Program Assessment and the “Black Box”: Are SCPEs Meeting Expectations?

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Objectives

1. Define the challenges associated with assessment of the clinical year (SCPEs)
2. Review the *ARC-PA Standards* related to evaluation and assessment of the clinical year
3. Discuss the concept of *program defined expectations*
4. Evaluate the literature on *assessment of clinical curricula* in health professions education
5. Share one program’s approach to *clinical year assessment*
Outline

• Intro
• ARC Definitions
• Program Defined Expectations
• Literature Review
• Our Approach
• Discussion/recap
• Q&A
Why are we discussing this?

- Assessment of the clinical year is challenging
- No standard for what *should* be taught or learned
- No standard for *evaluating* what is taught or learned
- The Competencies may be used inappropriately
- A challenge for PA Programs and medical schools
- Employers ask for assurance of competence
Accreditation
What Guidance Does ARC-PA Offer?

- There are Standards
- But how to meet them is up to the Program
- Presentation at PAEA in Memphis, 2013 (see References)
- What Are Program Defined Expectations
- What does the program expect each student to learn during the activity?
- Based on experience? Benchmarks?
- Not necessarily numbers of procedures or encounters unless that is the program’s expectation
Program Assessment and the “Black Box”

ARC-PA Standards

B1.09 For each didactic and clinical course, the program must define and publish instructional objectives that guide student acquisition of required competencies.

B3.02 Supervised clinical practice experiences must enable students to meet program expectations and acquire the competencies needed for clinical PA practice.

B3.03 Supervised clinical practice experiences must provide sufficient patient exposure to allow each student to meet program-defined requirements with patients seeking:
   a) medical care across the life span to include, infants, children, adolescents, adults, and the elderly,
   b) women’s health (to include prenatal and gynecologic care),
   c) care for conditions requiring surgical management, including pre-operative, intra-operative, post-operative care and
   d) care for behavioral and mental health conditions.
Program Assessment and the “Black Box”

Defining Program Expectations

- Defined competencies, expectations
- Instructional objectives
- Assessments

Syllabi
Guidebooks
Handbooks
Goals

OSCEs
Written exams
Oral exams
Papers
Portfolios
Performance
Observations
Checklists
Etc.
What Does LCME require?  
*(LCME, Functions and Structure of Medical School, April 2015)*

**Standard 6: Competencies, Curricular Objectives, and Curricular Design**

**6.1 Program and Learning Objectives**

The faculty of a medical school define its medical education program objectives in outcome-based terms that allow the assessment of medical students’ progress in developing the competencies that the profession and the public expect of a physician. The medical school makes these medical education program objectives known to all medical students, faculty, residents, and others with responsibility for medical student education and assessment. In addition, the medical school ensures that the learning objectives for each required learning experience (e.g., course, clerkship) are made known to all medical students and those faculty, residents, and others with teaching and assessment responsibilities in those required experiences.

**6.2 Required Clinical Experiences**

The faculty of a medical school define the types of patients and clinical conditions that medical students are required to encounter, the skills to be performed by medical students, the appropriate clinical settings for these experiences, and the expected levels of medical student responsibility.
What Does LCME require? (*LCME, Functions and Structure of Medical School, April 2015*)

**Standard 8: Curricular Management, Evaluation, and Enhancement**

**8.2 Use of Medical Educational Program Objectives**

The faculty of a medical school, through the faculty committee responsible for the medical curriculum, ensure that the medical curriculum uses formally adopted medical education program objectives to guide the selection of curriculum content, review and revise the curriculum, and establish the basis for evaluating programmatic effectiveness. The faculty leadership responsible for each required course and clerkship link the learning objectives of that course or clerkship to the medical education program objectives.

**8.3 Curricular Design, Review, Revision/Content Monitoring**

The faculty of a medical school are responsible for the detailed development, design, and implementation of all components of the medical education program, including the medical education program objectives, the learning objectives for each required curricular segment, instructional and assessment methods appropriate for the achievement of those objectives, content and content sequencing, ongoing review and updating of content, and evaluation of course, clerkship, and teacher quality. These medical education program objectives, learning objectives, content, and instructional and assessment methods are subject to ongoing monitoring, review, and revision by the faculty to ensure that the curriculum functions effectively as a whole to achieve medical education program objectives.
What Does LCME require?
*(LCME, Functions and Structure of Medical School, April 2015)*

**Standard 8: Curricular Management, Evaluation, and Enhancement**

### 8.4 Program Evaluation

A medical school collects and uses a variety of outcome data, including national norms of accomplishment, to demonstrate the extent to which medical students are achieving medical education program objectives and to enhance medical education program quality. These data are collected during program enrollment and after program completion.

### 8.6 Monitoring of Completion of Required Clinical Experiences

A medical school has in place a system with central oversight that monitors and ensures completion by all medical students of required clinical experiences in the medical education program and remedies any identified gaps.
What Does LCME require?
(*LCME, Functions and Structure of Medical School, April 2015*)

**Standard 9: Teaching, Supervision, Assessment, and Student and Patient Safety**

**9.4 Variety of Measures of Student Achievement/Direct Observation of Core Clinical Skills**
A medical school ensures that, throughout its medical education program, there is a centralized system in place that employs a variety of measures (including direct observation) for the assessment of student achievement, including students’ acquisition of the knowledge, core clinical skills (e.g., medical history-taking, physical examination), behaviors, and attitudes specified in medical education program objectives, and that ensures that all medical students achieve the same medical education program objectives.

**9.6 Setting Standards of Achievement**
A medical school ensures that faculty members with appropriate knowledge and expertise set standards of achievement in each required learning experience in the medical education program.
6.2 REQUIRED CLINICAL EXPERIENCES

The faculty of a medical school define the types of patients and clinical conditions that medical students are required to encounter, the skills to be performed by medical students, the appropriate clinical settings for these experiences, and the expected levels of medical student responsibility.

6.2 SUPPORTING DATA

Table 6.2-1 | Required Clinical Experiences

<table>
<thead>
<tr>
<th>Clerkship/Clinical Discipline</th>
<th>Patient Type/Clinical Condition</th>
<th>Procedures/Skills</th>
<th>Clinical Setting(s)</th>
<th>Level of Student Responsibility</th>
</tr>
</thead>
</table>

For each required clinical clerkship or discipline within a longitudinal integrated clerkship, list and describe each patient type/c clinical condition, required procedure/skill, and clinical setting that medical students are required to encounter, along with the corresponding level(s) of student responsibility.

6.2 NARRATIVE RESPONSE

a. Provide a definition for the terms used under “Levels of Student Responsibility” in table 6.2-1.

b. Describe how the list of required clinical encounters and procedural skills was initially developed.

c. Describe how and by which individuals and groups the list of required clinical encounters and skills was reviewed and approved. Note if the curriculum committee or other central oversight body (e.g., a clerkship directors committee) played a role in reviewing and approving the list of patient types/clinical conditions and skills across courses and clerkships.

d. Describe which individuals and/or groups developed the list of alternatives designed to remedy gaps when students are unable to access a required encounter or perform a required skill. How was the list developed? Which individuals and groups approved the list?
The LCME Is Coming: Top 10 Citations and Anatomy of the Visit

*Top Citations from Full Survey Reports (10/10 - 06/13)*

- ED-2 Required clinical experiences and monitoring
- ED-30 Timeliness of grades
- ED-32 Narrative feedback
- ED-31 Mid-course feedback
- ED-24 Resident preparation
- ED-8 Comparability across sites
- ED-5-A Active learning
- MS-27-A Health care providers in student assessment
- ED-35 Review and revision of the curriculum
- MS-31-A Learning environment
- ED-33 Curriculum management
- ER-9 Affiliation agreements
- IS 16 Diversity

Literature Review
What does the literature tell us about...

- Clinical curriculum assessment
- Clinical clerkship outcomes
- Utilizing site visits
Defining and measuring outcomes

• “What, how and under what circumstances do students learn?”
  – Dornan et al.
Defining and Measuring Outcomes

• Student experiences are shaped by formal and informal processes during clerkships.

• Traditional competencies may not reflect the complexity of clinical education.

  – Dornan et al.
**Clinical Education**

<table>
<thead>
<tr>
<th>Learning environment</th>
<th>Teaching</th>
<th>Curriculum design</th>
<th>Personal interactions</th>
</tr>
</thead>
</table>

*Rutgers*
Defining and measuring outcomes

• Three types of learning outcomes
  • Real patient learning
    – Interaction with patients
  • Affective learning
    – Learning environment, state of mind
  • Practical learning
    – Knowledge, skills and attitudes

• Dornan et al.
Assessing the Clinical Curriculum

• Traditional clerkship environment may lead to deficiencies in clinical skills
  – Clerkship experiences are unpredictable and subject to varying conditions
  – Difficult to balance delivery of patient care with teaching
    – Veale et al.
Assessing the Clinical Curriculum

- **Framework for assessment provided by Veale et al.**
- **Gathered data**
  - student and graduate surveys
  - focus groups (including clerkship directors)
  - student logs
  - accreditation visit feedback

- **Conducted needs assessment**
  - Identified perceived gaps in clinical curriculum
Assessing the Clinical Curriculum

• Design new curriculum or revise existing curriculum to address gaps
  – In Veale et al, the new curriculum ran in tandem with existing clerkships, rather than replacing clerkships

• Compare pre- and post-intervention data
  – Veale et al. used summative exam scores
Gather data

Needs assessment

Clinical Curriculum Assessment

Compare

Implement changes

Gather data
Site Visits

• Why are site visits important?
  – Addressing the “black box” of clinical education

• PA students and preceptors find value in clinical site visits.
  – Helpful in clarifying objectives/expectations
  – Preceptors feel valued when there is “face-to-face interaction” with program
Site visits

• Pharmacy education literature
  – Site visit utility for pharmacy students
    • Improve quality of clinical education
    • Enhance communication with program

  – Optimal frequency of site visits:
    • Monthly or every-other-month
Literature take home points

• Consider defining outcomes beyond traditional competencies
  – Learning environment, individual patient interactions and exposures work in concert with traditional practical experiences

• “[Learning] does not just happen.”
  • Dornan et al.
Literature take home points

• Clinical education lags behind didactic education in creating learner-centric models.

• Careful assessment of clinical curricula can lead to effective interventions to enhance learning outcomes.

• Site visits are an important tool to define and measure learning outcomes on clinical clerkships.
Our Process
Intentions of Clinical Education Assessment

• Quality assurance
• Identify curriculum gaps
• Identify trends and associations
• Remediate students and sites/preceptors
Program snapshot

• 100+ number of clinical sites
• 1 clinical coordinator
• 10 faculty member site visitors
• 5 Clinical Site Coordinators
• 3 year program, 50 students per year, class overlap March - May
• 55 weeks of clinical rotations
Clinical Education Evaluations

• Each preceptor completes an evaluation of the student at the completion of the rotation

• Each student completes an evaluation of the preceptor and site at the conclusion of the rotation

• Students log patients and procedures during each rotation

• Faculty site visitors evaluate each site, preceptor and student during site visits
The Process

• Once annually, site visitors complete the Annual SCPE Evaluation Form
  – a comprehensive evaluation of each rotation at their site

• Once annually each rotation is presented to all faculty for discussion at our Quarterly SCPE Meetings
  – January - Medicine and Surgery
  – April - Psychiatry, Selective (Medical Subspecialty) and Electives
  – July - Pediatrics and OB/GYN
  – October - Family Medicine, ICU and Emergency Medicine
Annual SCPE Evaluation Form

I. Administrative items
II. Summary of site/preceptor issues over past year
III. Summary of student issues over past year
IV. Does the rotation meet our mission/goals/objectives?
V. SWOT analysis and proposed changes
VI. Follow-up plan
Quarterly SCPE meetings

• In depth discussion of rotations based on Annual SCPE Evaluation Form

• Forum to explore strengths and areas of needed improvement

• Forum for crafting recommendations to program leadership

• Faculty development
Clinical Site Coordinators

- Faculty workload and other responsibilities create challenges to adequate clinical site evaluation and management
- One PA in each of 5 highly utilized hospitals hired as an adjunct faculty member
- Responsibilities include “site visits”, troubleshooting, acting as a liaison between program and hospital, acting as resource for students
Triangulation

• Sites and preceptors are evaluated by students, faculty members, CSCs and alumni

• Students are evaluated by preceptors, faculty members and CSCs

• Post-graduation data
  – Recent graduate exit survey (5-6 months after graduation)
  – Alumni survey (every 3 years)
Bottom line

• Clinical education is complex.
• Define outcomes and competencies for your program.
• Assessment is an ongoing, comprehensive and dynamic process.
• Hoping that students learn is not enough.


• What is “Expected”? Program Defined Expectations; PAEA October 2013 Memphis TN; http://arc-pa.org/documents/Program%20Defined%20Expectaions%204.2014.pdf
Q & A
Thank you!

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