

ACAE Update and the Intersection of Clinical Audiology and Speech Pathology in Management of Auditory Processing Disorders (APD)

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www.acaeaccred.org

ACAE Update and the Intersection of Clinical Audiology and Speech Pathology in Management of Auditory Processing Disorders (APD)

□ ACAE Update


- Mission and purpose of ACAE**
- Key advantages**
- 2016 standards**
- Survey of stakeholders**

□ Best Practices in Audiology Today

- Historical perspective**
- Definition and rationale**
- Clinical practice guidelines**
- Concept of value added tests**
- Instilling best practices in AuD student education**

ACAE Update: ***Mission of ACAE***

To serve the public by establishing, maintaining and applying standards to ensure the academic quality and continuous improvement of audiology education, reflecting the evolving practice of audiology.



ACAE Update: Purpose of ACAE

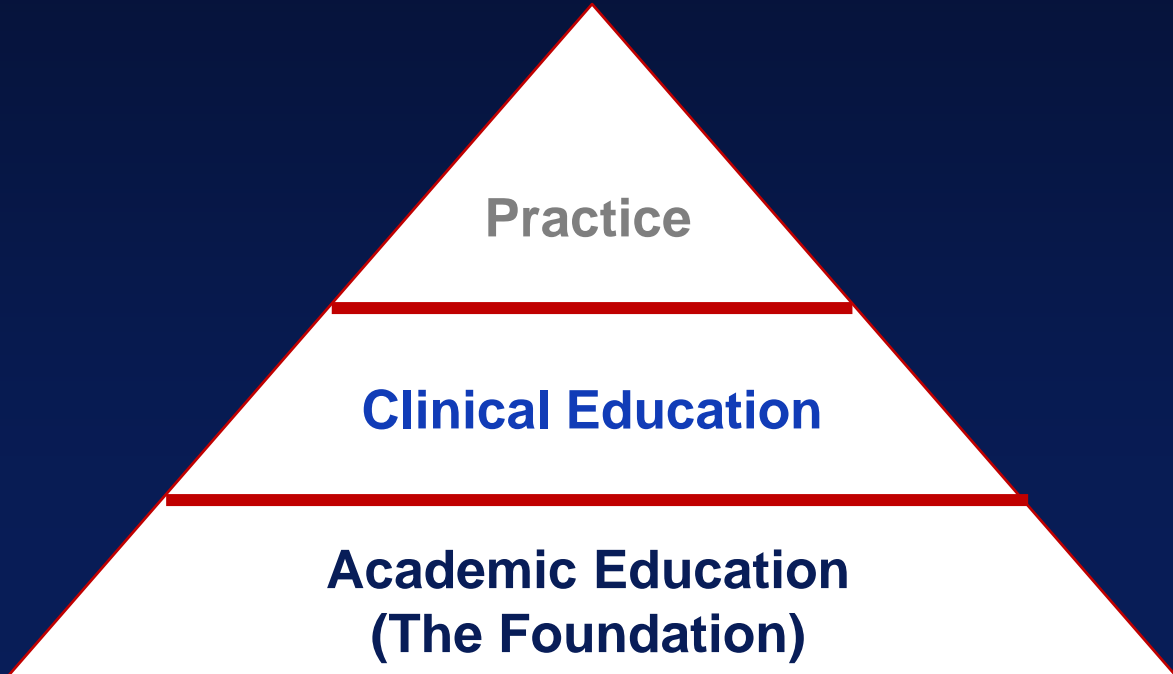
- ❑ To establish rigorous educational standards for the full scope of practice for doctoral level audiologists
- ❑ To monitor and evaluate Doctor of Audiology (AuD) programs for high quality outcomes, so consistency prevails in every curriculum
- ❑ To empower audiologists to practice their chosen profession autonomously and responsibly
- ❑ To prove educational outcomes that ensure audiologists are providing the highest level of care to the public.
- ❑ To demonstrate graduates of AuD programs are ready for limited license practitioner status in the US



ACAE Update: Key Advantages

- ❑ Expertise in accreditation domestically and globally**
- ❑ Continually abreast of trends in standards and higher education**
- ❑ Extensive experience and commitment in the profession of audiology and audiology accreditation**
- ❑ Entire team of audiologists and support staff working for program improvement and successful outcomes**
- ❑ ACAE is the only accrediting body “of, by, and for audiologists”**
- ❑ ACAE accredits only Doctor Audiology programs**

ACAE Update:
High Educational Standards:
Foundation of the Profession



ACAE Update: Summary of Current (2016) Standards

- ❑ Additional standards areas include “Health and Safety Standards, e.g.,
 - Technical standards
 - Immunizations
 - Communicable and/or infectious disease policy
 - Liability insurance
 - Equipment policies
 - Emergency action plan



ACAE Update: Summary of Current (2016) Standards

❑ Enhanced competences including but not limited to:

- Pharmacology
- Genetics
- Business/personnel management
- Self-advocacy skills for patients and families



❑ Programs demonstrate how students possess a working knowledge of all competencies as well as the ability to incorporate them into practice

❑ Recipients of AuD degrees will have sound knowledge and professional skills enabling them to function as **autonomous** direct care providers.

ACAE Update

□ ACAE Update

- Mission and Purpose of ACAE
- Key Advantages
- New 2016 Standards
- **New Developments**

□ Clinical Simulation in Audiology Education

- Acknowledgements
- Definition and rationale
- Clinical practice guidelines
- Concept of value added tests
- Instilling best practices in AuD student education

ACAE Update:

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ACAE Update: For more information ... ACAE Corner in Audiology Today



ACAE CORNER

Tomorrow's Standards Today

By Lisa Hunter, James W. Hall III, and Doris Gordon

ACAE's 2016 Standards Today

In March 2016, the ACAE Board of Directors approved the new 2016 educational standards. The approval was a result of four years of intensive work of study, refinement, modification, and development.

Beginning in 2012, the ACAE Standard Review Committee and Board of Directors engaged in a stakeholder survey, a comprehensive review of the current standards, and a wide distribution of the current standards to educators, to practicing audiologists, and to other external communities of interest. Combined input from each group led to the development of standards that are timely, up-to-date and futuristic. Over the next decade, adherence to these standards will provide a high-level of quality and consistency among ACAE-accredited programs

Tomorrow

The new educational standards were developed with the goal of ensuring that doctor of audiology students in ACAE-accredited programs acquire the knowledge and skills necessary for independent practice of audiology now and in years to come. Although none of us can predict the future, we can make three assumptions with confidence. First, most students entering AuD programs in 2016-2017 will not enter the work force until 2020. At the very least, today's AuD students must graduate with the knowledge and skills expected of audiologists five years from now. Second, audiology

and competency among its graduates. The importance of such educational rigor within the profession cannot be over-emphasized or stressed enough, as frequently noted in articles and white papers over recent years.

The new educational standards include enhanced competencies in areas such as pharmacology, genetics, business/personal management, and counseling. In addition, a new category in the educational standards entitled "Health and Safety Standards" addresses topics such as technical standards, immunizations, communicable and/or infectious disease policies, liability insurance, equipment policies, and emergency action plans.

Programs will need to demonstrate that students have a working knowledge of all competencies, as

practice is increasingly complex and clinically challenging. Techniques and technologies audiologists apply in the identification, diagnosis, and rehabilitation of hearing loss are constantly expanding and evolving. Also, knowledge of topics like genetics and pharmacology is essential. Furthermore, audiologists are responsible for the assessment and management of AuD programs and adult patients with a diverse collection of related disorders, such as auditory processing deficits, balance/vestibular disorders, tinnitus, and disorders of decreased sound tolerance.

well as an ability to incorporate them into clinical practice. Persons earning a doctor of audiology (AuD) degree from ACAE-accredited institutions will acquire the fund of knowledge and professional skills that enable them to function as autonomous directorate providers. The educational standards become effective in March 2017. Doctor of audiology programs have one year to review the new educational standards and to adjust to them. Prior to March 2017, ACAE-accredited programs may undergo re-accreditation, in accordance with the 2008 educational standards. Programs seeking ACAE accreditation between now and March 2017 can elect to submit applications in accordance with the 2005 educational standards or the new 2017 standards.

Finally, we are beginning to witness a major disruption in the delivery of hearing health care, and particularly systems for hearing aid fitting and sales. Students in AuD programs today must be adequately prepared to meet unprecedented challenges in the practice of audiology tomorrow. The overall objective of the updated educational standards is to assist ACAE-accredited programs in the preparation of audiologists that have the knowledge, skill, and competencies required to successfully compete in a new audiology world.

The Importance of Accreditation "Of, By, and For Audiology"

By James W. Hall III

The American Academy of Audiology was founded on the assumption that audiology needed an independent professional organization or, as Academy founder and first Academy president James Jerger famously stated, an organization "of, by, and for audiology."

Creating a Professional Organization
Soon after the Academy was formed in 1986, early leaders established a variety of organizational entities essential for any independent health profession. The creation of the publication *Audiology Today* fulfilled the need for a forum for regular communication among members. Later, a website (audiology.org) augmented communication and offered easy access for members and staff to important and timely audiology information, including a membership directory and clinical practice guidelines.

Like other health professions, audiologists and hearing scientists require a vehicle for the publication of peer-reviewed papers and the dissemination of original research findings. The *Journal of the American Academy of Audiology* (JAAO) was created in 1989 to meet this vital professional need. The new organization also opened an "audiology store" with a diverse inventory of items, from educational diagrams of the ear and audiograms of familiar sounds to educational brochures and Academy clothing, coffee cups, and water bottles.



Within two years after the Academy began, the Board of Directors founded the independent nonprofit American Academy of Audiology Foundation (AAAF) to "promote philanthropy in support of public awareness, research, and education in audiology and hearing and balance sciences."

The autonomous American Board of Audiology (ABA) was created in 1990, a decade after the beginning of the Academy. The ABA "creates, administers, and promotes rigorous credentialing programs that elevate professional practice and advance patient care. ABA credentials are earned by all leading audiologists, respected by their health-care

ACAE CORNER



If you tell people where to go, but not how to get there, you'll be amazed at the results.

—George S. Patton

The doctor of audiology (AuD) degree was developed to support a profession with a scope of practice that had outgrown its existing educational standards.

Multiple professional associations, including the American Academy of Audiology, the American Speech-Language-Hearing Association, and the Academy of Dispensing Audiologists (later renamed the Academy of Doctors of Audiology) worked to define the expanding knowledge and skills expected of competent audiologists. With a set of competencies as the desired outcome, accrediting bodies such as the Accreditation Council for Audiology Education (ACADE) developed educational standards for AuD programs.

Our associations have come together and invested considerable effort in defining the key characteristics of the clinical immersion experience or externship that optimally will prepare students for independent practice. The most recent was in October 2016 at the Audiology Education Summit on the



Off to a Great Start

By Scott Griffiths



clinical experience. Comparatively less attention has been devoted to the initial phases of our professional education.

ACAE seeks to promulgate best practices in audiology education through sharing the models and tools that AuD programs find effective. With particular concern for advancing the discussion of the educational experiences before the clinical immersion experience, here are examples of different clinical instruction approaches within the first year of an AuD program.

Program A is a three-year accelerated AuD program that takes advantage of online training. Incoming students complete a series of online trainings upon arrival on campus and before a one-and-a-half day "boot camp" that provides intensive practice with clinical diagnostic equipment and procedures. Students are placed in clinics one day a week where they first observe preceptors providing clinical services. Based on the mentoring clinician's judgment, but typically in the third week of the first semester, students become

involved directly in clinical activities with patients. Also during the first three weeks, students complete audiology laboratories in which they learn diagnostic procedures and protocols.

First-year students, with more advanced AuD students, also staff a walk-in clinic scheduled for a half day every other week. This provides experience in hearing aid troubleshooting, electroacoustic measures, and real-ear verification. First-year students also gain insight into clinical management decisions in monthly audiology grand rounds. A journal club provides students with guided practice in critically evaluating literature. Throughout the first year, students must demonstrate competencies verified by supervising clinicians.



Program B is a four-year program in which the first two semesters are devoted to foundational literature and providing clinical observation and laboratory experiences. This year, Program B began using standard patients to develop and assess


ACAE Update: For more information about ACAE ...

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Update on Accreditation Commission for Audiology Education (ACAE): Audiology Accreditation "Of, For, and By Audiology"

James W. Hall III, Salus University; Erica Friedland, Nova Southeastern University, Martha Mundy, University of North Carolina Chapel Hill; Andy Lau, Nemours Hospital for Children; Sam Atcherson, University of Arkansas for Medical Sciences

 <p>Abstract</p> <p>The Accreditation Commission for Audiology Education (ACAE) is the only accrediting body consisting entirely of audiologists with the sole responsibility for accrediting Doctor of Audiology (AuD) programs. Our review of the ACAE highlights the importance of audiologists "owning" accreditation of academic programs. We summarize rigorous ACAE standards that reflect knowledge and skills necessary for the independent and autonomous practice of audiology today and in years to come.</p> <p>Introduction</p> <p>The ACAE is the only accrediting body consisting entirely of audiologists with the sole responsibility for accrediting Doctor of Audiology programs. Consideration of key features of accreditation of the academic programs for other health professions offers guidance on essential principles for accreditation of Doctor of Audiology (AuD) programs. For health professions like medicine, dentistry, optometry, physical therapy, and occupational therapy, a single accreditation body is responsible for assuring academic standards for the students enrolled in education leading to the degree required for clinical practice. Merging accreditation bodies for two separate professions, such as physical therapy and occupational therapy, would be unthinkable by the professions and individual practitioners. None of these professions share an accreditation body. Generally, accreditation bodies define standards for doctoral-level academic programs. No accreditation body is responsible both for the accreditation of health professionals who practice with a master's degree and those who practice with a doctoral-level degree.</p>	<p>Mission</p> <p>To serve the public by establishing, maintaining and applying standards to ensure the academic quality and continuous improvement of audiology education, reflecting the evolving practice of audiology.</p> <p>Purpose of ACAE</p> <ul style="list-style-type: none"> • To establish rigorous educational standards for the full scope of practice for doctoral level audiologists • To monitor and evaluate Doctor of Audiology (AuD) programs for high quality outcomes, so consistency prevails in every curriculum • To empower audiologists to practice their chosen profession autonomously and responsibly • To prove educational outcomes that ensure audiologists are providing the highest level of care to the public. • To demonstrate graduates of AuD programs are ready for limited license practitioner status in the US <p>Key Advantages of ACAE</p> <ul style="list-style-type: none"> • Expertise in accreditation in the USA and internationally • Continually updating standards critical in education of audiologists • Extensive experience in and commitment to the profession of audiology and audiology accreditation • Team consists of audiologists plus support staff working for program improvement and successful outcomes • Supportive and helpful in facilitating excellence in AuD programs • ACAE is "entirely of, for, and by" audiologists 	<p>Categories of Current Standards</p> <ul style="list-style-type: none"> • Institutional and administrative Structure Standards • Mission/Goals/Objectives, Planning and Evaluation Standards • Curricular Standards • Didactic and Clinical Standards • Health and Safety Standards 	<p>Conclusion</p> <p>Accreditation of Doctor of Audiology programs must assure that "recipients of the AuD degree... have sound knowledge, diagnostic, treatment, communication and professional skills, including management and business acumen in order to function as autonomous direct care providers" (ACAE Standards, page 3).</p> <p>Leadership and Contact Information</p> <p>Board of Directors</p> <p>James W. Hall III, PhD (Chair) Marita R. Murray, AuD (Vice-Chair) Erica B. Friedland, AuD (Secretary-Treasurer) Janet LaBarr, Public Member Sam Atcherson, PhD Rupa Dasgupta, PhD Qian Chen, PhD Hu Sheng Andy Lau, AuD Peter Malmgren, PhD Catherine, PhD (ex officio) Kelly Werner, Executive Director (ex officio)</p> <p>Contact information Andrew Stafford Director of Professionals' Standards & Credentialing American Academy of Audiology 11480 Commerce Park Drive, Suite 220 Reston, VA 20191 Tel. 202-986-9500 Email: astafford@audiology.org www.aceaccred.org</p> <p>Be Sure to Attend ...</p> <div style="text-align: right;">  <small>Division of Audiology Program</small> </div> <p>Working with Audiology Accreditation in Aud Education</p> <p><small>8th and 9th October 2014, Denver, CO, USA 10th and 11th October 2014, Denver, CO, USA 12th and 13th October 2014, Denver, CO, USA</small></p> <p><small>Co-Sponsored by ACAE and AACAS</small></p>
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Summary of Current Standards

- Enhanced competencies including (but not limited to)
 - ✓ Pharmacology
 - ✓ Genetics
 - ✓ Business/personnel management
 - ✓ Patient/family self advocacy
- Additional health, safety, and patient privacy standards
- Programs demonstrate how students possess a working knowledge of all competencies as well as the ability to incorporate them into practice
- Recipients of AuD degree will have the knowledge and professional skills enabling them to function as autonomous direct care providers.

ACAE Update and the Intersection of Clinical Audiology and Speech Pathology in Management of Auditory Processing Disorders (APD)

❑ ACAE Update

❑ Intersection of Clinical Audiology and Speech Pathology in Management of Auditory Processing Disorders (APD)

- Scope of Practice and Standard of Care**
- Risk Factors for APD in Children and Adults**
- Comorbidities and Disorders Co-Existing with APD**
- Efficient and Accurate Diagnosis of APD**
- Effective Management Options for APD**

APD in Children: A Common and Serious Communication, Academic, and Psychosocial Problem



**I'm lost in this class!
What's wrong with me?
I just can't hear right.**

APD in Adults: Serious Impact on Communication, Employment, and Quality of Life



**What are they
saying?
Everyone mumbles
and talks too fast.
I'm confused!**

Assessment and Management of APD: Within Audiology Scope of Practice (American Academy of Audiology, 2004)

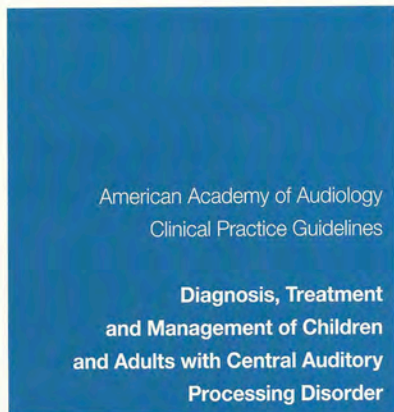
Assessment and Diagnosis

Assessment of hearing includes the administration and interpretation of behavioral, physioacoustic, and electrophysiologic measures of the peripheral and central auditory systems. Assessment of the vestibular system includes administration and interpretation of behavioral and electrophysiologic tests of equilibrium. Assessment is accomplished using standardized testing procedures and appropriately calibrated instrumentation and leads to the diagnosis of hearing and/or vestibular abnormality.

Treatment

The audiologist administers audiologic identification, assessment, diagnosis, and treatment programs to children of all ages with hearing impairment from birth and preschool through school age. The audiologist is an integral part of the team within the school system that manages students with hearing impairments and students with central auditory processing disorders. The audiologist participates in the development of Individual Family Service Plans (IFSPs) and Individualized Educational Programs (IEPs), serves as a consultant in matters pertaining to classroom acoustics, assistive listening systems, hearing aids, communication, and psycho-social effects of hearing loss, and maintains both classroom assistive systems as well as students' personal hearing aids. The audiologist administers hearing screening programs in schools, and trains and supervises non audiologists performing hearing screening in the educational setting.

AAA Clinical Guidelines on Auditory Processing Disorders: A Manual for Evidence Based Assessment and Management (www.audiology.org)



August 2010

AMERICAN ACADEMY OF AUDIOLOGY 
www.audiology.org



The Intersection of Clinical Audiology and Speech Pathology in Management of APD

- ❑ Scope of Practice and Standard of Care
- ❑ Risk Factors for APD in Children and Adults
- ❑ Comorbidities and Disorders Co-Existing with APD
- ❑ Efficient and Accurate Diagnosis of APD
- ❑ Effective Management Options for APD

Risk Factors for APD in Children: Team Work is Important in Identification and Assessment

- ❑ Neurological dysfunction and disorders (*physicians*), e.g.,
 - Neonatal risk factors (e.g., asphyxia, prematurity, CMV)
 - Head injury
 - Seizure disorders
- ❑ Chronic otitis media in preschool years (*otolaryngologists*)
- ❑ Academic underachievement (*teachers, psychologists, SLPs*)
- ❑ Family history of academic underachievement (*parents*)
- ❑ Co-existing disorders (*multiple professionals*)
- ❑ *Repeated concerns about hearing loss yet normal audiograms (audiologists ... remember liability with failure to refer patients)*

Risk Factors for Auditory Processing Disorders in Adults

- ❑ Aging of the central auditory nervous system
- ❑ Combined peripheral and central auditory disorders
 - Central auditory dysfunction with progressive peripheral hearing loss
 - Peripheral hearing loss with progressive central auditory dysfunction
 - Complaints of hearing loss (speech perception in noise) with normal audiogram
- ❑ Referral from vocational rehabilitation
- ❑ Medical disorders and diseases, e.g.,
 - Neoplasms
 - Cardiovascular disease
 - Cognitive impairment and dementia, including Alzheimer's dementia
 - Schizophrenia
- ❑ Traumatic brain injury (TBI)
 - Motor vehicle accidents
 - Gunshot wounds
 - Military blasts and explosions

The Intersection of Clinical Audiology and Speech Pathology in Management of APD

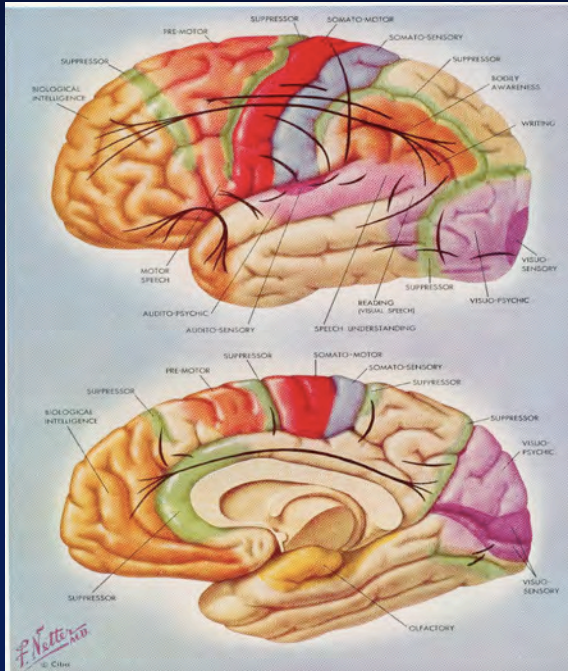
- ❑ Scope of Practice and Standard of Care
- ❑ Risk Factors for APD in Children and Adults
- ❑ **Comorbidities and Disorders Co-Existing with APD**
- ❑ Efficient and Accurate Diagnosis of APD
- ❑ Effective Management Options for APD

Differential Diagnosis of Auditory Specific Processing Disorder versus Co-Existing Disorders

“Differential Diagnosis:

Diagnosis based on comparison of symptoms (signs) of two or more similar diseases (disorders) to determine which the patient is suffering from.”

Co-Existing Disorders: Shared Neuroanatomy in One Brain



Reading (literacy)

Language

Auditory processing

Cognition, e.g.,
Memory
Attention

APD in Children: Co-Existing Disorders and Comorbid Conditions

- ❑ Peripheral (conductive and sensory) hearing loss**
- ❑ Specific language impairment (SLI)**
- ❑ Learning disabilities (LDs)**
- ❑ Reading disorders (dyslexia)**
- ❑ Attention deficit/hyperactivity disorder (ADHD)**
- ❑ Emotional and psychological disorders**
- ❑ Cognitive and developmental delay**
- ❑ Seizure disorders**
- ❑ Traumatic brain injury (TBI)**

APD in Adults: *Dementia is One of Several Comorbid Conditions*

Review Article

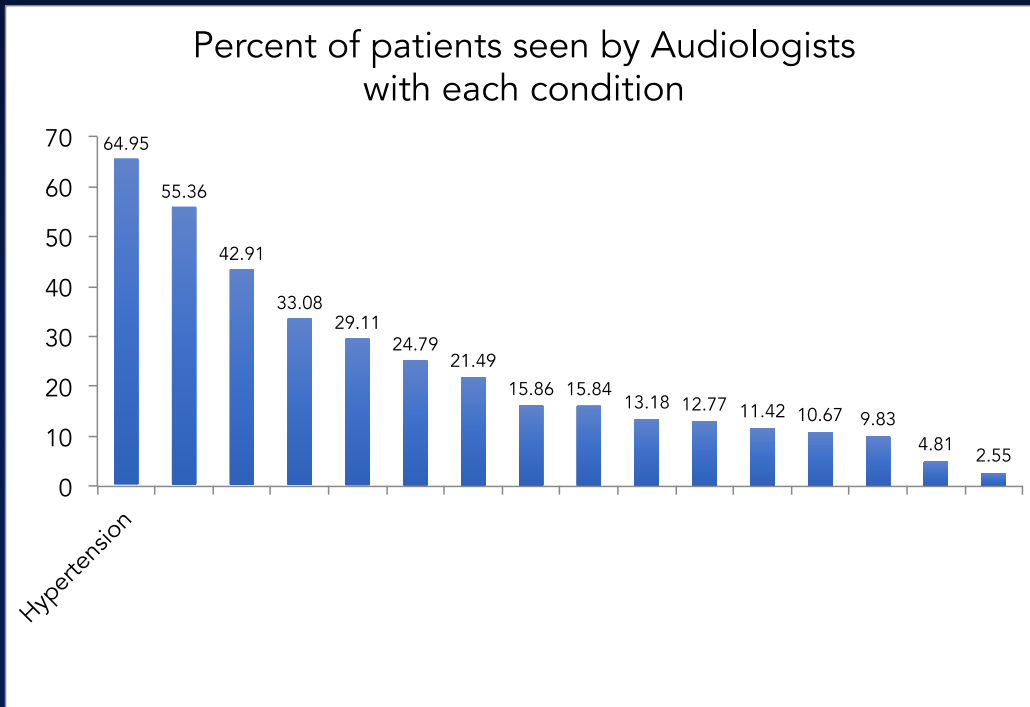
The Association Between Cognitive Performance and Speech-in-Noise Perception for Adult Listeners: A Systematic Literature Review and Meta-Analysis

Adam Dryden^{1,2}, Harriet A. Allen², Helen Henshaw^{3,4}, and Antje Heinrich¹

Abstract

Published studies assessing the association between cognitive performance and speech-in-noise (SiN) perception examine different aspects of each, test different listeners, and often report quite variable associations. By examining the published evidence base using a systematic approach, we aim to identify robust patterns across studies and highlight any remaining gaps in knowledge. We limit our assessment to adult unaided listeners with audiometric profiles ranging from normal hearing to

APD in Adults: Other Comorbid Conditions May Be Risk Factors



The Intersection of Clinical Audiology and Speech Pathology in Management of APD

- ❑ Scope of Practice and Standard of Care
- ❑ Risk Factors for APD in Children and Adults
- ❑ Comorbidities and Disorders Co-Existing with APD
- ❑ **Efficient and Accurate Diagnosis of APD**
- ❑ Effective Management Options for APD

Assessment of APD: Peripheral Test Battery (< 30 minutes)

- ❑ Distortion Product Otoacoustic emissions (DPOAEs)
 - Diagnostic protocol (500 to 8000 Hz and ≥ 5 frequencies per octave)
 - OAEs are abnormal in 35% of children undergoing APD assessment
- ❑ Aural immittance measures
 - Tympanometry
 - Acoustic reflexes: Crossed vs. uncrossed conditions = initial measure of CNS function)
- ❑ Pure tone audiometry
 - Air conduction only if hearing sensitivity and middle ear measures are normal
 - Inter-octave frequencies of 3000 and 6000 Hz
- ❑ Speech audiometry:
 - Word recognition in quiet with recorded materials
 - 10 most difficult words first and stop if score is 100%

Assessment of APD: Test Battery for Auditory Processes (~ 1 hour)

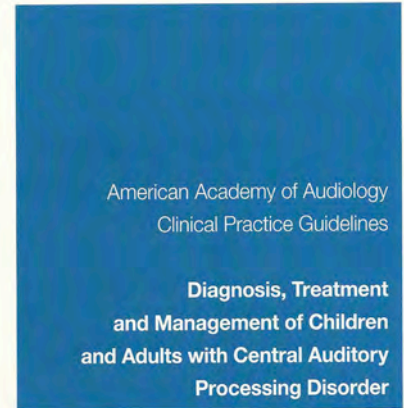
- ❑ **Monaural Low-Redundancy Speech Tests**
 - Speech perception in noise or in a competing message
 - Time compressed speech
 - Filtered speech
- ❑ **Binaural Interaction Tests**
 - Listening in Spatialized Noise (LiSN-S)
- ❑ **Auditory Discrimination Tests**
- ❑ **Auditory Temporal Processing and Patterning Tests**
 - Gap detection (e.g., Gaps in Noise or GIN, test)
 - Pitch and duration pattern tests
- ❑ **Dichotic Speech Tests**
- ❑ **ABR and Cortical Auditory Evoked Responses (as indicated)**

The Intersection of Clinical Audiology and Speech Pathology in Management of APD

- ❑ Scope of Practice and Standard of Care
- ❑ Risk Factors for APD in Children and Adults
- ❑ Comorbidities and Disorders Co-Existing with APD
- ❑ Efficient and Accurate Diagnosis of APD
- ❑ **Effective Management or Intervention Options for APD**

Auditory Processing Disorders Intervention Options (AAA Clinical Practice Guidelines, 2010)

- ❑ Counseling
- ❑ Advocacy
- ❑ FM technology
- ❑ Computer based auditory training
- ❑ Direct auditory remediation
- ❑ Phonological awareness programs
- ❑ Language-based options
- ❑ Appropriate referrals
- ❑ Documenting benefits



August 2010

Clinical Guidelines on Auditory Processing Disorders: *Terminology for Habilitation/Rehabilitation*

- ❑ **Intervention:** “...encompassing term referring to one or more actions taken in order to produce an effect and to alter the course of a disease, disorder, or pathological condition.”
- ❑ **Treatment:** “...any specific procedure used to prevent, remediate (i.e., cure), or ameliorate a disease, disorder, or pathological condition.”
- ❑ **Management:** “...refers to compensatory approaches (e.g., strategies, technologies) used to reduce the impact of deficits that are resistant to remediation.”

Clinical Guidelines on Auditory Processing Disorders: “Bottom Up” Intervention

- ❑ Bottom up “stimulus driven” approaches (audiologists)
- ❑ Auditory training, e.g.,
 - Earobics
 - LACE (Listening and Communication Enhancement)
- ❑ Direct auditory skill remediation
 - Dichotic Interaural Intensity Difference (DIID) training
 - Aural Rehabilitation for Interaural Asymmetry (ARIA)
- ❑ Enhancement of listening environment
 - Classroom acoustical modifications
 - Classroom amplification (FM) systems
 - Personal FM systems

Clinical Guidelines on Auditory Processing Disorders: “Top Down” Intervention

- ❑ Approaches are often implemented by speech pathologists and other professionals
- ❑ Language strategies
- ❑ Cognitive/metacognitive strategies
- ❑ Speaker modifications
- ❑ Instructional modifications and strategies
- ❑ Accommodations in listening settings

Auditory Processing Disorders

Appropriate Referrals (1)

- ❑ **Speech language pathologist**
 - **Language assessment**
 - **Phonological awareness assessment**
 - **Reading remediation**
 - **Top-down cognitive or meta-linguistic therapy**
- ❑ **Psychologist or neuropsychologist**
 - **Assessment of cognitive function**
 - **Assessment of ADHD**
 - **Professional counseling**
 - **Diagnosis and management of other disorders, e.g., emotional disorders and depression**

Auditory Processing Disorders

Appropriate Referrals (2)

- ❑ **Otolaryngologist**
 - **Diagnosis of ear disease**
 - **Management of middle ear dysfunction**
 - **Neuro-radiological studies**
- ❑ **Neurologist**
 - **Assessment of neurological functioning**
 - **Rule out neurological disease (e.g., seizure disorders)**
- ❑ **Occupational therapist**
 - **Evaluation of visual processing**
 - **Evaluation of motor processing**
 - **Assessment of sensory integration disorders**

Psychosocial Function in Children with APD: *Counseling is Important*

Psychosocial Status of Children with Auditory Processing Disorder

DOI: 10.3766/jaaa.23.3.8

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Carl C. Crandell (Deceased)§

Abstract

Background: Children with hearing loss often exhibit reduced psychosocial status compared to children with normal hearing. It is reasonable to assume that psychosocial function may also be affected in children diagnosed with auditory processing disorder (APD). However, there are no published studies specifically addressing the psychosocial health of children with APD.

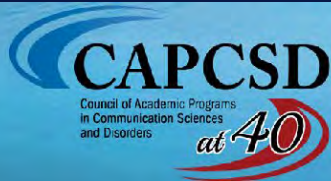
Purpose: This investigation examined relationships between APD and psychosocial status, with an aim to examine nonauditory factors that may influence quality of life of children diagnosed with APD.

Management of APD: *Counseling Patients and Parents of Patients*

- “Non-professional” counseling (*by audiologists*)
 - Informational (content) counseling*
 - Personal adjustment counseling
- Professional counseling (*by trained counselor, psychologist, or psychiatrist*)
 - Identifying unconscious behaviors
 - Managing major personality changes (e.g., clinical depression)

ACAE Update and the Intersection of Clinical Audiology and Speech Pathology in Management of Auditory Processing Disorders (APD)

THANK YOU!



**2019 ANNUAL CONFERENCE
APRIL 10-13**

**WESTIN SAN DIEGO GASLAMP QUARTER
SAN DIEGO, CALIFORNIA
CAPCSD.ORG**

**POWER OF THE PAST
FORCE OF THE FUTURE**

QUESTIONS?