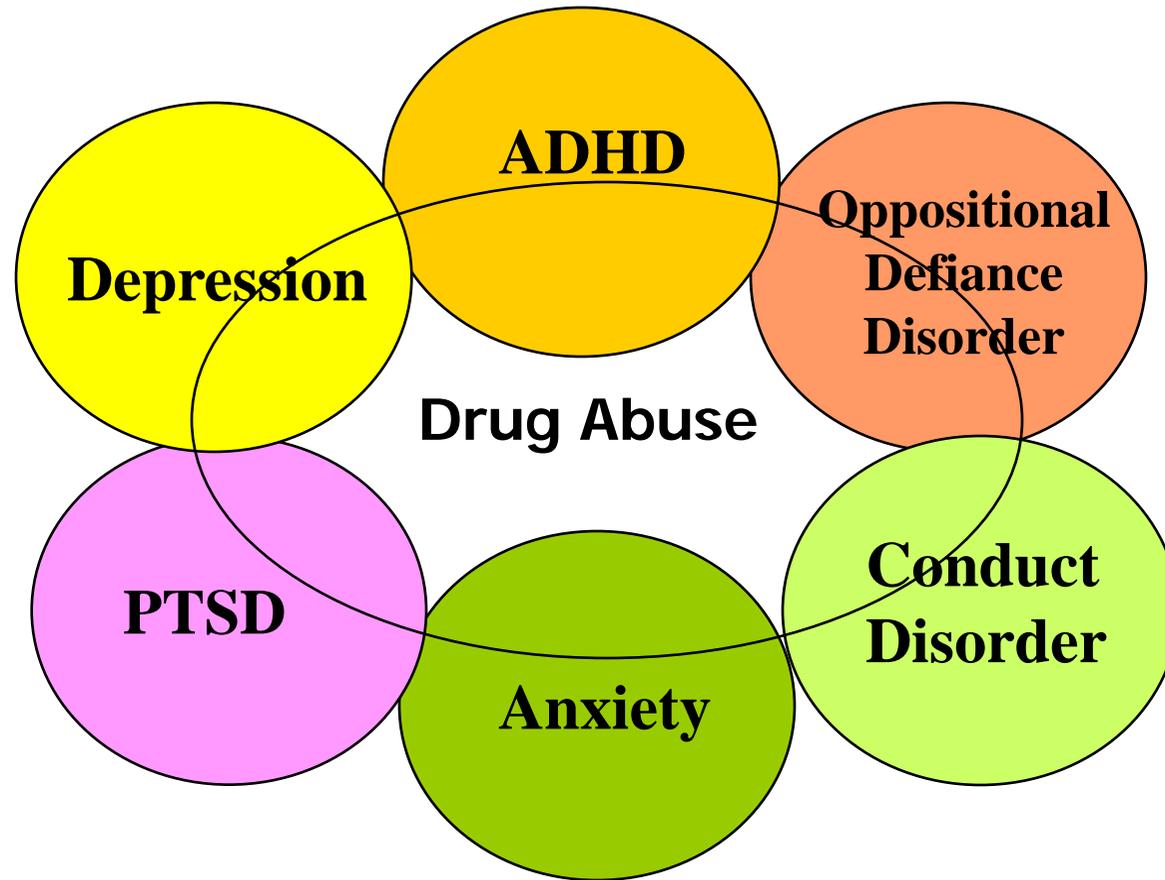
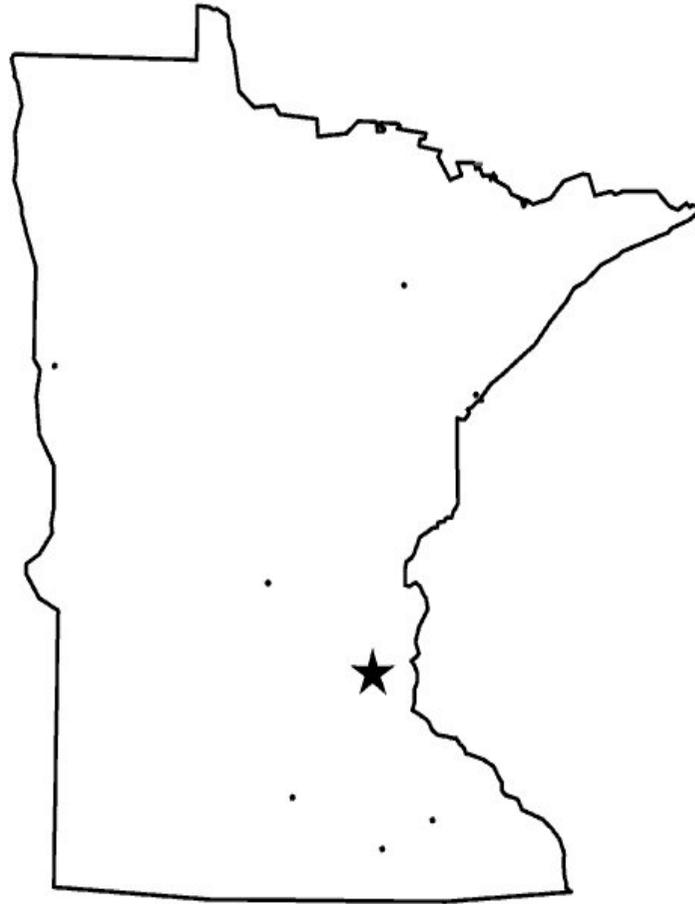


Trends with the Treatment of Drug Abusing Adolescents with Co-Existing Disorders

Ken Winters, Ph.D.

Dept. of Psychiatry, University of Minnesota Medical School
2014 Co-Occurring Disorders and Treatment Conference, Oct. 6, Yakima, WA





**CENTER *for* ADOLESCENT
Substance Abuse Research**

UNIVERSITY OF MINNESOTA
Driven to DiscoverSM

www.psychiatry.umn.edu/research/casar/home.html

Treatment Resources

TIPS #32: Treatment of Adolescents with Substance Disorders

www.samhsa.gov/csats

Clinical Manual of Adolescent Substance Abuse

\$\$ *Treatment (2011)*

www.psych.org

\$\$ *Adolescent Substance Abuse: Psychiatric Comorbidity and High-Risk Behaviors (2008)*

www.taylorandfrancis.com

\$\$ *Adolescent Substance Abuse: Research and Clinical Advances (2006)*

www.cambridge.org

6 Habits of Highly Effective Professionals

(when dealing with youth who have
drug abuse and a co-occurring
disorder)

Habits of Highly Effective Counselors



- 1. Knowledgeable about the developmental characteristics of youth.**

Point 1: Youth is Characterized by Pseudo-Clinical Behaviors

- **risky behaviors**
- **emotional roller-coaster**
- **attitude changes**
- **sleep changes**

These behaviors can be confused as symptoms of mental illness and drug abuse



DSM-5 Criteria for Borderline Personality Disorder Can Mimic Normal Adolescence

- 1. Frantic efforts to avoid real or imagined abandonment**
- 2. A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation**
- 3. Identity disturbance: markedly and persistently unstable self-image or sense of self**
- 4. Impulsivity in at least two areas that are potentially self-damaging (e.g., substance abuse, binge eating, and reckless driving)**
- 5. Recurrent suicidal behavior, gestures, or threats, or self-mutilating behavior**
- 6. Affective instability due to a marked reactivity of mood**
- 7. Chronic feelings of emptiness**
- 8. Inappropriate, intense anger or difficulty controlling anger**
- 9. Transient, stress-related paranoid ideation or severe dissociative symptoms**

DSM-5 Criteria for Borderline Personality Disorder Can Mimic Normal Adolescence

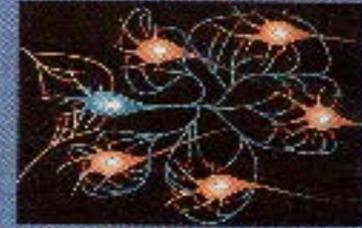
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- Point 2: Adolescent brain development may contribute to pseudo-clinical behaviors.
 - It was believed that brain development was complete during childhood
 - The maturation process is not complete until about age 25.

INSIDE THE ADOLESCENT BRAIN

The brain undergoes two major developmental spurts, one in the womb and the second from childhood through the teen years, when the organ matures by fits and starts in a sequence that moves from the back of the brain to the front.

Nerve Proliferation ...



By age 13 for girls and 15 for boys, the neurons in the front of the brain have formed the same number of connections. One 100-fold increase in their size will be pruned.

Corpus Callosum

Though it is an archaic term, the corpus callosum is the bundle of nerves fibers that connects the left and right hemispheres of the brain. During adolescence, the nerve fibers mature and proliferate, forming an even more efficient circuit.

Prefrontal Cortex

The CEO of the brain, also called the area of higher second thought, is the last part of the brain to mature. It is not until the late 20s or early 30s that the prefrontal cortex is fully developed. The prefrontal cortex is the part of the brain that is responsible for planning, decision-making, and impulse control.

Basal Ganglia

Larger in children than in adults, this part of the brain acts like a switchboard in the prefrontal cortex by helping it identify information. The basal ganglia and prefrontal cortex work together to control movement, learning, and emotion. The basal ganglia is also involved in the control of the brain's reward system, which is important in response to pleasure and motivation to learning.

Amygdala

The so-called emotional center of the brain, the amygdala is involved in processing information about the body's internal state. It is also involved in the processing of fear and aggression. The amygdala is also involved in the processing of social information, which is important in the development of relationships. The amygdala is also involved in the processing of memory, which is important in the development of learning.

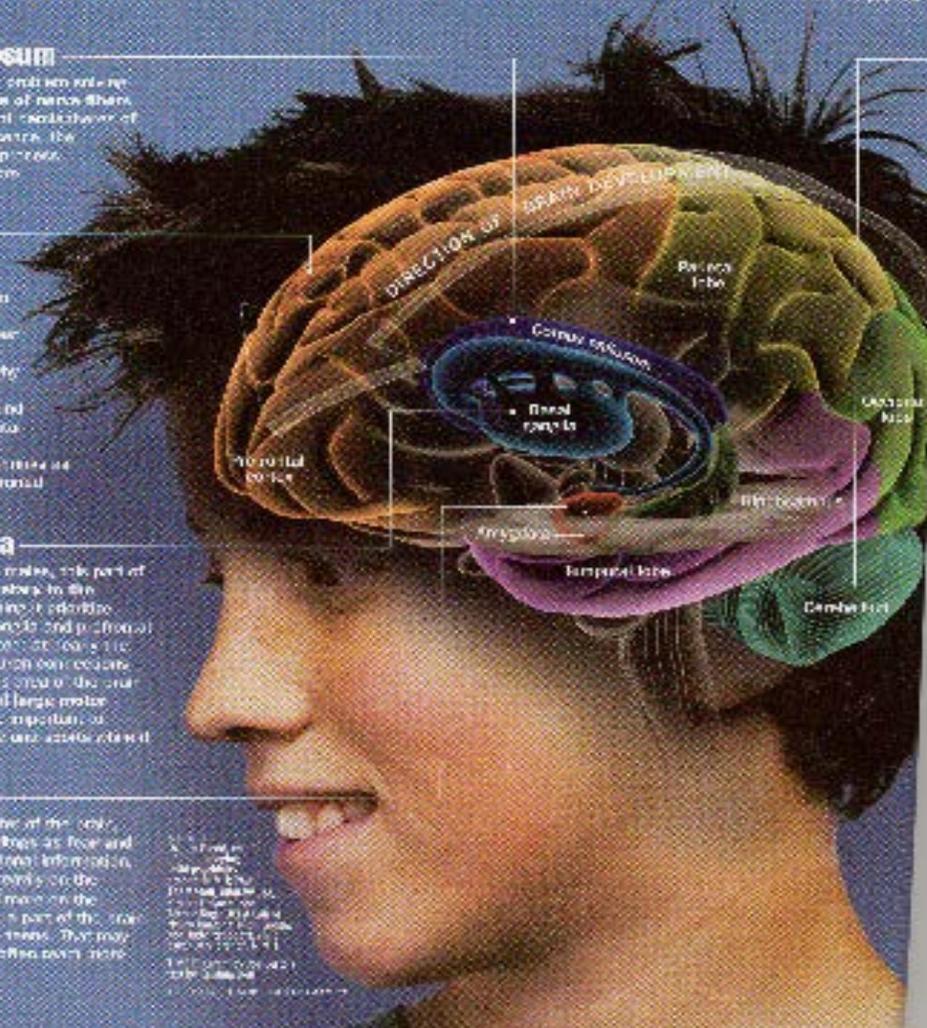


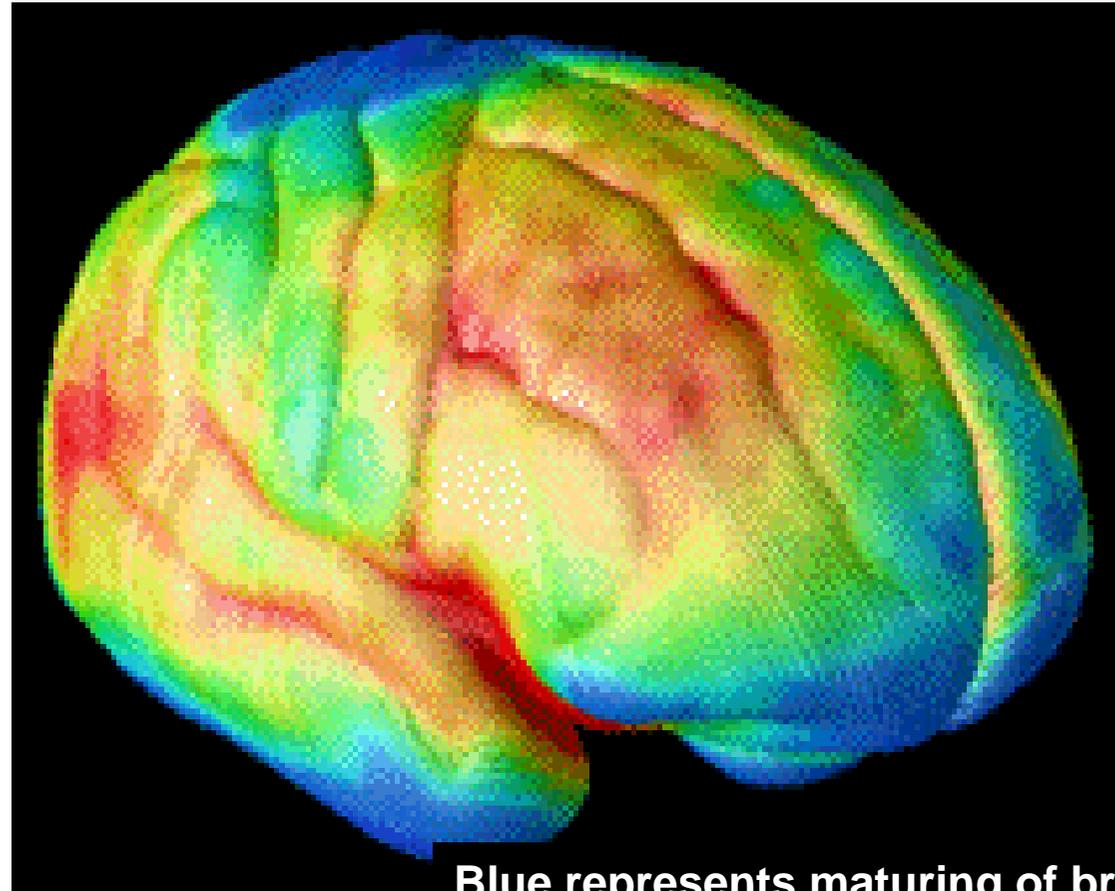
ILLUSTRATION BY
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 OF CHILDREN, YOUTH
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Maturation Occurs from Back to Front of the Brain

Images of Brain Development in Healthy Youth (Ages 5 - 20)

Earlier:
Motor Coordination
Emotion
Motivation

Later:
Judgment



Blue represents maturing of brain areas

Implications of Brain Development

- **Preference for**
 1. **physical and sensory activities**
 2. **high excitement and low effort activities**
 3. **activities with peers that trigger high intensity/arousal**
 4. **novelty**
- **Less than optimal..**
 5. **balance of emotion and logic when making decisions**
 6. **consideration of negative conseq.**
- **Greater tendency to...**
 7. **focus on social information**
 8. **take risks and show impulsiveness**



Point 3: Co-Occurring Disorders are Common

Common co-existing disorders among youth with a Substance Use Disorder (Kaminer et al., 2005; Bukstein & Kaminer, 2009)

Conduct/Oppositional Disorders... ~40-50%

ADHD..... ~30-60%

Depression..... ~25-60%

Anxiety ~25-60%

Bipolar

PTSD, Trauma

Borderline PD

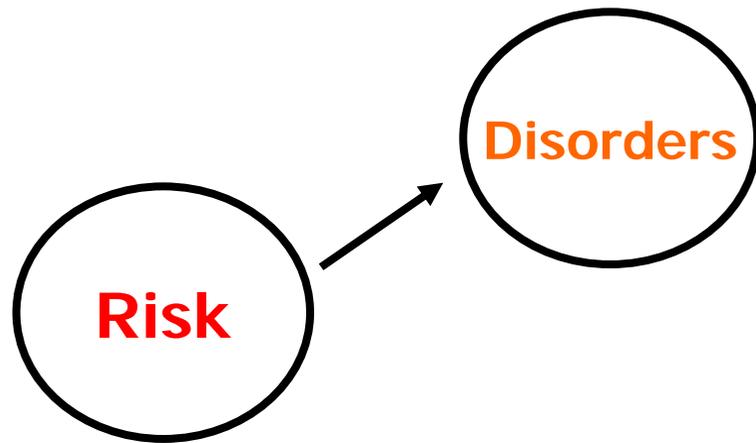
Learning Disorders

Eating Disorders

Sidebar: Why?

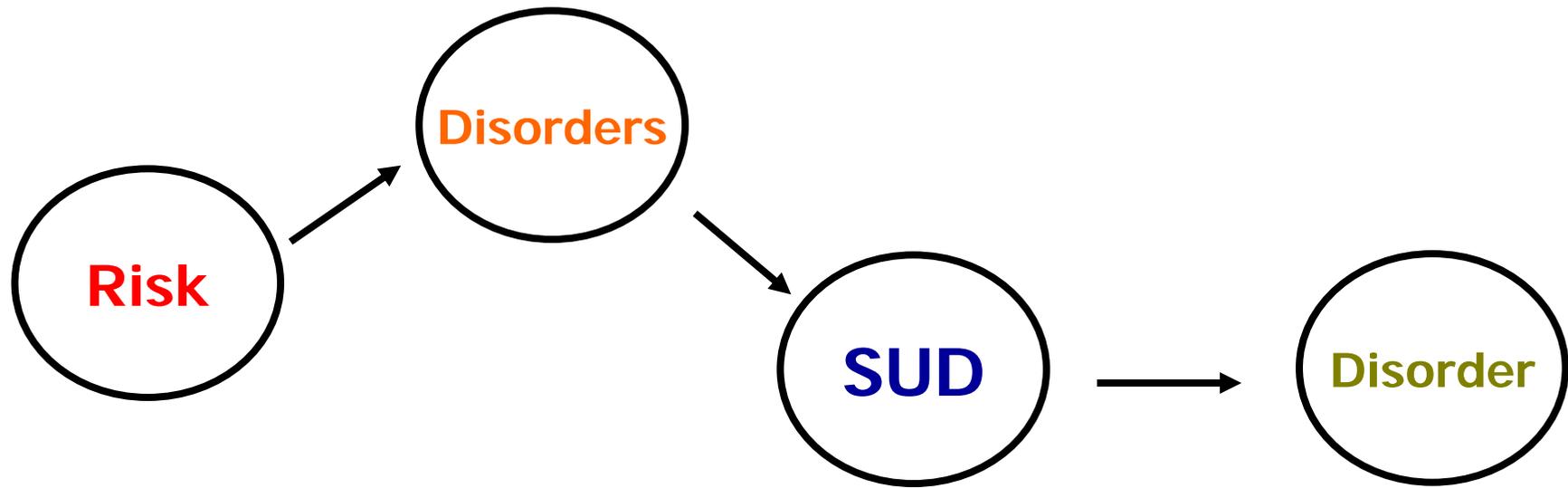
- **3 Models discussed in the literature**
 - **Dysregulation**
 - **Self-medication**
 - **Vulnerability to stress**

Many Longitudinal Studies Support the “Dysregulation” Pathway



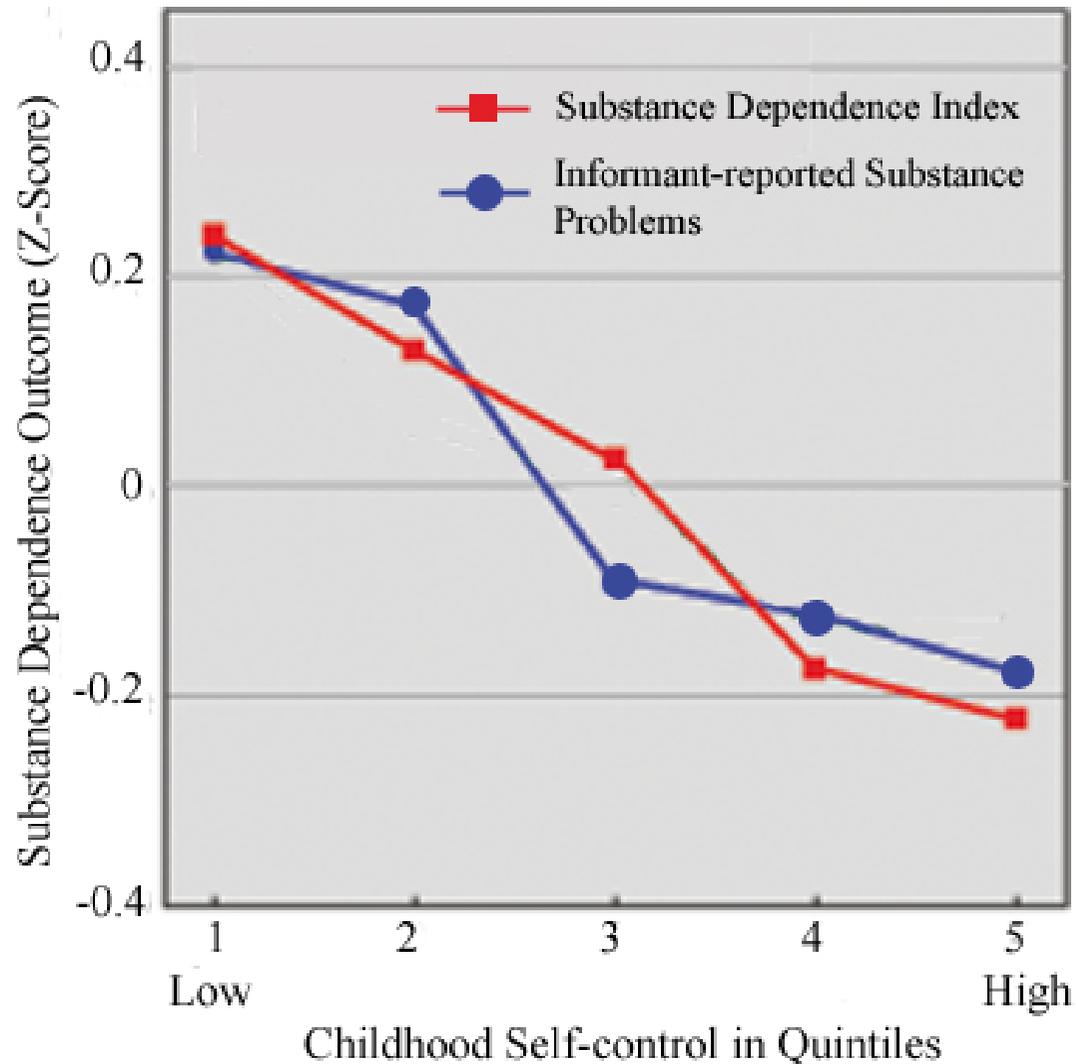
early regulation prb. → ADHD
Conduct Disorder

Many Longitudinal Studies Support the “Dysregulation” Pathway



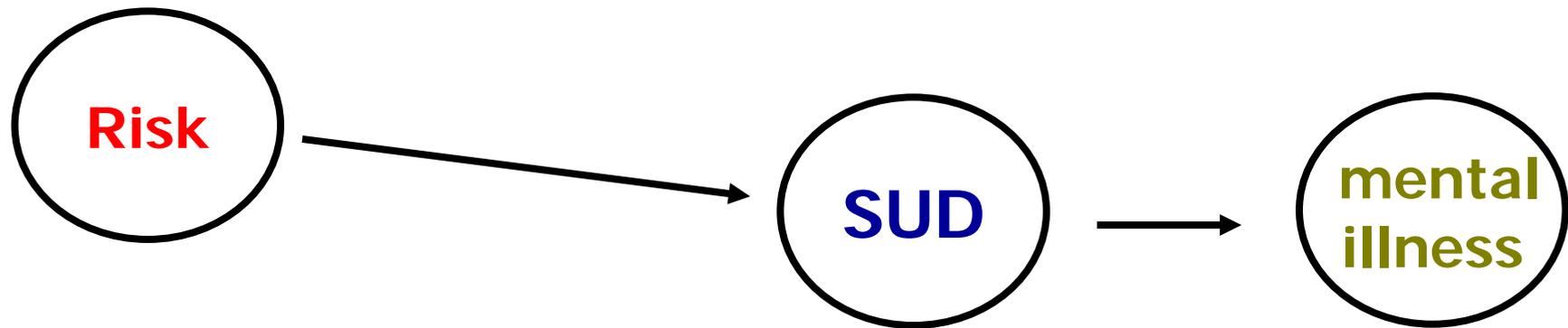
early regulation prb. → ADHD → SUD → > Conduct Disorder
Conduct Disorder

Childhood Self-Control as a Predictor of Adult Substance Use Dependence (Moffitt et al., in press)



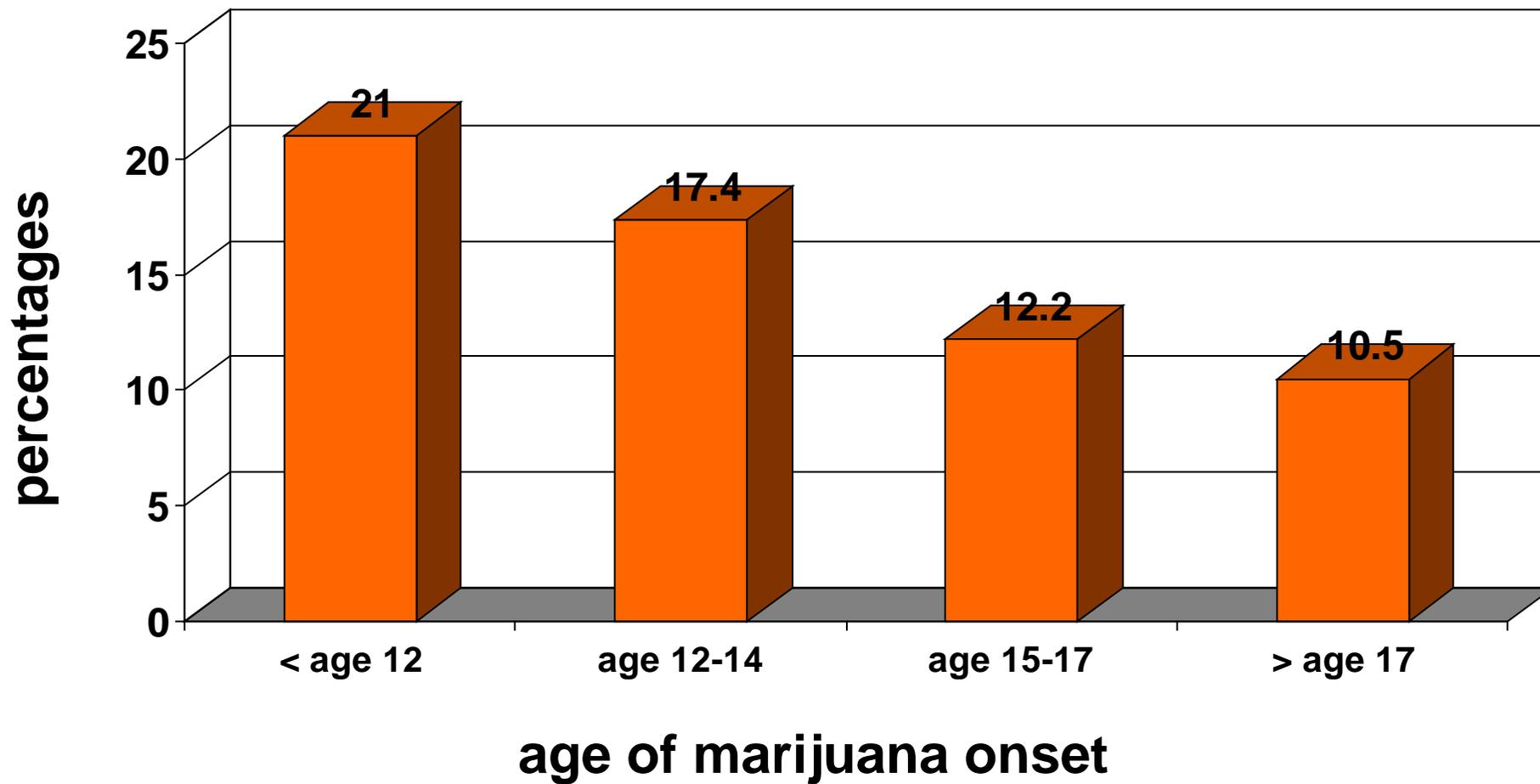
Outcomes were converted to Z-Scores and childhood self-control is represented in quintiles.

Sidebar: Is There Support for This Pathway?

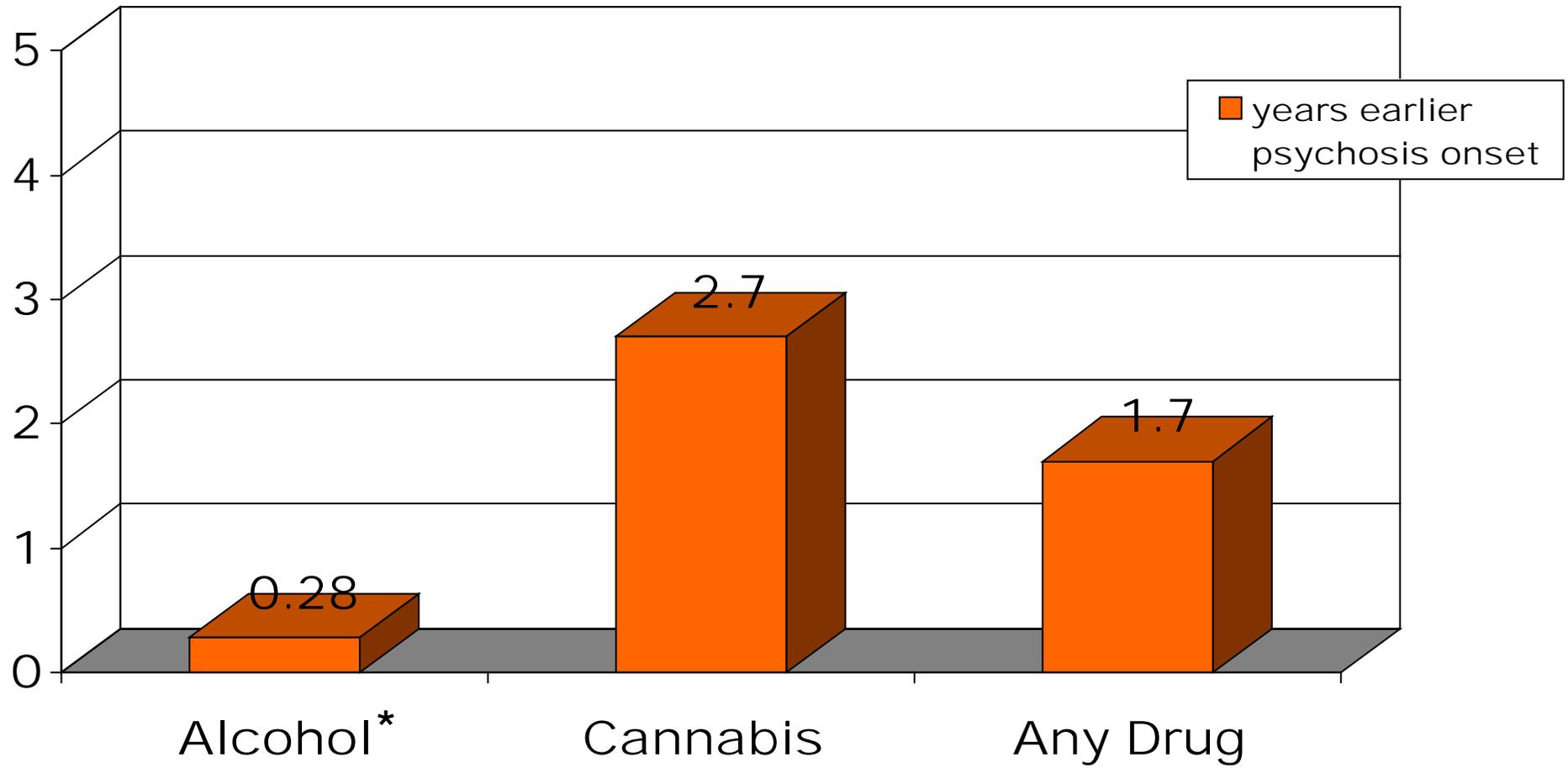


Prevalence of Past Year Serious Mental Illness Among Lifetime Marijuana Users Aged 18+

(SAMHSA, 2005; data collected 2002-2003)



Drug Use and Age at Onset of Psychosis Based on a Meta-Analysis (Large et al., 2011)



mean years earlier of age at onset of psychosis compared to non-drug using controls

* = nonsig. with controls

Habits of Highly Effective Counselors



**2. Appreciate that
treatment can work.**

Treating Drug Abuse and Co-Occurring Disorders



- **Treatment approaches run the gamut**
 - **Cognitive-Behavioral Therapy (CBT)**
 - **Motivational Enhancement Therapy (MET)**
 - **Family Therapy**
 - **Dialectical Behavior Therapy (DBT)**
 - **12-Step**
 - **Pharmacotherapy**

General Findings from the Treatment Outcome Research

(Lipsey and colleagues, 2009, 2013; Winters et al., 2009; Kaminer & Winters, 2011)

- **Treatment better than absence of treatment.**
- **No specific treatment approach is superior, although a tendency for these to be better**
 - **Family-based**
 - **CBT/MET**
 - **If medication, best when combined with behavioral**

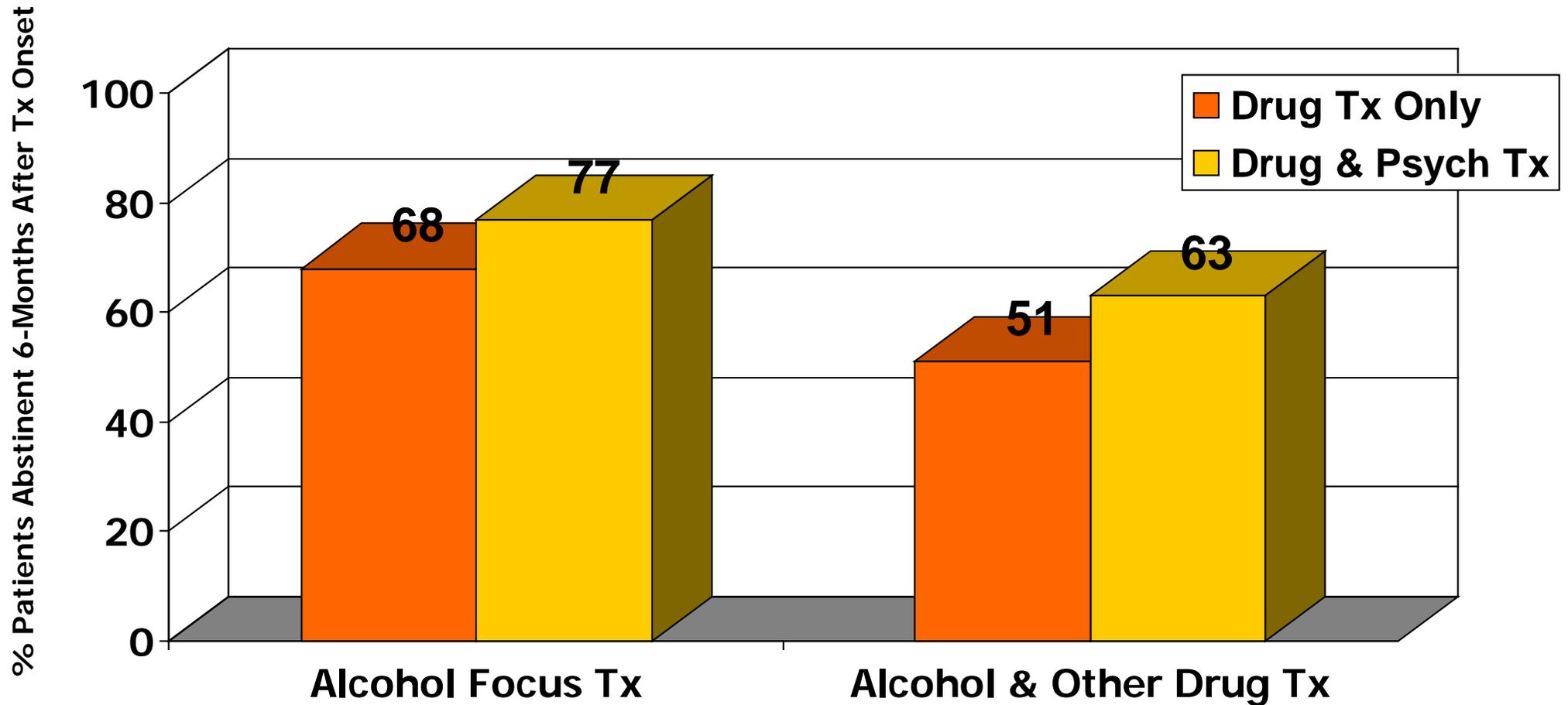
General Findings from the Treatment Outcome Research

(Lipsey and colleagues, 2009, 2013; Winters et al., 2009; Kaminer & Winters, 2011)

- **Favorable outcome associated with...**
 - **> coping skills**
 - **> social support**
 - **> treatment of co-occurring disorders**

Drug Treatment Outcome Improves in the Presence of Treatment for Co-Occurring Disorders

(Steling & Weisner, 2005)

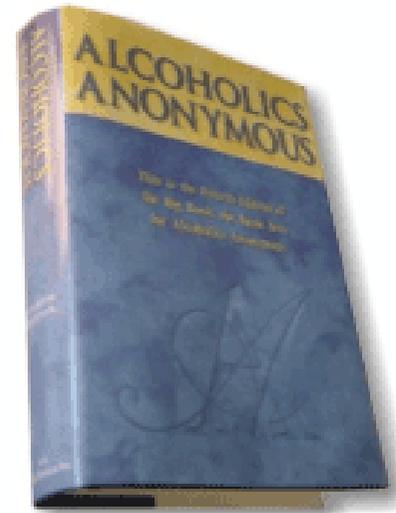


Treating Drug Abuse and Co-Occurring Disorders



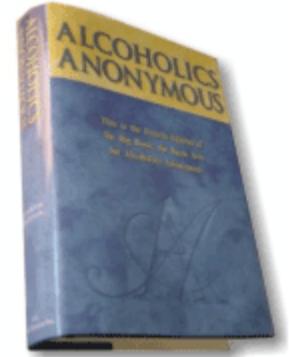
- **Treatment approaches run the gamut**
 - CBT
 - MET
 - Family Therapy
 - DBT
 - **12-Step**
 - Pharmacotherapy

12-Step Drug Treatment



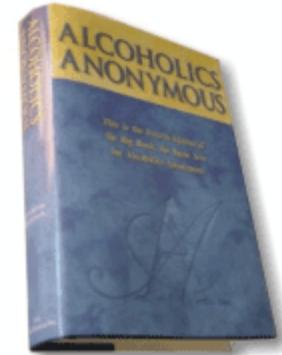
- **Approximately 2/3 of drug treatment programs are in part based on the 12-step principles (Kelly & Myers, 2007).**
- **Typically part of a multi-modal program.**

12-Step Drug Treatment



- **Sussman (2010): 19 studies reviewed that employed an AA/NA model as part of their formal adolescent drug treatment programs.**
 - **“Strong support that AA/NA-based treatment is superior to no treatment.”**

12-Step Drug Treatment



- **Elements of the 12-Step approach that are challenging to the teenager**
 - **life-long disease**
 - **committing to life long changes**
 - **not socially inclined**
 - **self-help groups may not be teen-friendly**



New 12-Step Program for Adolescents ?

12-Steps of Self-Regulation

1. **impulse control**
2. **“second thought” processes**
3. **social decision making**
4. **dealing with risk situations**
5. **taking healthy risks**
6. **attention regulation**
7. **anger control**
8. **modulating reward incentives**
9. **choosing options**
10. **considering consequences**
11. **minimizing arousal**
12. **dealing with peer influences**

Treating Drug Abuse and Co-Occurring Disorders



- **Treatment approaches run the gamut**
 - CBT
 - MET
 - Family Therapy
 - DBT
 - 12-Step
 - **Pharmacotherapy**

Medications to Treat Drug Addiction

- Strategies: drug substitution, blocking reinforcing effects, anti-craving, or making drug use aversive
 - Tobacco
 - Nicotine replacement therapies (e.g., patch, inhaler, gum)
 - Bupropion
 - Varenicline
 - Opioid
 - Methadone
 - Buprenorphine
 - Alcohol and Other Drug Addiction
 - Naltrexone & Nalmefene - helps prevent relapse to alcohol
 - Disulfiram - helps prevent relapse to alcohol abuse; currently being tested for treating cocaine abuse
 - Acamprosate - helps prevent relapse to alcohol
 - NAC (N-Acetyl Cysteine) - OTC amino acid

Medications to Treat Mental Disorders

- Typically, the medications used to treat adolescents are the same used for adults.
- Depression: SSRI's
- Anxiety: SSRI's, benzodiazepines
- Psychosis: antipsychotics
- Bipolar: Lithium
- ADHD : Ritalin, Strattera; Concerta

Sidebar:

Link of ADHD Psychostimulant Medication and Risk for Drug Abuse



- **Meta-analyses provide relatively good news; among teenagers that received medication during childhood:**
 - **Most studies indicate no additional risk of drug abuse**
 - **Some studies reveal less risk**

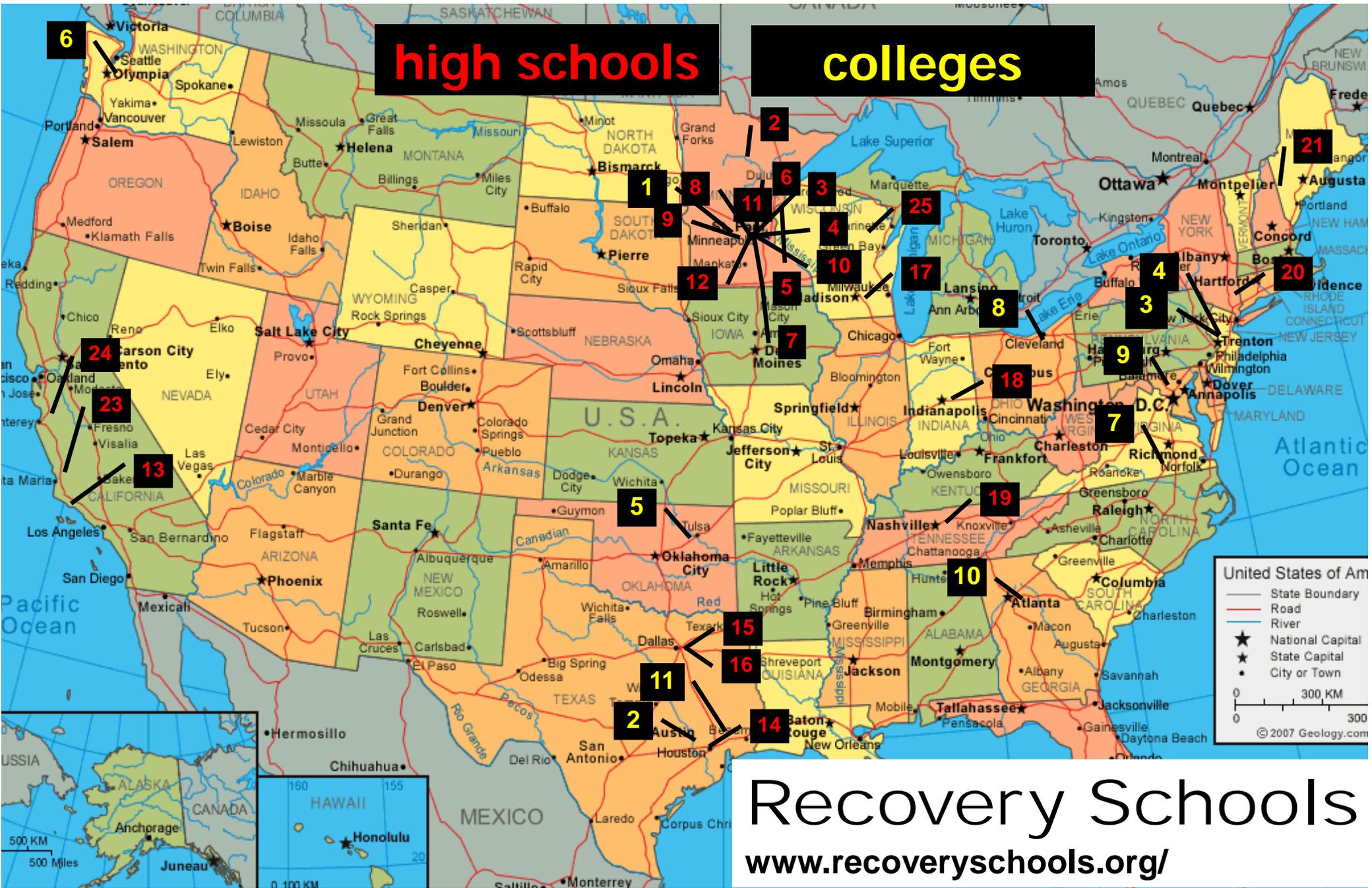
Sidebar: Challenges of Adolescent Recovery



- **Adolescents generally can not choose where to live after treatment; they often return to pretreatment home & school.**
- **These environments can be the source of numerous risks (e.g., drug use; social discord; family conflict; lack of opportunities for prosocial activities; school stress)**

high schools

colleges



Recovery Schools
www.recoveryschools.org/

You are here



Habits of Highly Effective Counselors



**3. Personalize treatment
by optimizing use of
teen-friendly features.**

Teen-Friendly Treatment Strategies

- **Apply two major treatment approaches seem accommodating to the teen brain:**
 - **Cognitive – Behavioral Therapy (CBT)**
 - **Motivational interviewing**



Characteristics of CBT

- **Focus on immediate, relevant and specific problems**
- **Solutions are realistic, concrete, specific**



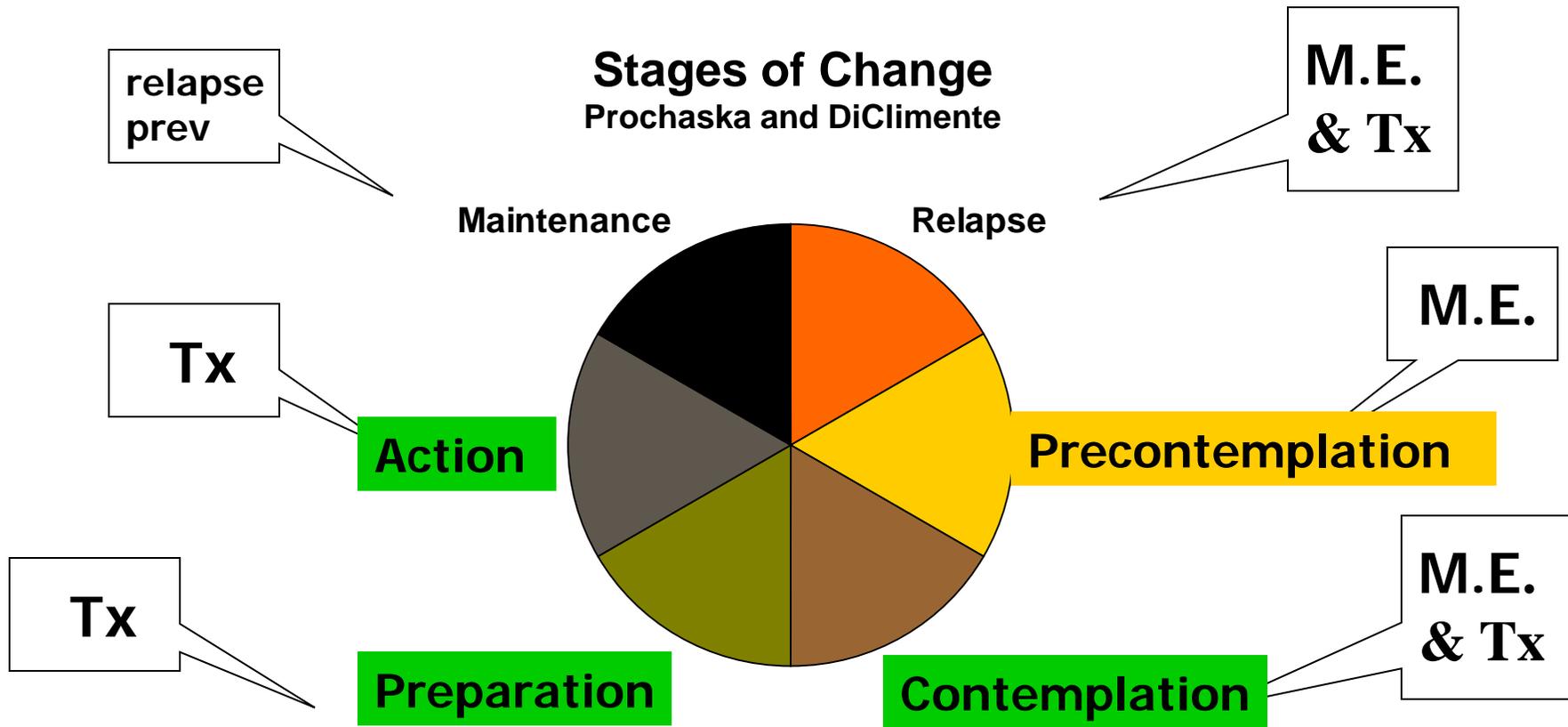
Characteristics of Motivational Interviewing

- **De-emphasize labels**
- **Emphasis on personal choice and responsibility**
- **Therapist focuses on eliciting the client's own concerns**
- **Resistance is met with reflection and non-argumentation**
- **Treatment goals are negotiated; client's involvement is seen as vital**

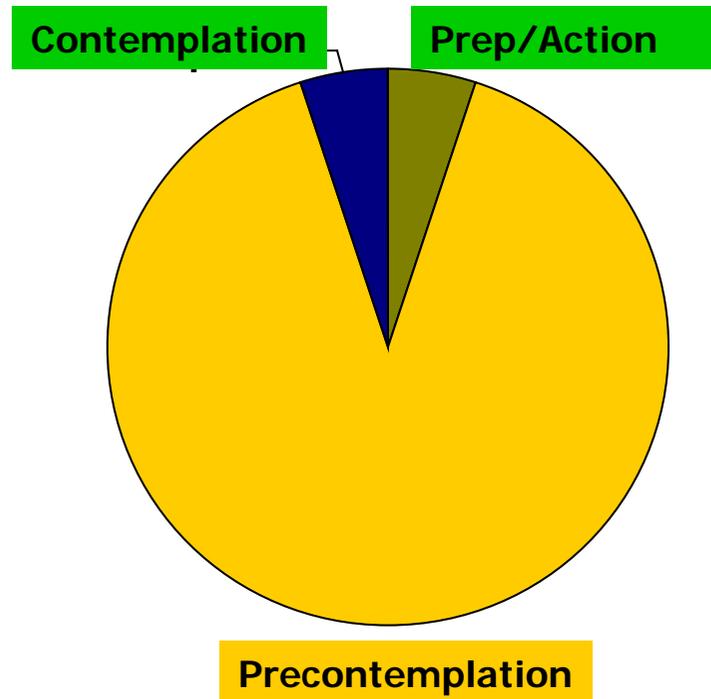


Value of CBT and MI

1. Promote Motivation



Stages of Change for most youth



Characteristics of Motivational Interviewing



Express empathy
Avoid argumentation
Develop discrepancy
Roll with resistance
Support self-efficacy

(Miller and Rollnik)

Value of CBT and MI

2. Teach Key Skills



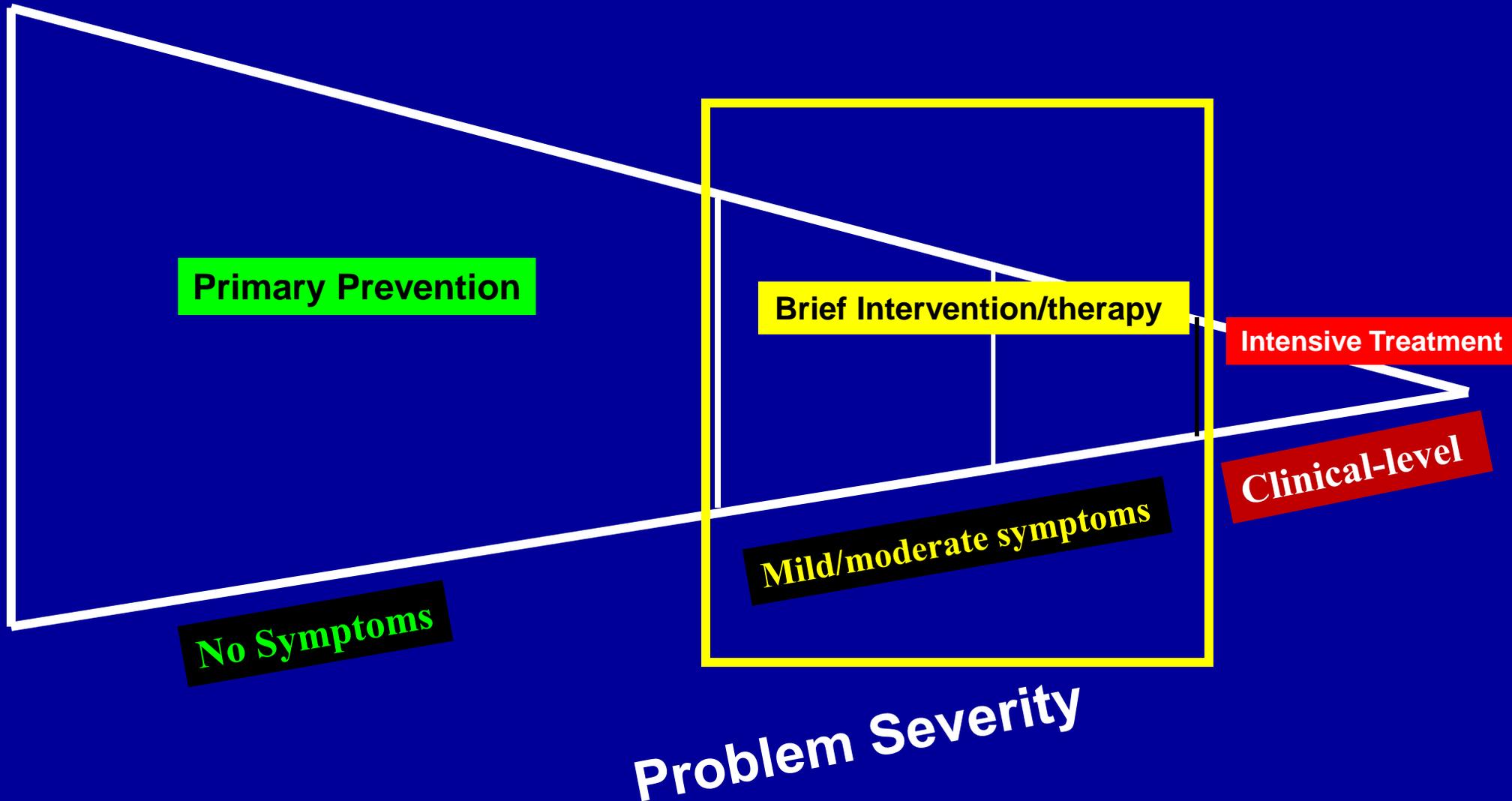
- **Teach important skills that are “under construction” during brain development**
 - **impulse control**
 - **“second” thought processes**
 - **social decision making**
 - **dealing with risk situations**
 - **taking healthy risks**

Habits of Highly Effective Counselors

4. Appreciate that the level of treatment should match the intensity of the problems.

Problem Severity and Response

Adapted from Broadening the Base of Alcohol Treatment (IOM)



Common Elements of Brief Interventions (see www.nrepp.samhsa.gov)



- **1 – 4 sessions**
- **Motivational interviewing and Cognitive Behavior Therapy**
- **Negotiated goals**

Drug Abuse Brief Intervention

Pros

“What do you like about drug use?

What are the good things about using/drinking?

What else?” *(Ask again until nothing else.)*

Cons

“What don’t you like as much about using/drinking?

What are the not-so-good things about using/drinking?

What else?” *(Ask again until nothing else.)*

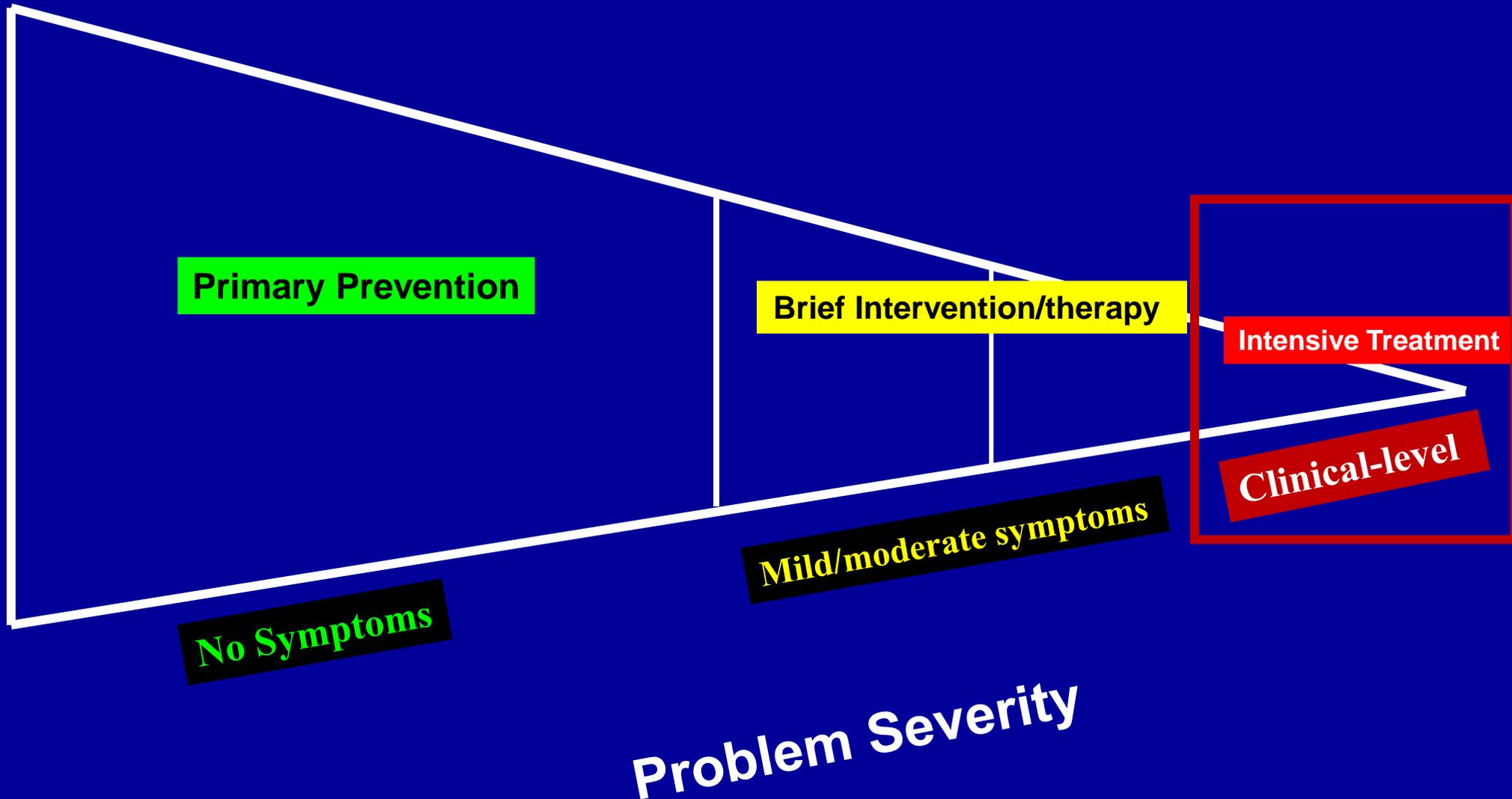
Examples of Evidenced-Based Brief Therapies or
Interventions for Youth
(www.nrepp.samhsa.gov)



- **Brief Strategic Family Therapy**
- **Teen Intervene**
- **CBT/MET-5**

Problem Severity and Response

Adapted from Broadening the Base of Alcohol Treatment (IOM)



Core Ingredients



- **problem-solving skills**
- **communication skills**
- **lifestyle changes**
 - **> prosocial activities**
 - **peer changes**
- **step work**
- **mental health needs**
- **family issues**
- **continuing care**

Core Ingredients



- **Continuing Care**
 - **Home Visits/telephone contacts/check-ups**
 - **Sessions for adolescent, parents, and together**
 - **Problem solving for drug issues, school problems; use of free time; family problems)**

Examples of Evidenced-Based Intensive Treatment Approaches for Youth (www.nrepp.samhsa.gov)

- **Adolescent Community Reinforcement**
- **Contingency Management**
- **Dialectical Behavior Therapy**
- **Matrix Model**
- **Multidimensional Family Therapy**
- **Multi Systemic Family Therapy**
- **Seven Challenges**
- **Twelve Step Facilitation Therapy**

Habits of Highly Effective Counselors



5. Use appropriate instruments for screening and assessment.

Assessment Resources



*TIPS #31: Screening and Assessing
Adolescents for Substance Use Disorders*
www.samhsa.gov/csat

\$\$ *Assessment of Childhood Disorders (4th
edition) www.guilford.com*

Brief Psychosocial Interview: HEADSS



- H** Home/environment
- E** Education/employment
- A** Activities
- D** Drugs
- S** Sexuality
- S** Suicide/depression

Very Brief Drug Abuse Screen: CRAFFT

(Knight et al., 2002)



- C** Have you ever ridden in a **CAR** driven by someone (including yourself) who was “high” or had been using alcohol or drugs?”
- R** Do you ever use alcohol or drugs to **RELAX**, feel better about yourself, or fit in?
- A** Do you ever use alcohol/drugs while you are by yourself, **ALONE**?
- F** Do your **FAMILY** or **FRIENDS** ever tell you that you should cut down on your drinking or drug use?
- F** Do you ever **FORGET** things you did while using alcohol or drugs?
- T** Have you gotten into **TROUBLE** while you were using alcohol or drugs?

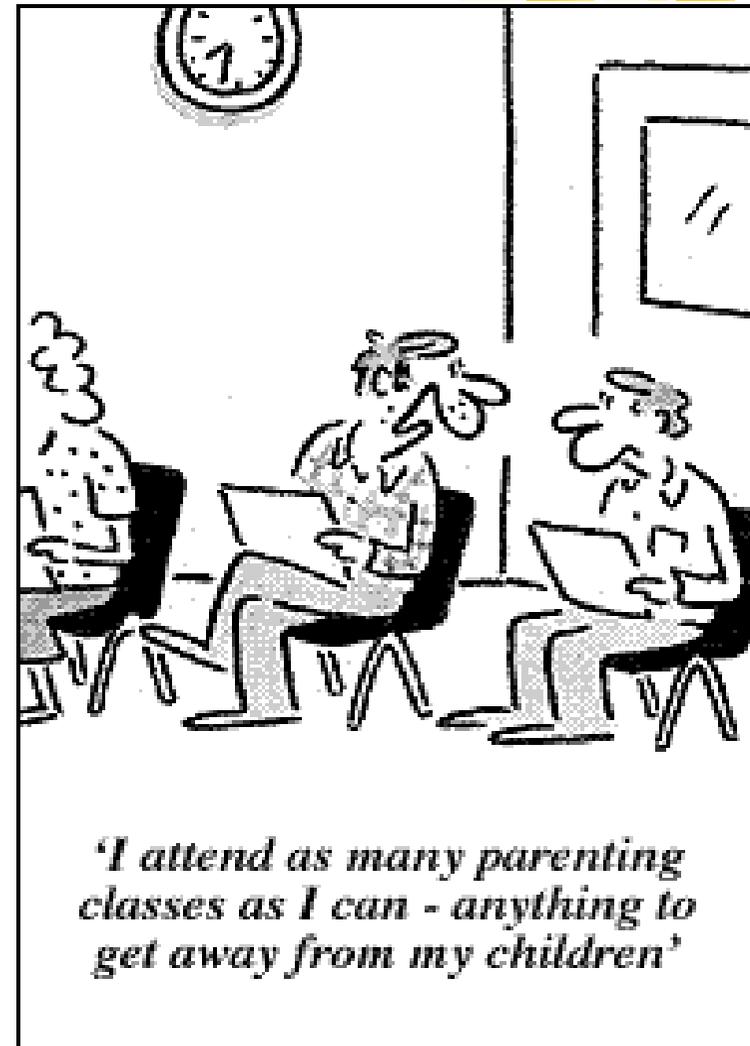
2+ endorsements = red flag

Strategies for Enhancing Valid Self-Report

- **Build rapport.**
- **Establishing confidentiality (with limits).**
- **Reinforce personal benefits and relevance of the assessment.**
- **Use standardized tests that measure invalid reporting.**
- **Adjust process based on learning & reading ability.**
- **Repeat testing.**
- **Collect urinalysis.**

Habits of Highly Effective Counselors

6. Engage parents in treatment.



Three Typical Parent Goals



- 1. Improve family interaction patterns**
 - solving conflicts
 - creating positive interaction climate
- 2. Upgrade parenting practices**
 - support
 - monitoring

Parenting Styles



MONITORING

+

-

+

desired

< desired

+

SUPPORT

-

< desired

worse

Typical Parent Goals



1. Improve family interaction patterns

- solving conflicts
- creating positive interaction climate

2. Upgrade parenting practices

- support
- control

3. **Adjust attitudes and behaviors to be a role model of health**

Parents as a Recovery Agent

Promote activities that capitalize on the strengths of the developing brain

Assist your child with challenges that require planning

Reinforce their seeking advice from you and other adults

Educate about risk taking and negative consequences

Never underestimate drug effects on developing brain

Tolerate “oops” behaviors common during the teens

Summary

Effective Counselors.....



- 1. Understand youth**
- 2. Use assessment to determine level and type of treatment response**
- 3. Incorporate evidenced-based elements into clinical practice**



THANK YOU!

winte001@umn.edu