Into Action Fetal Alcohol / neurobehavioral conditions: FA/NB A brief introduction to a brain-based approach

For parents, professionals and community partners



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Logic model: Is FA/NB a physical condition?

- 1. Alcohol, drugs, other teratogens and trauma kill cells and cause physical changes in the brain
- 2. Physical changes affect the structure and function of the brain
- 3. Behaviors are usually the only symptoms, most people have no physical features.
- FA/NB is an invisible <u>physical</u> disability with behavioral symptoms





Photo courtesy Sterling Clarren, M.D.



Behavioral techniques based on learning theory are used in all systems:

Parenting
Education
Justice
Mental health
Addictions treatment
Social services
Others



Four points

- 1. FA is an invisible, brain-based *physical* condition with behavioral symptoms
- 2. Standard behavioral strategies target symptoms; a Neurobehavioral approach recognizes aetiology, their source
- 3. Reframing behaviors and shifting from symptoms to source redefines problems and solutions in a manner consistent with research
- 4. Dysmaturity is also a factor



Uneven development 6-year-old

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Actual age of person:
Developmental age---3
Strengths (art, sports)-----10
Expressive language------------8
Receptive language-2
Reading -----4
Comprehension ----3
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Uneven development adolescent

Actual age of person: 1	<u>8</u>
Developmental age9	
Strengths (art, sports)	24
Expressive language	20
Receptive language8	
Reading14	
Comprehension7	



Conceptual framework: If FA/NB is an invisible physical disability

Then Providing accommodations for people with FA/NB is as appropriate and effective as providing accommodations for people with other physical disabilities



Effects of Fetal Alcohol Spectrum Disorder

Everyday difficulties for a child with FASD

- Problems with memory
- Problems with everyday language
- Thinking at a slower pace
- Trouble in taking what is learned from one situation and applying it to another
- Trouble paying attention and organising self
- Acting before thinking
- Trouble thinking in abstract terms



Comparing FASD, ADHD and Oppositional Defiant Disorder

Dan Dubovsky, 2008

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

Neurobehavioral screening tool

Common behavioral symptoms



Definition: Primary characteristics

Behavioral symptoms associated with differences in brain structure and function

Strengths are also primary characteristics

Source: Ann Streissguth, 1996



Primary characteristics

- 1. Developmental level of functioning
- 2. Sensory systems
- 3. Nutrition
- 4. Language and communication
- 5. Processing pace: How fast the brain works
- 6. Learning and memory
- 7. Abstract thinking
- 8. Executive functioning
- 9. Strengths



Learning strengths

- Relational: 1:1
- Visual
- Auditory
- Hands-on
- Kinesthetic -- see, touch, move
- Experiential -- learns by doing
- Multimodal -- uses all senses



Definition: Secondary characteristics

Secondary defensive behaviors develop over time when there is a "poor fit"

Defensive behaviors are normal reactions to pain and are preventable

Adapted from: Ann Streissguth, 1996



Secondary behavioral symptoms

- Easily tired, fatigued
- Anxious
- Lonely, isolated
- Shut down; flat affect
- Fearful, withdrawn
- Depressed
- Frustrated, short fuse, angry



Fit between technique and ability Strategy example: Talking

Assumptions about Brain function:

Research on FA/NB has Found brain differences:

Difficulty with memory
Difficulty retrieving information
Difficulty forming links

Concrete

Difficulty generalizing

Difficulty predicting

Gets piece, not picture

Processes slowly



Poor fit = Problems



Tertiary symptoms

Are the net result of a chronic poor fit, failure, isolation and alienation?

- Trouble in school
- Social services involvement
- Involvement with justice
- Homelessness
- Addictions/ mental health issues, suicide



Good fit: Accommodations

FA/NB Characteristic

Visual learner.....

Processes slower.....

Needs external support...

Difficulty organizing......

Concrete.....

Strategy

Provide visual cues

Allow adequate time

Provide supports

Provide structure

Teach experientially, build on strengths



Application: Functional Neurobehavioral Assessment

A systematic approach to developing personspecific accommodations in all settings and managing the complexity of FA/NB



Application: Functional Neurobehavioral Assessment

Setting:	Age:	_ Developmental age:	
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1 Task or Expectation	2 Brain has to	3 Primary symptoms FA/NB	4 Devel. Age (estimate)	5 Secondary behaviors	6 Strengths	7 Accommodations
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Application: Functional Neurobehavioral Assessment

Setting: School Age: 6 Developmental age: 3

1 Task or Expectation	2 Brain has to	3 Primary symptoms FA/NB	4 Devel. Age (estimate)	5 Secondary behaviors	6 Strengths	7 Accommodations
Sit still and listen	Process fast	Slow processing pace	3	Frustration	Visual learner	Provide visual cues, use fewer words
Be age- appropriate	Develop "on time"	Dysmaturity	3	Isolation Depression	Willing, relational	Adjust expectations, "Stretch toddler"
Sit and learn, paper and pencil	Ability to abstract	Concrete, difficulty with abstraction	2	Anger, frustration, avoidance	Learns by doing	Hands-on Kinesthetic

Starter strategies for accommodations: Home, School and Community

- 1. Think brain: Reframe perceptions
- 2. Observe patterns of behaviors
- 3. Identify, build on strengths
- 4. Write the IEP for the environment: Modify environments for a good "fit"
- 5. Collaborate, coordinate



Additional starter strategies

Stop fighting

Ask: What if?

Think younger

Give time

Recognize strengths

Breathe

Be gentle with yourself



Review

- FA/NB is a brain-based physical disability
- Reframe behaviors: Neurobehavioral Screen -- primary, secondary and tertiary symptoms
- 3. Application: Fit and accommodations Functional neurobehavioral assessment



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