



Overview

This short training was developed to meet the need for a brief introduction of the neurobehavioral conceptual framework to help establish and sustain strengths-based *informed* networks of care. Information in this set is taken from Pebbles, a more comprehensive training program. It is available for trained Pebbles or Into Action facilitators as well as parents and professionals who have attended one of these series.

The goal is to establish a common language for parents, professionals and community partners and shared understanding of behaviors from a brain-based perspective. This enhances collaboration and assures congruent application across systems. The long-term goal is to shift paradigms, strengthen programs, and contribute to healing and prevention.

There are three points: 1) Conceptual framework establishing FA/NB as a brain-based physical condition, 2) Neurobehavioral Screen with definitions of primary, secondary and tertiary behavioral symptoms, and 3) Application using the Functional Neurobehavioral Assessment.

The strength of this format is that it is short and provides information and a framework for application of a brain-based approach. The limits are that it does not explore key issues such as confusion about overlapping DSM diagnoses, why standard techniques are often ineffective, and many other personal, professional, programmatic and cultural dynamics. The hope is that this introduction will engage participants and encourage further exploration, including ongoing consultation and participation in longer Pebbles formats.

Key for words in bold type

Facilitator notes provide support information about the slide, and are not intended to be read to the group.

Read means the section may be read. The narrative is provided for use during Facilitators learning process. Although written so they may be read verbatim, the goal is for each facilitator to develop their own words and stories to convey the concepts.

Exercise Explains the purpose of the activity and materials needed for each, if any.

Ask The series models the value of asking questions and exploring. When facilitators ask questions, they are reinforcing the importance of asking questions and exploring rather than rushing to find answers.

What's the brain got to do with it?

Neurobehavioral Foundation

What if brain function has something to do with behaviors? It's just a question...



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Read: The neurobehavioral foundation starts with the idea that the brain is the source of behaviors. Asking the What if? question does not require an advanced degree.

Giving equal weight to the idea that the brain has something to do with behaviors is not diagnostic. Asking about brain function does not limit, excuse inappropriate behaviors or enable. It reframes, explains behaviors differently and this is the basis for trying differently, rather than harder.

Research has found this framework increases understanding, reduces frustration, expands options, reduces and prevents problems and contributes to prevention.

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
4. FA/NB is an invisible physical disability with behavioral symptoms



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Read: This is the logic model, the conceptual foundation based on research that links between brain function with behaviors and establishes FA/NB as a physical disability.

1. Alcohol, other drugs, environmental agents and traumas kill brain cells and affect the physical structure and function of the brain.
2. Physical changes means this is a physical disability.
3. In most cases, there are no observable physical symptoms. Behaviors are the only symptoms of underlying changes in brain structure and function
4. It follows that people with FA/NB have an invisible physical disability with behavioral symptoms

Ask: Is there any disagreement with this logic model?

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



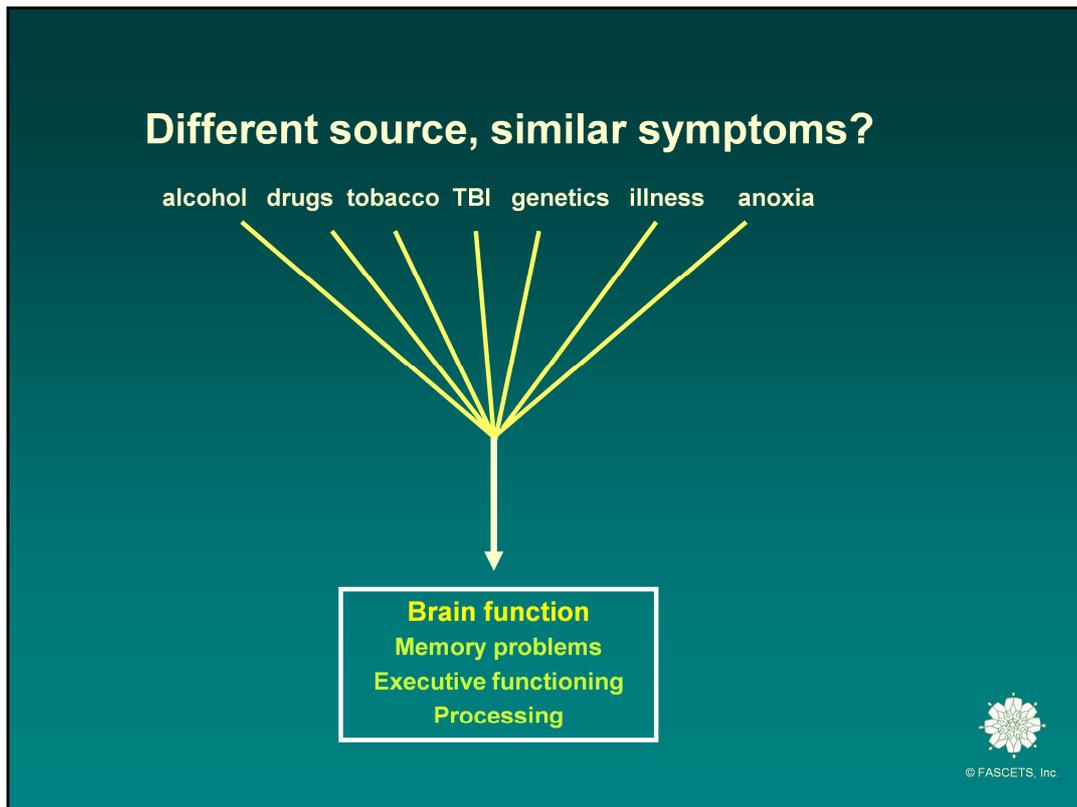
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Read: The previous slide with the logic model establishes FA/NB as a physical disability. This slide extends the logic to the conceptual framework for developing strategies.

If FA/NB is a brain-based physical disability with behavioral symptoms

Then it follows that recognizing the nature of this physical disability and providing accommodations is as appropriate and effective as providing accommodations for people with other physical disabilities

This shifts the target for interventions from the person to the person-in-environments. Paradoxically, this is when challenging behaviors resolve and outcomes improve.



Read:

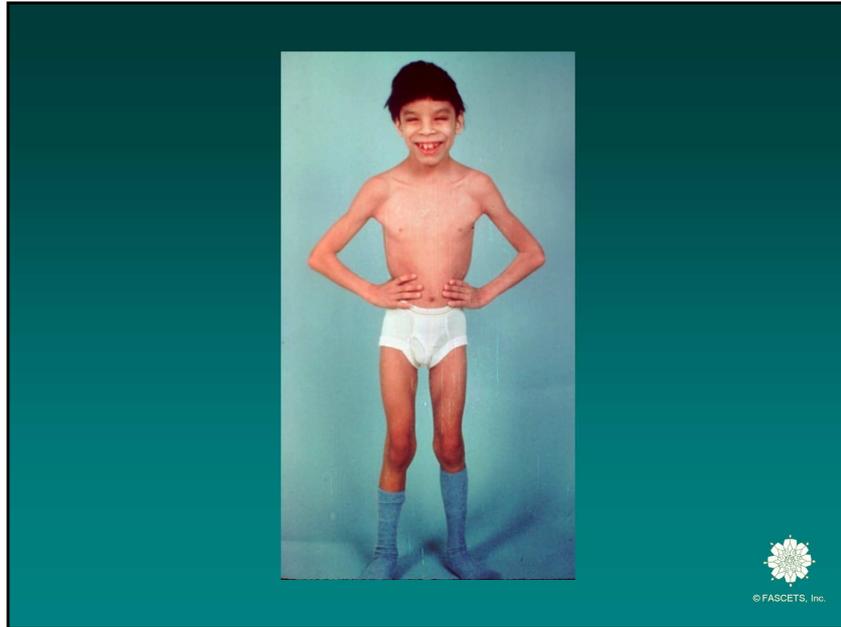
There are 50,000 teratogens and other pre- and/or postnatal events that may affect brain development. Examples are traumatic brain injury, high fever, and sustained abuse and emotional trauma, to name a few. This visual shows that different factors may contribute to similar symptoms, like memory problems. Alcohol is not the only cause. The neurobehavioral framework is relevant regardless of specific cause.

Definitions:

Teratogen is “any agent that can disturb the development of an embryo or fetus”

TBI means Traumatic Brain Injury

Anoxia means oxygen deprivation during birth, for example if the umbilical is cord wrapped around the neck during delivery



Read: This boy is 9. He is short, thin, and normal for a preadolescent male with full FAS.

Sensory systems are often affected. This changes processing of sounds, smells, taste, touch or textures. Some may be undersensitive to pain, others oversensitive to touch (tactile defensiveness).

There's no way of telling by looking at this boy how he experiences the world around him. A good Occupational Therapy assessment or careful observation may help identify behaviors that indicate sensory characteristics.

Facilitator note: In this and other stories, strategies are noted in **bold type**.

STORY: (this is one example – add your own stories to illustrate this and other points)

A 9-year-old girl was able to pay attention in class until 10:00 in the morning. After that, she was distracted, unable to pay attention. The teacher tried everything to help her focus, and nothing worked. Everyone – the teacher, girl and her parents – were all frustrated.

The mother went to an FA/NB parenting group and learned how to observe and see patterns of behaviors (**Strategy: observe**). She realized her daughter had an incredibly sensitive sense of smell..

The mother told the teacher about this sensitivity, (**Strategy: communicate, network, collaborate**) and the teacher decided to observe what was happening at 10:00 in the morning. The first day she figured out the problem: The cafeteria started preparing lunch at 10:00 and the smells of food cooking came into the classroom through the ventilation system.

The teacher asked the girl if she had a favorite fragrance (**Strategy: Ask**). The girl said, "Yes. Lavender." That evening the teacher bought a little lavender sachet and the next day gave it to the girl, who put it in her desk. At 10:00 when the smells from the lunch room came into the room, the girl took out the lavender sachet and sniffed the lavender. This overrode the smells from the cafeteria and enabled her to stay focused.



Read: All generalizations are false, and that includes many of the generalizations about FA/NB.

In general, if alcohol is consumed during all of a mother's pregnancies, the first born child may not appear to be as effected as younger siblings.

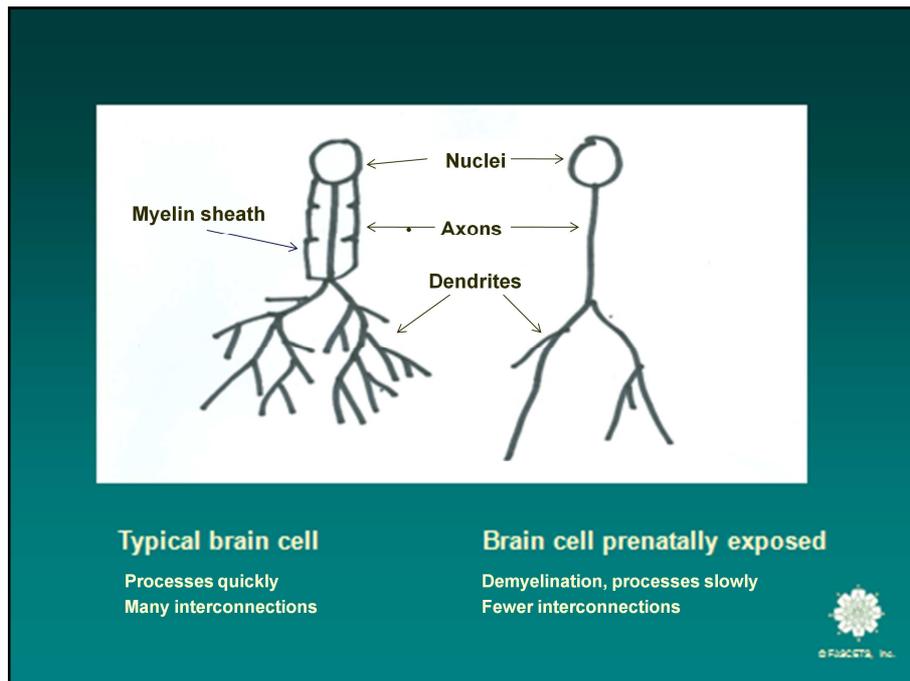
These are biological brothers: The boy on right has full FAS; the younger brother wasn't identified as having FA/NB until he was hospitalized with suicidal depression when he was 15. The mother was devastated: "We identified Frank's FAS and worked with him but failed to recognize any symptoms of FA/NB in his brother and punished him for his symptoms." This story is common before there is identification.

People without physical changes or facial features are at greater risk for failure since they are seen as being the problem rather than as having one.



Read: This young woman at 18 has full FAS (short palpebral fissures, flat philtrum, thin upper lip). Even with facial features of FAS, many are difficult to identify.

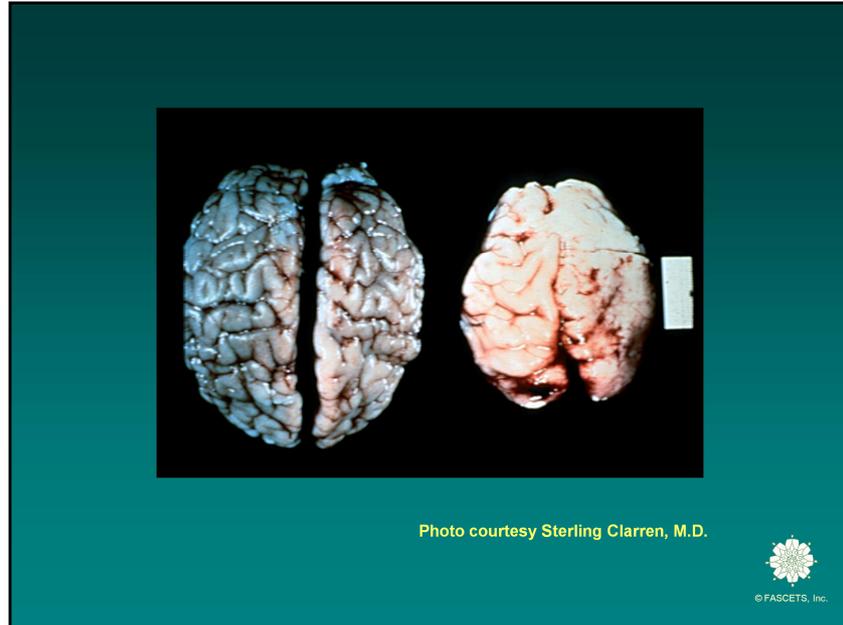
Most with prenatal alcohol exposure will have no physical indicators since the timing of the exposure to create the three facial features is between days 18-21 of gestation.



Facilitator note: These drawings are of a photograph in an article in [Alcoholism Clinical and Experimental Research](#)

Read: These are two cells from rat brains. The cell on left shows typical development. Information received by the nucleus moves quickly down the axon to dendrites that connect with other cells. Myelin is a fatty sheath that protects the axon like the protective plastic coating on electric wires prevents short circuits and reduces resistance so messages move quickly along the length of the axon to many dendrites connecting with other cells in the brain. This physical structure supports all of the cognitive tasks most of us perform every day, without thinking.

The cell on the right was prenatally exposed to alcohol. Alcohol is a solvent; there is demyelination of the axon and far fewer dendrites, or interconnections to other cells in the brain. Demyelination means there is greater resistance and slower speed as messages move along the axon, and they may “short” out. Demyelination may be seen in behaviors like slow auditory processing, hearing every third word; fewer dendrites may look like difficulty “shifting gears” or having less cognitive flexibility, and others. There is a physical basis for (neuro)behavioral symptoms.



Read: This photo compares a neurotypical brain with one dramatically affected by alcohol. These brains were from full-term infants who died at birth.

The photo is a clear visual reminder that FA/NB is a *brain-based invisible physical disability*. Physical changes in the brain are invisible; most symptoms are behavioral.

The brain on the left is large with a clear division between the two hemispheres, or sides, and there are many deep convolutions. Most people assume brains look like this. The brain on the right is much smaller. It doesn't have the clear division between the hemispheres, there are few convolutions and there is disorganization in the structure of the brain. It would have worked much differently.

The point is that we have expectations for "normal" behavior based on our assumption that most brains look and function like the one on the left.

The brain on the right is the *most* extreme case of FAS that has been seen. The brain on the left may also be affected. Even without obvious structural changes there may be a significant impact on a person's life.

Do not use this photo to children or parents to show what FAS looks like! There are more accurate and effective ways to begin talking about brain function and normalize variability.

Neurobehavioral screening tool



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Facilitator note: Please ask participants to take out the Neurobehavioral Screening Tool. Explain they will be filling it out after this next section is presented.

Read:

The Neurobehavioral Screening Tool redefines behaviors from a brain-based perspective. It is not diagnostic. It is commonly used to help establish a shared language, common understanding. It is not a complete list of all symptoms, just some of the most common.

The Likert scale of 0-5 is that 0 is not relevant, 1 is a little and 5 is most of the time or always. Not all people will have symptoms in all areas.

This scale has not been standardized; numbers in each section are not tallied to determine significance. The *patterns* of 3s to 5s in different categories determines whether a screen is positive.

Definition: Primary characteristics

Behavioral symptoms associated with differences in brain structure and function

Strengths are also primary characteristics

Source: Ann Streissguth, 1996



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Facilitator note: The definitions on the slides are different from those on the neurobehavioral screening tool. The *meaning* is the same.

Read: Primary behavioral characteristics are behaviors that most clearly reflect how the brain works, or works differently. Strengths and abilities are primary behaviors and are important to identify since strategies are based on strengths, not deficits.

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**



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Facilitator note: The **bold** description in this list and again in the list of secondary symptoms mean that this characteristic will be looked at more closely in the following discussion.

Read: Not everyone will have symptoms in all areas. None of the symptoms are unique to FA/NB—for example, we all forget words now and then. Instead of forgetting a word, the person may forget an entire sentence, idea, or rule. It is the matter of degree and frequency that are challenging.

Number 1, developmental level of functioning, is looked at more closely in the next slide.

Uneven development adolescent



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Read: We all have uneven development; people with FA/NB often have more pronounced unevenness. At 18, the person is physically mature but developmentally, socially and emotionally may be 9 years old. Strengths often mask deficits: Beyond their years in sports or artistic ability, with expressive language like a 20 year-old, but only able to understand language as an 8 year-old.

Dysmaturity means a person is *functioning* (not *acting*) at a younger level developmentally—often half their chronological age. Immaturity means age-appropriate social skills may be taught. *Dysmaturity* means the timeline for maturation is extended, that expectations need to be adjusted to fit developmental age. A common problem is the poor fit between age-based expectations for “appropriate” behaviors and actual developmental level of functioning.

Ask:

1. What problems do you think an 18 year old who is 9 developmentally might have with same-age peers?
2. What expectations for “responsible” behaviors for an 18 year-old are appropriate for a 9 year old?
3. What might happen if an 18 going on 9 year old were expected to live “independently?”

Strengths and interests

Creative

Artistic

Musical

Mechanical

Athletic

Hard working, determined, persistent

Willing



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Read: Strengths are primary characteristics and need to be identified in comprehensive assessments. While it is important to understand challenges in order to prevent problems, strategies are based on strengths, not deficits.

Are there other strengths to add to this list?

Learning strengths

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



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Read: The importance of recognizing how a person learns cannot be overstated. The idea of multiple intelligences is not new (Gardner) yet most parenting, teaching and other techniques are still language-based. Recognizing learning strengths expands options to prevent problems.

“Relational” means the person learns best when in a relationship with someone who understands and accepts them for who they are and how they learn. One to one is like the original apprenticeships where parents or master craftsfolk taught by showing, doing, teaching by hands-on method, and by example.

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



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Facilitator note: Genetics or other complex contributors to neurochemical changes may cause symptoms such as anxiety or depression. To help determine if a symptom is primary (physiological) or secondary (defensive), it is recommended that appropriate accommodations be implemented *in all settings for at least three months in order for the person to “settle.”* This allows secondary symptoms to resolve and clarifies whether further interventions, including pharmacological, are indicated. (Knowledgeable physicians need to be involved in decisions about medicinal interventions.)

If participants ask about this simply state that this discussion is outside of the scope of the brief introductory session and offer to explore this at another time.

Read: Secondary behaviors are normal defensive behaviors that are reactions to pain where there is a poor fit between the person and the setting – These are not intrinsic to FA/NB. They are preventable and resolvable. If a person can't see and is punished for “refusing” to read the whiteboard, frustration and anger are normal reactions.

Application of the neurobehavioral framework redefines the problem and solution: Recognize the person can't see, provide relevant accommodations, and the symptoms of frustration and anger resolve.

Optional discussion:

1. If a person who can't hear is punished for “not listening,” what behaviors would you see?
2. Creating a “good fit” means understanding that the person can't hear and providing accommodations. What accommodations are provided for a person with hearing impairment? Would their defensive behaviors be likely to change?



Anonymous, with permission



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Read: Parents and professionals are often frustrated when strategies don't work. This leads to fear and then to trying harder and harder to change the person.

This drawing is by a parent. She said, "I get it about his secondary symptoms. That's my son crouched down in the middle, with me, the teacher and my husband all yelling at him because we were scared and frustrated. This has been going on for years. He's been in trouble all the time, everywhere because we didn't understand. No wonder he's anxious and depressed."

Secondary behavioral symptoms

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



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Read: Secondary symptoms provide clues for finding where the fit is poor: Where there is a poor fit, there are typically challenging secondary behaviors.

Without identification, patterns of defensive behaviors develop. These patterns of secondary symptoms often obscure primary characteristics and are themselves targeted for change. Trying to change secondary symptoms misses the mark in terms of the actual problem.

When strengths and abilities are matched with tasks and accommodations are provided, secondary behaviors are often prevented.

Fit between technique and ability Strategy example: Talking

Assumptions about Brain function:

Store information.....
 Retrieve information.....
 Form associations.....
 Abstract.....
 Generalize.....
 Predict.....
 Conceptualize.....
 Process quickly.....

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



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Read: Most parenting and professional strategies for changing behaviors are based on learning theory. There is nothing wrong with the theory or techniques; the problem is that theory-based assumptions about brain function required for most behavioral techniques to work have not been explored for their fit with neurobehavioral symptoms of FA/NB.

The poorer the fit, the greater the frustration and secondary defensive behaviors.

When all strategies are based on the same assumptions, the net experience is that “nothing works.” When strategies don’t work, there is fear and anger, and interventions typically escalate, become more controlling, constrictive and punitive. The definition of insanity is trying harder and harder to change things using the same technique.

One of the first universal strategies is to Stop Fighting. Where there is anger, frustration or blame there is usually missing information.

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

Parenting
Education
Justice
Mental health
Addictions treatment
Social services
Others



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Ask and discuss:

1. What are some examples of techniques used to change behaviors in these systems? (Note: Focus on the setting where the session is occurring.)
2. How many are based on learning theory and behavioral techniques?
3. Are there any parenting, teaching or other professional techniques that are based on a neurobehavioral approach?

Read: Learning theory and behavioral interventions are the standard for parenting, teaching, justice and others. Whether time out at home or incarceration in the community, they require the same cognitive abilities. People with FA/NB may not have these abilities..

FA/NB provides a neurobehavioral foundation on which to understand behaviors differently and develop interventions based on this understanding.

Poor fit

FA/NB Characteristic

Visual learner.....
Processes slower.....
Needs external support..
Difficulty organizing.....
Concrete.....

Strategy / expectation

Verbal instruction
Fast paced
Work independently
Organize, prioritize
Abstract



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Read: These are examples of a poor fit between the person and the setting techniques and values

Poor fit = Problems



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Read: Where there is a poor fit, there are problems.

To repeat: If a blind child was punished for not reading the blackboard – “You could do it if you tried harder,” it would be normal for that person to develop secondary protective, defensive behaviors.

Recognizing the nature of the disability – It’s not that he “won’t” read the blackboard, he *can’t see*— is the starting place for providing appropriate accommodations. The same principle is true for people with the invisible brain-based disability of FA/NB.

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



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Read: Secondary symptoms of frustration, failure, and alienation over time become patterns of behaviors that lead to bigger problems in different settings, in school, social services, justice and others. Like secondary symptoms are preventable, tertiary symptoms are also by extension preventable.

Good fit: Accommodations

<u>FA/NB Characteristic</u>	<u>Strategy</u>
Visual learner.....	Provide visual cues
Processes slower.....	Allow adequate time
Needs external support..	Provide supports
Difficulty organizing.....	Provide structure
Concrete.....	Teach experientially, build on strengths



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Facilitator note: Please reassure participants that accommodations are strategies, and that these come from understanding who the person is, their strengths and needs, and creating a good fit in all settings.

Read: Strategies and accommodations come from understanding the nature of the disability. These are often not complicated. They often do not require more time, money or resources.

Examples of success

- Artist, musician
- Warehouse person
- Electrician
- Boat builder
- Mechanic
- Child care worker
- Animal rescue worker
- Drummer
- Dancer
- Office worker
- Special ed. teacher
- Counselor
- Massage therapist
- Truck driver
- Husband, wife
- Delivery person
- Parent
- Adult care worker



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Read: More and more people with FA/NB are leading successful lives. Understanding, building on strengths and preventing frustration help improve outcomes.

Ask: Does anyone have an example of a person with FA/NB who is doing well? What helped?

Stories about people with FA/NB:

1. Many with FA/NB are artistic and creative: A young artist has her own one-person shows
2. An internationally known jazz musician composes music and has his own CDs
3. An electrician with FA/NB describes himself as “The man with a mind like a steel sieve.” He has difficulty remembering schedules and tasks, yet is gifted working with computers. Building on this strength, he bought a palm pilot that he used as his calendar and programmed it to beep to remind him when he had to do something. He carries it in his front pocket and calls it his “external forebrain.”
4. A large-engine diesel mechanic with FA/NB diagnoses problems with engines – people with FA/NB often have sensitive hearing and he could hear sounds in a running engine that others could not.
5. A young woman with full FAS has been working successfully for years in an early childhood development center
6. Another young woman who loves cats established a successful cat-sitting business.
7. A KFC employee has been successfully employed for over 2 years at the same location. A few minor adjustments were made to assure this success: Her employers learned she could not multi-task and would become overwhelmed by too many directions and tasks. However, she was very friendly, outgoing, great with the customers, and able to assemble orders. Her job responsibilities were shifted, fewer directions were thrown at her and now she is successful.
8. A young man is highly respected in his community as an outstanding drummer and dancer

Brain = behaviors

Brain changes = behavioral changes



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Ask: Is this true?

FA/NB is not the “diagnosis du jour”

- Current diagnoses = *behavioral symptoms*
- FA/NB = Brain dysfunction
- Identification redefines behaviors
- Redefines problems
- Redefines solutions



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Read: “Isn’t FA/NB just the diagnosis du jour? Every year there is another new diagnoses. COA, ADD, PTSD, RAD, Autism, and others. This year it’s FA/NB. What’s it going to be next year?” FA/NB is not the latest in the long line of diagnoses. Identification of FA/NB means recognizing brain dysfunction.

The problem with multiple diagnosis is that they often cause confusion, rather than clarifying the nature of the problem. Even though some make reference to the idea that the brain may be impacted by experience, as in the case of PTSD, this is not typically reflected in practice.

The shift is from trying harder to change behaviors (and having them worsen) to reframing and recognizing behaviors as symptoms of underlying brain function, identifying where there is a poor fit, providing accommodations and *achieving changes in behaviors as a result*. This is the same approach that is provided for people with other physical disabilities.

Brain trumps behaviors



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Ask: What do you think of this idea?

Application: Functional Neurobehavioral Assessment

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



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Application: Functional Neurobehavioral Assessment

Setting: _____ Age: ____ Developmental age: ____

1 Task or Expectation	2 Brain has to	3 Primary symptoms FA/NB	4 Devel. Age (estimate)	5 Secondary behaviors	5 Strengths	6 Accommodations



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WANDA: Note the addition of the age / developmental age. Please see revised FNA that also includes the developmental level of functioning since that's so key.

Read:

This grid is application of a brain-based or neurobehavioral approach. It explores the fit between the person and the setting, identifies strengths, and supports development of person-specific accommodations in different settings. This may be used for people of all ages, in all settings – at home, school, in the community or on the job. Here's how it works:

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	5 Strengths	6 Accommodations
Sit still and listen						



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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	5 Strengths	6 Accommodations
Sit still and listen	Process fast					



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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	5 Strengths	6 Accommodations
Sit still and listen	Process fast	Slow processing pace				



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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	5 Strengths	6 Accommodations
Sit still and listen	Process fast	Slow processing pace	3			



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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	5 Strengths	6 Accommodations
Sit still and listen	Process fast	Slow processing pace	3	Frustration		



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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	5 Strengths	6 Accommodations
Sit still and listen	Process fast	Slow processing pace	3	Frustration	Visual learner	



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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	5 Strengths	6 Accommodations
Sit still and listen	Process fast	Slow processing pace	3	Frustration	Visual learner	Provide visual cues, use fewer words



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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	5 Strengths	6 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"
						

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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	5 Strengths	6 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 

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Application: Functional Neurobehavioral Assessment
Setting: Justice Age: 25 Developmental age: 12

1 Task or Expectation	2 Brain has to	3 Primary symptoms FA/NB	4 Devel. Age (estimate)	5 Secondary behaviors	5 Strengths	6 Accommodations
Understand rights	Understand abstractions	Difficulty with abstractions	12	Compliance	Concrete, literal	Simplify.
Show up for court dates or appointments	Plan, manage time	Difficulty with executive functions, planning	14	Denial, defense, blame	Willing, relational	Utilize "external brain" to prevent problems
Comply with orders	Remember, generalize	Poor memory, difficulty generalizing	15	Breach, anger, avoidance, aggression	Determined, persistent	Reduce number of tasks, show rather than tell
Learn from mistakes	Store, retrieve, apply information, inhibit impulses	Difficulty, retrieving, applying information, impulsive	10	Reoffense	Wants to please	Establish informed networks to prevent problems  <small>© FASCETS, Inc.</small>

General starter strategies

Stop fighting

Ask: What if?

Think younger

Give time

Recognize strengths

Breathe

Be gentle with yourself



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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



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Review

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



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