future)
- Idealism, invulnerability (Testing identity)
- Grandiosity, exaggeration
Behavioral Instability

- Risk-taking
- Sensation/novelty seeking
- Testing limits
- Forming interpersonal bonds
- Experimenting with extremes
- Acting out
- Quick Shifts in mood
Emotional Instability

- Powerlessness (Insecurity)
- Alienation (Do I belong)
- Rebellion (Descartes: I think therefore I am)
- Extreme mood swings (Diffidence; lack of self efficacy)
- Free-floating anxiety (External locus; searching for and rejecting judgment)
The Adolescent Brain
Adolescent Brain Development and Drug Abuse

Research findings indicate that brain development still in progress during adolescence; immature brain structures may place teenagers at elevated risk of substance abuse and arrested brain development.

Nucleus Accumbens (NS)

The NS directs motivated behavior and is responsible for how much effort one will give to get rewards. In teenagers, an immature NS is believed to result in preferences for activities that require low effort yet produce high excitement. In the real world of adolescence teenagers tend to favor video-games, skateboarding and, unfortunately, substance use.

The Amygdala

Is responsible for integrating emotional reactions to pleasurable and aversive experiences; in development it is believed to contribute to the tendency for adolescents to react explosively to situations rather than with more controlled responses, and the propensity for youth to miss-read neutral or inquisitive facial expressions of others as a sign of anger.

Prefronal Cortex

The prefrontal cortex is often referred to as “the seat of sober second thought;” it is responsible for complex information processing: making judgments, controlling impulses, foreseeing consequences, setting goals and plans, etc. An immature prefrontal cortex is thought to be part of the reason teenagers show poor judgment and often act before they think.

Adolescent Brain and Addiction

“At this point, we know it’s addictive.”
Wired for Learning/ Wired for Addiction

• Adolescents are more vulnerable to drug affects than adults because of the increased plasticity that is inherent in brain development.

• Dopamine is key to this pathway and alternative learning and survival skills are “hijacked” in the process.

• The rewarding properties of drug induced Dopamine release in combination with an underdeveloped PFC are the key components of this vulnerability.
How it works

• Drug Immediate effects = Dopamine
• Continued use effect = Dopamine

• Brain responds as if drug has survival value
• Craving and drug seeking become similar to basic drives: food, sex.
What Does This Look Like?

- Declining school performance (falling grades, increased absence/ tardiness, loss of interest)
- Peer Group changes (birds of a feather = troubled, anti-social, older, developmentally delayed)
- Oppositional defiant, at home, school, in the community
- Extreme mood swings, manic, depression, irritability, anger
- Sudden increases or decreases in activity level
- Avoidant behavior, secretive
- Changes in physical appearance (weight loss, lack of Cleanliness, strange smells)
Signs Continued

- Red, watery, glassy eyes or runny nose not due to allergies or cold
- Changes in eating or sleeping habits
- Lack of motivation or interest in things other teenagers enjoy (hobbies, sports)
- Lying, stealing, hiding things
- Using street or drug language or possession of drug paraphernalia/items
- Cigarette smoking
"Were you referred to us by your doctor or your publicist?"
Paradigms

• Disease model
• Learning Theory
• Psychoanalytic
• Family theory models
• Biopsychosocial Integration
Disease Model Conditions

- Symptoms impair performance of vital functions
- Has a clear biological basis
  - Genetic predisposition activated by environmental factors: Adoption, twin, and animal studies
- A predictable course and outcome
  - Can plot course with some succumbing and some not
  - An acquired drive state (food, drink, sex) creating a tension that must be reduced (Miller & Gold, 1991)
- Lacks intentional causation
  - Lack of volitional control; if under some control, it’s a behavioral problem.
Learning Theory

- All human behavior is learning mediated by expectations and attributions.
  - Classical conditioning (Pavlov)
    - Response to set & setting (moods/people/place/tools)
  - Operant conditioning (Skinner)
    - Positive and negative reinforcement of behaviors
  - Modeling Theories
    - Cognitive mapping, initiation (Bandura, 1977)
  - Cognitive behavioral - social learning
    - Irrational thoughts and feelings (Ellis, 1988 & Beck, 1993)
    - Reciprocal determinism; people are influenced by and influence their environments (Rotgers, 1996)
Psychoanalytic

- Regressive attempt to return to an infantile pleasurable state (Khantzian, 1997)
- Adolescent attempt to escape the over-whelming anxiety over preparation for adult roles
- Self medication hypothesis – coping with deficits rooted in infantile deprivation: affect tolerance, self care, self esteem and relationships
- Early disorders of self rooted in impaired object relations, also attachment theory
- Understanding from an internal, intra-psychic position can help with affective states and the development of healthy alternatives.
Family Theory Models

- **Family systems** - unspoken rules and roles serve to maintain homeostasis; any action affects the system, stable coalition, et al. (McCrady & Epstein, 1996)

- **Family Behavioral model** – reliance on the observation of interactions and patterns (systems theories) that serve as subtle reinforcement; structured interventions seek to alter patterns (O’Farrell & Cowles, 1989)

- **Family disease model** – disease = codependence and interventions rely on traditions and techniques of AA/Alanon. CRAFT is also an evidence based program for influencing the addicted by changing the behaviors of others in his or her context.
Biopsychosocial

- Allows for multiple and mixed pathways to addiction and individual weightings
- Neurochemical imbalance or stimulation that acts like a primary drive (NIAAA, 1993)
- Expectancies – those that expect greater effects are more likely to initiate; increased placebo potential (Stanton Peele, 1986)
- Cue reactivity – e.g. exposure to drug paraphernalia (Childress, et al. 1993)
- Self efficacy and social learning – the ability and confidence to cope (Albert Bandura, 1997)
- Family dysfunction – Alcohol and drugs as coping mechanism enacting a dysfunctional systems change (McCready & Epstein, 1996).
The Transtheoretical Model

- Offers an integrative framework for understanding, measuring, and intervening in patients’ health behaviors

- Clinicians assess clients’ readiness to change and enhance motivation through a series of techniques, depending on the clients’ stage of readiness
Stages of Change

• Pre-contemplation - Not ready to change
• Contemplation - Thinking about changing
• Preparation - Preparing to change
• Action - Actively changing
• Maintenance - Continuing to support the change
• Relapse - Slipping back to the previous behavior
The Temporal Dimension as the Basis for the Stages of Change

Stages and Processes

- Early Stages
  - Cognitive
  - Affective, and
  - Evaluative processes
- Maintenance
  - Commitments
  - Conditioning
  - Contingencies
  - Environmental controls, and
  - Support.

Stage and Decisional Balance Relationship for an Unhealthy Behavior

Stage and Decisional Balance Relationship for a Healthy Behavior

The Relationship between Stage and both Self-efficacy and Temptation

Active Ingredients?
Consciousness Raising

- Increased awareness about the causes, consequences and cures for a particular problem behavior.

- Interventions that can increase awareness include feedback, education, confrontation, interpretation, bibliotherapy and media campaigns.
Dramatic Relief

- Produces increased emotional experiences followed by reduced affect if appropriate action can be taken.

- Psychodrama, role playing, grieving, personal testimonies and media campaigns are examples of techniques that can move people emotionally.
Environmental Reevaluation

- Combines affective and cognitive assessment of the effect a behavior has on one's social environment; e.g., the effect of smoking on others or the awareness that one can serve as a positive or negative role model.

- Empathy training, documentaries, and family interventions can lead to such re-assessments.
Social Liberation

- An increase in social opportunities or alternatives to help people change.

- Reduced access and opportunities, attractive alternatives, the framing of a new cultural context.
Self-reevaluation

- Cognitive and affective assessment of one's self-image with and without an addiction, for example one’s image as an addict or criminal.

- Value clarification, healthy role models, and imagery can move people toward new considerations of self.
Stimulus Control

- Remove cues for substance use and add prompts for healthier alternatives.

- Avoidance strategies, environmental re-engineering, and self-help groups can provide stimuli that support change and reduce risks for relapse.
Helping Relationships

- Bring caring, trust, openness and acceptance as well as support for recovery.

- Rapport building, a therapeutic alliance, counselor calls and buddy systems can be sources of social support.
Counter Conditioning

- Learning **healthier behaviors that can substitute** for substance use and related behaviors.

- Relaxation can counter stress; assertion can counter peer pressure; medication support can reduce cravings.
Reinforcement Management

- Consequences for actions include punishments, but **self-changers rely more on rewards**; emphasizing reinforcements is in harmony with how people change naturally.

- Contingency contracts, overt and covert reinforcements, positive self-statements and group recognition increase reinforcement and the probability that rewarded responses will be repeated.
Self-liberation

- The belief that one can change (self-efficacy) and the commitment to act on that belief. Public testimonies, and multiple choices can enhance self-liberation, “willpower.”

- People with two choices have greater commitment than people with one choice; those with three choices have even greater commitment. So with substance use having alternative paths increases commitment to change.
The Relationship between Stage and two sample Processes, Consciousness Raising and Stimulus Control

Are we conscious?
Readiness Potential

Motor action and the sense of agency depend on neurological events that we do not consciously control and that happen before our conscious awareness of deciding or moving.

The Acorn Theory and Avoiding the Task

Efficacy Building or Task Approach

Genetics/Biological Theories
Psychological Defenses
Sigmund Freud
Attachment Theory
John Bowlby

Humanistic/Existential
Psychology: Abraham Maslow & Rollo May, Edmund Husserl, Martin Heidegger, Paul Tillich;
Self efficacy / social learning / developmental, Albert Bandura, Eric Erickson; Character Traits / Personality Types, Carl Jung
Acorn Theory, James Hillman

Efficacy Avoidance or Avoiding the Task

Actualized Self

Self

Diluted self

• Neurosis, Depression, anxiety
• Substance abuse
  • Delusion
• Psychosis
  • Death

Tony Comerford, Ph.D. (1995). Avoiding the task; an attempt to integrate psychological principles.
Headlines

Genes Can Influence the Severity of Addiction
A study conducted at the U.S. Department of Energy's (DOE) Brookhaven National Laboratory demonstrated that drug addicted individuals who have a certain genetic makeup have lower gray matter density - and therefore fewer neurons - in areas of the brain that are essential for decision-making, self-control, and learning and memory...

Parents Important for Keeping Adolescents off Alcohol
Parents who are both present and engaged are the very best way of preventing teenagers from consuming large quantities of alcohol. Adolescents who smoke, stay out with their friends and have access to alcohol from their parents, for example when they are as young as 13 are at greater risk of becoming binge drinkers in their late teens, reveals a new thesis from Karolinska Institutet in Sweden
What Works in Treatment: The Empirical Evidence

- Treatment:
  - 60% due to “Alliance” (8%/13%);
  - 30% due to “Allegiance” Factors (4%/13%);
  - 8% due to model and technique (1%/13%)

- Extra-therapeutic and/or Client Factors

Medications

Who gives it to you?

- Patients served by the most effective psychiatrists top 1/3 did better on placebo than those served by the least effective 1/3 on active medication. Top 1/3 also had the best results in the drug condition.

- When patients (n=6146) of more effective clinicians (n= 581) were medicated, the medication was more effective than for clients of those less effective. Medication was not helpful for the clients of the least effective clinicians.
Drugs delivered in similar doses to comparable patients produced significantly different results attributable to the facilities where they were delivered.

Feighner, Aden, Fabre, Rickels & Smith (1983)
Rickes, Fisher, Park, Lipman & Mock (1966)
Greenblatt, Grosser & Wechsler (1964)
Conflict

It is better to avoid conflict with clients, especially if they want it. When we agree with them we challenge their view of us and remove distortions from the interaction in the interest of relationship-building. The basic idea of this counterintuitive idea is that sharing feelings reduces them.

Harry Stack Sullivan 1954
Three Core Conditions

The three “core conditions” necessary for change in therapy remain unchallenged. These are:

1. Unconditional positive regard (warmth & caring),
2. Empathy, and
3. Genuiness and authenticity.

Carl Rogers (1961)
Every Patient carries her or his own doctor inside.

Albert Schweitzer (1875-1965)
Einfühlung
(Empathy)

It remains the first aim of the treatment to attach (the patient) to it and to the person of the doctor. If one exhibits a serious interest in him, (he/she) carefully clears away the resistances that crop up at the beginning and avoids certain mistakes, he will of himself form such an attachment... It is certainly possible to forfeit this first success if from the start one takes any standpoint other than that of sympathetic understanding.

Sigmund Freud (1913).

On beginning the treatment: Further recommendations on the technique of psychoanalysis.
Five Basic Postulates of Humanistic Psychology

1. Human beings, as human, supersede the sum of their parts. They cannot be reduced to components.

2. Human beings have their existence in a uniquely human context, as well as in a cosmic ecology.

3. Human beings are aware and aware of being aware-i.e., they are conscious. Human consciousness always includes an awareness of oneself in the context of other people.

4. Human beings have some choice and, with that, responsibility.

5. Human beings are intentional, aim at goals, are aware that they cause future events, and seek meaning, value, and creativity.

The Big “C”

“I’ll come back and buy it someday when there’s a less judgmental sales clerk.”
I'm not giving you the paw—
I'm flipping you the bird.
FEEDBACK

- Feedback increased the duration of treatment (n= 609) and improved outcome relative to control on those predicted to be treatment failures;
- Twice as many in the feedback group achieved clinically significant or reliable change;
- One-third as many were classified as deteriorated by the time treatment ended.
- For those predicted to have a positive outcome, feedback to therapists resulted in a reduction in the number of sessions without reducing positive outcomes.

The Working Alliance as Performance Feedback

- Alliance hit a ceiling effect;

- Greater improvements in those entering treatment with more severe mental health problems post feedback (<.05);

- From moderate to large effect size (Pre .39) vs. (post .63);

- Administrative discharges reduced by nearly 40% (33 vs. 20%);

Client Directed
Outcome Informed
Miller & Duncan, 2004
... Nearly twice as many clients in the feedback plus clinical support tools group achieved clinically significant or reliable change; fewer deteriorated by the time treatment ended.

Client Directed

- Unless you develop a working alliance, nothing you do will work.

- Only what the client believes counts; the client’s theory of change.

- If the client doesn’t think it will work it probably won’t.

- The client is the best judge of whether or not your
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Outcome Informed

- Only the client knows if it’s working
- You don’t know if it’s working if you don’t ask
- If it’s not working more of the same won’t work
- A higher level of care is not always the answer
Client Directed Trends in Instruments

- Engagement and Outcome management tools
  - Compass – Bristol Myers Squibb
  - TOP – Treatment Outcome Package
  - OQ-45 – http://www.oqmeasures.com/site/
  - AKQUASI – (Germany) large EU inpatient use
    http://www.telemedicine.lu/eng/chap09b/01/Computerized_Outcome_Monitoring_in_Psychoterapy_by_AKQUASI.pdf
  - CORE – http://www.coreims-online.co.uk/about_core_core_system.htm
  - SRS/ORS – https://www.myoutcomes.com/
  - CD and the HAID / HAWD - http://www.polarishealth.com/
  - Innerlife - innerlife.com
“Your mother wasn’t supposed to give you away, but you’re back now, and that’s all that matters.”
We’ve Tried...

• Nagging
• Pleading
• Threatening
• Yelling
• Lecturing
• Grounding/restricting
• Taking things away
CRAFT

Community Reinforcement and Family Training

Created & Developed by
Robert J. Meyers, Ph.D.
& Jane Ellen Smith, Ph.D.
Department of Psychology, University of New Mexico
& Center on Alcoholism Substance Abuse and other Addictions, University of New Mexico
CRAFT’s 3 MAJOR GOALS

• Reduce loved one’s harmful drinking

• Engage loved one into treatment

• Improve the quality of your life
  – emotional, physical, relationships
The CRAFT Process is:

• Problem focused
• Skills based
• Active
CRAFT BASICS

• Elimination of positive reinforcement for drinking and/or using behavior

• Enhancement of positive reinforcement for non-drinking (sober) and non-using (clean) behavior
Other Studies

• Sisson & Azrin (1986). Alcohol, randomized CRAFT / 12-Step, 14 CSOs: 86 / 0% IPs engaged
• Miller, Meyers, Tonigan (1999). Alcohol, randomized CRAFT / JI / Alanon, 130 CSOs: 64 / 23 / 13% engaged
• Kirby, et al. (1999). Cocaine & heroin, randomized CRAFT / 12-Step, 32 CSOs (23% AA): 74 / 17% engaged
• Meyers & Miller (1999). Cocaine, marijuana, stimulants & opiates, not randomized, 62 CSOs (80% Hispanic): 74% engaged
• Meyers, Miller, et al. (2002). Marijuana, cocaine & stimulants, randomized CRAFT / Alanon, 90 CSOs (88% female, 49% Hispanic): 67 / 29% engaged
• Waldron et al. (2003). Marijuana & Cocaine, not randomized, 43 CSOs (adolescent avg. age = 16): 71% engaged.
  – CSOs improved in all cases