

Message in a Bottle: Understanding and Preventing Fetal Alcohol Spectrum Disorders

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**Therese Grant, University of Washington,
Parent-Child Assistance Program (PCAP)**

LaShaunda Harris, Triumph Treatment Services, Yakima County PCAP

Denise Joy, New Horizons Care Centers, Spokane County PCAP

**Melissa Hoefler-Kravagna, Pacific Treatment Alternatives,
Snohomish County Safe Babies Safe Moms**

Objectives:

- To describe teratogenic effects of prenatal alcohol exposure, and discuss the central nervous system (CNS) damage in terms of the impact on outcomes later in life.
- To describe effective strategies for working with mothers who abuse alcohol and drugs during pregnancy, in order to prevent future alcohol and drug exposed births.

Teratogens

- Substances that have the potential to damage the fetus when exposure occurs during pregnancy (e.g., radiation, thalidomide, alcohol).
- Degree of damage depends on timing and dose of exposure.
- If timing and dose are below the teratogenic threshold, some exposures have little risk of causing malformation.



Prenatal Alcohol Exposure

- Effects have been demonstrated in animals and humans

Neurobehavioral effects are more injurious and long-lasting than cocaine and other drugs abused prenatally.

Enter Tobacco: *It's at Least as Toxic as Illegal Substances*

- Clearly associated with intrauterine growth restriction (“Maternal cigarette smoking carries the greatest risk of impaired fetal growth of any of the substances....,” Chiriboga, 2003).
- Also associated with long-term pulmonary, behavioral, attentional, IQ, and even immune system consequences.

Prenatal Tobacco Exposure

- Cigarette smoke contains tar, nicotine, and carbon monoxide.
- Tar contains substances (lead, cyanide, cadmium, and more) harmful to the fetus.
- Nicotine crosses the placenta and distributes freely to the CNS, having direct and indirect effects on neural development.
- Intrauterine hypoxia, mediated by carbon monoxide and reduced uterine blood flow, is a major mechanism of the growth impairment.

Prenatal Alcohol Exposure: *It's the Worst*

- Alcohol is a consistent and clear teratogen.
- It is the only substance of abuse associated with a lifelong birth defect and clear syndrome (FAS), and a spectrum of
 - neurodevelopmental disabilities
 - complex learning and behavioral difficulties

Prevalence Matters

- Tobacco and alcohol use during pregnancy are far more common than illegal drug use.
- Among pregnant women:
 - 5.5% have used any illicit drug
 - 18.8% have used alcohol
 - 20.4% have smoked cigarettes

**Tobacco and especially alcohol
are more likely to cause harm
than illicit drugs.**

Teratogenic Effects of Prenatal Alcohol Exposure

- Direct toxic effect of alcohol on cells
- Hypoxia (inadequate oxygenation of blood) due to impaired placental/fetal blood flow
- Effect on cell migration in the brain
- Effect on apoptosis (a natural process of programmed cell death)

Fetal Alcohol Syndrome

- A permanent birth defect caused by maternal alcohol use during pregnancy
- The leading preventable cause of mental retardation in the Western world
- Annually: 40,000 infants born with FASD (more common than Muscular Dystrophy, Cystic Fibrosis, Downs Syndrome and Spina Bifida combined)

**Growth
Deficiency**

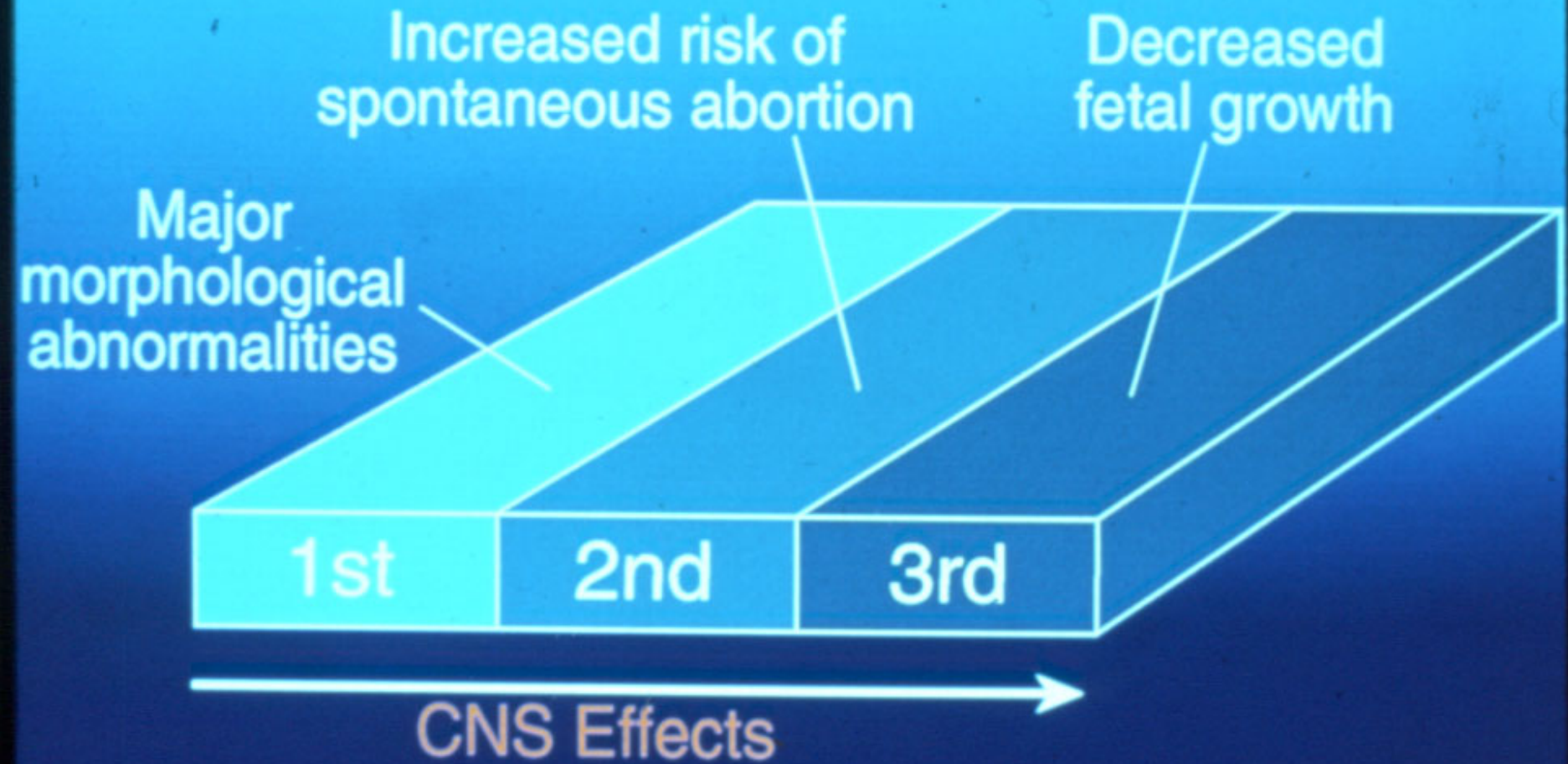
**Specific Pattern of
Facial Anomalies**

FAS

**Central Nervous System Dysfunction
Organic Brain Damage**

- Hyperactivity, attention deficits
- Intellectual deficits, learning disorders
- Problems with memory, language & judgment
- Developmental delay, microcephaly
- Fine & gross motor problems, seizure disorder
- Mental retardation, structural brain damage

Major Effects of Ethanol by Trimester of Pregnancy



Fetal Alcohol Spectrum Disorders (FASD)

can be

“Hidden Disabilities”

FASD

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Organic Brain Damage**

- Hyperactivity, attention deficits
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FASD: Clinical Implications

- Poor judgment Easily victimized
- Attention deficits Unfocused / distractible
- Arithmetic disability Can't handle money
- Memory problems Doesn't learn from experience
- Difficulty abstracting Doesn't understand consequences
- Disoriented in Fails to perceive social time and space cues
- Poor frustration Quick to anger tolerance

**Prenatal
Alcohol**



**Primary
Disability**



**Brain
Damage**



**Dysfunctional
Behaviors**

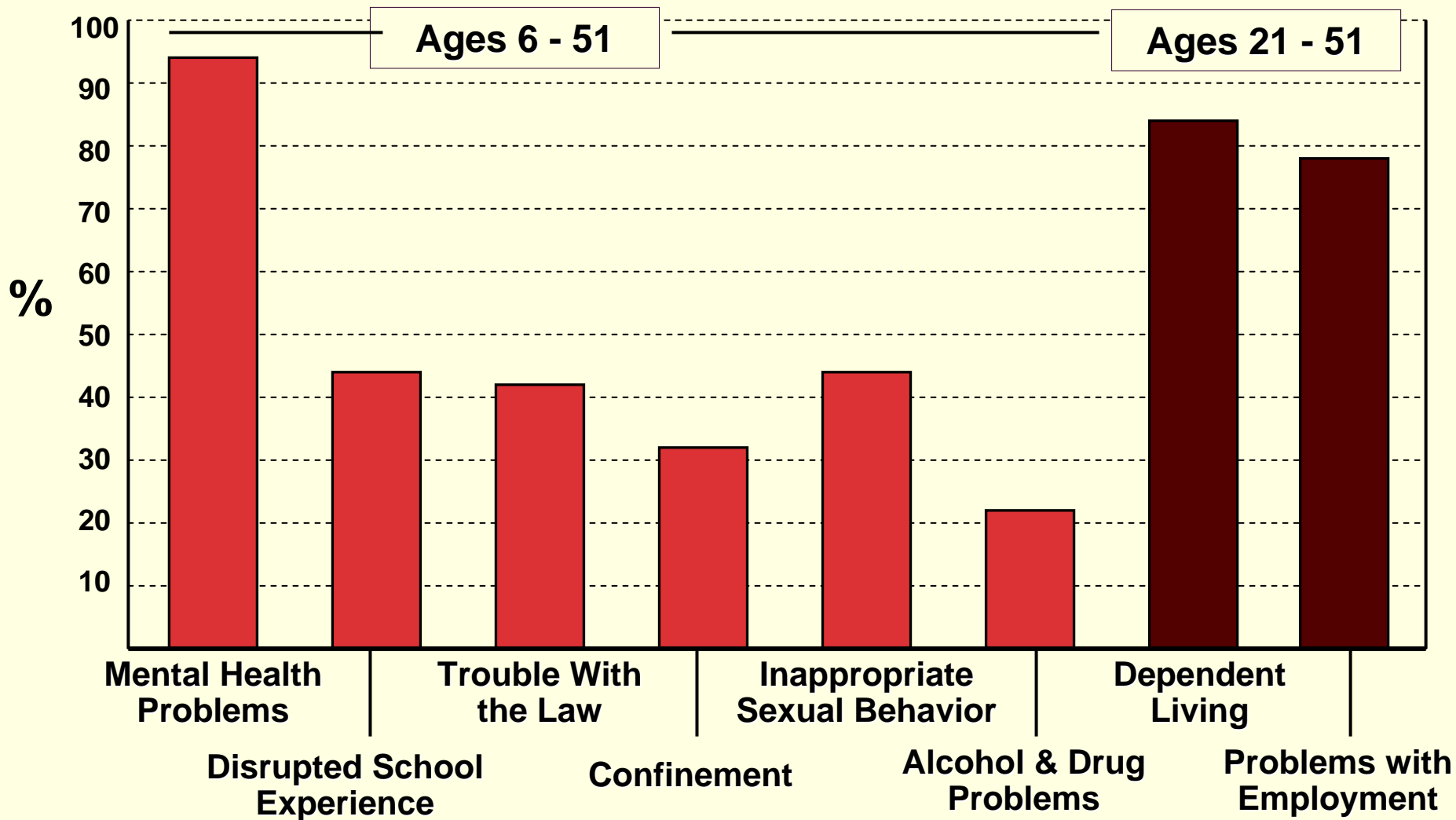


**Secondary
Disabilities**



**Trouble with the Law,
School Disruption, Etc.**

PREVALENCE OF SECONDARY DISABILITIES Across the Life Span



■ Ages 6-51 (n=408-415)

■ Ages 21-51 (n=89-90)



The Formula for Preventing Future Alcohol Exposed Births




- Motivate women to stop drinking before and during pregnancy

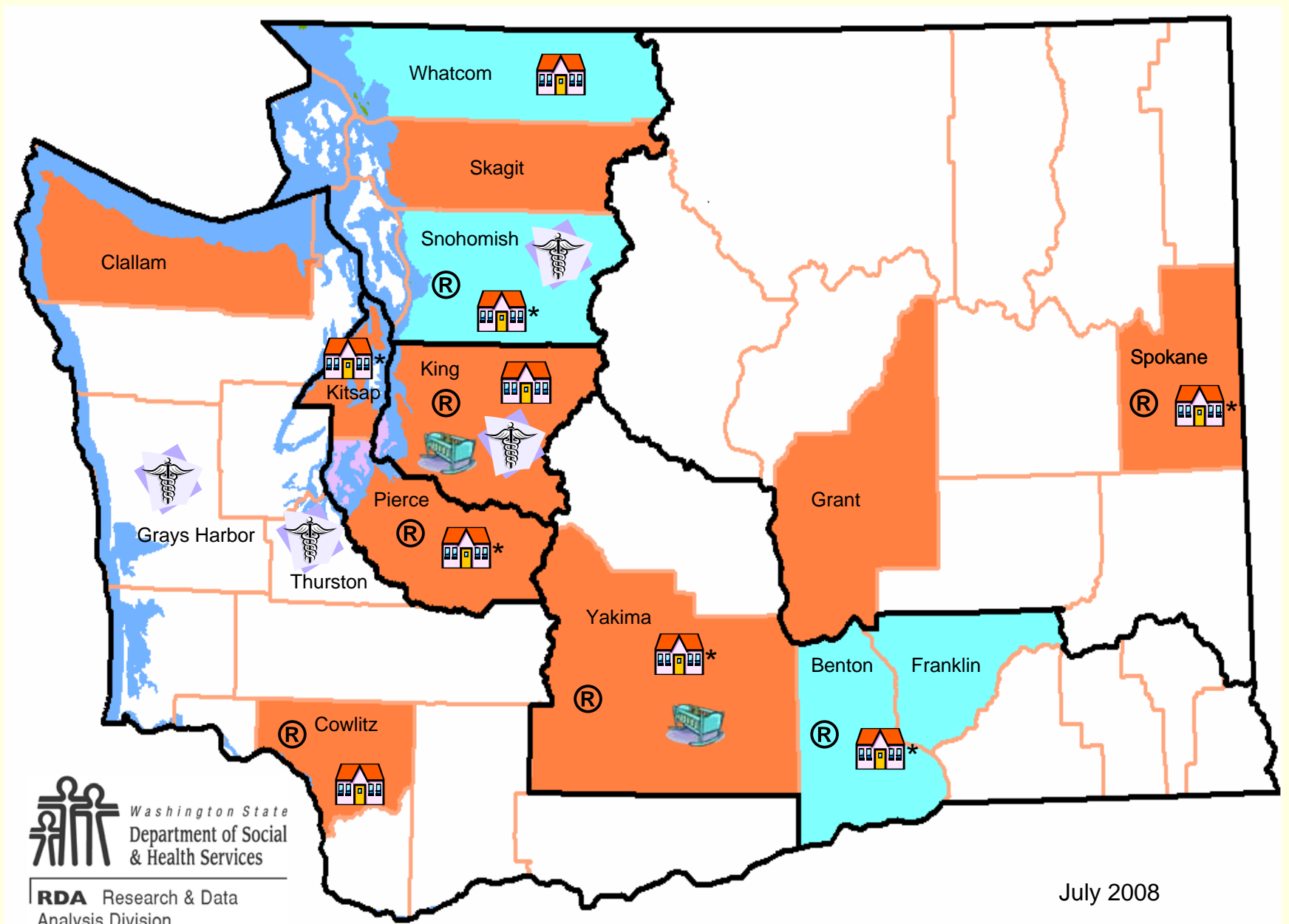
Or

- Help women who can't stop drinking to avoid becoming pregnant

PPW Services

PPW Residential  Housing Support
 *the program has housing available
 Parent Child Assistance Program (PCAP) 

DASA Supported Crisis Nursery  CUP 
 Safe Babies Safe Moms (TICM) 



Challenges to Recovery

- Melissa Hoefler-Kravagna

Challenges to Recovery

Substance abuse can cause

- cognitive problems (learning, memory, decision-making)
- psychiatric symptoms

These can clear when the person stops using. The brain needs a drug-free environment to heal.

The recovery process

- requires considerable time
- often results in some brain functions worsening prior to improvement.

Challenges to Recovery

Functionality can also be compromised due to:

- **Psychiatric co-morbidity**
About 30% of women with a substance use disorder have a co-occurring serious mental health disorder (usually anxiety or major depression)
- **Clients themselves may be exposed prenatally to drugs or alcohol (potential for FASD)**
- **History of traumatic brain injury**

When Cognitive Functioning Is Compromised

- Adjust your expectations to be more congruent with the individual's developmental level of functioning

“Think Younger”

- A neuropsychological assessment can be helpful. It's a roadmap for identifying cognitive and functional strengths & deficits

When Cognitive Functioning Is Compromised

Revise Your Expectations

- It may be a case of “can’t” vs. “won’t”
- Help set up structure
- Set reasonable goals
- Remember this person’s developmental age

When Cognitive Functioning Is Compromised

- Use short sentences, concrete examples, and avoid analogies
- Present information using multiple modes
- Simple step-by-step instructions
(written and/or with pictures)
- Role-playing
- Ask client to demonstrate skills
(don't rely solely on verbal responses)
- Revisit important points during each session

When Cognitive Functioning Is Compromised

- Teach generalization: Don't assume a lesson learned in one context will transfer to another
- Help client identify physical releases when escalating emotions become overwhelming
- Be alert for changes/transitions—monitor more carefully, do advance problem-solving
- Have consistent appointment times, locations, and providers. If primary provider must change, have an extended transition period so current and new provider work together with the individual.

Engaging Clients in Treatment

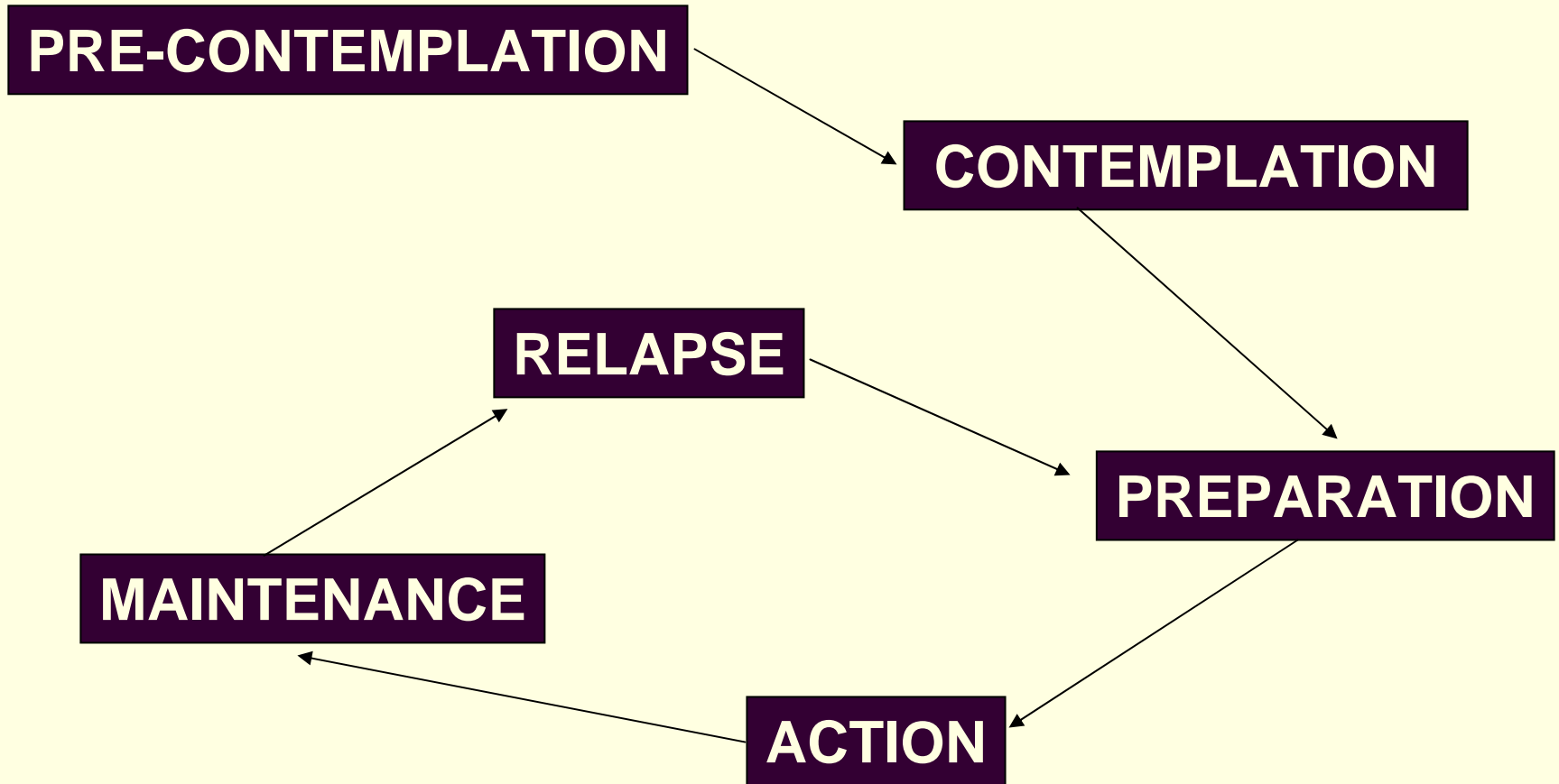
- LaShaunda Harris

Consider Stages of Change...

- Clients will be at different stages of ***readiness for change***
- Motivational Interviewing is a powerful strategy used to enhance client motivation for change.
- When clients make positive changes, their self esteem grows and they begin to believe in themselves.

Motivational Interviewing

- Empathic, supportive, yet directive approach
- Acknowledge client's perception, expertise
- Ambivalence is normal and can be resolved by working with client's intrinsic values
- Encourage client to explore + and – aspects of her choices



Self-efficacy is influenced most powerfully by one's own history of accomplishment

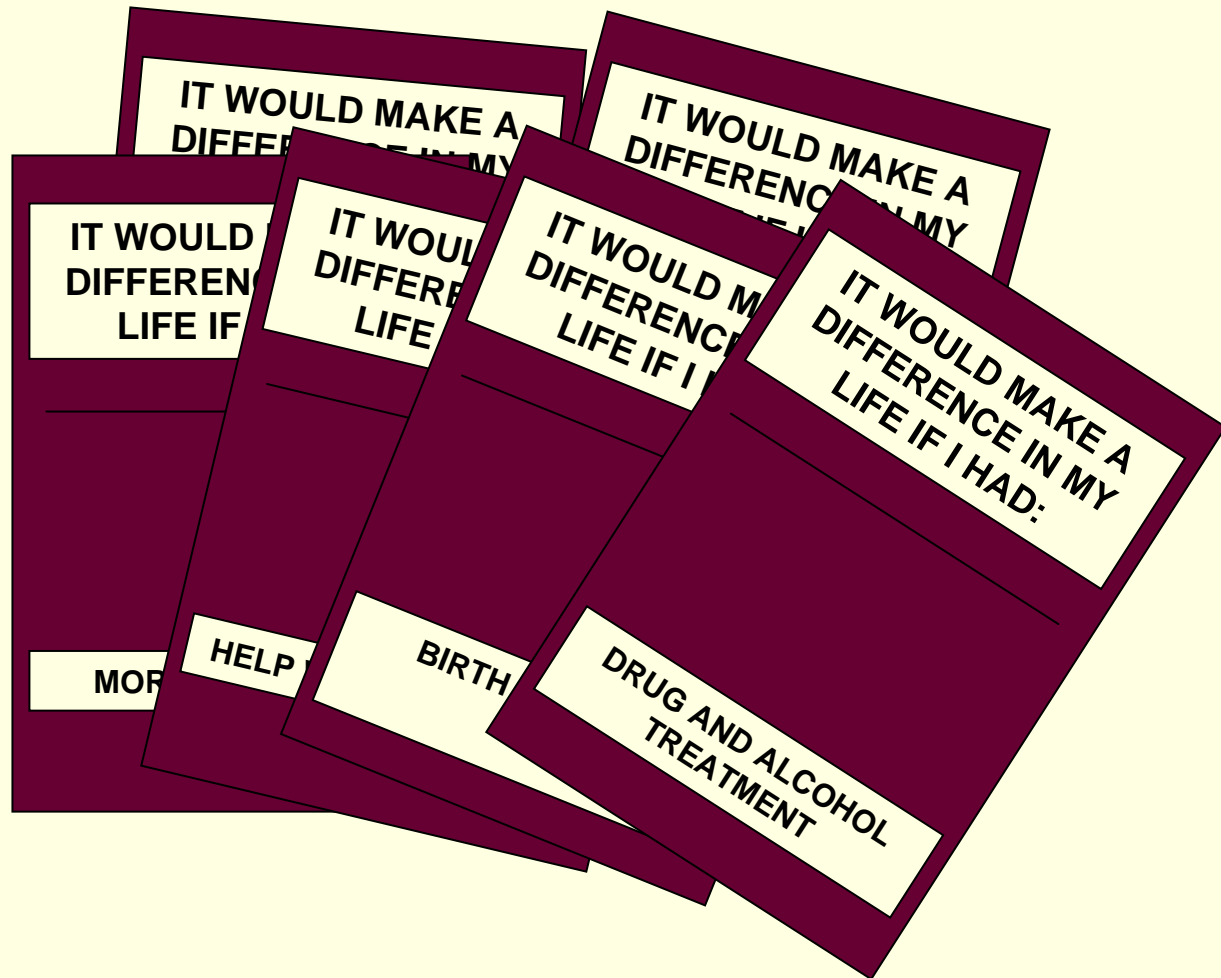
From Prochaska & DiClemente

Engaging Parents

- “Having a person to talk to who really cares...”
- Positive, trusting relationships in intervention, treatment, and recovery settings are critical.
- The quality of interpersonal relationships:
 - may determine whether or not a person remains in an intervention;
 - may be more important than the concrete services received.

Engaging Parents: Concrete Activities

- **The Difference Game**



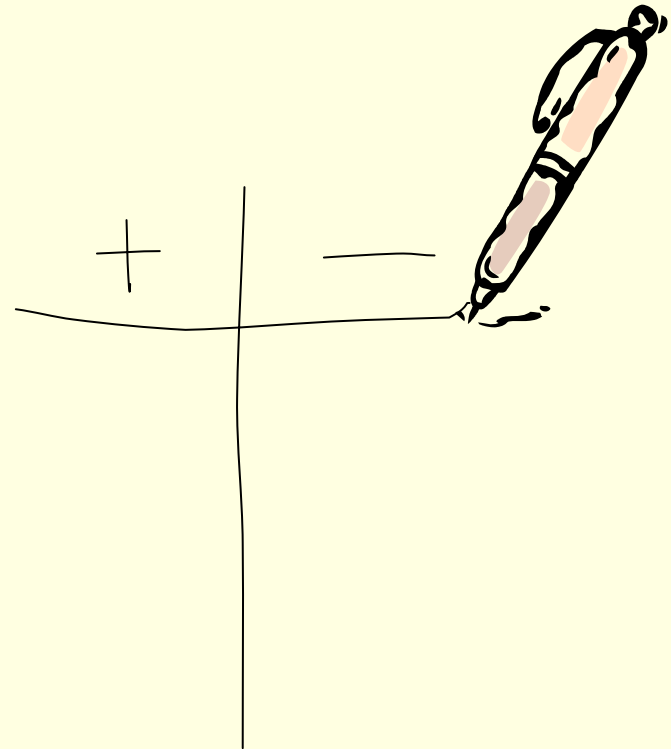
Engaging Parents: Concrete Activities

- Identify Goals & “baby steps” it will take to reach each goal.
- Make sure some of the baby steps *are attainable* in the designated period.
- Self-efficacy is all about helping clients recognize their own accomplishments.

Engaging Parents: Concrete Activities

Pros and Cons

Go to inpatient treatment?



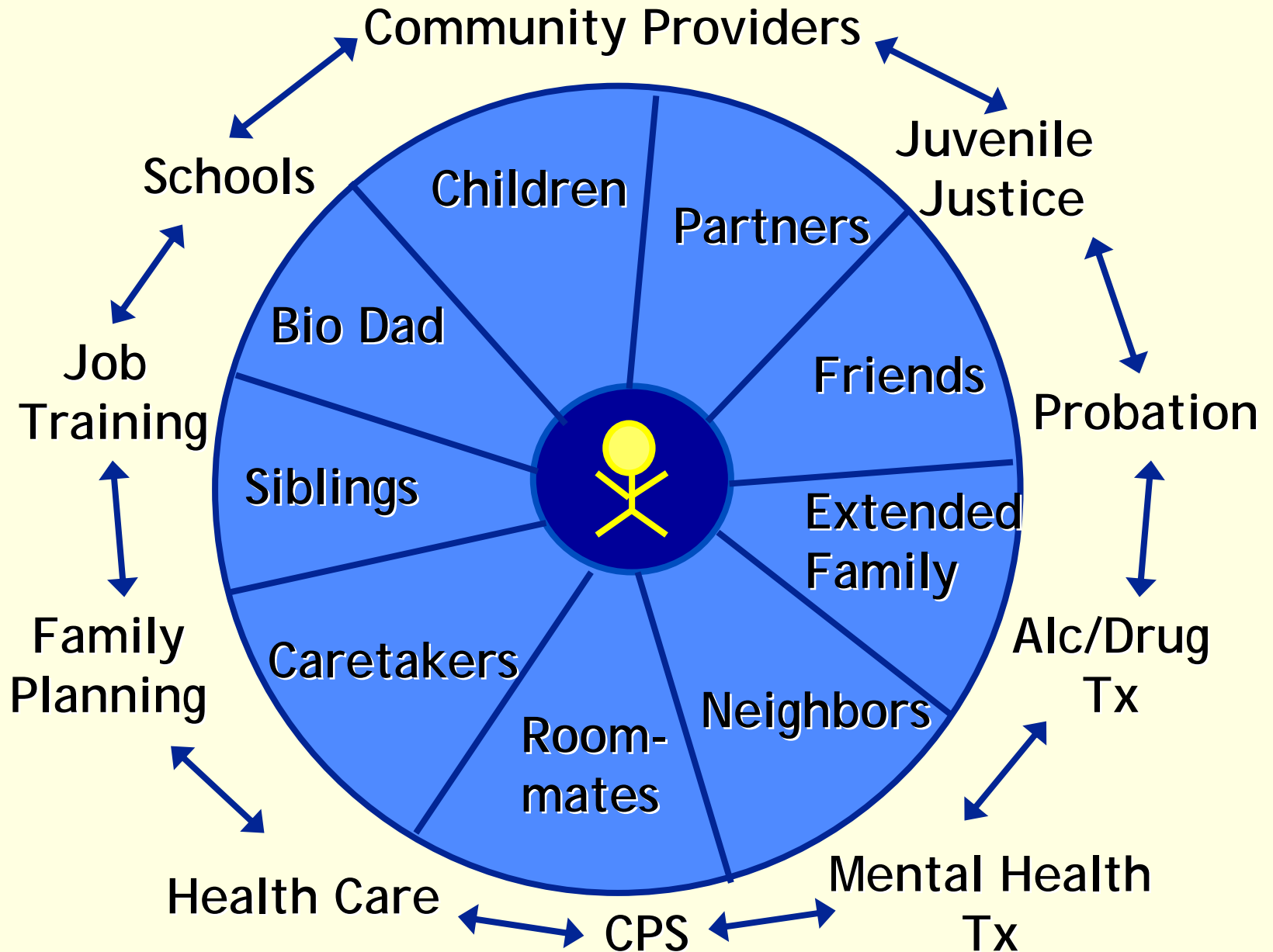
Effective Wraparound

- Wraparound services are based on a model of service that develops plans focusing on the individual strengths and needs of members of the family.
- Plans center on the family, and are built upon the child's and family's unique strengths, and may include crisis and safety plans that can help families prepare for the worst, while they strive for a better future.
- Wraparound services are a positive way to help participating parents
 - ◆ develop an effective support network;
 - ◆ increase their sense of competence;
 - ◆ acquire new skills for managing the special needs of their child;
 - ◆ have access to the supportive resources they need to build brighter futures for themselves.

Effective Wraparound

- Individually tailored
- Promotes competency of the individual
- Family-centered
- Community-based
- Multidisciplinary

Effective Wraparound



The Formula for Preventing Future Alcohol-Exposed Births

- Denise Joy

The Formula for Preventing Future Alcohol-Exposed Births

- Motivate women to stop drinking before and during pregnancy

Or

- Help women who can't stop drinking to avoid becoming pregnant

Alcohol & Drug Treatment

BEFORE

- Mandated treatment may be necessary (Drug Court is beneficial)
- Seek women-only treatment setting
- Seek treatment where children can stay
- Gain cooperation of client support system
- Prepare the client for what to expect

Alcohol & Drug Treatment

DURING

- Get Releases of Information signed
- Arrange for consistent child visitation
- Connect clients with service providers who can help her meet other needs (e.g. mental health) and future needs (housing applications, etc.)
- Help to arrange for post-treatment, transitional housing
- Stay in close touch

Alcohol & Drug Treatment

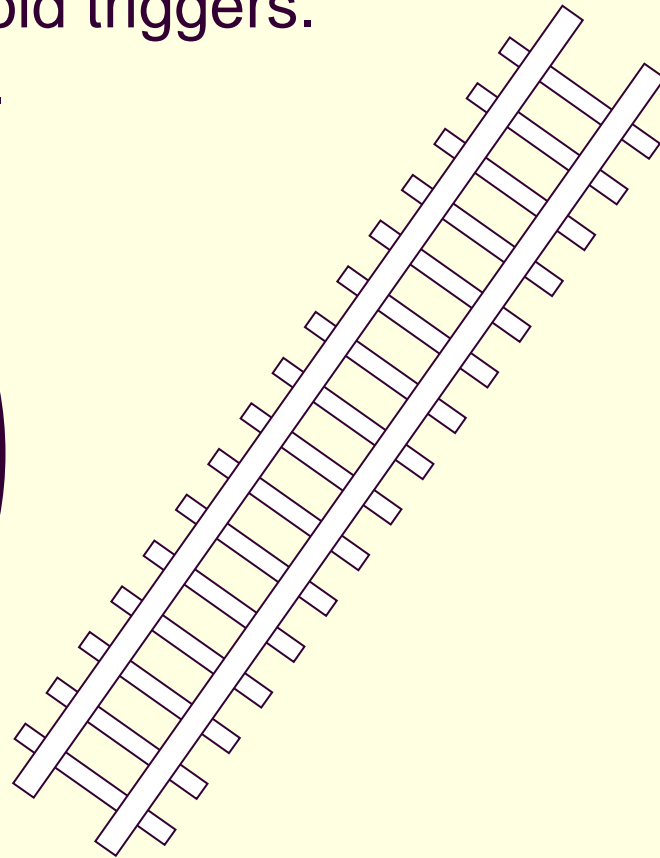
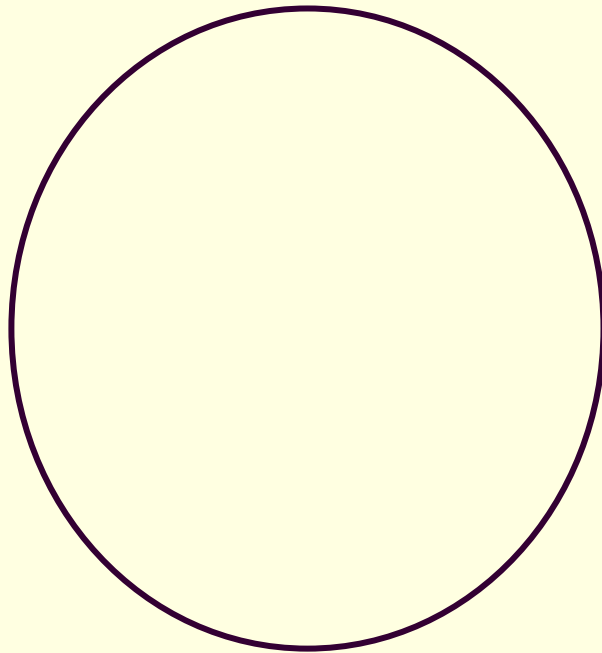
AFTER

- Relapse is part of the disease; be explicit and honest about consequences
- Help client identify triggers and make a specific safety plan
- Introduce client to relevant support groups
- Consider relocation to new neighborhood

Engaging Parents: Concrete Activities

“Circle and Fence”

Clients must learn how to avoid triggers.
Sober friends can really help.



Family Planning

- Does NOT mean never having another baby
- DOES mean having more control over whether, and when, to have another child

Family Planning

Education: Topics to Address

- Basic anatomy, how pregnancy occurs
- How various family planning methods work
- Possible contraindications
- Lifestyle and health status considerations

Family Planning

Encourage client to see her doctor.

Here are some things a client should ask about the method she is considering

- How does this method work?
- How well does it work?
- Will there be side effects?
- Can I afford it?
- How easy is it to get?

Here are some questions a client should ask herself about using a method

- How long do I plan on using this method?
- Will I be comfortable in using it?
- Do I want my partner to be aware that I'm using it?
- Will my partner like this method and help me use it?
- Can I follow the schedule for using it?
- Will I be able to use it correctly every time?

Family Planning

- Encourage client to discuss, acknowledge previous experiences
- Help client identify pros and cons of having another child; revisit this topic
- In establishing client goals, ask:
- “How will having another child affect achieving your goals?”

Family Planning

Utilize Community Resources

- **DSHS Take Charge**
(<http://www.fwhc.org/takecharge.htm>)
- **Planned Parenthood of WA**
(<http://www.plannedparenthood.org/westernwashington/>)
- **Project Prevention**
(www.projectprevention.org)
- **Open Adoption Agencies and Crisis Pregnancy Centers**

Psychotherapeutic Techniques: Individual & Group Clinical Interventions

- Melissa Hoefler-Kravagna

Psychotherapeutic Techniques: Individual

Where everything starts...

- Evaluation & Treatment Planning

Psychotherapeutic Techniques: Assessment

- Cognitive

 - Wechsler Adult Intelligence Scale-III

 - Measure of Intelligence/Ability

 - Measurement of premorbid functioning

- Personality

 - Minnesota Multiphasic Personality Inventory-2

 - Meyers-Briggs Type Indicator

- Mood

 - Beck Depression Inventory-II

 - State-Trait Anxiety Inventory

Psychotherapeutic Techniques: Treatment Planning

Options:

- Group
- Individual
- family

Psychotherapeutic Techniques: Therapy from an Eclectic Perspective

- Long-term psychotherapy
- EMDR
- Mindfulness Meditation
- Brief Therapy
- Family Therapy

Psychotherapeutic Techniques: Groups

- Psychoeducation
 - Positive Parenting
 - Assertiveness Training
- Process
- Therapy
 - DBT
 - Living Through Loss

Meeting the Challenge:

- It's not "*just* alcohol"

February 21, 2005

U.S. Surgeon General Releases Advisory on Alcohol Use in Pregnancy

- Women who are pregnant or who may become pregnant should abstain from alcohol consumption in order to eliminate the chance of giving birth to a baby with any of the harmful effects of the Fetal Alcohol Spectrum Disorders (FASD).

This updates a 1981 Surgeon General's Advisory.

If I'm Pregnant, Can I ...

...Fly in a plane?

Yes – if you could before, says Dr. Donald Gibb of London's Portland Hospital. In commercial jets, he says, short rides are fine up to 36 weeks.

...Have a beer?

The Centers for Disease Control says “no level of alcohol...has been determined safe,” but some doctors feel limited drinking – no more than a pint a day, suggests Dr. Gibb – after the first trimester is okay.

...Bleach or dye my hair?

Many doctors give a thumbs up after the first 12 weeks, so long as chemicals are kept away from the scalp.

