(Central) Auditory Processing Disorders: Approaches to Assessment and Intervention

Position of San Diego Unified School District

BACKGROUND/DEFINITION:

Auditory Processing (AP) refers to the global utilization of auditory information by the Central Nervous System (CNS).

More specifically, **Central Auditory Processing (CAP)** refers to the transmission and integration of acoustic information along the central auditory pathways.

Auditory Processing Disorder (APD) can be defined as a reduced or impaired ability to discriminate, recognize and or comprehend complex speech sounds, such as those used in words and sentences, even though hearing is normal.

Central Auditory Processing Disorder (C)APD refers to the difficulties in the efficiency and effectiveness of the transmission and integration of acoustic information along the central auditory pathways, even in the presence of normal hearing acuity.

Individuals suspected of having an auditory processing disorder may present with one or more of the following characteristics:

- Difficulty understanding spoken language in noisy backgrounds or in reverberant environments
- Misunderstanding messages
- Inconsistent or inappropriate responding
- Frequent requests for repetitions, saying "what" and "huh" often
- Taking longer to respond in oral communication situations
- Difficulty paying attention
- Easily distracted
- Difficulty following complex/multi-step auditory directions or commands
- Difficulty localizing sound
- Difficulty learning songs or nursery rhymes
- Poor musical and singing skills
- Associated reading, spelling, and learning problems

When an Individualized Education Plan (IEP) team, without an Audiologist, identifies an auditory processing deficit, the diagnosis is Auditory Processing Disorder (APD). When an Audiologist additionally identifies deficits in central auditory processing, the diagnosis is (C)APD. The identifying characteristics, the intervention strategies and recommendations may be the same.

DIFFERENTIAL DIAGNOSIS:

The differential diagnosis of (C)APD is complicated in that it shares behavioral characteristics with many other disorders such as specific learning disorder in Auditory Processing (i.e. deficits in auditory memory, auditory reasoning and auditory comprehension), language impairment, ADD/ADHD, Autism Spectrum Disorder (ASD), and Traumatic Brain Injury (TBI) present with some subset of similar characteristics. Researchers have demonstrated that the CNS is complex and is responsible for higher level functions such as memory, attention, and language. "To avoid confusing

(C)APD with other disorders that can affect a person's ability to attend, understand, and remember, it is important to emphasize that (C)APD is an auditory deficit that is **not** (emphasis added) the result of other higher-order cognitive, language, or related disorders." (Bellis, Teri James, Ph.D., ASHA paper).

RATIONALE:

According to state and federal guidelines, (C)APD, is not, by itself, a federally handicapping condition (IDEA 2004 and California Education Code). A determination of (C)APD by itself does not provide access to an IEP, nor qualify a student for special education services. Therefore, identification of (C)APD in order to determine appropriate intervention strategies is highly individualized and must be part of a coordinated multidisciplinary team approach.

In many instances, the IEP team (i.e. Speech Pathologist, Psychologist, Educational Specialist, etc.) of a student suspected of an auditory processing disorder can competently identify the presence or absence of the identifying auditory processing characteristics and determine whether or not a student meets the criteria for APD. If the student's IEP team identifies APD based upon the observation of auditory processing characteristics, a (C)APD evaluation would no longer be necessary. If the IEP team is inconclusive regarding the presence or absence of an auditory processing disorder, the team may request a (C)APD evaluation. Furthermore, if the IEP team determines there is no presence of APD, and if the student has been found eligible for Special Education Services, the parents can reserve the right to request a (C)APD evaluation.

APPROPRIATE REFERRALS:

In order to perform an appropriate differential diagnostic evaluation of (C)APD, certain necessary prerequisite skills are required:

- Hearing within normal limits
- At least seven years of age
- Ability to follow multi-step verbal directions
- No significant articulation errors
- Ability to tolerate headphones for an extended period of time
- No significant behavioral and/or cognitive problems
- Cognitive ability within the normal range
- Ability to sit in a sound booth without assistance
- Fluent English speaker (due to constraints of tests available)
- Ability to respond to test stimuli and/or repeat words without prompting

A referral for an assessment to determine (C)APD would be inappropriate if a student has a diagnosis of a significant intellectual disability or ASD. The "more global" developmental disabilities of intellectual disability and ASD usually affect verbal and non-verbal communication and social interaction. These students typically display challenges extending into many aspects of the communication process. Language, if present, may lack intact communicative function, content, or structure. Communication traits of these students typically involve both deviance and delay in both receptive and expressive language. As a result, children with ASD and intellectual disability may display characteristics similar to a child with a (central) auditory processing disorder, and assessment may result in an incorrect determination of (C)APD.

In addition, a referral may be considered inappropriate if a student has been diagnosed with a higher-order cognitive communicative and/or language related disability, ADD/ADHD, TBI, and/or emotional disorder. Such higher-order deficits must be taken into account during assessment, observation, case history intake, as well as in the development of appropriate recommendations.

POLICY:

"Diagnosis of (C)APD requires demonstration of a deficit in the neural processing of auditory stimuli that is *not due* to higher order language, cognitive, or related factors" (ASHA position paper). In order to provide for the needs of students and ensure effective use of district resources:

- An IEP team (consisting of Speech/Language Pathologist, Psychologist, and Educational Specialist) may determine the presence of an auditory processing disorder (APD) and may determine accommodations and strategies to be implemented for the student's benefit in order to provide FAPE.
- The district recognizes the San Diego Unified School District's (SDUSD) audiologist as the qualified assessor to diagnose (C)APD.
- (C)APD assessments will be performed following appropriate referrals.
- Assessment battery will be determined by the audiologist based on the individual student's needs and abilities.
- SDUSD audiologists will consider the results of outside/private reports to determine if the assessment adhered to the above stated criteria. SDUSD audiologists reserve the right to refute determinations of (C)APD if the criteria used were inappropriate.
- Access to designated instructional services (DIS) will be determined by a multidisciplinary individualized educational plan (IEP) team and not solely based on results of the audiologist's (C)APD evaluation.
- As part of a multidisciplinary assessment, results and recommendations will focus on addressing educational needs, and may include accommodations, appropriate assistive technology, and/or compensatory strategies.
- SDUSD audiologists will approach assessment and recommendations based on strategies and interventions that are supported by peer-reviewed research.

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Sonia Picos, Executive Director Date
Special Education