

Neurobehavioral Screening Tool

Lists of challenging behaviors are often long and overwhelming and the link between behavioral symptoms and brain function is rarely made. This brief screening tool provides definitions and examples of primary and secondary neurobehavioral characteristics commonly associated with underlying brain function. This list is intended to support exploration, identification and/or referral; *it is not intended for diagnostic purposes.*

Primary characteristics are learning, developmental, and/or physical responses to the environment, and other behavioral symptoms that have been associated with differences in brain structure and function. Strengths are also primary characteristics.

Scale: 0=Not assessed 1=No 2=Rarely 3=Sometimes 4=Usually 5=Always

1. Developmental level of functioning: Social skills and adaptive behaviors

- 0 1 2 3 4 5 Social behaviors are like a person half their age (developmental dysmaturity)
- 0 1 2 3 4 5 Prefers younger friends
- 0 1 2 3 4 5 May be seen as “irresponsible” for chronological age
- 0 1 2 3 4 5 Interests and play are more like a younger person

2. Sensory systems, sensory-motor integration

- 0 1 2 3 4 5 Easily overstimulated and slow to settle, may become overactive or shut down
- 0 1 2 3 4 5 Oversensitive to touch, textures-- clothing tags or bumps on socks may be irritating
- 0 1 2 3 4 5 Undersensitive to touch, doesn't seem to feel pain
- 0 1 2 3 4 5 Highly sensitive to lights, sounds or smells
- 0 1 2 3 4 5 Doesn't seem to understand personal space or boundaries
- 0 1 2 3 4 5 Has trouble falling asleep, staying asleep, or may sleep for very long times

3. Nutrition

- 0 1 2 3 4 5 Can't eat some foods – has strong reactions to some tastes or textures
- 0 1 2 3 4 5 Craves sugars, fats
- 0 1 2 3 4 5 Needs to eat often
- 0 1 2 3 4 5 Doesn't seem to know when hungry
- 0 1 2 3 4 5 Doesn't seem to know when full, when to stop eating

4. Language and communication

- 0 1 2 3 4 5 Talks better than understands, e.g., may be “off topic” in conversation
- 0 1 2 3 4 5 Confabulates— “Fills in the blanks,” may tell a story that sounds like a lie
- 0 1 2 3 4 5 Has trouble finding words to put on feelings and talking about feelings
- 0 1 2 3 4 5 Doesn't seem to understand, “just doesn't get it”
- 0 1 2 3 4 5 Has difficulty reading or responding to body language
- 0 1 2 3 4 5 Chatty, may talk a lot but have difficulty in a conversation and/or answering questions

5. Processing pace

- 0 1 2 3 4 5 Listens slowly; often asks “What?” or says, “I don't know”
- 0 1 2 3 4 5 Thinks slowly; may take minutes to answer a question -- “Ten-second people in a one-second world”
- 0 1 2 3 4 5 Slow halting speech or repeats words several times before able to verbalize entire thought
- 0 1 2 3 4 5 Easily frustrated if thought process is interrupted, if “rushed” to provide answers

Primary characteristics, continued

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6. Learning and Memory

- 0 1 2 3 4 5 Poor short-term auditory memory; may do one step of three-step directions
- 0 1 2 3 4 5 Says one thing, does another, e.g., "Talks the talk, but doesn't walk the walk"
- 0 1 2 3 4 5 Inconsistent performance: "On" and "off" days, "A" on Monday, "F" on Wednesday
- 0 1 2 3 4 5 Needs to be retaught the same thing many times
- 0 1 2 3 4 5 Learns a rule in one setting, may not apply it in a different place
- 0 1 2 3 4 5 Has trouble remembering and learning from past experiences

7. Abstract thinking

- 0 1 2 3 4 5 Learning math is hard
- 0 1 2 3 4 5 Making change or managing money is difficult
- 0 1 2 3 4 5 Often late; has difficulty planning time, or being on time for appointments
- 0 1 2 3 4 5 Difficulty predicting outcomes, seeing what's coming next
- 0 1 2 3 4 5 Making decisions may be hard
- 0 1 2 3 4 5 Unable to "put themselves in someone else's shoes", see alternative perspectives

8. Executive functioning

- 0 1 2 3 4 5 Difficulty organizing and planning a day
- 0 1 2 3 4 5 Difficulty getting started (initiating) or finishing multi-step tasks
- 0 1 2 3 4 5 Setting goals and planning the steps to achieve them is hard
- 0 1 2 3 4 5 Gets "stuck," has difficulty stopping doing something (verbally or behaviorally)
- 0 1 2 3 4 5 "Can't let go" in an argument
- 0 1 2 3 4 5 Has trouble transitioning, shifting gears; may become angry when interrupted
- 0 1 2 3 4 5 Upset by unexpected change in tasks, schedule or routine
- 0 1 2 3 4 5 Upset by changes in environments, e.g., desks or furniture moved, substitute teacher
- 0 1 2 3 4 5 Impulsive, difficulty inhibiting responses
- 0 1 2 3 4 5 Difficulty making links: Hearing into doing, seeing into writing, thinking into talking

9. **Strengths** in some areas may mask underlying challenges. Strengths are often more easily seen when there is no history of trauma or long-term frustration. Strategies for supporting people with neurobehavioral challenges build on strengths, interests and talents, rather than deficits.

Interests and talents

Learning strengths

- | | |
|-----------------------------------|---|
| 0 1 2 3 4 5 Creative | 0 1 2 3 4 5 Relational; learns best 1:1, in relationship |
| 0 1 2 3 4 5 Artistic | 0 1 2 3 4 5 Visual learner; learns by being shown better than by being told |
| 0 1 2 3 4 5 Musical | 0 1 2 3 4 5 Auditory learner; reads out loud, repeats things |
| 0 1 2 3 4 5 Mechanically inclined | 0 1 2 3 4 5 Hands-on, concrete, experiential; learns by doing |
| 0 1 2 3 4 5 Athletic | 0 1 2 3 4 5 Kinesthetic; needs to hear, see, touch to learn |
| 0 1 2 3 4 5 Compassionate | 0 1 2 3 4 5 Other strengths and interests: _____ |
| 0 1 2 3 4 5 Poetic | _____ |
| 0 1 2 3 4 5 Generous | _____ |
| 0 1 2 3 4 5 Friendly, outgoing | _____ |
| 0 1 2 3 4 5 Determined | _____ |
| 0 1 2 3 4 5 Wants to please | _____ |

- 0 1 2 3 4 5 Good with younger children
- 0 1 2 3 4 5 Good with animals
- 0 1 2 3 4 5 Good gardener

Secondary behavioral characteristics are normal defensive behaviors that develop over time as a result of chronic frustration, trauma and/or failure, reflecting a “poor fit” between the needs of the person and his or her environment. These are preventable.

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Secondary characteristics:

- 0 1 2 3 4 5 Easily tired, fatigued; may show as overactivity, irritability, and/or tantrums
- 0 1 2 3 4 5 Anxious
- 0 1 2 3 4 5 Lonely, isolated
- 0 1 2 3 4 5 Shut down; flat affect
- 0 1 2 3 4 5 Fearful, withdrawn
- 0 1 2 3 4 5 Depressed
- 0 1 2 3 4 5 Frustrated, short fuse, angry
- 0 1 2 3 4 5 Gets in trouble if easily manipulated and set up by others
- 0 1 2 3 4 5 Self-harming behaviors
- 0 1 2 3 4 5 Avoidant, runs away
- 0 1 2 3 4 5 Remarkable sexual activity; multiple partners; unplanned or teen pregnancy
- 0 1 2 3 4 5 Aggressive
- 0 1 2 3 4 5 Destructive (not due to curiosity or just taking things apart)
- 0 1 2 3 4 5 Disruptive in class or at work, secondary to anxiety or frustration
- 0 1 2 3 4 5 Talks back, is argumentative, secondary to cognitive inflexibility

Tertiary characteristics are the net effect of chronic failure and frustration and are also preventable.

- 0 1 2 3 4 5 Delinquent; criminal involvement
- 0 1 2 3 4 5 Trouble at home
- 0 1 2 3 4 5 Trouble at school or in the community
- 0 1 2 3 4 5 Social services involvement
- 0 1 2 3 4 5 Legal system involvement
- 0 1 2 3 4 5 Alcohol / drug-related problems, addictions
- 0 1 2 3 4 5 Other problems

Common overlapping diagnoses: Multiple diagnoses are common; standard interventions may be ineffective. The greater the number of diagnoses, the stronger the recommendation to assess for underlying neurobehavioral characteristics.

- _____ Failure to Thrive
- _____ Attention Deficit Disorder / Hyperactivity
- _____ Speech and Language Disorder
- _____ Pervasive Developmental Disorder
- _____ Learning Disabled
- _____ Reactive Attachment Disorder
- _____ Post-Traumatic Stress Disorder
- _____ Seriously Emotionally Disturbed
- _____ Conduct Disorder
- _____ Oppositional Defiant Disorder
- _____ Autism Spectrum (ASD)
- _____ Bi-polar
- _____ Borderline Personality Disorder
- _____ Other(s) _____

Screening tool: Discussion

This short neurobehavioral screening tool is not intended for diagnostic purposes. It supports exploration of neurobehavioral characteristics and may be used to increase understanding and as part of a referral process for complete assessments. It has not yet been standardized; numeric equivalents for significance have not been established.

Primary characteristics

In general, findings may be considered positive when there are patterns of threes to fives for primary characteristics on the Likert scale of 0-5. In these cases, referral for a multidisciplinary neurodevelopmental assessment is appropriate. If this resource is unavailable, or in cases where the wait list is long, such patterns indicating positive findings have been used to support the development of accommodations. Using information in this manner gives equal weight to a brain-based alternative explanation for the meaning of behavioral symptoms. Accordingly, providing accommodations prior to formal confirmation is beneficial and will not harm anyone.

In some cases, depending on age or relevance of a particular characteristic, a wide scatter on the Likert scale has been found. The assignment of fours and fives in any of the primary characteristics sections strongly suggest the importance of accommodations and further exploration.

Strengths, interests, talents and learning strengths

It is important that this section be completed. Even though chronic frustration may erode or obscure strengths, taking time to identify relative strengths is an important part of a complete assessment process. Strategies build on strengths.

Secondary and tertiary characteristics and common overlapping diagnoses

Secondary defensive behaviors serve as flags for recognizing settings where there is a poorness of fit. According to research, providing a good fit helps resolve defensive symptoms. In general, but not always, patterns of secondary defensive behaviors are seen more commonly in adolescents and adults with FA/NB, reflecting chronic frustration or failure. Over time, and without accommodations, these patterns may lead to tertiary characteristics.

There seems to be an association between the number and severity of secondary behaviors and the number of diagnoses that have been accumulated. This last section is included to support consideration of the idea that the greater the number of diagnoses, the greater the likelihood that underlying neurobehavioral characteristics have not been identified.