Email: admin@aadpa.com.au
ABN: 85 616 076 049
www.aadpa.com.au

ABSTRACT

Varieties of Clinical Trajectories in ADHD and Neuropsychology.

Joseph A. Sergeant
Emeritus Professor of Clinical Neuropsychology, VU Amsterdam

Attention Deficit Hyperactivity Disorder (ADHD) is not a stable condition: fluctuations in symptomatology occur during childhood, adolescence, persist or remit in adulthood and can emerge de novo in adulthood. Current research differentiates normal development, subthreshold, syndromatic and persistent ADHD. Early longitudinal studies showed, in childhood, that subthreshold cases had both cognitive and clinically significant conditions.

This research identified hyperactivity and impulsivity as declining in severity with time, whereas inattention persisted as a key component in the clinical picture. In the last decade, using longitudinal designs, subthreshold cases have emerged as having severe psychopathology, similar to that of persistent ADHD individuals. Further, cognitive impairments have been observed in both those with remission, subthreshold and persistent ADHD. Additional studies have demonstrated that syndromatic symptom fluctuation could occur but that neuropsychological measures continued to show deficits and has been considered a trait or structural feature of the disorder.

Given the above clinical developmental picture, it is not surprising that cognitive-neuropsychological findings have not always been replicated across studies: the developmental time point in measurement may differ between studies; the emergence of new or waning of old symptoms may have occurred and not observed; symptoms may have different severity between studies; remission may have been initiated in some and progressed in others.

Cognitive neuropsychological findings are consistent across studies in so far that they identify a structural problem in the various subgroups of ADHD individuals. Neuropsychological differences between subthreshold/remitted individuals and normal developers have been reported for: inhibition, working memory, timing, motor variability, reaction time variability, motor functioning and subtests of IQ batteries. Replication of findings is moderate to good.

A recent longitudinal study of preterm infants found that the proportion of very preterm children with clinically significant ADHD did not differ from normative data but 32.7% met criteria for subthreshold ADHD inattentive type and 33.6% for combined type. Higher ADHD symptom scores were associated with greater executive dysfunction: inhibitory self-control, flexibility, and emergent metacognition. Hence, subthreshold cases have early neuropsychological effects that increase with severity and may predispose such individuals to increase psycho-social pathology.

Differences in brain functioning between persistent, subthreshold and normal developers have been reported and will be presented here.

Differences in brain functioning both validates clinical distinctions and can be independent of current clinical status. Given the significance of cognitive-neuropsychological functioning for psycho-social functioning, these findings need to be incorporated in treatment planning.

Email: admin@aadpa.com.au
ABN: 85 616 076 049
www.aadpa.com.au

ABSTRACT

Varieties of Clinical Trajectories in ADHD and Neuropsychology.

Joseph A. Sergeant
Emeritus Professor of Clinical Neuropsychology, VU Amsterdam

Professor of Clinical Neuropsychology at Vrije Universiteit Amsterdam, Professor Joseph Sergeant began his research on the attentional problems of hyperactive children in 1975 and from 1985 he was Professor and Chair of Clinical Psychology at the University of Amsterdam.

In 1999, he moved to the Vrije University, Amsterdam to set-up a new department of Clinical Neuropsychology in which he was Professor and chair. In this period, Professor Sergeant set-up with colleagues one of the largest adult ADHD neuropsychological projects, which included evaluation with neuropsychological measures the effect of treatment to adult ADHD patients. He is currently Emeritus Professor of Clinical Neuropsychology.

In 1987 he founded the European Network on Hyperkinetic Disorders (Eunethydis), which has developed as a key training network for child psychiatrists, neurologists and psychologists.

Under Professor Sergeant's chairmanship, Eunethydis was expanded to take into account the emerging issue of adult ADHD. Eunethydis has a workgroup: European ADHD Guidelines Group (EAGG) of which Professor Sergeant is chair.

Professor Sergeant has published over 250 articles in scientific journals.Professor Sergeant was in 2010 knighted by the Queen of The Netherlands and is Officer and Knight in the Order of Oranje Nassau for his contribution to the research and treatment of ADHD individuals.