Fetal Alcohol Spectrum Disorders
Approaches, Resources and Interventions

The FASD Iceberg

- FAS – Fetal Alcohol Syndrome
- PFAS – Partial Fetal Alcohol Syndrome
- ARND – Alcohol Related Neuro Developmental Disorder
- ARBD – Alcohol related birth Defects

Scope of the Issue

- Prenatal exposure to alcohol is harmful to the fetus. Can result in:
  - Physical malformations
  - Growth problems
  - Abnormal functioning of the central nervous system (CNS)

Scope of the Issue

- Alcohol is a teratogen: a substance that causes developmental transformations
- Alcohol use can alter brain structure
- Alcohol use can alter brain chemistry

Effects of Alcohol on the Developing Embryo and Fetus

- No known safe amount of alcohol during pregnancy
- No safe type of alcohol
- No safe time to drink during pregnancy
- Alcohol interacts with the developing central nervous system through multiple actions

Recognition of the Issue

- Medical Literature
  - Effects of prenatal alcohol exposure first described in the medical literature by Paul Lemoine of France (1968)
  - Drs. Jones and Smith introduced FAS in the United States (1973)
Diagnosis
- Documented presence of discriminating facial characteristics
- Documented growth deficits
- Documented central nervous system abnormalities

Disabilities Associated with Alcohol
- 6 per 1,000 live births (HRSA, 2005)
- 2,000 – 12,000 of the projected 4 million children born each year are likely to have FASD (Plumridge, Bennett, Dinno & Branson, 1993)
- 1 out of every 1,000 born with full-blown FAS (fasdcenter.samhsa 2006)

Prevalence Figures
- Institute of Medicine 1996 – children have not received correct diagnosis or treatment
- Much larger population than those diagnosed with Down’s syndrome 1 per 2,000 live births
- Autism (3 per 1,000 live births)
- CDC (2006)

Prevalence by Race/Ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>FAS cases N (%)</th>
<th>Prevalence per 10,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>710 (47.0)</td>
<td>8.1</td>
</tr>
<tr>
<td>White</td>
<td>537 (35.4)</td>
<td>1.1</td>
</tr>
<tr>
<td>Native American</td>
<td>77 (0.1)</td>
<td>31.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td>45 (3.0)</td>
<td>1.2</td>
</tr>
<tr>
<td>Asian</td>
<td>3 (0.2)</td>
<td>0.3</td>
</tr>
<tr>
<td>Other</td>
<td>137 (9.1)</td>
<td>1.7</td>
</tr>
<tr>
<td>Overall</td>
<td>1,509 (100.0)</td>
<td>2.1</td>
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Why Is This Important
- Prenatal alcohol exposure puts stress on brain development and function
- Affects multiple developmental domains
- Affects child’s ability to successfully navigate social and academic environments

Infants
- Low birth weight, irritability, sensitivity to light, noises and touch; poor sucking, slow development; poor sleep-wake cycles; increased ear infections
Toddlers

- Poor memory capability; hyperactivity; lack of fear; no sense of boundaries; need for excessive physical contact

Grade School Years

- Short attention span, poor coordination, difficulty with both fine and gross motor skills

Older Children and Teenagers

- Trouble keeping up in school
- Low self esteem from recognizing they are different from their peers
- Poor impulse control, cannot distinguish between public and private behaviors, must be reminded on concepts on a daily basis

Adolescents and Teens

- Prone to mood disorders, anxiety, depression
- Impulsivity and poor judgment – leads to difficulty achieving independence
- Trouble fitting in with others – leads to low self-esteem
- At higher risk for substance abuse
- “Hidden disability” – gives the impression of being more capable than they really are which puts individuals at risk for mental illnesses and secondary disabilities

Adults

- Might present themselves as more capable than they are
- Difficulty with abstract thinking and concepts
- High risk for victimization
- Benefit from case management and need ongoing supports

Overlapping Behavioral Characteristics

Minnesota Children’s Mental Health Agency-2010

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>FASD</th>
<th>ADD/ADHD</th>
<th>Autism</th>
<th>Poverty</th>
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</thead>
<tbody>
<tr>
<td>Often does not follow through on instruction</td>
<td>x</td>
<td>x</td>
<td></td>
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<tr>
<td>Often has difficulty organizing tasks and</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manages time poorly / lack of comprehension of</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often loses temper</td>
<td>x</td>
<td></td>
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</tbody>
</table>
Families and Caregivers

• All families with an individual with an FASD need counseling and resources.
• Birth families might need to be assessed for addiction problems and might need to be referred for treatment.
• A stable home environment is crucial.
• Families living with FASDs can benefit from instruction on specific techniques shown to be helpful.

Providers and Approaches to Treatment for FASDs

• Medical, mental health, and therapeutic considerations
• Psychopharmacological considerations
• Behavioral and educational interventions
• Alternative approaches

Medical, Mental Health, and Therapeutic Considerations

• Particular concerns must be monitored and addressed through a variety of healthcare providers:
  – Pediatrician
  – Otolaryngologist
  – Audiologist
  – Immunologist
  – Primary care provider
  – Addiction treatment services
  – Neurologist
  – Child psychiatrist and psychologist, school psychologist, behavior management specialist
  – Ophthalmologist
  – Plastic surgeon
  – Endocrinologist
  – Gastroenterologist
  – Nutritionist

Psychopharmacological Considerations

• There are no approved medications specifically for the treatment of FASDs, however several classes of medications are prescribed routinely to address common symptoms:
  – Stimulant medications
  – Antidepressants
  – Neuroleptics
  – Anti-anxiety drugs
  – Drug “cocktails”

Behavioral and Educational Interventions

• Strategies specific to individuals with FASDs have traditionally been gleaned from other disabilities and practical wisdom gained by parents and clinicians.
• In general, helpful interventions include:
  – Stable home environment
  – Working with educational staff or therapists and working with social services (e.g., foster care) to determine individualized treatment plans
  – If developmental delay is present or suspected in a child under age three, refer to early intervention program.

Behavioral and Educational Interventions (continued)

• Educational interventions:
  – Special education placement
  – 501 plans
  – Individualized Education Plan (IEP)
• Evidence-based interventions for children with FASDs:
  – Project Bruin Buddies – social skills training
  – Georgia Math Interactive Learning Experience – math knowledge and skills training
  – ALERT program – behavior regulation and executive functioning
  – Parent therapy program – improve parent effectiveness and reduce behavior problems
Alternative Approaches

- Non-tested therapies for individuals with FASDs:
  - Biofeedback
  - Auditory training
  - Relaxation therapy/visual imagery/meditation
  - Creative art therapy/yoga/exercise
  - Acupuncture/accupressure/massage/Reiki/energy healing
  - Vitamins/herbal/homeopathy

Family Support Services and Resources

- Parenting strategies
- Disability services
- Legal system
- Resources

Parenting Strategies

- Keys to working successfully with children with FASDs:
  - Structure
  - Consistency
  - Variety
  - Brevity
  - Persistence and repetition
- Families might need counseling, therapy, and/or parenting classes.
- Birth families might need intervention and encouragement to pursue treatment for their addiction.

Disability Services

- Individuals with an FASDs might qualify for:
  - Supported employment/job coach
  - Transportation
  - Assisted living
  - Respite care
  - Social Security disability benefits
  - Supplemental Security Income (SSI)

Treatments and Therapies for Persons with FASDs

- Early intervention is critical
- Protective factors include:
  - Stable and nurturing home environment
  - Early diagnosis (before age 6)
  - Absence of exposure to violence
  - Few changes in caretaking placements
  - Eligibility for social and educational services
- Interdisciplinary team of professionals is crucial

Strategies for Living

- Consistent routines
- Limited stimulation
- Concrete language and examples
- Multi-sensory (visual, auditory and tactile)
- Realistic expectations
- Supportive environments
- Supervision
For the SLP

- Delays in grammar and vocabulary comprehension and production
- Less verbal
- Minimal conversational skills
- Limited receptive and expressive syntactic skills
- Delayed semantic skills
- Hyter, 2007

Social Cognition

- Unable to empathize
- Difficulty anticipating the consequences of their actions in social situation

Double Jeopardy

- Coggins et al. (2007)
- Combination of Prenatal alcohol exposure and adverse environments
- FASD is a heterogeneous group
- Diagnosis of speech and language issues requires more functional assessment strategies to describe problems
  (Coggins, Friet, & Morgan, 1988)

Framework for Intervention “Could if Wanted To”

- q
- A

Dialogue

Framework for Intervention “Spontaneous Fight or Flight”
THANK YOU
Please contact me with any questions:
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