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Audiology Student Supervision & Precepting

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Disclosures

- Member, Board of Directors, Accreditation Commission for Audiology Education
- Senior Staff Audiologist, & Audiology Research Coordinator, Henry Ford Hospital
- Audiology Clinical Education Coordinator, Wayne State University
- Associate Consulting Editor, Plural Publishing, Inc.
Disclaimers

- There is an underdeveloped evidence-base for clinical education

- There is no one right way to do clinical education

The Evolution of Clinical Education

<table>
<thead>
<tr>
<th>Then</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø Degree was non-descriptive (M.A., M.S., etc.)</td>
<td>Ø Degree designates audiology (Au.D.)</td>
</tr>
<tr>
<td>Ø Clinical education was incomplete upon Graduation; needed clinical fellowship</td>
<td>Ø Clinical education completed during university program</td>
</tr>
<tr>
<td>Ø Certification</td>
<td>Ø Licensure</td>
</tr>
<tr>
<td>Ø Only credential to indicate completion of clinical training</td>
<td>Ø Certification not needed for entry-level practice</td>
</tr>
</tbody>
</table>
Stakeholders in the Process

- Students
- Patients
- Third-party payers
- University faculty
- Clinical educators

Students

- Adult learners
  - Life experience
  - Need to be actively involved in structuring their learning
  - Demand relevancy
- Personal situations
- Generational differences
Patients

- Students provide credibility to you as a clinician
- Typically enjoy being a participant in the education of the student
- The introduction is important
- Patients who have special needs that the student is not prepared for require your expertise

Third-party Payers

- Understand rules and regulations about student participation in patient care
University Faculty

- Accreditation is a major concern
- Academic faculty
  - Research
  - Didactic teaching
  - University service
  - Often lack clinical experience
- Clinical faculty
  - Concrete methods & concepts
  - University clinic exists for student teaching
  - Manage larger numbers of students
  - Responsible for clinical education outcomes but often don’t have internal resources to provide the instruction

Clinical Educators

- Who are we?
- What do we do?
Qualifications of Clinical Educators

- Credentials
  - Licensure
  - Certification
  - Specialty Certification
- Licensure Laws
- University Program Policies

Framework for Clinical Education

- Outcomes
- Assessment
- Methods
The Process

- Define the Outcome
- Plan the Assessment
- Plan the Method
- Implement the Method
- Do the Assessment
- Provide Feedback
- Review/Refine Outcomes

Outcomes for Clinical Education

- Produce competent students who are capable of independent clinical practice
- Important questions:
  - What do they know now?
  - What do they still need to know and be able to do?
Defining Outcomes

- Novice Learners
  - Don’t know what they need to know
  - Don’t know how to find the information that they need
- Expert Learners
  - Know what they need to know
  - May require support to access necessary resources

Degrees of Competence

- Miller’s Pyramid
  - Knows How
  - Shows How
  - Does
Assessment

- Measuring Outcomes
- How do you know what they know or can do?

Types of Assessment

- Formative
  - Evaluation of skills & knowledge for diagnosis
- Summative
  - Evaluation of skills and knowledge for measurement

Formative Assessment

- Assessments that teach
- Design assessments based on what is important to be learned
- Design teaching opportunities to help students be successful on the assessment
- “Teaching to the test” is only bad if the test is dumb
Darwin & Student Behavior

- Student behavior is adaptive
  - We have taught students to behave the way that they do
- Students are hyper-focused on outcomes
  - What do they get credit for?
  - They need to get credit for the things that we consider most important for them to know

Feedback & grading

- Need opportunities for feedback not associated with a grade
  - Feedback associated with a grade provides a disincentive for students to accept and incorporate your feedback.
  - Their adaptive behavior will be to try to convince you that you are wrong about your assessment of their behavior
Methods of Assessment

- Informal
  - “I’m going to give you feedback now”
- Formal
  - Evaluations
  - Questionnaires

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Exemplary performance, exceeds expectations, consistent with highest levels of achievement.</td>
</tr>
<tr>
<td>3</td>
<td>Competent performance, meets expectations, consistent with grade level expectations.</td>
</tr>
<tr>
<td>2</td>
<td>Developing performance, does not consistently meet expectations, requires additional support.</td>
</tr>
<tr>
<td>1</td>
<td>Needs significant support, does not consistently meet expectations, does not meet grade level expectations.</td>
</tr>
<tr>
<td>NA</td>
<td>Not applicable or not available.</td>
</tr>
</tbody>
</table>
Training & “Calibration”

Example: HF Diagnostic Evaluation

[Graph showing diagnosis rating over time for 4th-year student for individual ID 1 to ID 12 with data points and lines representing different sources: Internal and WSU.]

Example: HF Diagnostic Evaluation

[Graph showing diagnosis rating over time since the first evaluation for growth curves by sources: Internal and WSU.]

8/4/2014
Assessment Perspectives

- Explaining your role as the “coach” or “trainer” - repeatedly
- Remove “should” from your vocabulary; live in the here and now
- You cannot do enough to set expectations
- Don’t assume that saying something once means that it was effectively comprehended, synthesized, and remembered, for application in a variety of novel future situations
- Students do not always recall why they are doing things a certain way, even if they were taught why

Providing Feedback: Challenges

- Discomfort with “negative” comments
- “Subjective” nature of assessment
- Feedback related to personal or professional issues
Providing Feedback: Solutions

- Use structured tools & do it regularly
  - Takes the pressure off
- Self-reflection
  - “How do you think that went?”
- Perception is everything
  - “This is how you are being perceived”
- Scripts
  - “We are going to talk about…”
  - “I don’t expect that we will need to discuss this again”
  - “We will re-visit this again in two weeks to look at your progress”
  - “I can see that you feel … about this”

Pedagogy: Teaching to the Test

- Design the instruction strategy to match the outcomes & associated assessment
Clinical Education Techniques

- Labs
- Simulations
- Observation
- Patient Care
  - Component
  - Decision-making
- Case Review

Levels of Knowledge

- Pre-reflective
  - Knowledge comes from authority
  - Absolute answer exists
- Quasi-reflective
  - Ill-structured problems exist
  - Not sure how to deal with ambiguity
- Reflective
  - Knowledge is constructed and can change
  - Use criteria to determine the best evidence
Clinical Realities

- There is more than one way to do things
- There is often no one right way
- There is room for multiple understandings
- The answer is often “it depends”

Teaching How to Think

- Metacognition
  - Thinking about thinking
  - Thought processes of the clinical instructor need to become transparent to the student
- Diagnostic & Treatment Planning Process
- Case Studies/Review
Diagnostic & Treatment Planning Process

Diagnostic Process for Audiologic Evaluation

What is the problem?

Data (objective(s)

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
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<tbody>
<tr>
<td>1.</td>
<td>Hearing</td>
</tr>
<tr>
<td>2.</td>
<td>Communication difficulty</td>
</tr>
<tr>
<td>3.</td>
<td>Tinnitus</td>
</tr>
<tr>
<td>4.</td>
<td>Ear pain</td>
</tr>
<tr>
<td>5.</td>
<td>Dizziness</td>
</tr>
</tbody>
</table>

History

- Age
- Gender
- Medical problems
- Family history
- Otologic

Pediatric
- Adenoid/basilar
- Myringotomy
- Tympanometry
- Tympanometry

Symptoms (subjective)

- Ear pain
- Headache
- Tinnitus
- Dizziness

Conclusions

1. Otology
2. Hearing assessment (S threshold)
3. Extraneous function
4. Communication function
5. Tympanic function

Recommendations

1. Initial data
2. Audiological assessment
3. Hearing aid
4. Otologic

- Medical evaluation
- Referral
- Other

Plan & Implementation

1. Evaluate
2. Treatment
3. Consultation
4. Referral
5. Audiologic referral
6. Screening

- Hearing protection
Teaching How to Learn

- Modeling
  - “That’s a good question….”
  - “…Where can we find the answer to that?”
  - “…What does the literature say?”
  - “…Can we use or collect data to answer that?”

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