MEMORANDUM

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<th>DATE</th>
<th>October 2, 2019</th>
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<td>TO</td>
<td>Speech-Language Pathology and Audiology and Hearing Aid Dispensers Board, Audiology Practice Committee</td>
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<td>FROM</td>
<td>Paul Sanchez, Executive Officer</td>
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<td>SUBJECT</td>
<td>Discussion and Possible Action on Updating the Board’s Website on Auditory Processing Disorder Information</td>
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BACKGROUND

At the July 18-19, 2019 Board meeting, written public comment was received from Dr. Maria Abramson regarding the Auditory Processing Disorder information on the Board’s website. Materials were provided by Dr. Abramson with current research on the subject.

This issue has been referred to the Audiology Practice Committee for further discussion, analysis, and a recommendation to the full Board with revised language for the website.

ACTION REQUESTED

Please review the enclosed materials and the proposed language for the Board’s website. Be prepared to discuss any changes or revisions to the information that will be added to the Board’s website regarding auditory processing disorder.
From: Maria  
Sent: Wednesday, May 22, 2019 10:26 PM  
To: speechandhearing@dca.ca.gov  
Subject: Review of position statement from 2003 regarding APD

Dear Speech Language Pathology and Audiology and Hearing Aid Dispensers Board:

I have read the 2003 position statement regarding (C)APD and would like to request a review of your public position statement. Attached, please find a summary of the consensus regarding CAPD which was not refuted by any audiologist in any letter to the editor. There are 113 level one references in this review article. I was fortunate to be a beta site for collecting data on assessment and treatment for binaural integration (articles attached). This assessment and treatment has been published in a level one journal, our highest level of evidence.

In our code of ethics, we are bound to practice to the most current level of knowledge in our profession. I respectfully request that the current position statement be revised to be consistent with our most current level of knowledge. This will help those with auditory processing disorders who we serve and provide accurate information to the public.

I would be happy to discuss this issue with you. Thank you for your thoughtful consideration.

Sincerely,
Maria Abramson  
Cell phone 949 433-2329

Dr. Maria Abramson  
Hear Now at Abramson Audiology  
Adjunct Professor, Chapman University  
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Notification on Auditory Processing Disorder (APD)

Evaluation of Auditory Processing Disorder (APD), also termed "Central Auditory Processing Disorder" (CAPD), is an assessment of an individual's perception of speech and non-speech sounds. It is not a standard "hearing test," but rather an assessment of how the brain recognizes and interprets what it hears. APD has been defined as a "deficit in the neural processing of auditory stimuli that is not due to higher-order language, cognitive or related factors" (ASHA, 2005). However, although there is not unanimity on the definition.

Recently (2005), the American Speech-Language-Hearing Association (ASHA) and the California Speech-Language-Hearing Association (CSHA) have produced documents reviewing the assessment, diagnosis and treatment of APD. Additionally, the California Department of Education has issued a Position Statement on CAPD (2003).

Taken together, these documents make the following points:

1. The area of APD is controversial and changing rapidly; the nature of APD is still somewhat unclear.
2. There is lack of consensus regarding the validity and reliability of some commercially marketed products to treat APD, and minimal evidence of valid and reliable studies to support therapeutic interventions for APD. As such, some treatments must be viewed as experimental and should not be included in a student's Individual Education Plan, except as suggested experimental options available at no charge. However, should the parents wish to pursue such an option privately, it should be done so with the understanding of its experimental nature.
3. The audiologist is the professional who diagnoses APD. However, speech-language pathologists and other professionals collaborate with the audiologist both in assessment and in development of intervention.
4. Evaluation of certain children is not recommended (e.g., those with mental age below 7 years, significant intellectual deficit, or severe hearing loss), and a diagnosis of APD in children with autism or Attention Deficit Hyperactivity Disorder should only be made when it is clear that APD is a comorbid deficit in the central auditory nervous system.
5. Evaluation of children for APD should be preceded by a complete audiological assessment to assure normal hearing sensitivity.

It is incumbent upon the licensed audiologist and licensed speech-language pathologist to use only diagnostic assessments and therapies that are supported by rigorous empirical evidence. While it is important to conduct research studies on new and emerging assessment tools, such studies should take place within the confines of an approved experimental protocol, and it should be clear to consumers that assessment with such tools is experimental only and provided at no cost. In keeping with B & P Code 651(b)(7), licensees are prohibited from making scientific claims that cannot be substantiated by reliable, peer-reviewed, published scientific studies.

Below is related information on Auditory Processing Disorder and/or Auditory Integration Training:

- American Academy of Audiology's Position Statement: Auditory Integration Training
- California Speech-Language-Hearing Association's Guidelines for the Diagnosis & Treatment for Auditory Processing Disorders
Central Auditory Processing Disorder (CAPD)

CAPD, a distinct and defined diagnosis (ICD-10CM Code: H93.25), refers to deficits in the processing of information in the central auditory nervous system (CANS). After sound is decoded in the cochlea, it travels via the VIIIth cranial nerve to the brainstem and ultimately to both cortices. There are a number of nuclei along the pathway that contribute to the complex neural activities of decoding, analysis, distribution, and interpretation of the incoming auditory signal. Current research has been directed at determining the likely, aberrant neural activity that may underlie deviance in auditory perception, as well as methods and strategies for remediation of these conditions.

CAPD is a condition found in both children and adults, typically with normal hearing. These individuals will demonstrate difficulty in understanding complex auditory directions, difficulty with auditory attention, inordinately poor understanding of speech in noisy or in adverse listening environments, frequent requests for repeats, especially with rapid speech, and poor localization. Children who demonstrate these difficulties often have associated problems with learning, language development, and reading, and possibly other co-morbidities. While a gold standard for screening and diagnostic tests for CAPD has yet to be developed, progress is being made in the development of test procedures that are able to demonstrate deficits in specific neurobiological activities that are believed to underlie auditory processing dysfunction. The goal of a behavioral CAPD test battery is to probe the perceptual processes that underlie the following auditory mechanisms: sound localization and lateralization; auditory discrimination; auditory pattern recognition; temporal (timing) aspects of sound; auditory performance with competing acoustic signals; and auditory performance with degraded acoustic signals.

Due to the complexity of the peripheral and central auditory system, and their interdependency, it is necessary to have a battery of deficit-specific audiology tests that are implemented based on patient complaints and behavioral observation. Behavioral CAPD test batteries, with high sensitivity and specificity, as well as electrophysiological procedures, have been evolving over several decades. The design of these test batteries is primarily to identify selected abnormalities of the CANS for which specific remediation can be provided. The tests stimuli can be verbal or non-verbal. However, it should be understood that in spite of significant progress having been made in understanding the nature of CAPD, as well as the usefulness of certain diagnostic tests and therapies, there remains no unanimous agreement regarding which and how many tests should be included in the test battery, and which auditory deficits are considered, without question, to demonstrate CAPD in a given individual. It should be further appreciated that some CAPD test batteries may include tests that are considered to be within the auditory domain, but are actually derived from extra-auditory influences. It has also been argued that the some test batteries do not control for cognitive factors and language variables. The evaluation and diagnosis of CAPD should be performed by audiologists who have undergone extensive training in this professional area. However, intervention for children, age seven and older, is a combined effort involving audiologists, speech-language pathologists, educational specialists, and others.
Based on the notion that understanding targeted CANS dysfunction and the associated auditory behavioral deficits, a number of evidence-based strategies and therapies have been developed that have led to effective remediation of a number of functional deficits manifested in individuals diagnosed with CAPD. A primary factor in implementing successful, individualized interventions involves documentation of the auditory deficits observed and the functional deficits that have been identified by a multidisciplinary team. In addition, in all successful behavioral training, the implementation of a favorable signal to noise ratio is required in all environments to ensure that speech stimuli used in therapy will be clearly audible to the client with the exception of training in noise exercises.

In summary, significant strides have been made in understanding the central auditory nervous system, as well as a number of the neurobiological underpinnings of CAPD in both children and adults. The investigation of CAPD is an evolving aspect of the profession of Audiology with a growing body of evidence, from a number of disciplines including audiology, speech-language pathology, auditory neuroscience and others, that the successful diagnosis and treatment of aspects of CAPD are achievable. In terms of diagnosis, a test battery approach, using behavioral tests with high sensitivity and specificity, and possibly electrophysiological tests as well, are favored. In addition, it should be appreciated that CAPD may occur with concomitant deficits in language-learning and cognition. Thus, it is essential that remediation of aspects of CAPD must be tailored to the particular, demonstrated behaviors, as well as the learning and language needs of a given individual.
MEMORANDUM

DATE  October 2, 2019

TO    Speech-Language Pathology and Audiology and
      Hearing Aid Dispensers Board, Audiology Practice Committee

FROM  Paul Sanchez, Executive Officer

SUBJECT Discussion and Possible Action on Clarifying the Regulation on the
      Required Number of Clock Hours for Audiologists

BACKGROUND

At the July 18-19, 2019 Board meeting, the Board discussed the current clock hour
requirement for audiologists found in California Code of Regulations section
1399.152.2(c) which is 300 clock hours of clinical experience in three different clinical
settings.

The Board also heard from Jacque Georgeson with the University of the Pacific (UOP)
regarding Business and Professions Code section 2532.25(b)(2) which requires 12
months of supervised professional full-time experience. Ms. Georgeson stated RPEs
have completed UOP’s 1850-hour externship program early and have their RPE
verification form returned by the Board because they didn’t complete 12 months of
experience.

This issue has been referred to the Audiology Practice Committee for further discussion,
analysis, and a recommendation to the full Board on how to address this issue.

PROBLEM

Business and Professions Code section 2532.2 reads as follows:

Except as required by Section 2532.25, to be eligible for licensure by the board as a
speech-language pathologist or audiologist, the applicant shall possess all of the following
qualifications:
(a) Possess at least a master’s degree in speech-language pathology or audiology from
an educational institution approved by the board or qualifications deemed equivalent by
the board.
(b) (1) Submit evidence of the satisfactory completion of supervised clinical practice with individuals representative of a wide spectrum of ages and communication disorders. The board shall establish by regulation the required number of clock hours, not to exceed 375 clock hours, of supervised clinical practice necessary for the applicant.  
(2) The clinical practice shall be under the direction of an educational institution approved by the board.
(c) Submit evidence of no less than 36 weeks of satisfactorily completed supervised professional full-time experience or 72 weeks of professional part-time experience obtained under the supervision of a licensed speech-language pathologist or audiologist or a speech-language pathologist or audiologist having qualifications deemed equivalent by the board. This experience shall be evaluated and approved by the board. The required professional experience shall follow completion of the requirements listed in subdivisions (a) and (b). Full time is defined as at least 36 weeks in a calendar year and a minimum of 30 hours per week. Part time is defined as a minimum of 72 weeks and a minimum of 15 hours per week.
(d) (1) Pass an examination or examinations approved by the board. The board shall determine the subject matter and scope of the examinations and may waive the examination upon evidence that the applicant has successfully completed an examination approved by the board. Written examinations may be supplemented by oral examinations as the board shall determine. An applicant who fails his or her examination may be reexamined at a subsequent examination upon payment of the reexamination fee required by this chapter.
(2) A speech-language pathologist or audiologist who holds a license from another state or territory of the United States or who holds equivalent qualifications as determined by the board and who has completed no less than one year of full-time continuous employment as a speech-language pathologist or audiologist within the past three years is exempt from the supervised professional experience in subdivision (c).
(e) As applied to licensure as an audiologist, this section shall apply to applicants who graduated from an approved educational institution on or before December 31, 2007.

Business and Professions Code section 2532.25(b) reads as follows:

(b) In addition to meeting the qualifications specified in subdivision (a), an applicant seeking licensure as an audiologist shall do all of the following:
(1) Submit evidence of the satisfactory completion of supervised clinical practice with individuals representative of a wide spectrum of ages and audiological disorders. The board shall establish by regulation the required number of clock hours of supervised clinical practice necessary for the applicant. The clinical practice shall be under the direction of an educational institution approved by the board.
(2) Submit evidence of no less than 12 months of satisfactorily completed supervised professional full-time experience or its part-time equivalent obtained under the supervision of a licensed audiologist or an audiologist having qualifications deemed equivalent by the board. This experience shall be completed under the direction of a board-approved audiology doctoral program. The required professional experience shall follow completion of the didactic and clinical rotation requirements of the audiology doctoral program.
(3) Pass an examination or examinations approved by the board. The board shall determine the subject matter and scope of the examination or examinations and may waive an examination upon evidence that the applicant has successfully completed an examination approved by the board. Written examinations may be supplemented by oral examinations as the board shall determine. An applicant who fails an examination may be reexamined at a subsequent examination upon payment of the reexamination fee required by this chapter.

California Code of Regulations section 1399.152.2 reads as follows:

(a) Supervised clinical experience within the meaning of Section 2532.2, subdivision (c) of the Code shall be in the area for which licensure is sought. Speech-language pathology clinical experience shall be under the supervision of a licensed speech-language pathologist or a speech-language pathologist having qualifications deemed equivalent by the Board. Audiology clinical experience shall be under the supervision of a licensed audiologist or an audiologist having qualifications deemed equivalent by the Board. “Qualifications deemed equivalent by the Board” includes a supervisor who holds the legal authorization to practice in the field for which licensure is sought in the state where the experience is being obtained, if the supervised clinical experience is obtained in a setting which is exempt from the licensure requirements of the Act or out of state.

(b) Two hundred seventy-five (275) clock hours of clinical experience shall be required for licensure as a speech-language pathologist or audiologist for applicants who completed their graduate program on or before December 31, 1992.

(c) Three hundred (300) clock hours of clinical experience in three (3) different clinical settings shall be required for licensure as a speech-language pathologist or audiologist for applicants who completed their graduate program after December 31, 1992.

(d) Twenty-five (25) hours of the required clinical experience may be in the field other than that for which the applicant is seeking licensure (speech-language pathology for an audiologist or audiology for a speech-language pathologist) if such clinical experience is under a supervisor who is qualified in the minor field as provided in subsection (a).

The regulatory language in section 1399.152.2 was developed when the entry level degree for licensure in California for an audiologist/dispensing audiologist was a master's degree. The required clock hours adopted by the Board was based on the typical number of clock hours required by the credentialing agency and the universities accredited by that agency. However, currently the entry level degree for the practice of audiology is a clinical doctorate and the required clock hours in section 1399.152.2 is no longer appropriate for the field of audiology.

**ACTION REQUESTED**

Included in your materials is information regarding the number of clinical clock hours currently required by some audiology programs in California and externship completion information for audiology programs outside of California.
The Committee may wish to recommend a minimum number of required clinical clock hours, to be adopted by regulation, based on the current requirements of the audiology programs.

The Committee may also wish to discuss whether to pursue statutory changes to address the required 12 months of supervised full-time experience.
### AuD Programs

<table>
<thead>
<tr>
<th>Institution</th>
<th>Length of Externship</th>
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<tbody>
<tr>
<td>SDSU/UCSD</td>
<td>12 month full-time</td>
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<tr>
<td>UoP</td>
<td>12 month full-time</td>
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<tr>
<td>CSULA</td>
<td>12 months full-time</td>
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<td>CSUN</td>
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<td>SJSU</td>
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<tr>
<td>CSU Sacramento</td>
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<tr>
<td>ASHA</td>
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<td>ACAE</td>
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CLINICAL CLOCK HOURS

1850  (900 hours prior)

1850 (~1000s prior)

1820 (pre-externship hours)

not stipulated

not stipulated

not stipulated

1820 (no longer stipulated)

(no longer stipulated)
ARIZONA:
State does not require licensure for externs and therefore does not have any minimum identified. The regulations do state though that applicant must meet requirements at least equal to state university requirements (they have CAA accreditation).

Arizona State University:
Previously required 1820 for program. They don’t require externship (?) and now require 850 hours (this was very unclear in the email).

ILLINOIS:
State requires licensure for audiology externs. 1500 hours are required for the degree (not specifically the externship).

Northern Illinois University:
Program requirements are 1820 for the program

OREGON:
State does not require externship licensure/registration. But this is from the licensure language:

If you completed your Audiology training prior to August 1, 2007, your transcript must document that you earned a Master’s degree from an ASHA-accredited program with at least 75 semester credits in Audiology. In addition, you will need to submit documentation of your successful completion of post-graduate supervised clinical experience (currently 1,820 hours).

Pacific University:
Requires a 12-month externship. Dr. Wendy Hanks, Director, reported they do require a 12-month because they have experienced a number of other states who also require

PENNSYLVANIA:
State does not have provisional licensure for externs.

University of Pittsburgh:
Externships are a minimum of 47 weeks, program allows 2 weeks and site-approved holidays off. Students must finish their externship prior to graduation (end of April) or lose their malpractice insurance. Students starting later (July) must register for an extra 6 weeks to cover their externship.

SOUTH DAKOTA:
State requires supervisor to sign an affidavit for supervision. It does not specify a minimum number of hours, but lists the hours/week and the dates of the externship.
University of South Dakota:
Students need to complete 1850 hours for the program. They complete approximately 600 hours prior to going on their externship.

TEXAS:
State requires externship licensure/registration.

1600 hours of service/workplace professional activities.

1600 hours is required to apply for a new audiology license, even if the externship was completed in another state.

UT Dallas:
Requires 1600 hours, same as the licensure requirement.
AMERICANS WITH DISABILITIES ACT

Postings to our website must be ADA complaint. For those Board meeting documents that were not ADA complaint, they will be available at the Board meeting.