FASD: Implications for Youth, Families and Systems

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October 9, 2014
Disclosures

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Learning Objectives

• Learn what the umbrella term FASD means, and the specific challenges of children with ARND
• Learn about one parent’s experience raising a child with an FASD
• Learn about the FASD’s developmental, cognitive & mental health (primary & secondary) effects
• Be able to identify intervention strategies involving the child, the family, and involved systems

Note: Not all slides will be reviewed, but are available for your reference.
Carl Bell MD, Professor of Psychiatry and Public Health, University of Illinois at Chicago

- Fetal Alcohol Effects (e.g. FASD) is “the largest preventable public health problem in poor African American communities.”
- Bell’s recent review of his own 1979 evaluations of 274 children in special education in Chicago’s South Side: At least 55% of these students appear to have had an FASD.
- A 2011 audit of 162 students in school clinics = at least 32% with an FASD.
- Youth in Cook County Detention: 2/3-3/4 with signs of FASD (ADHD, ID, LDs, speech & language problems).
Parent Perspective – Dianna Brocious:

• Parent
• Family advocate
• Member of OMHSAS Children’s Panning Council
• Executive Director of PA Families, Inc.
• Foster and adoptive parent of a child with an FASD
Fetal Alcohol Spectrum Disorder (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.

The range of disorders:
Fetal Alcohol Syndrome (FAS)
Partial Fetal Alcohol Syndrome (pFAS)
Alcohol Related Neurodevelopmental Disorder (ARND)
Alcohol Related Birth Defects (ARBD)
Terminology
Fetal Alcohol Syndrome (FAS) – All of the Following

Three facial abnormalities:
- Smooth philtrum (groove between upper lip and nose)
- Thin vermillion (upper lip)
- Small cerebral palpebral fissures (eye openings)

Growth retardation: height, weight, head circumference

Central nervous system involvement: cognition, intelligence, attention, behavior, memory, processing, mood, attachment, motor skills, eye-hand coordination and others

NOFAS: http://www.nofas.org/resource/CAP.asp
Fetal Alcohol Syndrome (FAS)

FAS Facial Characteristics:
- small eye openings
- smooth philtrum
- thin upper lip

http://en.wikipedia.org/wiki/Fetal_alcohol_syndrome#Facial_features
Fetal Alcohol Syndrome (FAS)
Partial FAS (pFAS)

Some but not all the features of FAS are present:
- facial features
- physical birth defects
- growth retardation
- central nervous system deficits

NOFAS: http://www.nofas.org/resource/CAP.asp
Alcohol-Related Neurodevelopmental Disorder (ARND)

ARND refers to various neurological abnormalities linked to prenatal alcohol exposure. These include:

decreased head size at birth,
structural brain abnormalities, functional and cognitive impairments,
a pattern of behavioral and mental abnormalities.

NOFAS: http://www.nofas.org/resource/CAP.aspx
Children with ARND have central nervous system deficits, but do not have all – or even any – of the facial features of FAS. Problems may include:

- increased activity
- attention deficits
- learning disabilities
- behavioral challenges
- social skill impairments
- poor visual focus
- developmental delays
- difficulty learning from experience

NOFAS: http://www.nofas.org/resource/CAP.aspx
Children with ARND typically appear similar to children without an FASD, and as a result they frequently are not identified.

Children with ARND are thus the group of children with an FASD most easily missed, and for this reason are of particular concern to clinicians in the mental health system.
Alcohol Related Birth Defects (ARBD)

ARBD describes defects in the skeletal and major organ systems.

Virtually every defect 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.asp
Some Basic Facts

Alcohol is a teratogen.

The sole cause of FASD is women drinking alcoholic beverages during pregnancy.

“Of all the substances of abuse (including cocaine, heroin, and marijuana), alcohol produces by far the most serious neurobehavioral effects in the fetus.”

— IOM Report to Congress, 1996
This is not only a “women’s issue.” It is one for which all of us, women and men, mothers and fathers, families and communities need to take responsibility.

Neurobiology of FASD
FASD and the Brain

Prenatal alcohol exposure causes brain damage.

Effects of FASD last a lifetime.

However, people with an FASD can grow, improve, and function well in life, with proper identification and support.
Gestational Timing

Figure 1: Vulnerability of the fetus to defects during different periods of development. The black portion of the bars represents the most sensitive periods of development, during which alcohol-induced (i.e., teratogenic) effects on the sites listed would result in major structural abnormalities in the child. The gray portion of the bars represents periods of development during which physiological defects and minor structural abnormalities would occur.

SOURCE: Adapted from Moore and Penaud 1983.

Regarding Amount of Alcohol – No Safe Amount

In addition, 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.

(CDC: binge drinking for women = 4 or more alcohol drinks per occasion)
100%
PREVENTABLE
Relevant Facts and Statistics
FASD - “the leading known preventable cause of mental retardation (e.g., intellectual disability) and birth defects”

FAS prevalence: between 0.5 - 2 per 1,000 births, US

PA yearly estimates of FAS and FASD (2010, Burd):
- FAS: 284 births.
- FASD: 1,138 births,
- Total = 1,422 births per year (Burd)

FASD, much more prevalent, estimated to affect at least 40,000 newborns each year in US – 1 in 100 births

http://www.fasdcenter.samhsa.gov/educationTraining/fasdBasics.cfm
Given the challenges of establishing accurate and timely prevalence information, the number of cases of FASD is likely *far greater* than current data indicate.
Risk Factors for Alcohol Use during Pregnancy: Adverse Experiences in 80 Birth Mothers with FASD

Adverse Experiences as a Child
- 57.5% were sexually abused as a child
- 46.2% were physically abused as a child
- 43.7% had been in a juvenile detention center
- 23.8% had foster parents
- 22.5% were involved with Child Protective Services as a child
- 17.5% lived in group home

Adverse Experiences as an Adult
- 86.3% were emotionally abused as an adult
- 85% were physically abused as an adult
- 51.3% were sexually abused as an adult
- 80% had birth children in foster care or Child Protective Services

Overall prevalence of Abuse during Lifetime
- 95% were sexually and/or physically abused during their life

(Astely, Bailey, Talbot and Clarren, 2000)
Challenges to Identification of FASD

Lack of specific and uniformly accepted diagnostic criteria – Only FAS has specific diagnostic guidelines.

No uniform guidelines exist for other types of fetal alcohol spectrum disorders. FASD is an umbrella term, not an actual diagnosis.

Children with ARND look typical and are easily missed.

The DSM V listing of “mental disorders” does not include FAS, ARND, or FASD. Thus, behavioral health providers hampered in recognizing, diagnosing, and treating children with FASD.
Challenges to Identification of FASD

The FAS diagnosis is based on clinical examination of features, but not all children with FAS look or act the same.

Because each FASD symptom has a broad range of possible causes, a clinician might miss or misdiagnose FASD.

Some physicians are aware of the high prevalence of attention deficit/hyperactivity disorders (ADHD), but might not link these attention problems or other signs to FASD.

NOFAS Curriculum for Allied Health Professionals
Challenges to Identification of FASD

FASD (e.g., ARND) lacks the distinct clinical facial features of FAS, so these children appear “typical” in appearance, making identification even more difficult.

In addition, facial features, when present in childhood for children with FAS, become less distinguishable as the child becomes an adolescent and an adult.

Hence, FASD is often referred to as “the invisible disorder.”
Challenges to Identification of FASD

Lack of knowledge and misconceptions among primary care providers:

Many professionals believe that FASD can only occur if the mother is an alcoholic, poor, or African American or Native American.

Few know about the full range or the progressive nature of the neurobehavioral symptoms that result from prenatal exposure to alcohol.

NOFAS Curriculum for Allied Health Professionals
Economic Costs of FAS

One prevented case of FAS saves:

– $130,000 in the first 5 years
– $360,000 in 10 years
– $587,000 in 15 years
– More than $1 million in 30 years

Strengths of Children/Adolescents with an FASD

- Friendly and outgoing
- Verbal (but can be misleading)
- Helpful
- Affectionate and lovable
- Well-intentioned
- Generous
- Determined
- Artistic
- May be intelligent, with special abilities & skills
Protective Factors

**Early diagnosis/intervention:** A child who is diagnosed at a young age can be placed in appropriate educational classes and get the social services needed to help the child and his or her family.

**Involvement in special education and social services**

**Loving, nurturing, and stable home environment**

**Absence of violence:** less likely to develop secondary conditions; Children with FASD need to learn to cope with anger/frustration.

[http://www.cdc.gov/ncbddd/fasd/treatments.html#BehaviorandEducationTherapy](http://www.cdc.gov/ncbddd/fasd/treatments.html#BehaviorandEducationTherapy)
FASD Primary and Secondary Effects
Basic Distinction

Primary effects – due directly to *in utero exposure* to alcohol and its impact on in utero development of infant, including brain development. Deficits are not reversible.

Secondary effects – due to the *impact of the FASD* (recognized or unrecognized) on the child and family, and from adversities faced by the child and family, not from the direct effect of the alcohol.

Goal: To *manage primary effects* of FASD, and to *prevent*, *whenever possible, secondary effects* and minimize their effect.
FASD Primary Effects

Variable effect on IQ, but adaptive functioning always decreased for age.

- Learning impairments, especially mathematics and reading comprehension
- Confounding element: Individual may speak well, and give the impression of understanding, but may be only parroting words
- Communication difficulties, including the lack of the ability to comprehend verbal and written concepts
- Processing information and memory problems
FASD Primary Effects

• Problems with decision-making
• Impulsivity
• Irritability and mood lability
• Difficulty with cause-and-effect reasoning, with difficulty in learning from experience, resulting in poor judgment and repetition of the same mistakes over and over
• Lack of awareness of own limitations, so does not understand challenges
FASD Secondary Effects

• Disrupted attachment with primary caregivers
• Disrupted school experience
• At risk of physical abuse and traumatic brain injury
• At risk of sexual victimization or sexually inappropriate behaviors
• At risk of victimization due to suggestibility or gullibility
• Possible development of attachment disorders and ‘reactive attachment disorder’
FASD Secondary Effects

• Substance use or abuse

• Mental health problems – ADHD, anxiety, depression; risk of Inpatient psychiatric hospitalization or RTF

• Difficulty maintaining employment; unemployment

• Inability to live independently

• Legal problems including incarceration
Possible Causes of FASD Secondary Effects

• Lack of recognition and identification of FASD:
  Lack of education about disorder and what to expect
  FASD missed entirely
  FASD misdiagnosed
  Punitive responses to the child
  Inappropriate interventions, treatment, and educational approaches
Possible Causes of Secondary Effects

Adverse experiences of children and their families

• Poverty, unstable housing, lack of opportunity
• Lack of community safety and safety net
• Lack of family stability
• Parental substance abuse or mental illness
• Child abuse, neglect, witnessing of domestic violence
• Bullying, community violence
• Child in substitute care – poor fit in foster home, superimposed on prior neglect or abuse, impaired attachment; Multiple out-of-home placements

Cumulative frustration of parents, child, and others
Common Presentations of FASD by Specific Developmental Stage
Infants

• Premature birth; medical issues are common
• Chronic ear infections
• Poor weight gain/difficulty with feeding
• Poor sleep-wake cycles/irritability/colic/hard to calm
• Atypical attachment behavior
• Impairment in self regulation
• Late milestones, delays in rolling over, crawling, walking
• Speech delays

British Columbia Ministry for Children and Families
NOFAS
**Toddlers**

- Continued motor skill delays
- Easily distracted
- Tantrums
- Disrupted sleep
- Sensory defensiveness, reactivity
- Heedless to danger, poor learning from experience or consequences
- Indiscriminate attachment – will go to anyone
- Dental problems
- Small appetites or sensitivity to food texture

British Columbia Ministry for Children and Families

NOFAS
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, poor sense of boundaries
- Expressive speech – talkative and intrusive, or delay
- Comprehends danger poorly, not respond to warnings
- Prone to temper tantrums and apparent non-compliance
- Doesn’t respond well to change
- Net effect: doesn’t learn from experience or generalize

British Columbia Ministry for Children and Families; NOFAS
School Age

- Continued sleep disturbances
- Poor social skills, making and keeping friends
- Anger and aggression associated with frustration and impulsivity
- Poor self worth, low self esteem
- Developmental delays
- Poor self care
- Boundary issues
- Attention problems, possible hyperactivity
- Easily frustrated/tantrums
- Difficulty understanding cause and effect; failure to understand consequences, so judgment impaired
- Very concrete thinking
- Onset of academic problems, especially math

British Columbia Ministry for Children and Families; NOFAS
Adolescence

- Less obvious FAS facial features
- Academic plateau, increased need for abstract thinking
- Memory problems/working memory – storing and retrieving information
- Inconsistent performance day to day, unpredictable
- Impulsivity, distractibility, disorganized
- Anxiety, depression and/or mood swings
- Victimization
- Increased desire for independence
- Unrealistic expectation of others
- High risk of sexual activity and pregnancy
- May become slightly obese
- Lying, stealing or antisocial behavior
- May function better in the evening
Adolescence Through Adulthood

• Memory problems

• Difficulty storing and retrieving information

• Inconsistent performance ("on" and "off") days

• Impulsivity, distractibility, disorganization

• Ability to repeat instructions, but not able to put them into action ("talk the talk but don't walk the walk")

British Columbia Ministry for Children and Families; NOFAS
Youth/Young Adults in Transition

• Difficulty achieving normative development: The “will” is there, but the “way” is much more challenging.
• Lack of full awareness of abilities and limitations (e.g., insight).
• Limited judgment.
• Impulsivity.
• Denial – of limitations and needs.
• Limited ability to generalize, think abstractly, learn from experience.
• Limited practical knowledge about successful community living.
• At risk to be taken advantage of.
• Ongoing tension between accepting parental support and desiring autonomy – wants to run own life, but can’t.

NOFAS; Malbin
Identification of an FASD: “Red Flags,” Co-Morbidity and Assessment
Specific Red Flags

• The child has been diagnosed with a mental health disorder as a preschooler, such as ADHD, oppositional defiance or bipolar disorder
• The child requires “hands on” or visual learning, rather than auditory
• The child is easily fatigued and overwhelmed by external stimulation
• The child has difficulty applying what has been learned, and may make the same mistakes over and over
Possible Co-Occurring Disorders (all ages)

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

• History:
  Maternal history, alcohol/substances, pregnancy
  Atypical development of child & other “red flags”

• Physical exam
  Possible facial features and growth deficits
  CNS deficits
  Possible use of structural brain imaging (sMRI)

• Psychological testing
  • Standard tests – IQ, achievement tests, adaptive functioning
  • Neuropsychological testing (when indicated)
Making the Case for Neuropsychological Testing

• Rationale for testing: “a possible underlying CNS condition.”
• Additional rationale:
  – History and clinical presentation
  – Under-performing student, with behavioral concerns
  – Results of prior psychological and educational testing
• Key findings on prior testing:
  – Verbal IQ significantly greater than performance IQ
  – Overall IQ greater than achievement scores (WRAT)
  – Overall IQ greater than adaptive behavior scores (15 points, Vineland)
Interventions
Need for a Paradigm Shift in How We View Children with FASD

It’s not that these children won’t. But it may be that they can’t. (Malbin)

Understand the child with an FASD as having a problem, rather than being the problem.

Recognize that some children and adolescents need more support from parents and others to succeed than typical children. This can be helpful and should not be seen as “enabling” (Dubovsky).
Common Misconceptions in Response to FASD Deficits

- “Not listening”: Attention may be poor.
- “Non-compliant”: May not understand what is expected.
- “Chooses” to make the same mistakes: Generalizing to real world situations is difficult.
- “Manipulative”: May not understand rules, or be able to follow them consistently. Unable to regulate emotions well.
- “Shows no remorse”: Child typically very caring, but may not understand social rules, or impact of own behavior.
- “He lies”: Lack of understanding is possible.
- “Won’t sit still”: Probably “can’t” sit still. ADHD common.
- “He steals”: Sense of boundaries and possession may be impaired.

Adapted from Debra Evensen, FASAlaska and Diane Malbin, consultants on FASCETS)
Making a Difference: Three Core Principles for a Systems Approach to Intervention

- Support and collaborate with the family
- Collaborate with system partners and other involved professionals
- Help the child function more effectively
Support and Collaborate With the Family

– Offer families respect and support – core concept of “family-driven, youth-guided care”
– Provide education on FASD
– Identify and address family priorities
– Identify & address psychosocial needs
– Build on family strengths
– Collaborate and promote choice, not blaming/bullying
– Promote parent-child attachments
– Make appropriate referrals and identify natural supports
– Advocate for and with the family
– Address trauma issues & practice trauma informed care principles (safety, trust, collaboration, empowerment)
Collaborate with System Partners

– Obtain a common understanding
– Tactfully educate other involved professionals about FASD
– Goal involves changing *attitudes*, not just developing care plans
– Maintain realistic expectations
– Ensure that treatment plans are consistent with the child’s developmental level
– Ensure an ongoing exchange of information
– Consider convening a child and family team – e.g., use of High Fidelity Wraparound
– Consider potential benefit of family advocate and peer support
– Promote lifelong support, with modeling, mentoring and monitoring and attention to transitions
Interventions with Children: Basic Strategies
Help Child/Adolescent Function More Effectively

– Consistent routines and structure
– Limited stimulation
– Concrete language and examples – one direction at a time
– Repetition, via doing, seeing, role-playing

*Source: NOFAS FASD Interventions Dubovsky*
Help Child/Adolescent Function More Effectively

– Multi-sensory learning (visual, auditory and tactile)
– Realistic expectations- acknowledge developmental deficits or cognitive impairments
– Supportive environments – build upon strengths
– Supervision – one to one; value of mentoring, modeling, and supervising

Source: NOFAS; FASD Interventions Dubovsky
Importance of Early Intervention

The earlier in the child’s life that educational, clinical, medical, and support services can begin, the better the outcome.

Early intervention cannot overcome the damage that alcohol has imposed. Children with FAS or FASD are not just simply learning disabled, and it is doubtful that they will catch up with and be indistinguishable from their peers after an educational push.

Burgess and Streissguth, 1992; Hinde, 1993; Streissguth et al., 1996
Burgess and Streissguth, 1992; Hinde, 1993
Importance of Early Intervention

However, 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 who can have a more productive, satisfying life.

Burgess and Streissguth, 1992; Hinde, 1993; Streissguth et al., 1996
Burgess and Streissguth, 1992; Hinde, 1993
Helping Youth and Young Adults in Transition

– Key Goal: To engage the youth/young adult
– Promote, and provide, respect for youth
– Highlight and build on youth’s strengths and capabilities
– Help family avoid threats, ultimatums, and polarization
– Promote unifying theme, “We’re in this together”
Helping Youth and Young Adults in Transition

– For parents/caregivers, provide education and promote balance and unity.
– Help youth to “save face,” as prerequisite to engaging and accepting help.
– Externalizing the problem may be helpful – scapegoating the FASD and not the youth.
– Benefit of modeling for the youth, not just information and instructions.
– Importance of patience.
Psychotropic Medication Use with FASD

- There is no psychotropic medication that addresses core deficits of an FASD or reverses pre-existing brain damage
- Medication may act differently in the individual with an FASD
- Nevertheless, there may be a role for meds:
  - Treatment of medication-responsive, co-existing mental health disorders
  - Treatment of hyperactivity (inattention less likely to respond)
  - Medication alone without services is rarely indicated
  - Meds may enable child to benefit more from services
Psychotropic Medication Use with FASD

On the horizon, promise of more meaningful interventions?

– Investigation of choline, a nutrient and not a medication, for children with FASD. It has an impact on the hippocampus. There have been rat and now human studies.

– Will it improve memory? Self-control? Executive functioning?
Recommendations
Needed System Level Changes

Increased workforce capacity

Inter-disciplinary approaches to assessment & treatment

Behavioral health agencies and managed care companies willing to “step up”

Education of graduate students and human service professionals – FASD part of “brain-based disorders”
Needed System Level Changes

Education of children & adolescents, in public education

Prevention of FASD for women of child-bearing age via primary care, & for pregnant women via their OB doctors

Education and awareness of the lay public
Needed System Level Changes

Development of Evidence Based models of intervention

Clear methodology to diagnose FASD and ARND via the DSM V, when mental health signs are prominent.

Use 315.8, “Other Specified Neurodevelopmental Disorder: Neurodevelopmental disorder associated with prenatal alcohol exposure”

DSM V, under “conditions for further study” (no diagnosis number): Neurobehavioral Disorder Associated with Prenatal Alcohol Exposure (ND-PEA)
Needed System Level Changes

Methodology to obtain neuropsychological testing, when needed, following routine FASD assessment

More communication and shared responsibility between physical and behavioral health

Support for families affected by FASD via a Pennsylvania National Organization of Fetal Alcohol Syndrome website (NOFAS), and via family networks and peer support

Respite and alternative family support models, in order to prevent out of home placements
Take Home Points

• Add FASD to the differential diagnosis, when working with children and adolescents with ADHD, immaturity, multiple academic and behavioral challenges, a history of ineffective mental health treatment, and other “red flags.”

• Routinely obtain information about maternal use of alcohol, drugs, and cigarettes during pregnancy. Lack of access to such information should not be the reason to eliminate consideration of an FASD.

• In obtaining information, avoid blaming/shaming the mother.

• Obtain a developmental history of the child.
Take Home Points

• Assess learning and overall functioning, not just the child’s behavior.

• Remember that CASSP and system of care principles – family-driven, youth-guided, community-based, culturally competent, etc. – apply to children with an FASD and their families.

• Remember that trauma informed care principles and practices are applicable.

• Build on individual and family strengths, and try to minimize secondary FASD effects.
Take Home Points

• As part of preventing secondary effects, address psychosocial challenges faced by families, make referrals, and provide linkages.
• Individualize care, avoiding approaches unlikely to benefit the child, which can do harm (contingency plans).
• Remember: Misunderstood behaviors can lead to punitive responses by adults and giving up by child.
• Avoid assumptions of intentionality re child’s limitations.
• Make use of a team process.
Take Home Points

• Maintain communication and coordination with the PCP.
• Coordinate efforts with the child’s school.
• Use psychotropic medication for specific indications, with awareness that it will not improve core FASD deficits.
• Encourage wellness, including prevention of FASD, for all family members receiving behavioral health treatment.
• Encourage hopefulness and not giving up.
• Develop a lifelong service model – modeling, mentoring and monitoring.
Resources
• BEAMS: The Fasstar Trek Method:  
  http://www.comeover.to/FAS/BEAM.htm-

• The Eight Magic Keys for Teachers:  

• SCREAMS:  http://www.come-over.to/FAS/ScreamsArticle.htm

• SAMHSA:  

• 4 Digit Code – Washington State University:  
  http://depts.washington.edu/fasdpn/index.htm
• National Screening Tool Kit - Canadian Association of Paediatric Health Centres:  [http://www.caphc.org](http://www.caphc.org)

• PA Families, Inc :  [http://pafamiliesinc.com/about.php](http://pafamiliesinc.com/about.php)

• Fetal Alcohol Spectrum Disorder Support Group – Pittsburgh area contact kimjaxon1218@yahoo.com

• Stone Soup (support group):  [www.stonesoupgroup.org/FASDnetwork.html](http://www.stonesoupgroup.org/FASDnetwork.html)
Assessments for Infants and Children

- **Recommended Evaluation Tools:** (Read the articles on [Early Intervention for Infants with FAS](http://come-over.to/FASCRC) 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, FAS[http://come-over.to/FASCRC](http://come-over.to/FASCRC)