



Fetal Alcohol Spectrum Disorder: A State Perspective on Policy and Practice Implications for Early Childhood Mental Health Practitioners

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Learning Objectives

- Define Fetal Alcohol Spectrum Disorder (FASD), its causality, prevalence, symptoms, impact on development, range of manifestations, and prevention, focusing especially on early childhood.
- Explain reasons for the lack of understanding and recognition of FASD, and the impact of these limitations on children, families and providers.
- Describe state efforts to increase recognition and understanding of FASD, promote prevention, and guide practitioners and providers in its management and treatment using available information.



Outline of Presentation

- Introduction and framework for presentation; status in Pennsylvania
- The challenge of FASD
- The neurobiology of FASD
- Family perspectives
- Diagnosis and intervention
- Next steps



Introduction and Framework for Presentation



Recognition of FASD

- Worldwide early 1970s: Focus on FAS as researchers recognized a pattern of birth defects that were attributed to alcohol.
- United States 1980s and early 1990s: Concern about infants affected by their mother's use of crack cocaine during pregnancy.
- Currently, more than two thirds of states do not record cases of FAS diagnosed beyond the age of 2, well before the average age of diagnosis in the early school years. This contributes to official prevalence rates in each state that are far below the national estimates of the CDC.



Recognition of FASD

- National focus on the problem has re-emerged over the past few years.
- Currently, 39 of the 50 States and the District of Columbia have developed legislation, policies, or programs that addressed at least one of the five intervention points:
 - Pre-pregnancy interventions
 - Prenatal interventions
 - Identification at birth
 - Immediate postnatal intervention
 - Services to children and their parents



Recognition of FASD

- Some states have approaches that address individual elements of this continuum, but none have instituted a multi-pronged approach that incorporates all areas. To date, the majority of state efforts are focused on prevention.
- Of the 22 states that have legislation, only one (Delaware) requires warning signs to also be posted by physician and non-physician health care providers serving pregnant women.



Recognition of FASD


- Six states have formal FASD proclamations recognizing FASD Awareness Day on September 9: Alaska, Arizona, Washington, Texas, Kansas, and Montana and North Carolina. This event is now recognized at the national level by Senate Resolution (S. Res. 390) introduced by Senator Murkowski in June 2004.
- Sixteen states (Arizona, Arkansas, California, District of Columbia, Florida, Georgia, Illinois, Kansas, Louisiana, Maryland, Missouri, Oklahoma, Texas, Washington, Wisconsin, and Wyoming) have also enacted legislation that mandates priority access to pregnant women for substance abuse treatment.



Alaska: The Gold Standard

- Department of Health and Social Services created the Alaska Office of FAS.
- Four-pronged approach:
 - Public education media campaign
 - State survey
 - Targeted intervention for incarcerated women
 - Multi-disciplinary diagnostic clinics

Report of State Approaches to FASD, prepared by NOFAS for
Maryland Department of Health and Mental Hygiene
http://www.nofas.org/resource/State_Report.htm



Alaska: The Gold Standard

- Alaska is the only state with legislation requiring information on FAS be integrated into secondary schools.
- Alaska is the only known state that requires professional education to include information on FAS or FASD.
- However, no state has devoted the necessary fiscal resources to implement such comprehensive approaches. The bulk of the funds for Alaska's efforts came through a five-year \$5.8 million-per-year earmark from SAMHSA.

Report of State Approaches to FASD, prepared by NOFAS for
Maryland Department of Health and Mental Hygiene
http://www.nofas.org/resource/State_Report.htm



In Pennsylvania

- 2006: Department of Health, Bureau of Drug and Alcohol Programs, created FASD Task Force
- Stakeholder group: parents, advocates, physicians, researchers, service providers, nurses, government policy makers
- **Vision statement:**
 - To prevent new occurrences of FASD in Pennsylvania and provide access to support and services to affected individuals and their families
- **Mission statement:**
 - To educate the citizens of the Commonwealth of Pennsylvania on the dangers of drinking during pregnancy and to enhance a system of care for individuals and their families



Pennsylvania FASD Action Plan

- Plan defines steps that need to be taken to improve identification, diagnosis, treatment and prevention of FASD in a measurable and meaningful way; completed in 2007
- Areas of focus for action steps include:
 - Awareness
 - Education
 - Systems
 - Data
 - Funding



Action Plan Goals

- **Awareness:** To eliminate alcohol use by women who are pregnant, planning to become pregnant or who are at risk for unplanned pregnancy by increasing the awareness of FASD and its symptoms.
- **Education:** To increase the knowledge of FASD within the professional community and the general population through education.



Goals, continued

- **Systems:** To align and improve systems of care by making FASD a statewide priority, increasing the identification of those individuals affected by FASD, reducing the number of pregnancies affected by alcohol exposure and improving the ability of all systems of care to address the needs of individuals impacted by prenatal alcohol exposure.
- **Data:** To ensure the creation of a surveillance system that will collect, interpret and disseminate information on FASD.
- **Funding:** To ensure adequate funding for prevention of FASD, as well as services for diagnosis and intervention for children, adults and families impacted by FASD.



FASD Workgroup

- 2009: FASD workgroup established by PA Office of Mental Health and Substance Abuse Services, Bureau of Children's Behavioral Health Services
 - Consulting psychologist
 - Two consulting psychiatrists
 - ECMH representative/Consultant
 - Children's bureau representative
 - Family representative



Primary Focus of FASD Workgroup

- Awareness
 - Guide policy through development of an FASD Impact Paper
 - Utilize multi-media resources to inform all stakeholders
- Prevention of secondary disabilities
 - Provide youth and families in behavioral health services with education, supports and resources to reduce risk of secondary affects to individuals with an FASD and reduce risk of new occurrences of alcohol-exposed pregnancies
- Treatment/intervention
 - Guide practice through providing resources, training, and education to all stakeholders



Early Identification

- The earlier in the child's life that educational, clinical, medical, and family support services can begin, the better the outcome.
- Early intervention can by no means overcome the damage that alcohol imposes; children with FAS or FASD are not just simply learning disabled, meaning it is doubtful that they will catch up to and be indistinguishable from their peers after an educational push.
- Early intervention can dramatically improve life skills as well as provide the groundwork for later development. Therefore, early intervention may help to ensure more resilient individuals enjoy a more productive, satisfying life.

¹Burgess and Streissguth, 1992
Hinde, 1993; Streissguth et al., 1996
Burgess and Streissguth, 1992; Hinde, 1993



Child with FAS



PEDIATRICS[®]

Hoyme, H. E. et al. *Pediatrics* 2005;115:39-47

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The Challenge of FASD



The Challenge of FASD

- A childhood disorder cannot be treated unless:
 - It is known to exist
 - Once recognized within the field, it is understood and identified in applicable children
 - There is a societal commitment to address the problem
- A childhood disorder cannot be prevented unless:
 - It is known to exist
 - The cause of the disorder is also understood
 - Those potentially capable of preventing the occurrence understand the cause and take steps to prevent its occurrence
- This has been the challenge with FAS and FASD



An Analogy

- Four-year old child with developmental delays; evidence of intellectual disability; poor attention and concentration; hyperactivity and impulsivity; irritability; anxiety; impaired memory
- Other possible neurological signs: lethargy and fatigue; weakness; impaired visual-motor skills; poor balance; poor dexterity; tremors
- Involvement of other parts of body: abdominal cramping; kidney damage; anemia; elevated blood pressure
- What is the likely causative factor here?



Paradox

- *Lead toxicity* could not be treated, until medicine came to recognize the toxic effects of lead
- Lead toxicity could not be prevented, until toxic effects recognized, and societal rules and expectations changed
- Even though lead now recognized as a health risk, an affected child cannot be treated unless lead toxicity is part of the differential diagnosis and is then considered
- Once recognized and identified as a public health concern, lead toxicity could be considered, identified, treated – and largely prevented



Alcohol vs. Lead Toxicity

- Both can be completely prevented
- Both involve a range of neurological effects due to toxic effect of chemical on brain, impacting intelligence, cognition, learning, behavior, mood, and social interaction
- Both chemicals can also affect other parts of body
- Severity of signs and symptoms vary, dependent on extent of child's exposure to offending agent
- Organically-based neurological deficits are largely irreversible, and no amount of exposure is safe
- Secondary consequences may occur with both



Basic Information about FAS/FASD

- Fetal Alcohol Spectrum Disorders (FASD), as identified by SAMHSA's FASD Center for Excellence:

...an umbrella term describing the range of effects that can occur in an individual whose mother drank alcohol during pregnancy. These effects may include physical, behavioral, mental, and/or learning disabilities with possible lifelong implications.

- Fetal Alcohol Syndrome (FAS)
- Alcohol Related Neurological Defects (ARND)
- Alcohol Related Birth Defects (ARBD)



Fetal Alcohol Syndrome (FAS):

Includes all of the following:

- Three facial abnormalities:
 - Smooth philtrum
 - Thin vermillion
 - Small palpebral fissures
- Growth retardation: height, weight, head circumference
- Central Nervous System involvement: cognition, intelligence, attention, behavior, memory, processing, mood, attachment, motor skills, eye-hand coordination, other



Alcohol Related Neurodevelopmental Disorder:

ARND refers to various neurological abnormalities such as functional or cognitive impairments linked to prenatal alcohol exposure, including decreased head size at birth, structural brain abnormalities, and a pattern of behavioral and mental abnormalities.

Children with ARND have central nervous system deficits but not all the facial features of FAS. Their problems may include sleep disturbances, attention deficits, poor visual focus, increased activity, delayed speech, and learning disabilities.

NOFAS: <http://www.nofas.org/resource/CAP.aspx>



Alcohol Related Birth Defects:


ARBD describes defects in the skeletal and major organ systems. Virtually every defect has been described in some patient with FAS. They may include abnormalities of the heart, eyes, ears, kidneys, and skeleton, such as holes in the heart, underdeveloped kidneys, and fused bones.

NOFAS: <http://www.nofas.org/resource/CAP.aspx>



Relevant Facts and Statistics

- FAS - “the leading known preventable cause of mental retardation and birth defects” (National Organization on Fetal Alcohol Syndrome, NOFAS)
- FAS prevalence: between 0.5 - 2 per 1,000 births, US
- FASD, much more prevalent, estimated to affect at least 40,000 newborns each year – 1 in 100 births, US
- PA yearly estimates: 291 FAS births, and 1,165 FASD births, for combined total of 1,456 births per year



In a recent study of 80 birth mothers of children with FAS:

- 23.8% had foster parents
- 17.5% lived in group home
- 35 had been in a juvenile detention center
- 22.5% were involved with Child Protective Services as a child
- 80% had birth children who had been in foster care or Child Protective Services
- 57.5% were sexually abused as a child
- 46.2% were physically abused as a child
- 51.3% were sexually abused as an adult
- 85% were physically abused as an adult
- 86.3% were emotionally abused as an adult
- 95% were sexually and/or physically abused at some time

Astely, Bailey, Talbot, & Clarren, 2000



FASD During Infancy

- Often tremulous and irritable, may cry a lot
- Weak sucking reflex, and weak muscle tone
- Highly susceptible to illness
- Feeding difficulties: disinterested, may take hours
- Erratic sleep patterns, no predictable sleep – wake cycle
- Sensitive to sights, sounds, touch
- Failure to thrive
- Slow developmental milestones (walking, talking, etc.)
- Problems with bonding and attachment

British Columbia Ministry for Children and Families
NOFAS FASD Intervention



FASD During Preschool

- Impaired patterns – interest in food, sleep
- Poor motor coordination
- Flits from things, with poor attention span and distractibility
- Overly friendly, highly social, indiscriminate relationships, no sense of boundaries
- Expressive speech – talkative and intrusive, or delay
- Comprehends danger poorly, not respond to warnings
- Prone to temper tantrums and non-compliance
- Doesn't respond well to change
- Net effect: doesn't learn from experience or generalize

British Columbia Ministry for Children and Families



Strengths of Children with an FASD

- Friendly and outgoing
- Verbal
- Helpful
- Affectionate and lovable
- Well-intentioned
- Generous
- Determined
- Artistic
- May be intelligent, mechanical, and athletic



Secondary Effects of FASD- Causes

Secondary effects result from the *impact* of recognized or unrecognized FASD on child and family, not from the organic impairment itself.

- Lack of recognition and identification of FASD
- Lack of education about disorder and what to expect
- Misdiagnosis of disorder
- Punitive responses to child
- Inappropriate interventions, treatment, and educational approaches



Secondary Effects of FASD - Causes

- Adverse experiences of children
 - In substitute care – poor fit in foster home, superimposed on prior neglect or abuse, impaired attachment, multiple placements
 - Lack of family and community stability
 - Parental substance abuse or mental illness
 - Abuse, neglect, domestic violence
 - Poverty, unstable housing, lack of opportunity
 - Lack of community safety and safety net
 - Bullying, community violence
- Cumulative frustration of parents, child, others



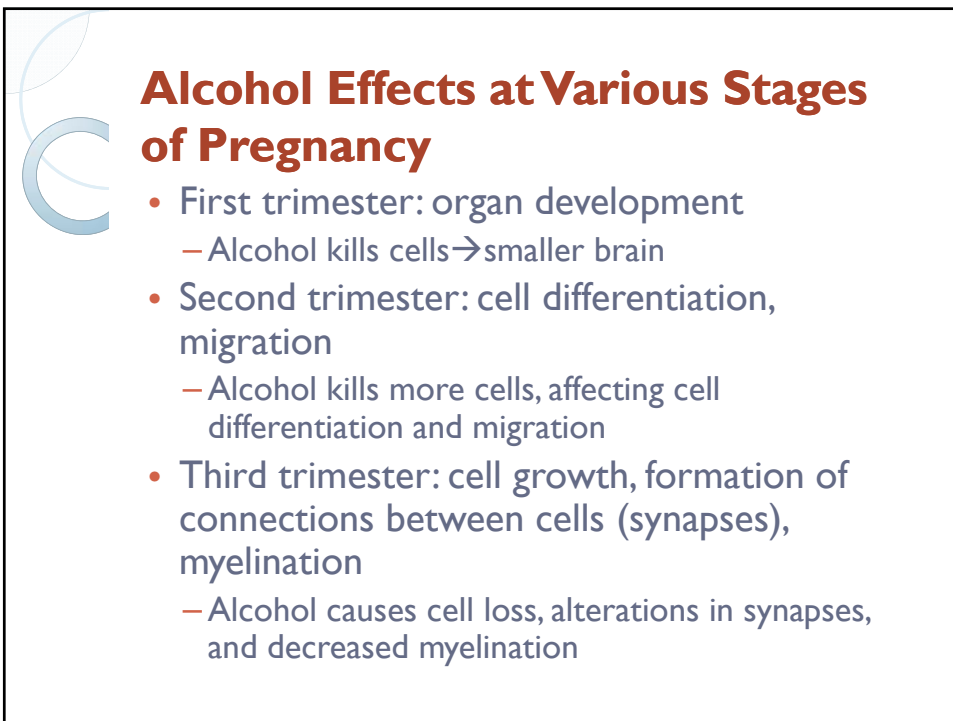
FASD Over Lifespan – Specific Secondary Effects

- Disrupted attachment with primary caregivers
- At risk of physical abuse and traumatic brain injury
- Possible development of reactive attachment disorder
- Mental health problems
- Substance use or abuse
- Incarceration or MH hospitalization



More Secondary Effects of FASD

- Disrupted school experience
- Legal problems, including incarceration
- Sexual victimization, or sexually inappropriate behavior
- Victimization due to suggestibility or gullibility
- Difficulty maintaining employment and unemployment
- Inability to live independently.





How Does Prenatal Alcohol Exposure Exert Its Effect?

- Ultimately, through intracellular effects on gene expression, leading to...
- Diminished growth and specialization of brain tissue
- Structural abnormalities in brain
- Altered brain physiology



Areas of Brain Affected

- Cerebral and Cerebellar Neocortex:
 - Sensory perception and processing
 - Coordination of motor movements
- Corpus callosum: communication between brain hemispheres
 - Psychosocial functioning, social abilities, behavior
- Hippocampus: short-term memory, learning, spatial memory



Variables Affecting Severity of Brain Damage in FASD

- Amount of alcohol
- Maternal nutrition
- Parity: risk increases with parity (perhaps overall maternal health, diminished liver metabolism of alcohol)
- Fetal factors: exposure to other toxins, genetic damage, etc.



Regarding Amount of Alcohol...

- There's no safe amount, however...
- Binge drinking is especially hazardous because:
 - Women who binge prior to pregnancy are more likely to have unwanted pregnancies
 - Exposure to high levels of blood alcohol is especially likely to cause teratogenicity in the first trimester



Prenatal Exposure to Alcohol and Postnatal Alcohol Behavior

Prenatal exposure to alcohol in amounts that caused alcohol aversion in maternal rats nevertheless caused increased alcohol affinity in the offspring.

[Alcohol. 2009 September; 43\(6\): 453–463.](#)

Binge ethanol exposure in late gestation induces ethanol aversion in the dam but enhances ethanol intake in the offspring and affects their postnatal learning about ethanol

M. Gabriela Chotro,¹ Carlos Arias,² and Norman E. Spear³



Lasting Effects on Brain Function throughout Life

“Our results suggest that prenatal alcohol exposure alters brain metabolism in a long-standing or permanent manner in multiple brain areas” (including parietal and frontal cortex, frontal white matter, corpus callosum, thalamus, and cerebellar dentate nucleus).

Brain metabolic alterations in adolescents and young adults with fetal alcohol spectrum disorders.

[Alcohol Clin Exp Res. 2006; 30\(12\):2097-104 \(ISSN: 0145-6008\)](#)

Fagerlund A; Heikkinen S; Autti-Rämö I; Korkman M; Timonen M; Kuusi T; Riley EP; Lundbom N
Folkhälsan Research Center, Helsinki, Finland. ase.fagerlund@folkhalsan.fi



Not to Forget Effects on Other Organ Systems

Subtle, indirect effects on self-image, self-esteem and social interaction of mild affectations of...

- Stature or muscular development
- Coordination problems
- Facial abnormalities short of FAS
- Low average IQ short of FAS



And therefore...

- Fetuses exposed to alcohol during pregnancy are at risk for a myriad of later developmental abnormalities, even in the absence of low IQ.
- These include impairments in sensory processing and integration, memory impairments, impairments in practical and social skills and judgment.
- But perhaps most important of all...



...Impaired Ability to Attach!

“In infancy and early childhood, deficits in attachment behavior and state regulation are seen in both alcohol-exposed people and animals, suggesting that these changes are largely the result of the alcohol exposure rather than maternal behavior.”

[Neurotoxicol Teratol. 2000; 22\(2\): 143–149.](#)

Effects of prenatal alcohol exposure on social behavior in humans and other species


Sandra J. Kelly, Nancy Day, and Ann P. Streissguth



[Calgary videos](#)



Family Perspectives



**Diagnosis and Intervention
Strategies for Young Children
with an FASD**



The Importance of Early Diagnosis

- When the prenatal brain damage is undetected and behavioral problems arising from it are not understood, the growing child is at risk of developing additional "secondary disabilities" that can be tremendously debilitating. Understanding these are secondary disabilities and recognizing the linkages between the secondary and primary disabilities are important first steps in effective treatment (Streisguth and O'Malley, 1997).
- Early diagnosis will also allow appropriate intervention, counseling and treatment for the mother
- It may prevent the birth of affected children in the future.
- It may also prompt caregivers to seek diagnosis and support for previously undiagnosed siblings.



“Red Flags” for Referrals

- ❖ The child has been excluded from another preschool program for behavioral issues
- ❖ The child requires “hands on” or visual learning, rather than auditory
- ❖ The child is easily fatigued and overwhelmed by external stimulation
- ❖ The child has problems applying what has been learned
- ❖ The child is a concrete thinker and does not understand metaphors or jokes, etc.
- ❖ The child has been diagnosed with a mental health disorder as a preschooler, such as ADHD, oppositional defiance, or bipolar disorder
- ❖ The child responds to immediate feedback rather than distant consequences such as point or reward systems
- ❖ The child has received multiple diagnoses and has a history of failed interventions, which may include medication and treatment



Diagnosis of an FASD

- FASD requires a medical diagnosis in the context of a multidisciplinary assessment. FASD itself is not a diagnostic term.
- At this time, the most accurate place in a mental health (DSM-IV) diagnosis to identify FAS is on Axis III as it is a medical diagnosis (760.71 in ICD-10)
- Because of the complexity and the range of expression of dysfunction related to prenatal alcohol exposure, a multidisciplinary team is essential for an accurate and comprehensive diagnosis and treatment recommendations. The assessment process begins with recognition of the need for diagnosis and ends with implementation of appropriate recommendations.



Possible Co-occurring DSM disorders for Individuals with an FASD

- Attention Deficit/Hyperactivity Disorder
- Schizophrenia
- Depression
- Bipolar Disorder
- Substance use disorders
- Medical disorders (i.e. seizure disorder, heart abnormalities)
- Sensory integration disorder
- Reactive Attachment Disorder
- Posttraumatic Stress Disorder
- Traumatic Brain Injury
- Borderline Personality Disorder



The Importance of Recognizing a Co-occurring FASD

These individuals often fail in our traditional treatment programs:

- Unable to meet expectations
- variable levels of functioning across the life domains are unrecognized
- Many have mental health problems

Caregivers with unrecognized FASD are often labeled as non-compliant, uncooperative, uninvolved, or sabotaging

- They don't follow through on multiple instructions



The Possibility of Misdiagnosis

- The symptom presentation of individuals with an FASD is similar to that of a number of psychiatric disorders
- Since fetal alcohol spectrum disorders are not psychiatric diagnoses, they are often not recognized by mental health professionals
- The possibility of prenatal alcohol exposure causing some of the symptoms is often not considered
- Even if a fetal alcohol spectrum disorder is recognized, another diagnosis may be used in order to provide services and treatment



Common Misdiagnoses for Children with an FASD:

- ADHD
- Oppositional Defiant Disorder
- Conduct Disorder
- Intermittent Explosive Disorder
- Autism
- Asperger's Disorder



Comparison of FASD to ADHD and ODD

FASD	ADHD	Oppositional Defiant Disorder
Do not complete tasks	Do not complete tasks	Do not complete tasks
-may or may not take in information -cannot recall information when needed -cannot remember what to do	-takes in information -can recall information when needed -get distracted	-takes in information -can recall information when needed -choose not to do what they are told
Provide one direction at a time	Limit stimuli and provide cues	Provide positive sense of control; limits and consequences



Underdiagnosis

- One reason for the under-diagnosis of FASD is the stigma attached to this disability for the mother and for the child
- It might be helpful to remember that even if a mother stopped drinking as soon as she learned she was pregnant, damage may have occurred before that time.
- Individual conversations should occur one to one so the mother does not feel confronted or overwhelmed by a committee



An Empathic Approach

- Focus first on the family's desire to better understand and help the child.
- Do not imply blame.
- Approach the mother's feelings in a way that does not contribute to the guilt she may carry
- Use motivational interviewing /brief intervention models.



The Diagnostic Process

Multiple approaches to diagnosis:

- ❖ Screening and referral
- ❖ Physical examination and differential diagnosis
- ❖ Neuro-behavioural assessment
- ❖ Treatment and follow-up
- ❖ Maternal alcohol history in pregnancy
- ❖ Diagnostic criteria for FAS, partial FAS and alcohol-related neuro-development disorder.



The Diagnostic Process

- COMHAR (in Philadelphia) uses a multi-disciplinary team, along with the addition of a dysmorphologist and a geneticist in the diagnosis of FAS (as a sole diagnosis)
- According to the University of Washington and the Canadian guidelines, a comprehensive, multidisciplinary assessment is necessary to make an accurate diagnosis and provide recommendations for management. Guidelines are presented in six areas related to the diagnostic process



The Multidisciplinary Team Model

- The core team may vary according to the specific context, but ideally it should consist of the following professionals with appropriate qualifications, training and experience in their particular discipline.
- University of Washington Diagnostic Model includes the following team members:
 - Physician
 - Psychologist
 - Speech Language Pathologist
 - Occupational Therapist or Physical Therapist
 - Parent Navigator
 - Team Coordinator



Team Roles

Physician

- Caregiver interview; gathering information
- Records review
- Physical exam
 - Facial measurements
 - Orbital -Frontal Cortex
 - Height/weight
 - Neurological signs

Psychologist

- Neuropsychological
- Executive functioning
- IQ
- Impulsiveness
- Co-morbidities/mental health issues



Team Roles

Speech/Language Pathologist

Communication, both written and verbal, both receptive and expressive, are clues to brain function

- SLP also addresses organizational, sequencing difficulties

OT/PT

Sensory integration issues
Gross motor/fine motor coordination
Neurological deficits
Structural problems



Team Roles

Parent Navigator

- Advocates for caregivers
- Helps them through diagnostic process
- Assists in connecting them with services
- A listening ear and compassionate heart through grieving process
- Mentoring; sharing hope

Coordinator

- Takes referrals
- Initial interview process
- Collects, reviews, maintains records
- Schedules clinics
- Some level of case management with family
- Often, main source of FASD education in community

from: Getting Familiar with the Alaska FASD Diagnostic Teams



Basic Strategies for Individualized Treatment

- Consistent routines
- Limited stimulation
- Concrete language and examples – one direction at a time
- Multi-sensory learning (visual, auditory and tactile)
- Realistic expectations- acknowledge developmental deficits or cognitive impairments
- Supportive environments – build upon strengths
- Supervision – one to one

Source: NOFAS FASD Interventions
Dubovsky



Early Intervention Strategies for Toddlers

- Maintain a calm and quiet environment
- Limit the number and type of objects hanging from the ceiling or walls.
- Use calm colors on the walls.
- Assist children in staying focused.
- Define spaces for play and eating.
- Provide routine quiet activities to aid a child in predicting events and staying organized.
- Establish rules for putting away items to help with transition and closure.
- Sing jingles about specific activities to facilitate a child's ability to remember what to do next.

FETAL ALCOHOL SPECTRUM DISORDERS Florida resource guide



Early Intervention for Pre-Schoolers

- Maintain a calm and quiet environment.
- Transitions can be very difficult for young children with FASD.
- They need time to adapt since they don't cope well with change.
- Limit the number and type of objects hanging from the ceiling or walls.
- Use calm colors on the walls.
- Have children repeat requests or directions.
- Model the behavior.
- Have the child act out the request or directions.
- Be prepared to repeat directions or requests; a problem for many children is their inability to consistently perform skills.
- Don't confuse inability to repeat a skill with unwillingness.
- Be aware of the self-esteem of the child;
- Be willing to re-teach, redirect and repeat without demeaning or devaluing.

FETAL ALCOHOL SPECTRUM DISORDERS Florida resource guide



Protective Factors

- Due to the "invisible" nature of FASD, special attention should focus on patients who display characteristics of FASD in order to prevent secondary disabilities.
 - Red flags: multiple diagnoses, does not understand cause and effect, memory deficits in conjunction with attention deficits
- The most protective environmental factors against secondary disabilities were:
 - living in a stable and nurturing home of good quality
 - not having frequent changes of household
 - not being a victim of violence
- Two intrinsic characteristics were associated with a higher level of secondary disabilities:
 - having FASD rather than FAS
 - having an IQ above 70, rather than below

Streissguth and O'Malley (1997)



Recognize that the person will function within systems differently:

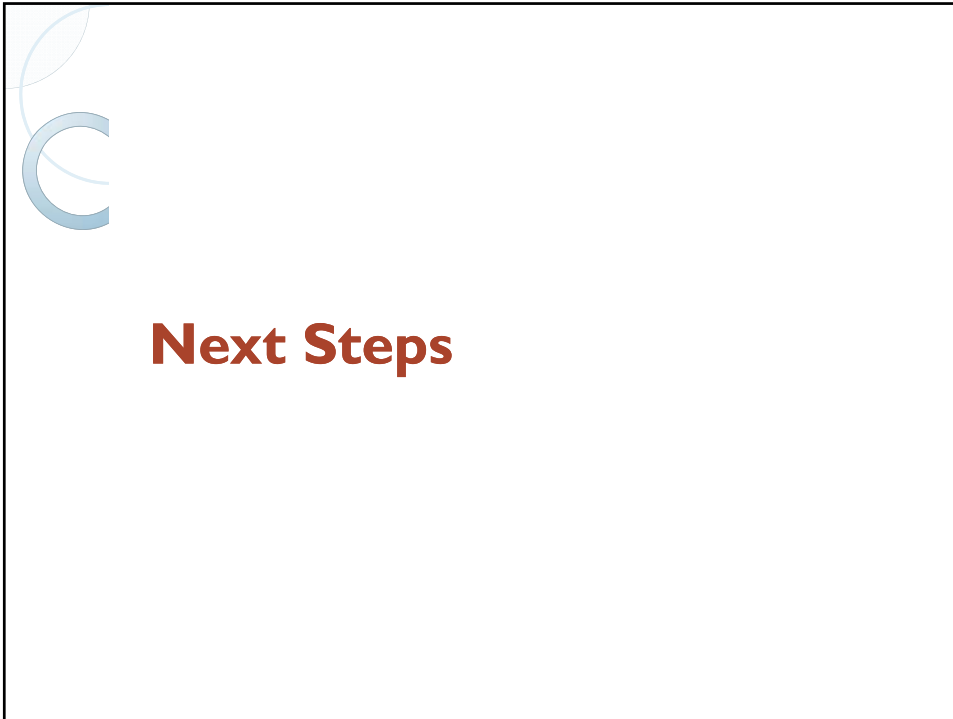
“We must move from viewing the individual as failing if s/he does not do well in a program to viewing the program as not providing what the individual needs in order to succeed.”

Dubovsky, 2000



Paradigm Shift in Behavioral Approach to Treatment

- Shift perceptions through knowledge about FASD and organicity. Information linking brain function with behaviors increases understanding, reduces frustration, and contributes to successful outcomes.
- Understand children as having a problem rather than being the problem.
- Change our view of “dependency” and “enabling” from negative to positive terms for the individual who needs more support to succeed (Dubovsky)



Next Steps



Policy Implications

- Need for increased education and awareness, for both professionals and lay public
- Need for societal commitment to prevent and address, and make prevention and treatment public health priorities
- Need to address societal inequities, which increase likelihood of alcohol use, community instability, and FASD
- Need to develop more effective approaches to identification, diagnosis, management, and prevention
- Need to address stigma related to maternal acknowledgment of alcohol use, so disclosure is easier and more likely



Resources

- **BEAMS:** The Fasstar Trek Method -
<http://www.comeover.to/FAS/BEAM.htm>
- **The Eight Magic Keys for Teachers** -
<http://www.fasdcenter.samhsa.gov/documents/eightmagickeys.pdf>
- **SCREAMS** –
<http://www.come-over.to/FAS/ScreamsArticle.htm>
- **SAMHSA** -
http://www.fasdcenter.samhsa.gov/documents/FASDGuide12_01
- **4 Digit Code** – Washington State University
(<http://depts.washington.edu/fasdpn/index.htm>)



Resources

- NOFAS:**
<http://Nofascolorado.org/fasfaq.htm>
- Colorado Screening tool for Pregnant Women:**
http://www.coloradoguidelines.org/pdf/guidelines/sbirt/fasd_supplement_8-26-10.pdf
- Canada – Diagnostic Guidelines:**
<http://www.phacaspc.gc.ca/fasdetcaf/cdnguidelines-eng.php>
- Canada –Calgary Ministries:**
<http://www.fasdlane.com/>
- Florida:**
<http://www.doh.state.fl.us/family/socialwork/pdf/fasd.pdf>
- Alaska:**
www.hss.state.ak.us/fas/



Assessments for Infants and Children

- Recommended Evaluation Tools:
(Please read the articles on [Early Intervention for Infants with FAS](#) first)
- [Bayley Scales of Infant Development](#) for cognitive and motor evaluations from ages 0-2.
- [K-ABC is useful for cognitive evaluations](#) for children ages 3-5.
- [Peabody Individual Achievement Test-Revised \(PIAT-R\)](#) measures scholastic achievement in children, grades K-12.
- [Vineland Adaptive Behavior Scales](#) for children of all ages is essential to measure functional abilities and life skills.

Source: FAS Community Resource Center, FASstar
<http://come-over.to/FASCRC/>



Promising Practices

Individualized, supportive, behavioral consultations for parents and school staff (working with children ages 5 to 11)

School-based social communication intervention (for ages 8 to 12)

Behavioral Regulation Training (for ages 3 to 9)

Parent Child Interaction Therapy (for ages 2 to 7)

Parent-assisted social skills training (for ages 6 to 8)
www.cdc.gov/ncbddd/fas/intervening.htm

Washington State -Parent Child Assistance Program (PCAP)
<http://depts.washington.edu/fasdpn/index.htm>