If you are viewing this course as a recorded course after the live webinar, you can use the scroll bar at the bottom of the player window to pause and navigate the course.

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Technical issues with the Recording?

- Clear browser cache using these instructions
- Switch to another browser
- Use a hardwired Internet connection
- Restart your computer/device

Still having issues?

- Call 800-753-2160 (M-F, 8 AM-8 PM ET)
- Email customerservice@AudiologyOnline.com
Preview of the University of Pittsburgh Teaching Vestibular Assessment and Rehabilitation across the Lifespan Conference

Catherine Palmer, PhD
Patricia Gaffney, AuD
David Jedlicka, AuD
Elaine Mormer, PhD

Devin McCaslin, PhD
Sam Bittel, AuD
Virginia Milne, AuD

2019 University of Pittsburgh Teaching Conference

Teaching Vestibular Assessment and Rehabilitation across the Lifespan

- Join us in Pittsburgh
  June 13-15, 2019!

- Email Lori Zitelli
  (zitellild@upmc.edu)
  if you have any questions
Learning Objectives:
As a result of this course, participants will be able to…

1. Describe the current accreditation standards related to classroom and clinical instruction in the area of vestibular assessment and rehabilitation.
2. Describe 2 common barriers to providing instruction in the area of vestibular assessment and rehabilitation that prevent graduating students from being ready to practice in this area.
3. Describe three innovative teaching techniques to overcome barriers to providing education specific to vestibular topics that allow students to graduate ready to practice in this area.

Conference Presenters

Richard Gans, Ph.D.
(Keynote speaker)

Devin McCaslin, Ph.D.
(Moderator)

Patricia Gaffney, Au.D.

Sam Bittel, Au.D.

Chris Zalewski, Ph.D.

Virginia Milne, Au.D.

David Jedlicka, Au.D.

Cara Micheaux, Au.D.

Joshua Huppert, AuD

Elaine Mormer, Ph.D.

Patrick Sparto, Ph.D.

Jillyn Roxberg, M.A.

Erin Lundblom, Ph.D

Barbara Vento, PhD
Vestibular Assessment & Management

ACAE Competencies

CAA Standard 3.0A

What are these vestibular courses called?
VESTIBULAR LABS

- Programs with lab
- Programs without lab or ?

Importance of AuD Education/Training in Vestibular Assessment and Rehab across the Lifespan

Devin McCaslin, PhD
The Background

- It has been reported that up to 69 million Americans have experienced symptoms of a vestibular disorder.
- Approximately 8 million Americans experience chronic imbalance
- Approximately 2.4 million Americans experience chronic dizziness
- Children have vestibular disorders which is often associated with hearing loss.
The Problem

- There are simply too many dizzy patients and not enough specialists to diagnose and treat them correctly.
- Audiologists have an opportunity to be one of the front-line providers for dizziness. However, this will require a fundamental and innovative shift in how we train our students.
- Our profession must continue to develop a structured and comprehensive approach to educating our students in this area.

The Solution

- This course will provide an opportunity to share experiences and have an open dialogue with experts in the area of academia, tertiary and quaternary care medical centers, and private practice.
- Additionally, this seminar will provide a roadmap to improving our students education in the area of balance and prepare them to assume an active role in the care and management of this population.
Fall Prevention Clinic: An Opportunity to Integrate Vestibular Clinical Education into an Interprofessional Model

Patricia Gaffney, AuD

Associate Professor
Nova Southeastern University
pgaffney@nova.edu
### Importance of Interprofessional Teaching/Learning

**Table 1. Definition of Terms**

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uni/Disciplinary</td>
<td>One provider working independently to care for a patient. There is little awareness or acknowledgment of practice outside one’s own discipline. Practitioners may consult with other providers but retain independence</td>
</tr>
<tr>
<td>Multidisciplinary</td>
<td>Different aspects of a patient's care are handled independently by appropriate experts from different professions. The patient's problems are subdivided and treated separately, with each provider responsible for his/her own area</td>
</tr>
<tr>
<td>Interdisciplinary/interprofessional</td>
<td>The provision of health care by providers from different professions in a coordinated manner that addresses the needs of patients. Providers share mutual goals, resources, and responsibility for patient care. The term <em>interprofessional</em> is used to describe clinical practice, whereas the term <em>interdisciplinary</em> is often used to describe the educational process. Either term may be used when referring to health professions education and practice</td>
</tr>
<tr>
<td>Interdisciplinary/interprofessional education</td>
<td>An educational approach in which two or more disciplines collaborate in the teaching-learning process with the goal of fostering interdisciplinary/interprofessional interactions that enhance the practice of each discipline</td>
</tr>
<tr>
<td>Transdisciplinary</td>
<td>Requires each team member to become familiar enough with the concepts and approaches of his/her colleagues to “blur the lines” and enable the team to focus on the problem with collaborative analysis and decision-making</td>
</tr>
</tbody>
</table>

Importance of Interprofessional Teaching/Learning

- WHO report on Interprofessional Education
- Audiologists receive little interprofessional education in comparison to other healthcare fields.

Interprofessional Education/Practice

- Program accreditation
  - CAA
    - Conduct audiologic (re)habilitation and engage in interprofessional practice to maximize outcomes for individuals served
    - Engage in interprofessional practice to facilitate optimal assessment of the individual being served
  - ACAE
    - Respect the unique cultures, values, roles/responsibilities, and expertise of other health professions, including the value of interprofessional education and collaboration for patient care
- University initiatives
### NSU Interprofessional Fall Prevention Clinic

- Started in 2004 as a grant
  - Eventually grant money ran out, but everyone felt it was a good service so it continued.
- Free clinic to anyone with history of fall or fear of falling
- Patient population: primarily older adult
- 2 patients every other Thursday afternoon for ~2-3 hrs
- Bedside evaluations/screenings
- All providers and students watch the patient evaluation

### Screenings

<table>
<thead>
<tr>
<th>Department</th>
<th>Screenings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audiology</td>
<td>Romberg on foam, Hallpike, Oculomotor, SVV, sometimes vHIT</td>
</tr>
<tr>
<td>Medicine/PA</td>
<td>Heart rate, blood pressure, proprioception (joint-toes), monofilament</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>Questionnaires of ADLs</td>
</tr>
<tr>
<td>Optometry</td>
<td>Vision, cover test, confrontation, Amsler grid, color testing, pupil function and contrast sensitivity</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>Drug interaction and drug effectiveness</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>Balance screening (Tinetti, Berg, DGI, etc.), muscle strength, and reach</td>
</tr>
<tr>
<td>Psychology</td>
<td>Cognitive and emotional screenings</td>
</tr>
</tbody>
</table>
There are several methods of involving the students in the process:

- Students work within audiology but collaborate with the other providers
- Students work with the other professions
- Students assume the role of the other professional
References


The Role of Functional Assessments in Clinical Instruction

David Jedlicka, AuD
The Role of Functional Balance Assessments in Clinical Instruction

David P. Jedlicka, Au.D.

What Do Students Know?

- Survey of 1st, 2nd, and 3rd year Au.D. students
- Students completed the survey before enrolling in their required vestibular course.
  - 14% have not heard of any specific vestibular tests (VEMP, Rotational Chair, VHIT, Dix Hallpike, VNG, etc.)
  - 40% reported no clinical experience or observation of these tests
  - 77% were unfamiliar with functional balance assessments (Romberg, Berg Balance Scale, Timed Up & Go, Tinetti Assessment Tool, Morse Fall Scale, etc.)
1st Years vs 2nd & 3rd Years

Which of the following vestibular tests are you familiar with? (familiar being defined as knowing of the test, but not necessarily what it measures or how to administer).

- Dix-Hallpike / Positional testing: 75.0%
- VHIT: 4.4%
- Posturography: 8.3%
- Caloric: 8.3%
- Oculomotor Testing: 8.3%
- Rotational Chair: 8.3%
- VEMP: 8.3%
- None of the Above: 0%

1st Years vs 2nd & 3rd Years

Which of the following fall risk assessments are you familiar with? (familiar being knowing of the test, but not necessarily what it measures or how to administer)

- Timed Up and Go Test: 6.0%
- Romberg Test: 6.0%
- Tinetti Assessment Tool: 6.0%
- 30-Second Chair Stand Test: 6.0%
- Morse Fall Scale: 6.0%
- Hendrich Fall Risk Assessment: 8.3%
- Briggs Fall Risk Assessment: 8.3%
- Conley Scale: 8.3%
- Schmid Fall Risk Assessment: 8.3%
- None of the Above: 0%
Survey Part 2: Education

- Part 2 of the survey introduced the students to 3 functional balance assessments.
  - The Timed Up and Go Test, the Berg Balance Scale and the Romberg Test
- Students first were required to read the test instructions.
- Immediately following this, students were asked to rate their confidence level in administering the tests based solely on reading the instructions.
- 1-10 point Likert Scale was used for scoring.

Student’s Self-Confidence

Average Functional Balance Assessment Administration Confidence Scale (reading directions only)

- Timed Up & Go
- Berg Balance Scale
- Romberg

Second & Third Year

First Year
More to Explore

- 3 months following the initial survey, the 1st year students completed the self-confidence measures after receiving written instructions and in-clinic physical demonstrations of each test.
- 2nd and 3rd year students recompleted the survey following the completion of their required vestibular course.
- Some 2nd and 3rd year students completed the survey again after receiving written instructions and in-clinic physical demonstrations of each test.

The Results?

- Join us at the University of Pittsburgh Teaching Vestibular Assessment and Rehabilitation Across the Lifespan Conference to find out!
Vestibular Distance Education

Samuel Bittel, AuD
Challenges

- Differing student clinical/educational backgrounds
- Demonstrating techniques and protocols
- Student assessment
- Keeping students engaged
- Technology

Solutions

- Differing student clinical/educational backgrounds
  - Particularly important with non-traditional students
  - Do not assume material has been previously covered
  - Lay groundwork with the basics
    - A&P = what is clinically applicable (push/pull, premise of reflex pathways, etc)
    - Pathologies = pathophysiology, clinical presentation
    - Detailed description of test protocol, technique, interpretation, goals, etc
  - Can be challenging with diverse group
Solutions

- Demonstrating techniques and protocols
  - Students need to “see” nystagmus types
  - Vestibular testing and treatment requires specific technique
  - Nystagmus, canalith repositioning, and VRT shown through videos
  - EP montages shown through pictures and diagrams
  - Helpful if students can gain hands-on experience at their home location

Solutions

- Student Assessment
  - Hard to ensure tests and quizzes remain closed-book
    - Strict test time limits
    - No going in/out of online quiz
  - Essay-type questions can help ensure understanding
    - “Give potential diagnoses and your rationale behind…”
    - “Compare and contrast cVEMP and oVEMP”
    - “Describe what we mean by push-pull system.”
  - Consider questions that require material synthesis
Solutions

- Keeping students engaged
  - Can be challenging with online course
    - Typically talking to a computer screen
    - Cannot read student expressions
    - Not a captive audience
  - Ask for feedback between sections or after challenging material
  - Consider interactive case studies and require participation

Solutions

- Technology
  - Ensure stable internet connection
  - Have a good webcam and microphone (external)
  - Make sure your slides, media, etc, look similar to your expectations
  - Certain online class interface programs make it challenging to stream videos in real time (Blackboard)
  - Practice and make sure you understand interface prior to initial lecture
  - Be prepared for technological issues
Additional Thoughts

- I lecture very similar information to my online and in-person students
- Although the information is similar, the approach is different
- Be prepared and confident

Conference Topics

- Specific topic areas covered in online vestibular course - what to focus time on
- Logical online course organization
- Online course videos, pictures, and diagrams
- Required reading materials
- Assignments, test questions, etc.
- Tips
Bridging Classroom to Clinic

Virginia Milne, AuD

Vestibular Lab Experience: Bridging Classroom to Clinic

Virginia Milne, AuD
Clinical Lab Instructor, University of Pittsburgh
Clinical Audiologist, UPMC
Challenges in clinical education

- Practical skills not emphasized in classroom learning (Hickey, 1996)
- Classroom teachers emphasize ideal practices, while clinicians emphasize realistic practices (Melia, 1987)
- Classroom teachers are not always practicing clinicians, leading to lack of trust between the 2 groups (Gerrish, 1992)
- Lack of communication between teaching institution & clinics (Corlett, 2000)
- Clinicians do not always use best practices (Wiley, Stoppenbach, Feldhake, Moss, & Thordardottir, 1995)

Theory to Practice Gap

- “...discrepancy between what students are taught in the classroom and what they experience in clinical placements” (Corlett, 2000).
- Students perceive this gap as a barrier to learning, while professors and practitioners remain relatively unaware of this perception (Corlett, 2000)
Possible Solutions

- Hands on Practice during class-time
- Communication with Clinical Instructors
- Lab classes in lieu of lecture
- Integrated lab class in addition to lecture
- Collecting feedback from students, clinicians and faculty

Things we have found helpful

- Clinical Instructors serving as Lab instructors
- Using equipment in Lab that students will use in clinic
- Practicing basic skills like
  - Turning on rotary chair
  - Operating remote for posturography
  - Knowing which program opens vng software
  - How to put a new patient in each system

Bridging the gap so students know the basics on their first day of clinic in a vestibular placement (at least)
Teaching Tools

Elaine Mormer, PhD

Teaching Toolbox

Elaine Mormer, PhD
Associate Professor
Vice Chair for Clinical Education
University of Pittsburgh
Communication Science and Disorders
Teaching Toolbox

- Included each year at the Pitt Teaching Conference
- Highlights new evidence-based approaches to classroom and clinical teaching
- Describes/Demonstrates new teaching technologies and/or products
- Provides explanation and practical info to implement right away
- Examples: How to quickly save YouTube videos to a local drive or how to quickly create text-to-speech animated video scenarios

The Assertion Evidence model of slide design uses a sentence headline stating the main message or ASSERTION in the learner message.
Clicker Training

- Clicker training is a very effective method of dog training

What’s in your teaching toolbox?

- We’ll use technology to collect suggestions from attendees’ teaching toolbox, then we’ll share with the group

- I hope you can attend so we can reveal all of the contents of our teaching tool box…

  (hint…use the letters “ss” to quickly capture the you tube video you want to show in class!)
Industry Partners
Demonstrations
Educational Support

Poster Submissions

- Posters related to teaching vestibular assessment & rehabilitation should be submitted to https://goo.gl/CLeNcQ by May 31, 2019.

- Questions about posters can be submitted to David Jedlicka at David.Jedlicka@va.gov.
Jenifer Fruit Registration Scholarship for Clinical Instructors

- Follow this link for more information & application: https://goo.gl/hTjSKx
- Application due by May 1, 2019

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Teaching Vestibular Assessment and Rehabilitation across the Lifespan

http://kinetic.fis.pitt.edu/conferenceregistration/TVAR2019

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June 13-15, 2019!