Domains of Professional Competence: Looking Across the Educational Continuum

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Objectives

Upon completion of this session, participants will be able to:

1. Identify the arguments that are part of the public demand for enhanced accountability (including outcome measures and competency-based education) for health professions education.

2. Compare and contrast the evolution of physical therapist education (entry-level through residency and fellowship) with models of competency domains being discussed in medical and pharmacy education.

3. Discuss a working framework of key domains related to patient-centered competencies spanning entry-level through residency/fellowship education.

4. Engage in panel-audience discussion of challenges and opportunities for developing a learning trajectory of professional competencies across levels of education.

Outline

- Professional Competency: Exploring What it Means for Physical Therapists
  - Learning as a journey and not an ending point in time
  - Importance of workplace learning
- Clinical Learning Milestones across a Career
  - Dreyfus & Dreyfus Model of Skill Acquisition
  - Skill development across time
  - Assessment of learning - individualized learning
- Lessons from the Health Professions: A Systems Analysis
  - Comparing and contrasting models of education within doctoring professions
- Laying a Foundation: Considering Common Domains of Competence
  - Existing silos of specialization
  - Trajectory of professional competence
  - Proposed core competencies across residency/fellowship education
- Stakeholder Discussed Panel
  - CAPTE, ABPTRFE, ACOTE

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Professional Competency: What Does it Mean for Physical Therapists

Gail Jensen, PT, PhD, FAPTA
Jennifer Furze, PT, DPT, PCS

What is the Need?

• Entry-level education
  – Where are we now?
  – Where do we need to be in the future?
  – Learning as a journey and trajectory
  – Robustness of work-place learning
    (clinical experiences and exposure)

Professional Competence: Key Concepts

• Multidimensional concept
• Understanding EXPERTISE and adaptive (flexible) expertise
• Moving beyond behaviors to DISPOSITIONS
• Elements that are non-negotiable

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Flexible Expertise

- What is flexible expertise?
  (Do I have it???)
- Flexible or adaptive expertise - Focus on DEVELOPMENT
- Emphasis on Flexibility and Innovation
- There is more to expertise than KNOWLEDGE

Precursors for Development of Flexible EXPERTISE

- Self-reflection (meta-cognitive skills)
- Deliberate practice
  - Highly structured
  - Requires effort
  - Emphasis on improving performance beyond “sufficient”

Learning Trajectory Across Time

Student  Novice
What is the Need?

- Residency/Fellowship Education
  - Where are we now? Where do we need to be in the future?
    - Current emphasis on technical skills and certifications
    - Need to explore the theoretical constructs of education and educational research
    - Need to meet the societal need
    - Effectiveness of work-place learning
    - Need to look at the continuum of learning across time
      - Are there common competencies across residency/fellowship programs?

Workplace Learning

(O’Brien, 2013; Billet, 2014)

- Learning for PRACTICE
- Powerful and ROBUST and Long lasting
- Relationships are critical
- Clinical instructors/mentors facilitate or inhibit AFFORDANCES for learning
Workplace Learning (WPL)

- Tasks and activities:
  - Support for development learning
  - Student assumes responsibility

- Relationships within the practice community:
  - Invitational/welcoming
  - Personal engagement
  - Supported participation

- Learning through participation: Individuals engage in thinking and acting MORE than doing a task

- Work practice environment:
  - Workload/Time pressure
  - Organization of work
  - Multiple roles/demands

Discussion Points

- Importance of both didactic and clinical education (work-place learning)
- As a profession, are we doing a good job of building communication and collaboration between academic and clinical education as both are VITAL to learning?
  - If so, how are we doing this well?
  - If not, how can we improve?

Clinical Learning Milestones Across A Career

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Nicole Christensen, PT, PhD, MApplSc

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Dreyfus & Dreyfus Model of Skill Acquisition

<table>
<thead>
<tr>
<th>NOVICE</th>
<th>ADV BEGIN</th>
<th>COMP</th>
<th>PROFICIENT</th>
<th>EXPERT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rule driven</td>
<td>Begins to determine relevant info</td>
<td>Emotion improves level of responsibility</td>
<td>Clinical problem solving seems intuitive</td>
<td>Open to noticing the unexpected</td>
</tr>
<tr>
<td>Analytical thinking</td>
<td>Analytical thinking &amp; Pattern Recognition</td>
<td>Clin reasoning regarding more patterns recognized</td>
<td>Comfortable with ongoing situations</td>
<td>Perceptive in realizing what didn’t fit a pattern</td>
</tr>
<tr>
<td>Unable to prioritize information</td>
<td>Can generalize information</td>
<td>Sees the big picture</td>
<td>Can live with ambiguity (uncertainty)</td>
<td></td>
</tr>
</tbody>
</table>

Carraccio et al, 2008

Skill Development Across the Continuum (Teaching & Learning + Assessment)

Knowledge, Skills, & Abilities

Time

Novice      Adv Beginner      Comp      Prof      Expert
Entry-level  Resident & Fellow

Example: Clinical Reasoning Abilities Acquisition Over Time...

<table>
<thead>
<tr>
<th>Novice</th>
<th>Adv Beginner</th>
<th>Competent</th>
<th>Proficient</th>
<th>Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follow a checklist, rule</td>
<td>Deductive, rote</td>
<td>deductive &amp; inductive, not well integrated</td>
<td>deductive &amp; inductive, well integrated</td>
<td>Fluid deductive &amp; inductive, grounded in clinical context</td>
</tr>
<tr>
<td>Skills performance-based</td>
<td>Inconsistently prioritizes</td>
<td>Prioritizes well simple &gt; complex cases</td>
<td>Prioritizes well &gt; simple = complex cases</td>
<td></td>
</tr>
<tr>
<td>Reasoning may not be connected to actions</td>
<td>Reflects in action</td>
<td>Reflects in action</td>
<td>Reflects in action &amp; on bigger picture</td>
<td></td>
</tr>
<tr>
<td>Rarely recognizes emerging data</td>
<td>Inconsistently recognizes emerging data</td>
<td>Recognizes but inconsistently responds to emerging data</td>
<td>Responds to emerging data</td>
<td></td>
</tr>
<tr>
<td>Therapist-centered, not collaborative</td>
<td>Inconsistently patient-centered, rarely collaborative</td>
<td>Patient-centered, inconsistently collaborative</td>
<td>Patient-centered, collaborative</td>
<td></td>
</tr>
</tbody>
</table>

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Assessment of Learning

- Includes - Knowledge, Skills, & Abilities
  - Assess learner’s current abilities
    - Beginning of curriculum and throughout
    - Individualized learning vs one size fits all
  - Active learning strategies
    - Students perform mental gymnastics when thinking/performing with cases/patients
    - Practice for success
      - Repetition with variables

Entry-Level Education
- Asses student’s knowledge and abilities at beginning
- Work toward meeting “standard bar” that all students need to meet
- Work toward pushing beyond “standard bar” depending on student’s abilities
  - Even though a student may be marked as competent on the CPI, the learning doesn’t end there, additional teaching and learning can occur

Residency/Fellowship Education
- Assess resident’s knowledge and abilities at beginning
- Work toward meeting collaborative goals (student & mentor)
- Work toward pushing beyond competent and toward proficient or even farther if possible
  - CHALLENGE for both resident & mentor

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Domains of Professional Competence

Discussion Points

- How do people perceive competency-based education?
  - Quantitative approach – resident performs a skill 5 times (one right answer)
  - Qualitative approach – developmental continuum over time (grapple with thinking and complexity of the situation)
  - Assessment – Both quantitative and qualitative?

Lessons from the Health Professions: A Systems Analysis

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Mary Jane Rapport, PT, DPT, PhD, FAPTA

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Domains of Professional Competence

Competency-Based Education Frameworks

- Medicine
  - "YES"
  - Accreditation Council for Graduate Medical Education. Common program requirements: general competencies – August 2011

- Dentistry
  - "YES"
  - ADEA Competencies for the New General Dentist. – 2011
  - Badner et al. 2010

- Pharmacy
  - "DEVELOPMENT"
  - Pharmacy Education Taskforce A Global Competency Framework – 2012
  - Hill et al. 2006

Competency-Based Outcomes in Higher Education

- 1990’s competency-based movement in medicine in US
- Developed general competencies
  - License MD's based upon outcomes and capabilities versus length of time in training
  - Tension with competency-based education
    - Specific goals and objectives to meet competencies are reduced to a checklist
    - Don’t take into account the higher-order thinking and contextual factors of practice
  - Balanced with Entrustable Professional Activities (EPA) – meaningful acts in practice

  [ten Cate, 2014]

Physical Therapy Residency and Fellowships

- Opportunity for professional growth
- Opportunity for clinical specialization
- Opportunity for advanced clinical skills
  - General: eg, clinical reasoning
- Opportunity for development of competencies
  - through all phases of education and training
Discussion Points

- How has what we learned from the other health professions about residency and fellowship guided us?
- Based upon this, are we moving in the right direction?

Laying a Foundation: Considering Common Domains of Competence

Mary Jane Rapport, PT, DPT, PhD, FAPTA
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Trajectory of Competency Development:

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Entry-Level Education

- Competencies: CAPTE
- Established by our profession
- Mirror other professions

Residency and Fellowship Education

- Currently competencies seated with each DSP
  In the future competencies may be based in a document specific to residency practice
- Core competencies – cross specialization
- Conclave held in November 2012
- Process of reaching common core competency domains

Existing Common Areas of DSP

<table>
<thead>
<tr>
<th>Neurologic Competencies</th>
<th>Pediatric Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Knowledge Areas of Neurologic Clinical Specialists</td>
<td>I. Knowledge Areas of Pediatric Clinical Specialists</td>
</tr>
<tr>
<td>II. Practice Expectations</td>
<td>II. Professional Roles, Responsibilities, &amp; Values</td>
</tr>
<tr>
<td>- A. Professional Roles, Responsibilities, and Values</td>
<td>- A. Professional Behaviors</td>
</tr>
<tr>
<td>- Leadership</td>
<td>- B. Leadership</td>
</tr>
<tr>
<td>- Education</td>
<td>- C. Education</td>
</tr>
<tr>
<td>- Consultation</td>
<td>- D. Administration</td>
</tr>
<tr>
<td>- EBP</td>
<td>- E. Consultation</td>
</tr>
<tr>
<td>- Virtuous Behavior</td>
<td>- F. EBP</td>
</tr>
<tr>
<td>- B. Patient/Client Management</td>
<td>- G. Research</td>
</tr>
<tr>
<td>III. Practice Expectations</td>
<td>III. Practice Expectations</td>
</tr>
</tbody>
</table>
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Examples of Competency Development

- Knowledge for practice
  - EL: general, broad base
  - R: deeper, specialized
  - F: refined, highly specialized

- Clinical reasoning
  - EL: competent; may be proficient in some aspects
  - R: highly proficient/some aspects of expertise
  - F: expertise in subspecialty practice area

Knowledge for Practice

DPT Education: The Wading Pool

Knowledge for Practice

Residency Education: The Lap Pool

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Domains of Professional Competence

Knowledge for Practice
Fellowship Education: The Dive Pool

Interprofessional Collaborative Practice Competency Domains

Proposed Competency Domains in Physical Therapy
- Knowledge for practice
- Clinical reasoning
- Inquiry skills
- Clinical skills
- Systems-based practice
- Interprofessional skills & communication
- Professionalism

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Discussion Points

- What feedback do you have on the 7 proposed common competency domains (on previous slide) we have offered for all PT residency/fellowship programs?

Stakeholder Discussant Panel

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Karen Paschal, PT, DPT, MS, FAPTA
Terry Nordstrom, PT, EdD

Proposed Competency Domains in Physical Therapy

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Discussion Points

• Final comments & wrap up

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