



The Benefits of a Neuropsychological Evaluation

Cristina Sperrazza, Psy.D.
Clinical Neuropsychologist

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Overview



- What is Neuropsychology (NP)?
- How NP Evaluations Differ from School Evaluations
- Who Can Benefit from an NP Evaluation?
- The Evaluation Process
- Benefits of NP Evaluations
- Resources

Alphabet Soup



- **ABA** = Applied Behavior Analysis
- **CBT** = Cognitive Behavioral Therapy
- **CST** = Child Study Team
- **DBT** = Dialectical Behavioral Therapy
- **DSM-5** = Diagnostic and Statistical Manual, 5th Edition
- **IEP** = Individualized Education Program
- **PCIT** = Parent-Child Interaction Therapy
- **PMT** = Parent Management Training



What is Neuropsychology (NP)?



Neuropsychology

A science concerned with analyzing **brain-behavior relationships** through utilization of standardized test measures



Lezak, 2012

Uses of Neuropsychology

Evaluate

- Neurocognitive capacity
- Strengths and weaknesses

Diagnostic

- Identify disorder/disease
- Increase validity of diagnostic impressions

Treatment

- Monitor outcomes
- Decision for surgery



Lezak, 2012

Terms Used in Neuropsychology

TESTING

- Administration of specially designed and standardized tools to measure specific functions or behaviors

ASSESSMENT


- Broader process that includes data acquisition from a wide range of sources (e.g., history taking) to supplement direct testing and support case formulation

EVALUATION

- Principal summary process that incorporates all preliminary steps, leading to well-formulated conclusions and recommendations for management or treatment

Lezak, 2012

NeurAbilities Healthcare



How Neuropsychological Evaluations Differ from School Evaluations

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Referral Question

Psycho-Educational

- To determine appropriateness of services
- Is the student eligible for services and/or special education?*

Neuropsychological

- Diagnostic-focused
 - Does my child have....?*
- To obtain a comprehensive understanding of neurocognitive functioning
 - Why is my child struggling with....?*

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Domains Assessed

Psycho-Educational

- Overall intelligence
- Academic skills
- Behavioral or emotional functioning (as needed)

Neuropsychological

- Overall intelligence
- Academic skills
- Language
- Motor skills
- Attention and executive function
- Learning and memory
- Behavioral or emotional functioning
- Social functioning

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Outcomes

Psycho-Educational

- No diagnosis given
- Determine eligibility for related services, supports, or special education based on state and/or federal criteria
- Looking for educational impact/adversity

Neuropsychological

- Diagnosis given, if warranted, based on clinical DSM-5 criteria
- Recommend interventions
 - In-school: Related services, supports, or special education
 - Out-of-school: Private tutor or therapy
- Looking for clinical impact/distress

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Who Can Benefit from a NP Evaluation?

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ANYONE!

▪ Pediatrics

- Toddlers
- School-age children
- Adolescents
- College/Young Adults

▪ Adults

▪ Geriatric population



Common Pediatric Referrals

- To explain **low academic achievement**
 - *Does my child have a learning disability?*
- To differentiate among **coexisting disorders** (i.e., *inattention vs. anxiety vs. a specific learning disorder?*)
 - *Why can't my teen focus?*



Morin (2019)

Common Pediatric Referrals

- Suspicion of **low cognitive abilities**
 - *Is there an intellectual disability?*
- Determine if emotional factors **explain or exacerbate** underachievement
 - *My child was a straight A student before COVID. Why is he/she struggling now?*
 - *I've noticed my teen's anxiety and tics have increased around school. Do they need accommodations?*



Morin (2019)

Common Pediatric Referrals

- To identify **social or communication difficulties**
 - *My teen has trouble making friends. Why?*
 - *Why can't my child keep up in conversations?*
- To understand **behaviors**
 - *Why does my teen have trouble adjusting to changes?*
 - *My child has so many tantrums each day. Why?*

Morin (2019)

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Common Pediatric Referrals

- In the context of **medical conditions**
 - *What is my teen's neurocognitive functioning like given his/her epilepsy? Genetic condition?*
 - *What is my child's neurocognitive functioning like after cancer treatment? Concussions or Traumatic Brain Injuries (TBIs)?*
- To describe an individual's **strengths and weaknesses** to tailor recommendations
 - *Does my teen need extra time on tests?*
 - *How can we prepare for my child's future? For my teen in college?*

Morin (2019)

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Common Pediatric Outcomes

- | | |
|--|--|
| ▪ Attention-Deficit Hyperactivity Disorder (ADHD) | ▪ Developmental Coordination Disorder (DCD) |
| ▪ Specific Learning Disorder (SLD) | ▪ Social Communication (Pragmatic) Disorder |
| ▪ Autism Spectrum Disorder (ASD) | ▪ Mood-Related Disorder (anxiety, depression) |
| ▪ Nonverbal Learning Disability (NVLD) | ▪ Behavior-Related Disorder (oppositional, defiant, impulsive, compulsions) |
| ▪ Global Developmental Delays | ▪ Adjustment Disorder |
| ▪ Language Disorder | |

Baron, 2004

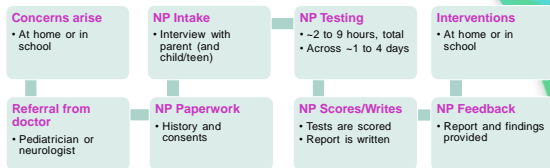
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The Evaluation Process



General Overview



Information Gathering

- Understand the referral question.
 - Chart review
 - Record requests
 - Clinical intake/interview
 - Collateral reports



Information Gathering

- **Define the problem.**
 - What are some examples?
- **Develop a timeline.**
 - When did the problem start? When was it at its worst? Have the problems changed over time? What made it better?
- **Understand the impairment, if any.**
 - How distressing is the problem? How does it affect day to day functioning?

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Assessment Process

- **Select and administer battery of tests.**
 - Consider the referral question, patient's age, test norms, etc.
 - ~2 to 9 hours testing, across ~1 to 4 days
 - Note behavior observations.
- **Score tests.**
- **Collect all sources of information.**
 - Caregiver or therapist interviews, Teacher rating scales, etc.

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Domains Assessed

Domain	Description
Intellectual	Cognitive ability to problem-solve
Language	Receptive, Expressive, Fluency, Pragmatics
Visual-Spatial and Motor Skills	Perceptual reasoning, Spatial knowledge, Fine and gross motor, Graphomotor skills
Attention and Executive Functions	Attentional control, Planning, Mental flexibility, Time management, Inhibition, Working memory, Self-monitoring, Impulsivity
Memory and Learning	Verbal and visual, Rote and semantic
Academic Skills	Phonological processing, Reading, Writing, Math
Emotional and Behavioral	Emotional regulation, Anxiety, Depression, Anger, Aggression, Defiance, Repetitive behaviors, Rigidity
Social	Interpersonal relationships, Social skills, Adaptive skills, Social awareness and reciprocity, Interests

Gallagher & Vekaria (2013)

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Report Writing

- **Integrate data.**
- **Consult as needed.**
- **Conceptualize case as a whole.**
 - Find the "**red thread**" through data.
- **Develop recommendations** across settings as needed.
 - Practical and should align with data.
 - Identify ways to support patient in real life.



Deliver the Results

- **Provide feedback.**
- **Offer resources** (e.g., books, websites).
- **Send report to family.**
 - Encourage them to share with school or providers as needed.





Benefits of NP Evaluations



Benefits

▪ Determine current functioning.

How is my child performing now compared to same-aged peers?

- Provides a "snapshot" in time of current abilities or functional capacity
- Can use as a baseline to monitor future changes in neurocognitive functioning
- Gain insight into how person learns and processes information



Benefits

▪ Identify strengths and areas of difficulty.

Why is my child struggling to keep up with their peers?

- Looks at a wide range of skills to see where underlying difficulties may be
 - Trouble finishing tasks on time?
 - Anxiety?
 - Slow processing speed?
 - Distractibility?
 - Weak executive functions?
 - Trouble reading fluently?
 - Anxiety?
 - Slow processing speed?
 - Dyslexia?



Benefits

▪ Obtain diagnostic clarity.

Does my child have...?

- Provides answers about ruling in or ruling out certain diagnoses
 - Validation or confirmation
- Helps guide treatment



Benefits

▪ Provide direction to families.

What do we do next?

- Offers guidance about what services or supports may be needed in school or at home
- Connects families to resources
- Informs treatment planning



Common School Recommendations

▪ Section 504 Plan or IEP

- Class placement
- Reading, writing, or math intervention
- Functional Behavior Analysis (FBA)
- Behavior Intervention Plan (BIP)
- Behavior paraprofessional/aide
- Speech, occupational, or physical therapies
- Individual and/or group counseling
- Social skills groups
- Extended School Year (ESY)



Common School Recommendations

▪ Accommodations

- Extra time
- Tests read aloud
- Testing across multiple days
- Use of assistive technology
- Foreign language waiver
- Reduced workload
- Use of a calculator
- Typing or dictating instead of writing



Common Treatment Recommendations

Interventions

- Mental health therapy (CBT, DBT, intensive programs)
- Behavior therapy (ABA, PCIT, PMT)
- Medication consultation
- Private tutoring
- Private speech, occupational, or physical therapies
- Executive function (EF) coaching
- Vocational or life coaching
- Social skills groups
- Support groups for patient and/or parents



Common Home Recommendations

At-Home Strategies

- Ways to stay organized
- How to break down and prioritize tasks
- Reading, writing, or math activities
- Visual-spatial exercises
- Behavior management tips
- Coping skills
- State-funded or other eligible programs
- Relevant books and websites





Resources



Referrals

- **NeurAbilities Neuropsychology (Accepting New Patients in NJ and PA):** <https://neurabilities.com/neuropsychology/>
- **Child Mind Institute, Learning & Development Center (Accepting New Patients in NY and CA):** <https://childmind.org/care/areas-of-expertise/learning-and-development-center/>
- **Find a NY-Based NP:** <https://the-nysan.org/find-neuropsychologist>
- **Find a Pediatric NP (Nationwide):** <https://theapdn.org/provider.html>
- **Find an Adult or Pediatric NP (Nationwide):** <https://theaacn.org/directory/>



Resources

- **NeurAbilities Neuropsychology:** <https://neurabilities.com/neuropsychology/>
- **How to Talk to Your Child about Testing:** <https://drlizangoff.com/assessments/talking-to-your-child-about-testing/>
- **CMI Family Resources:** <https://childmind.org/education/#family-resource-center>
- **Kids Health:** <https://kidshealth.org/>
- **Understood:** <https://www.understood.org/>





Q & A

Thank you for your time!



References

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