Thinking Beyond the Audiogram: What Is Hearing Loss?

Gail M. Whitelaw, Ph.D.
Audiologist
Director, The Ohio State University Speech-Language-Hearing Clinic
whitelaw.1@osu.edu

Diversifying the “audiology portfolio”

• Suggestion from Richard Gans, Ph.D.
  • Vision for the role of balance
  • Changed the face of balance assessment, treatment, and education in the profession
  • Reaching out...participation in concussion clinics

Diversifying the “audiology portfolio”

• Audiology as “the highest authority” in hearing and balance
• Doctoral level profession: owning hearing and balance
• How do we make ourselves essential players in healthcare and/or to our patients?
• Where is the demand for our services? Who is telling us this?

Blog post by Kim Cavitt, AuD from Linked In (6/21/17)“Grasping the realities of the audiology landscape”

Audiologists “...need to evolve in order to meet the changing needs of consumers, create experiences that cannot be had through computers and the internet, and raise the bar on the consistency and standards of care being provided. The only losers in these changing waters will be those who hold stalwart and refuse to recognize the realities in front of them and refuse to change the way they deliver service and care. Ideas and thoughts from the pre-internet age mean nothing in this climate. They are antiquated and, as a result, dangerous.”

The times, they are a-changin’

• Healthcare is changing
• Technology is changing
• Defining managing a practice; might like the term practice leadership instead (management being task orientation and leadership more of the process orientation, bigger picture, higher level)

Diversifying the “audiology portfolio”

• What excites you, ignites you, fuels your fire of audiology?
  • What helps you grow, gets you out of your comfort zone, brings patients through your door, brings revenue through your door
The times, they are a-changin’

- Commend the Academy for a forward thinking approach to practice leadership
- “Patients” are changing
  - Access to their own information: Only a few years ago that a Seinfeld episode focused on a Elaine stealing her file from a physicians office; now we have MyChart

The times, they are a-changin’

- Generations are changing
  - Millennial and Gen Z have very different manner of interfacing with healthcare providers
  - Collaborative relationships
  - Digital natives
  - Will be a very different type of healthcare provider
  - Technology savvy
  - Collaborative relationships

Changing our outcome

- Tim Kight: The ‘R’ factor
- E+R=O
- Event+Reaction=Outcome
- “Above the line” thinking

A caveat

- Easy to be an “armchair quarterback”
- Learn from mistakes
- Take advantage of key opportunities

Expanding how you manage/lead your practice...

- Out of the mouths of babes:
  - AuD student: Why does our profession not listen to our patients and deliver what they say they want (what they tell us, what they are asking for)?
  - “Hearing in noise” is usually the topic, but there are many others, too.

Expanding how you manage/lead your practice...

- Out of the mouths of babes:
  - 5 year old patient as we were fitting his 2 year old sister with hearing aids:
    - My mom tried to tell some audiologists what my sister needed but they didn’t listen. (Pointing a finger at the AuD student): I hope you’ll be a better listener than those other audiologists.
    - Patient/parent rights: Hearing aids for treatment of “conductive” hearing loss
Expanding how you manage/lead your practice...

- Focus is not on selling more technology, bringing more of the same types of consumers through your door, if OTC is good for your practice, although these may happen with the options offered in this presentation

Expanding how you manage/lead your practice...

Options that have worked practices, including mine: who is beating a path to your door that you may not have thought of or have overlooked in the community or in demand for your practice

Who wants our services?

- Putting our best skills and knowledge forward!
  - The pet peeve of something simple: Speech in noise testing
  - The referral of the patient who had been in the Boston Marathon Bombing

Who wants our services?

- The support group for patients with traumatic brain injury and their families
  - Approached by a physiatrist (physical medicine and rehab) who said “I want you” (yes, it’s flattering, but he meant as an audiologist 😊)
  - A number of referrals in a month
  - Reaching beyond our typical relationships

Concepts of IPP and IPE

Interprofessional practice: Interdisciplinary, networks, networking, collaborative care, economies of scale
  - Research shows it results in higher quality care for patients and their families

Interprofessional education:
“When students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes” (WHO, 2010)

Marketing our profession

- Hot topic of cognition and hearing
  - Compelling data has emerged supporting the fact that hearing loss is more than an inconvenience
  - Dementia, depression, and decreased quality of life result from untreated hearing loss
Cognition and hearing

- This is the presentation that people want to hear
- Technology and retraining the brain in combination can address the issues of dementia, depression, and improve quality of life

Cognition and hearing

- Brings high quality, evidenced-based information to consumers
- Alzheimer’s Association, Cochlear Implant support group, Senior Centers (who did NOT want presentations on “how to buy a hearing aid”)

Cognition and hearing

- Significant current research
  - Baltimore Longitudinal Study on Aging (Frank Lin and colleagues)
  - Proceedings from the Ericksholm Workshop on Hearing Impairment and Cognitive Energy (Ear and Hearing, July/August 2017, Vol 37, Supplement 1)

Developing contracts

- Opportunities include VA services (C and P exams), Head Start opportunities, etc.
- Educational audiology contracting
  - Demand for services, ranging from independent evaluation for a district to regular hearing aid or FM/DM checks, assistance with ordering technology, room acoustics measures, Functional Listening Evaluations (FLEs), etc.

Educational Audiology Contracting

- Requirements may vary per state
- Demand can be high: Must meet needs of student IEPs, etc.
- Simple contract
- School districts are good payers: Bill monthly, they pay the negotiated invoice cost quickly

Quality services to children with disabilities

- Most healthcare providers for and/or families of children on the autism spectrum are seeking hearing healthcare
  - “Social impairment” and “communication difficulties” are general characteristics of children with autism spectrum disorders (ASD) (NIH, 2015)
  - In 2015, the CDC estimated one in 150 children have ASD
ASD/other Neurodevelopmental disabilities

- Parents and physicians looking for community partners
- Developmental and behavioral pediatricians: Looking for referral sources, trusted partners for their patients, audiologists knowledgeable about and capable of obtaining accurate results on children who may present a challenge to test
- Grateful parents and grateful physicians/referral source

Tinnitus/hyperacusis/misophonia

- Estimated 50 million people with tinnitus (obviously some overlap)
- Easy to incorporate into a practice
  - Grateful patients
  - Will wear a satellite dish on their head if it works

Tinnitus/hyperacusis/misophonia

- Options for treatment
  - As a profession, we need to stop saying there is nothing that can be done to help people with tinnitus
  - "Too bad about your luck"
  - Hearing aids with tinnitus options (pick the ones that work the best for your patients): Sell themselves

Tinnitus/hyperacusis/misophonia

- Options for treatment
  - Tinnitus specific devices: Neuromonics, Desyncra
  - Partnership and referral sources: Psychologist (CBT therapist), Psychiatrist, Sleep specialist, ENT, Alternative Medicine specialists, etc.

Tinnitus/hyperacusis/misophonia

- Pediatric patients
  - If you don’t ask, you don’t know
  - Think a significant number of children have tinnitus (associated with hearing loss) but has been poorly studied over the years
    - Academic impact, attention impact

Tinnitus/hyperacusis/misophonia

- The more challenging parts of this:
  - Hyperacusis/Sound tolerance issues
  - Misophonia
  - Who owns the auditory system, are these auditory disorders, what’s our role?
Tinnitus/hyperacusis/misophonia
- If not us, who?
  - Patients/families feel like they have been made to feel weird, they have been “discounted”, have not been heard, etc.
  - Very anxious for recommendations and they appear to follow through
  - Many referrals...a field of dreams

Auditory processing disorders
- Another field of dreams
- Perpetuating a myth of controversy; much as been settled and there is demand for services in both children and adults

Auditory processing disorders
- Adults may be an “easier” group to see with more novice skills in this area; back to our history related to site-of-lesion
- Neuroaudiology is a request for this
  - Referrals from Neurologists, rehabilitation psychologists, optometrists/neo-optometrists, speech-language pathologists

Auditory processing disorders
- Frustrated patient group; grateful for information, assessment, diagnosis, and treatment recommendations
- Another group that is told “nothing that we can do for you”

Auditory processing disorders
- Treatment options, growing options:
  - Hearing aids
  - FM/DM technology
  - AR services

Auditory processing disorders
- Children
  - May be more challenging; equally in demand, equally rewarding
  - Reports—ugh! But time based codes!
  - Referral sources and consultation for schools
    - May provide a source of revenue for evaluations, technology, consultation, etc.
Auditory processing disorders

- Children
  - Gratitude from families: Grandparents buy hearing aids at our clinic
  - Meeting a critical community need
  - If audiology doesn’t own the auditory system, who will (the OT ear-bowel connection story?)

Concussion/head injury

- Critical area that has received considerable attention/evidence to support the impact of even mild concussions/head injury
- Part of the impact is on the auditory and/or vestibular system

Concussion/head injury

- Referrals from sports medicine, physiatry, neurology, concussion centers, etc.
- Patients seeking treatment for hearing loss, tinnitus, auditory processing, and vestibular
  - American Institute of Balance offering certification in evidence based practice in concussion

Concussion/head injury—why the need? A growing population

- According to the CDC, in 2013:
  - TBI was a diagnosis in more than 282,000 hospitalizations and 2.5 million emergency department visits.
  - Over the span of six years (2007–2013), rates of TBI-related emergency department visits increased by 47%

Concussion/head injury—why the need? A growing population

- In 2012, an estimated 329,290 children (age 19 or younger) were treated in U.S. EDs for sports and recreation-related injuries that included a diagnosis of concussion or TBI
- From 2001 to 2012, the rate of ED visits for sports and recreation-related injuries with a diagnosis of concussion or TBI, alone or in combination with other injuries, more than doubled among children (age 19 or younger).

Balance/vestibular services for so many reasons

- TBI
- BPPV (significant saving in healthcare costs when audiologists manage rather than Emergency Department or primary care)
- Children
Gail Whitelaw, PhD
Thinking Beyond the Audiogram: What Is Hearing Loss?

Musicians
- Developing specialty outreach
  - Evaluate hearing prior to the “season”: High school/college marching bands
  - Presentations at music educators conferences

Musicians
- Hearing conservation
  - Custom protection
  - Band education and hearing protection
    - https://www.etymotic.com/hearforalifetime/adopt-a-band

Musicians
- Professional musicians
  - Orchestras and bands
  - Hearing is crucial for their jobs
  - Fear of developing tinnitus

Aural habilitation/rehabilitation
- The product and the process go hand in hand
  - Cochlear implant users, hearing aid users from other practices, people looking to improve their listening skills (the generation of Lumosity)

Aural habilitation/rehabilitation
- Children/adults with APD
- Contract/consult/establish a role
  - Examples of programs
    - CAPDOTS
    - LISN and LEARN
    - LACE
    - Read My QUIPS

Redefine “hearing”
- World Health Organization challenges us to see hearing as “functional” communication
- We are learning more about issues like “hidden hearing loss”, auditory neuropathy, APD in those populations that provide evidence (e.g. Walter Reed, National Center for Rehabilitative Auditory Research, The Ohio State University)
- The role of audiology (what is outdated...word lists with the word “laud”; the WIPI, degrees of hearing loss—the list goes on!)
Redefine “hearing”
- The audiogram only tells part of the story
- “Audiograms don’t talk, patients talk” (“The audiogram says you have normal hearing”)

Fitting hearing aids on individuals with a “normal audiogram”
- What defines normal hearing?
- Look at Erber’s hierarchy
- What about functional communication
- Ethical considerations
- Protocol
- Medical clearance: a whole new educational paradigm for our medical partners

Fitting hearing aids on individuals with a “normal audiogram”
- We make assumptions about what the patient may want/need/value
- Summer Intensive Aural Rehabilitation Conference (SIARC 2017): Renee and her “hearing loss”
  - “I assumed I needed hearing technology but no one ever offered it to me before”

Fitting hearing aids on individuals with a “normal audiogram”
- Tinnitus
- APD
- TBI/concussion
  - Patients are “raving fans” for the most part
  - Risks and rewards
  - The OTC alternatives

Cavitt blog 6/21/17
“I would like to see audiologists embrace the change and raise their game to compete, succeed and grow. Those who practice audiology, to its fullest extent and to its highest level of scope, can thrive in this environment.”
Options/options/options

• Be creative
• Be courageous
• Be curious
• Be compassionate

Options/options/options

• Be essential
  • Be part of as many different teams, organizations, people’s lives as possible
  • For some of these options, it truly is a field of dreams—if you build it, they WILL come

Options/options/options

• Be committed to changing our profession for the better
• How we move ahead is by listening to what people want us to be and need us to be and create this as part of our future
• It will require we think “outside the booth” but it’s worth it