The Practice of Pediatric Neuropsychology in New York State: Definition, Training Requirements, and Scope of Practice

Pediatric neuropsychology is a specialty area within the field of psychology that examines the clinical relationship between the brain and a child’s behavior. Because behavior is influenced by both neurodevelopmental and environmental factors, the practice of pediatric neuropsychology requires extensive training in a range of related areas. While New York State licenses psychologists under a generic license, the ethics of professional psychology require that any psychologist practicing this specialty, or who identifies him/herself as a pediatric neuropsychologist, be appropriately trained to render this service.

APA Division 40 defines a pediatric neuropsychologist as “a licensed psychologist with expertise in how learning and behavior are associated with the development of brain structures and system”. The American Academy of Pediatric Neuropsychology has bolstered this classification with their definition of a pediatric neuropsychologist: “a doctoral-level, licensed health service provider of neuropsychological diagnostic and intervention services who applies principles of assessment and intervention based upon the scientific study of developmental theory and behavior as it relates to normal and abnormal functioning of the developing central nervous system”. NYSAN recognizes the education and training requirements for neuropsychologists and pediatric neuropsychologists are put forth by neuropsychology credentialing bodies, including the American Academy of Pediatric Neuropsychology (AAPN), the American Academy of Clinical Neuropsychology (AACN), and the American Board of Professional Neuropsychology (APN). NYSAN recognizes that board certification is presently not required to practice pediatric neuropsychology, although it is further evidence of the advanced training, education, and knowledge that is needed for specialty practice in this area. Importantly, practitioners must also be in possession of current licensure and/or certification to provide psychological services to the public by the laws of the state or province in which he or she practices.

The Pediatric Neuropsychological Examination (PNE) is a neurodiagnostic procedure that allows for the identification of underlying factors that often give rise to academic, cognitive, emotional and social difficulties in children. Neuropsychological examinations are clinically indicated and medically necessary when patients display signs and symptoms of intellectual compromise, cognitive and/or neurobehavioral dysfunction that involve, but are not restricted to memory deficits, language disorders, impairment of organization and planning, difficulty with cognition, and perceptual abnormalities. Frequent etiologies include: head trauma, stroke, tumor, infectious disease, toxic exposure metabolic abnormalities, autoimmune disease, genetic defects, learning disabilities, and neurodegenerative disease. Neuropsychological services are designated as “medicine, diagnostic” by the federal Health Care and Financing Administration (HCFA), are subsumed under “Central Nervous System Assessments” in the 1996 CPT Code Book, and have corresponding ICD diagnoses.
Because children spend a great deal of time in educational settings, concerns regarding cognitive functioning are often first identified in the school. Often, identified concerns prompt a referral for a psycho-educational or school psychological assessment by a school psychologist. A school assessment is usually performed to determine whether a child qualifies for special education programs or therapies to enhance school performance. They focus on achievement and skills needed for academic success. Generally, they do not diagnose learning or behavioral disorders caused by altered brain function or development. The PNE is much wider in focus, taking into consideration the neurobiological and behavioral origins of learning difficulties and motivation, as well as academic benchmarks and performance in the educational setting.

Although the PNE does identify intellectual capacity and level of academic development, the goal of the examination is to fully understand the child's areas of cognitive and psychological strength and weakness. To do this, the pediatric neuropsychologist reviews a child’s medical, developmental, academic, and social history, and administers a battery of neuropsychological measures specifically designed to provide information regarding neurodevelopment and cognitive functioning. Because of the complexity and breadth involved, evaluations often take many hours and involve the assessment of a wide range of cognitive skills (e.g. attention, learning, memory, language, visual skills). Consistent with national guidelines for neuropsychological practice (American Academy of Clinical Neuropsychology, National Academy of Neuropsychology), pediatric neuropsychologists assess and comment upon the reliability and validity of a patient's presentation and test results using the most appropriate methods available depending on the age of the patient (using objective measures when appropriate). When completed, the PNE provides a profile of strengths and weaknesses that helps to both identify the cause of a child’s areas of difficulty as well as allows for the development of appropriate intervention/remediation strategies.

In addition to conducting PNE’s, pediatric neuropsychologists often provide treatment to children with neurobehavioral disorders. Such treatments include but are not limited to cognitive remediation, school consultation, skill instruction, and development of strategies to enhance areas of strength and compensate for areas of weakness. They work closely with rehabilitation and school teams to develop and implement appropriate treatment and academic interventions and often participate in program development.