Student Professionalism and Evidence-Based Implementation

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DISCLOSURE

The presenter is receiving financial compensation for this presentation
Learning Objectives

- Define components of EBP/professional behaviors and determine how applicable to own clinical situations
- Evaluate general, qualitative professional/EBP skills in a specific and quantified manner
- Implement at least two strategies for facilitating professionalism/EBP in students

EBP DEFINED

What is Evidence-Based Practice (EBP)

- Integration of EBP into the clinical decision making process includes careful consideration of: (ASHA, 2005; Fey & Justice, 2004)
  - Research evidence
  - Clinical expertise
  - Client's individual needs
- EBP involves training clinical scientists – clinicians who hypothesizes and systematically assesses specific treatment components to discover the cause and effect.
Clinical Decision-Making Process:

ASHA, 2005

Clinical Experience

Current Best Practice

EBP

Client Values

What Isn’t EBP?

“It Works”

• “It works” is not an evidence-based, scientific approach to the provision of clinical services. It does not represent a process by which a clinical scientist is attempting to discover cause and effect.

Definition of EBP

• Mindful or conscientious use of current theory and research to guide the services provided (Gambrill, 1999; Sackett, et al., 1998)
• Uses an inquiring mind, a mindset based on the scientific method (Goldner & Blisker, 1995)
• Involves careful observation and hypothesis testing.
• In communication sciences and disorders, professionals seek to inform and further develop the body of evidence-based approaches for the assessment and intervention of individuals with communication disorders.
• It is part of the overall clinical decision making process
What is Evidence-Based Practice (EBP)

- Integration of EBP into the clinical decision making process includes careful consideration of:
  - (ASHA, 2005; Fey & Justice, 2004)
  - Research evidence
  - Clinical expertise
  - Client’s individual needs
- EBP involves training clinical scientists -- clinicians who hypothesizes and systematically assesses specific treatment components to discover the cause and effect.

RESEARCH EVIDENCE

- Resources
  - ASHA website
  - ASHA Portal (http://www.asha.org/members/ebp/)
  - ASHA Evidence Maps
  - ASHA/N-CEP Evidence-Based Systematic Reviews
  - Search Engine
  - speechBITe.com
  - Cochrane Collaboration: www.cochrane.de/cc/cochrane/revabstr/mainindex.htm
  - CanChild Centre for Childhood Disability Research: www.fhs.mcmaster.ca/canchild/publications/outcome_measures.html

SMART review (Apel & Wolter, 2004)

Strategic review through consideration of:
- Motivation
- Activity level
- Reputable resources
- Theory
The SMART review

Motivation:
- What is the speaker’s motivation for presenting?
- Is it to share theory and evidence on a particular clinical product or procedure?
- Or is it to sell a product?

Activity level:
- Is the presenter active in research and/or reading of peer-reviewed, scholarly literature?
- Does he/she utilize the proposed products/procedures in his/her own clinical practice?
- If so, is the presenter compiling systematic and specific documentation of clinical outcomes?

Reputable resources:
- Does the speaker provide support for specific clinical procedures or approaches based on research and theory in peer-reviewed journals?
- Does the speaker back up statements with references and/or theoretical rational?
- Or, instead, does s/he rely on an “It Works” attitude based solely on his/her undocumented experiences?
The SMART review

**Theory:**
- Does the theory or rationale underlying the procedure or approach match your theory of learning and currently accepted understandings of the clinical issue at hand?

**What is “The Evidence?”**
- Each design type answers different questions
  - Is a specific approach worth investigating more or trying with a few select students (single subject designs, case studies)?
  - Is a clinical procedure or approach efficacious in a highly controlled and experimental condition, providing promise that it will be equally effective in the school setting (e.g., randomized controlled trials)?
  - Is there evidence for the effective use of a clinical procedure or approach in a more realistic clinical context, such as the school setting may inform SLPs (e.g., single-subject designs, experimental/control group studies)?

IMPLEMENTATION SCIENCE

**Knowledge Translation**
- **Implementation** is the adoption of new processes or practices within a particular setting; the terms implementation science and implementation research describe the scientific investigation of the best methods to promote changes in clinical practice (*Implementation Science*, 2013; Reedle, 2014)
CLINICAL EXPERTISE

- Expertise in particular settings and with particular clients is part of the clinical decision-making process.
- Use expertise to determine whether evidence is applicable in settings other than the laboratory.
- Years of experience do not always equal expertise or correct knowledge.

Client Values, needs, and perspectives

The characteristics of a client may dictate that certain procedures require modification:

- Physical environment
- Client characteristics (cognitive, physical, emotional status)
- Cultural and linguistic influences
- Family values

EBP and...

Student Training Challenges

- Graduate students may:
  - feel overwhelmed with simply learning the content within the scope of practice and may be reluctant to apply EBP in their clinical decision making.
  - view research as something not related to what is done clinically and prefer to “do what my supervisor says” rather than apply their own critical thinking processes.
  - have a hard time generalizing and applying the theory learned in academic coursework to clinical situations.
EBP and PROFESIONALISM

• Consideration of current best practice and proving services appropriately matched to the client/family perspective are foundational to practices of professionalism.

CHALLENGES

• The challenge thus, is to help clinical-trained graduate students apply research to their clinical treatments as well as to facilitate the development of professionalism and judgment based on systematic considerations.

PROFESSIONALISM DEFINED
Professionalism Defined

- The conduct, aims, or qualities that characterize or mark a profession or a professional
- Professionalism is dynamic and changing depending upon the context of practice and the societal beliefs (Finn, et al, 2010)

Professionalism Defined

- Professional competence is the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served. (Epstein & Hundert, 2002)

Professionalism Defined

"Professionalism is demonstrated through a foundation of clinical competence, communication skills, and ethical understanding, upon which is built the aspiration to and wise application of the principles of professionalism: excellence, humanism, accountability, and altruism." (Stern, 2006)
Demonstrate *respect, compassion, and integrity*; a responsiveness to the needs of patients and society that supersedes self-interest; *accountability* to patients, society, and the profession; and a commitment to *excellence* and on-going professional development.

Demonstrate a commitment to *ethical principles* pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.

Demonstrate sensitivity and responsiveness to patients’ culture, age, gender, and disabilities.

**The Five Keys of Professionalism**

- **Integrity and Trust**: Honesty, Truthfulness, Forthrightness, Trustworthiness, Being Responsible
- **Attitude**: Adopting a Serving Mentality, Seeking Responsibility, Determination, and Being Team Player
- **Excellence**: Pressing for Excellence, Continual Improvement, Being Attentive, and Following Instructions
- **Competency**: Expertise, Performance, Personal Effectiveness, and Being a Good Communicator
- **Conduct**: Professional Maturity, Manners Matter, Loyalty, Respect, Confidences and Confidentiality

**PROFESSIONALISM- COMMON QUALITIES**

- Ethics
- Duty
- Accountability
- Knowledge
- Advocacy
- Honor
- Compassion
- Altruism
- Appearance
- Autonomy
- Collegiality
- Inquiry
- Integrity
- Demeanor
- Judgment
- Excellence
- Visionary
- Communication
- Responsibility
- Collaboration
- Values
- Respect
PROFESSIONALISM IN PRACTICE

Professionalism involves the ability to uphold the principles and values of the profession, as well as the ability to negotiate between competing values in a specific context (Ginsburg and Lingard, 2006).

Professional practice involves practitioners finding not so much the “right” answer, but rather in deciding what is “best” in the situation in which they find themselves (Coles 2002).

ISSUES OF PROFESSIONALISM & EVIDENCE-BASED PRACTICE

46% of sampled CSD programs noted having graduate students with deficiencies in professionalism

20% of those programs designated this characteristic as sufficient to prevent graduation.

Shapiro, Ogletree, & Brotherton (2002)
Students who struggle with professional interactions in the workplace are often viewed as marginal and likely require a disproportionate amount of training resources.

Shapiro, Ogletree, & Brotherton (2002)

Entitlement defined...

"The expectation of special privileges over others and special exemptions from social demands (Raskin & Terry, 1988, p.890)."
GENERATIONAL INFLUENCES

“Peer group, defined by both its demographics and its key life events.”

Howe (2000)

“Because of similar influences and experiences, individuals within a generational cohort are likely to possess shared values and behaviors.”

Berger (2006)

MILLENNIAL CORE WORKPLACE VALUES

- Online Social Connectedness
- Teamwork-like working in groups
- Free Expression
- Close Relationships with Authority Figure
- Creativity-Fun and interactive
- Work-life flexibility
- Use of technology
- Enjoy hands on experiences


ACADEMIC ENTITLEMENT

(GREENBERGER ET AL., 2008)

Academic entitlement

Self-esteem

Work Commitment

Social Commitment
ACADEMIC ENTITLEMENT (GREENBERGER ET AL., 2008)

Parenting focused on outshining others
High achievement pressures
Orientation of Extrinsic Rewards

AREAS OF CONSIDERATION

TEACHING STRATEGIES AND TOOLS
Empowered Learners

Defined as "the process of creating intrinsic task motivation by providing an environment and tasks which increase one's sense of self-efficacy and energy."

(Frymier, Shulman and Houser, pp. 182-183)

4 Dimensions of Empowerment

Thomas & Velthouse (1990)

- **Meaningful**
  - Provide clear goals and expectations with associated rationales and explanations

- **Competence**
  - Link learning outcomes with functional application

- **Choice**
  - Provide feedback on competency of process (with focus on outcomes as a secondary causation effect)
Self-Reflection Activities

- Incorporate self-reflection through:
  - Project grading
  - Self-videoing for feedback
  - Rubric grading systems
  - Vignettes to highlight key clinical aspects with discussion
  - Professionalism-in-action

(Bernabeo et al., 2013)

Millennial Student Learning

(Price, 2009)

- **Active Learning**: prefer a variety of active learning methods
- **Relaxed**: prefer a less formal learning environment (when appropriate)
- **Rapport**: more willing to pursue learning when instructors connect on personal level.

Active Learning Activities

- Create learning communities
- Cooperative team projects with clear role delineation and expectations
- Problem/case-based learning

(Price, 2009; Ginsberg et al., 2012)
Rapport

- Create Mentorship (varying levels)
- Provide opportunities for shared authority
- Facilitate recognition of earned experiences
- Discuss other's viewpoints/interpretations based on cultural/family/contextual perceptions

Technology Learning Strategies

- Model and explicitly note technology code shifts
- Link goals to technology
- Use and tap into technology resources and
- Incorporate this in testing (if access will be available perhaps rethink what should be “known”)
- Use interactive media-chat rooms, blogs, discussion boards
AN EBP MODEL FOR COLLABORATION ACROSS CLINICAL AND EDUCATIONAL SETTINGS

Past and Present Citations

EBP Academic – Clinical Model
- Wolter, Corbin-Lewis, Self, & Elsweiler (2011) developed EBP model which integrates research, client/contextual factors, and clinical expertise in academic and clinical settings.
- Focused on:
  - the reciprocal nature between theory, research, and practice
  - structured EBP protocols in coursework and clinic
  - application of clinical case studies which emphasize EBP procedures
  - the integration of authentic research assignments.
COURSEWORK ARTICLE CRITIQUE
(see SAMPLE ASSIGNMENT)

- Article Critique Assignment
  - Read Research Article
  - Complete RESEARCH ANALYSIS WORKSHEET
  - Write 2-page paper
    - Abstract of research
    - Relate to class
    - Discuss clinical implications
    - Limitations of study

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Before: License-Produced (DLPP)

References:
- Title
- Author(s)
- Journal
- Volume/Issue
- Pages
- Date

Abstract:
- Study design
- Participants
- Procedure
- Results

Methodology:
- Qualitative
- Quantitative
- Mixed methods
- Other

Data Analysis:
- Statistical software
- Qualitative analysis
- Other methods

Results:
- Findings
- Significance

Discussion:
- Implications for practice
- Limitations
- Future research

Conclusion:
- Summary
- Recommendations

References:
- Title
- Author(s)
- Journal
- Volume/Issue
- Pages
- Date

Abstract of research:
- Brief summary of the research
- Relevance to class
- Clinical implications
- Limitations of study

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Based on a study conducted by [Author], the research aimed to investigate [Research Question]. The study involved [Number] participants [Demographics], recruited from [Location]. The participants were randomly assigned to [Group A] and [Group B] in a [Randomization Method].

The results showed that [Result 1], and [Result 2]. These findings are significant because [Significance].

Limitations of the study include [Limitation 1], [Limitation 2], and [Limitation 3]. Despite these limitations, the findings contribute to the [Field] literature and provide [Implications]. Further research could address [Future Research].
For assigned client, create a P(ES)ICO question
(Schlosser, Koul, & Costello, 2005)
Person/Population (Environment) (Stakeholders) Intervention Comparison Outcome

P(ES)ICO Question
(Wolfet al. 2011; adapted from Schlosser Et Al., 2005)

<table>
<thead>
<tr>
<th>Person/Population</th>
<th>Environment</th>
<th>Stakeholders</th>
<th>Intervention</th>
<th>Comparison</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>For a 7-year-old child with language impairment, who attends elementary school and receives small group language intervention 2 times/week for 1 hour,</td>
<td></td>
<td></td>
<td>Will a computer FastForward intervention approach compared to an SLP-mediated language intervention social-interactionist approach</td>
<td></td>
<td>improve the child’s semantics, syntax, and pragmatic skills.</td>
</tr>
</tbody>
</table>
Discussion of Client/Contextual Factors and Clinical Expertise

- clinical supervisor who will direct the student in a discussion regarding specific client/contextual factors and clinical expertise using C-EBP protocol as guide
- Students should be prepared to:
  - identify the client-contextual factors pertaining to their client or environment
  - discuss their own clinical theories learned in academic coursework
  - and/or reflect on their own experiences with similar clients or contexts.
- At the end of this meeting a decision will be made with the clinical supervisor regarding whether or not the chosen intervention will be implemented.
Survey Results (Corbin-Lewis et al.)

- Student survey results revealed a unidirectional increase in mean and a decrease in variability over time, on 7 of 10 questions, indicating an overall increase in comfort level and value of the process.
- Students’ awareness of the EBP influence on their management plans and the usefulness of the EBP forms markedly increased after one semester (Time 3).
- Clinical educators found the forms useful in process implementation (measured by questions 3, 6, 8).
- Clinical educators felt more comfortable during the second semester of implementation after they made modifications to the system (e.g., timeline change, student training on question formulation).
- Clinical educators found the EBP process to be more straightforward and easily understood after one semester of implementation.
Summary

- Process approach
  - Take appropriate time
    - Semester for 1st year grads
  - Shorter implementation for 2nd year grads
- Supported scaffolds for optimal student learning application
  - Protocols
  - Clear responsibilities
- Consistent terminology/process across class to clinic
  - Class assignments using protocols
  - Authentic Assignments
    - Case studies / assigned clinic cases

A MODEL FOR SCAFFOLDING PROFESSIONALISM IN A CLINIC SETTING: STUDENT AND CLINICAL EDUCATOR OUTCOMES

PROFESSIONALISM AND ASHA

- American Speech-Language Hearing Association identified professionalism as a required skill to become clinically competent and specifies professionalism in the Code of Ethics (ASHA, 2010r)
- Knowledge and Skills Acquisition (KASA) Standards
- Professional Standards (ASHA, 2014)
SKILLS STANDARDS

PAST AND PRESENT CITATIONS


COLLABORATION/ACKNOWLEDGMENTS

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- Danielle Varnedoe, MA-CCC-SLP
Rubric Development and Application

Quantify Professionalism
Provide Explicit Feedback
Measure progress

CORE CLINICAL PROFESSIONALISM AREAS

Pragmatics

Communication Style
Nonverbal Communication
Social Register

CORE CLINICAL PROFESSIONALISM AREAS

Accountability / Conduct

Physical Preparedness
Mental Preparedness
Follow Through
Personal Responsibility
CORE CLINICAL PROFESSIONALISM AREAS

COMPETENCY / EXCELLENCE

Self-Improvement
Reflection
Participation
Response to Authority
Application of Feedback

Sensitivity to Others

EXAMPLE RUBRIC CONTINUUM

PRAGMATICS: Nonverbal Aspects of Communication (eye contact, facial expression, body posture)

1. Always demonstrates natural/appropriate use of nonverbal aspects of communication reflecting affiliation and interest in partner
2. Consistently demonstrates appropriate nonverbal aspects of communication when interacting with others
3. Rarely demonstrates appropriate nonverbal aspects of communication & nonverbal usage may interfere with interpersonal/social aspects
4. Current usage of nonverbal aspects of communication inappropriate and detracts from the content of the message.
EXAMPLE RUBRIC CONTINUUM

ACCOUNTABILITY: Mental Preparedness

1. Actively reflects independently upon, thinks beyond one topic or client, and independently takes initiative to solve a problem.
2. Independently problem solves and reflects upon, before seeking direction.
3. Looks for direction without independent reflection or problem solving.
4. Does not problem solve or seek direction.

EXAMPLE RUBRIC CONTINUUM

COMPETENCY: Application of Feedback

1. Independently applies and incorporates constructive feedback in effective and strategic manner.
2. Independently applies and incorporates most constructive feedback.
3. Applies and incorporates feedback with reminders.
4. Does not incorporate feedback.

EXAMPLE RUBRIC CONTINUUM

SENSITIVITY: Client Welfare

1. Anticipates, considers, and quickly adjusts to the needs of the client in consideration of best practices.
2. Sensitive to the current needs of the client and adjusts and modifies accordingly.
3. Aware of the client’s needs of without appropriate adjustments or modifications.
4. Lacks awareness or sensitivity to the needs of the client.
What is Evidence-Based Practice (EBP)

- Integration of EBP into the clinical decision making process includes careful consideration of: (ASHA, 2005; Fey & Justice, 2004)
  - Research evidence
  - Clinical expertise
  - Client's individual needs
- EBP involves training clinical scientists – clinicians who hypothesizes and systematically assesses specific treatment components to discover the cause and effect.

PROFESSIONALISM
FEASIBILITY STUDY

STUDENT AND CLINICAL EDUCATOR OUTCOMES

Participants
- 90 first semester, first year graduate students
- 31 clinical educators
- 3 university CSD clinics
- Utah State University
- Florida State University
- University South Carolina
METHODS

• Pre/Post Surveys: Attitudes Toward/Understanding Professionalism
• IRB approved

magnitude estimation scale (25.3 cm)

<table>
<thead>
<tr>
<th>Low agreement</th>
<th>High agreement</th>
</tr>
</thead>
</table>

Anonymous Student Survey (pre and post)

1. I feel like I know what is meant by ‘show up in a frame of mind appropriate to the task.

2. Faculty-guided review of the elements of professionalism is needed to fully understand this expectation.

3. Accepting personal responsibility includes managing one’s emotions and independently expanding one’s knowledge.

4. I believe the client’s desires are more important than the clinician’s desires.

5. It is important a professional to respect ideas, interests, and opinions that are different than my own.

6. I value the resources required to perform professional duties, tasks, and problem-solving – including my own time and time of others.

7. I am comfortable with accepting guidance and pursuing objectives established from others who think differently than me.

8. I recognize and value the importance of understanding and accommodating the cultural values of the client.

9. Professionalism requires that I am direct and constructive with my suggestions which are based on empirical evidence and experiences.

10. I find that improving my professional skills is a worthwhile pursuit which will pay off in my career.

Anonymous Clinical Educator Survey (pre and post)

1. I consider professionalism an important component of clinical training in CSD.

2. It is important for graduate students to receive specific feedback regarding professionalism practices as a part of clinical training.

3. I feel comfortable in helping students to improve and develop professionalism practices.

4. I can clearly define and specify behaviors associated with professionalism with the students I supervise as a part of clinical training.

5. I feel confident providing guidance on professionalism.

6. It is important to have a tool which provides specific feedback about professionalism to graduate students as a part of clinical training.
Clinical Educator Judgments of Rubric Helpfulness and Usage (post- only)

1. The professionalism rubric was helpful in developing a professional management plan with the graduate student.
2. The professionalism rubric provided me with additional insights that I would not have initially suggested.
3. The professionalism rubric measurements were straightforward and easy to use.
4. Students professionalism practices appeared to improve following discussion with the professionalism rubric.
5. I intend to use the professionalism rubric to help guide improvement on the KASA associated professionalism areas with each student clinician I supervise in the clinic setting.
6. The time it took to use the professionalism rubric was manageable.

METHODS

<table>
<thead>
<tr>
<th>STUDENTS</th>
<th>CLINICAL EDUCATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester Start</strong></td>
<td><strong>Semester Start</strong></td>
</tr>
<tr>
<td>Blinded Anonymous Pre-survey completed</td>
<td>Blinded Anonymous Pre-survey completed</td>
</tr>
<tr>
<td><strong>Midterm</strong></td>
<td><strong>Midterm</strong></td>
</tr>
<tr>
<td>Receive Professionalism Rubric Feedback</td>
<td>Receive Professionalism Rubric Feedback</td>
</tr>
<tr>
<td><strong>Final</strong></td>
<td><strong>Final</strong></td>
</tr>
<tr>
<td>Receive Professionalism Rubric Feedback</td>
<td>Receive Professionalism Rubric Feedback</td>
</tr>
<tr>
<td>&amp; Post-survey completed</td>
<td>&amp; Post-survey completed</td>
</tr>
</tbody>
</table>

Results: Student Outcomes

(n = 90)

![Graph showing student outcomes](graph.png)

- Pretest
- Post-test
Results: Clinical Educator Outcomes

Anonymous Clinical Educator Survey (pre and post)

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Clinical Educator Feedback

Usefulness of Professionalism Rubric

Reasonable Time
Repeated Usage
Perceived Student Improvements
Understandable
Provided Insights
Helpfulness

Mean Score

1 1.5 2 2.5 3 3.5 4 4.5 5 5.5 6 6.5 7 7.5 8 8.5 9 9.5 10
Discussion

- Student survey results revealed a unidirectional significant increase in mean pre- and post-model implementation over time—indicating an overall increase in comfort level and value of the process.
- Professionalism confidence and practices appeared to improve and the specific qualitative and quantitative feedback appeared to help remediate deficits or improve already proficient practices.

Discussion

- Clinical educators found the rubric useful and feasible in process implementation
- Appears to be one additional and useful tool in addressing student professionalism
- Adaptations in development for academic coursework and graduate student interview process

- While we may teach and require certain behaviors, we can’t demand or expect quick changes to life philosophy. Eckelberry-Hunt, et al. (2011)
- Professionalism is a journey rather than an end state. Johnston (2006)