Canadian Audiologist

The Official Publication of the Canadian Academy of Audiology

CAPD Guidelines

Published February 25th, 2014

Kim L. Tillery, PhD

We are often asked to explain the nature of central auditory processing disorders (CAPD). I usually respond that CAPD is not how we hear, but what we do with what we hear.[1] It wasn't until 1995 that we received the first official definition, after a three-day consensus meeting was held by the American Speech-Language Hearing Association (ASHA). This report provided an extensive definition, and proper practices in diagnosing and treating CAPD, which was upheld a decade later, in a technical report.[2] Central auditory processes (CAP) were deemed accountable for common behaviors associated with auditory localization, lateralization, discrimination and pattern recognition when nonverbal or verbal stimuli are used. There was a consensus that temporal factors (e.g., masking, integration and order) may be compromised and the individual will show weakness when competing or degrading acoustic signals are used. The deficiencies may result from dysfunction of the above central auditory processes or they may be a result of a more widespread issue associated with attention or neural timing that affects one's performance across cognition, auditory and linguistic modalities.

This definition was once again accepted in the American Academy of Audiology guidelines.[3] This report also introduced the influence of poor motivation, fatigue or attention issues as sources causing a decreased test performance toward the end of the 45–60 minute CAP test battery indicating the possibility that cognitive or attention may be culprits influencing test performance resulting in a right ear deficit on one test and a left ear deficit on another CAP test. The guidelines stress the need to use more than one test, in particular to be aware that sensitivity may be controlled when increasing the number of tests while specificity may be reduced. Possibly the use of too many tests will contribute to failures due to attention or fatigue. The overall theme is to identify strengths and weaknesses in the auditory system and to differentiate abnormal and normal test performance.

Subsequent position statements continue to develop the diagnosis and treatment of children and adults with CAPDs.[4] This is the first set of guidelines to consider the developmental auditory processing disorder over time, acquired CAPD, and secondary CAPDs (i.e., peripheral hearing loss or transient hearing problems related to otitis media or presbycusis). These guidelines outline a foundation from the British Society of Audiology Position Statement[5] and the International Classification of Functioning, Disability, and Health (ICF) in the World Health Organization.[6] The later ensures two main principals to be considered. First, a focus must engage intervention and assessment in meeting the needs of the individual and family. Secondly, the clinical, social, vocational, educational, and community needs should be considered. While all position papers show agreement on many of the whys and why not issues in proper diagnosis and intervention, the Canadian Guidelines offer more thorough information on the above models than all previous

known position statements.

Individuals with CAPD usually have normal hearing, but their responses are similar to those associated with a peripheral hearing loss. It is confusing to those who are in conversation with an individual with CAPD, as to why there may be lengthy delays prior to responding. While there is a short distance from the speaker's mouth to the temporal lobes of the listener, there are thousands of neurons working to capture the accurate message. If the central auditory nervous system is compromised, then we may see a delay or other qualitative struggles.

Often, those with CAPD are unaware of these struggles as most are preconscious, such as a frequent need for repetition of questions or directions, quiet rehearsing, omission of initial sounds or information, or the need for high concentration to accurately process the spoken message. These qualitative struggles are easily recognized during daily activities, in test taking situations, and assist the clinician as to what type of CAPD exists.

Which is proper to use: CAPD or APD? According to ASHA we should use the acronym (C)APD.[7] The inclusion of the "(C)" reminds us that there is a "central" part to our auditory nervous system and that what may appear to be peripheral could indeed be central.

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