Core Entrustable Professional Activities (EPAs) and Librarian Involvement in Competency-based Medical Education

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Association of Academic Health Sciences Libraries - Competency-Based Medical Education Task Force

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What is Competency-Based Medical Education?

- CBME is a learner-centered, time-agnostic, outcomes-based approach to the design, implementation, assessment and evaluation of medical education using an organizing framework of competencies (Frank et al. 2010, Boyd et al. 2017).

- Competencies are predominantly in the literature as understood as observable and measurable abilities that, when actively integrated in practice, constitute physician competence. (Frank et al. 2010, Boyd et al. 2017).
What are Entrustable Professional Activities (EPAs)?

- Developed by AAMC in 2014
- A core group of 13 activities that all residents entering their first year of residency should be able to complete without supervision regardless of specialty.
- Based on a documented performance gap
- EPAs are “units of professional practice, defined as tasks or responsibilities that trainees are entrusted to perform unsupervised once they have attained sufficient specific competence. EPAs are independently executable, observable, and measurable in their process and outcome, and, therefore, suitable for entrustment decisions.” (EPA Curriculum Designer Toolkit)
- Being piloted by 10 medical schools
• Gather a history and perform a physical examination.
• Prioritize a differential diagnosis following a clinical encounter.
• Recommend and interpret common diagnostic and screening tests.
• Enter and discuss orders and prescriptions.
• Document a clinical encounter in the patient record.
• Provide an oral presentation of a clinical encounter.
• Form clinical questions and retrieve evidence to advance patient care.
• Give or receive a patient handover to transition care responsibility.
• Collaborate as a member of an interprofessional team.
• Recognize a patient requiring urgent or emergent care and initiate evaluation and management.
• Obtain informed consent for tests and/or procedures.
• Perform general procedures of a physician.
• Identify system failures and contribute to a culture of safety and improvement.
AAHSL CBME Taskforce Activities to Date

12 member task force formed Spring 2016 to evaluate how the entrustable professional activity competency framework was being implemented and potential areas of engagement for librarians in clinical competency entrustment.

Core tasks: identify how libraries were participating in Core EPA activities and develop a methodology to characterize the nature of their participation; map EPAs to ACRL framework.
Survey Results & Analysis
A survey was developed in Qualtrics and sent to medical schools via the AAHSL listserv in fall of 2016.

The survey was distributed to all 164 AAHSL member libraries in September 2016, garnering a 52% response rate or 85 members.

Results were analyzed using SPSS and with the expertise of a statistician.
Is your library involved in implementing Core EPAs in the undergraduate medical curriculum at your medical school?

- Yes, librarians are working with individuals in the medical school to implement one or more Core EPAs.
- Yes, the library is working on its own project to implement one or more Core EPAs, without others at the institution.
- No, Core EPAs are not being implemented at our institution.
- No, the library is not involved in implementing Core EPAs although Core EPAs are being implemented at the institution.
- I am unsure whether Core EPAs are being implemented at our institution.

23% 39% 22% 15% 1%
Which Core EPAs are being planned and/or implemented in the undergraduate medical curriculum at your medical school?

- **Insufficient information to answer**
- **Not being implemented or planned at the institution**
- **Implemented or planned but library is not involved**
- **Library is involved**

The chart shows the percentage of medical schools planning or implementing each EPA, with different colors representing the categories.
On day 1 of residency, it is crucial that residents be able to identify key clinical questions in caring for patients, identify information resources, and retrieve information and evidence that will be used to address those questions.

Day 1 residents should have basic skill in critiquing the quality of the evidence and assessing applicability to their patients and the clinical context. Underlying the skill set of practicing evidence-based medicine is the foundational knowledge an individual has and the self-awareness to identify gaps and fill them.
EPA 7 Functions

- Develop a well-formed, focused, pertinent clinical question based on clinical scenarios or real-time patient care.
- Demonstrate basic awareness and early skills in appraisal of both the sources and content of medical information using accepted criteria.
- Identify and demonstrate the use of information technology to access accurate and reliable online medical information.
- Demonstrate basic awareness and early skills in assessing applicability/generalizability of evidence and published studies to specific patients.
- Demonstrate curiosity, objectivity, and the use of scientific reasoning in acquisition of knowledge and application to patient care.
- Apply the primary findings of one’s information search to an individual patient or panel of patients.
- Communicate one’s findings to the health care team (including the patient/family).
- Close the loop through reflection on the process and the outcome for the patient.
What Functions of EPA 7 Are Being Taught or Assessed?

- Develop a well-formed, focused, pertinent clinical question
- Demonstrate basic awareness and early skills in appraisal of both the sources and content of medical information using accepted criteria
- Identify and demonstrate the use of information technology to access accurate and reliable online medical information
- Demonstrate basic awareness and early skills in assessing applicability/generalizability of evidence and published studies to specific patients
- Demonstrate curiosity, objectivity, and the use of scientific reasoning in acquisition of knowledge and application to patient care
- Apply the primary findings of one’s information search to an individual patient(s)
- Communicate one’s findings to the health care team (including the patient/family)
- Close the loop through reflection on the process and the outcome for the patient
Challenges and Barriers - The Librarian Perspective

- No orientation to Core EPAs for librarians and/or staff
- Lack of time in the curriculum
- Institution not currently implementing Core EPAs
- No librarian/staff training or expertise in content related to Core EPAs
- Lack of models from other libraries on implementing Core EPAs
- Lack of resources (i.e. time, funding) to implement Core EPAs
- Difficulty integrating Core EPA-related content into the preclinical phase of the curriculum
- Difficulty integrating Core EPA-related content into the clinical phase of the curriculum
- Lack of evidence of the value of Core EPAs
- Student or faculty pushback regarding the importance of Core EPAs vs. traditional basic science or clinical content
Challenges Teaching and Assessing EPA 7

- Not much research out there about EPA 7 and what there is demonstrates challenges.
- Program Directors do not think that residents can proficiently form or answer clinical questions using the biomedical literature. (Pearlman 2017 and Lindeman 2015)
- UGME and GME literature does confirm what librarians have long known. This is a hard skill to teach, assess, and promote across learner contexts.
- Key takeaway: this is a skill being discussed within clinical frameworks outside of our profession.
Areas of Opportunity

- EPAs can be a powerful tool to increase information literacy activities in the curriculum and lead to more teaching and assessment by librarians.
- EPAs were designed to be taught and assessed in authentic clinical contexts and librarians can do this work too.
- Use the EPAs to demonstrate that librarians are a valuable part of the clinical team and teaching Entrustable activities like question formation, appraisal, and critical thinking.
- What you are doing regarding information literacy training is transferable to EPAs - particularly EPA 7.
- Use the visibility of EPAs to advocate for your role in clinical competency entrustment, you can save medical faculty time/energy/money by leveraging your existing skill set and becoming more involved.
- Work with faculty champions to get involved in curricular renewal discussions particularly around CBME
What’s next for EPAs?

- The pilot is going on through 2020
- There is excitement in the medical education community for these standards. There is a great listserv for Core EPAs that often has lively discussion [https://www.aamc.org/initiatives/coreepas/](https://www.aamc.org/initiatives/coreepas/)
- LCME not requiring EPAs as part of accreditation (yet!) so we have time to get ready and seize this opportunity for increased librarian integration in clinical teaching utilizing this framework for clinical entrustment.
Map to ACRL Framework
## Mapping to ACRL Framework

<table>
<thead>
<tr>
<th>ACRL Knowledge Practice</th>
<th>EPA # and Function</th>
<th>ACGME Core Competency and Common Requirement</th>
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<tbody>
<tr>
<td><strong>ACRL Frame: Authority is Constructed and Contextual (A)</strong></td>
<td></td>
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<tr>
<td>A-1 Define different types of authority, such as subject expertise (e.g., scholarship), societal position (e.g., public office or title), or special experience (e.g., participating in a historic event)</td>
<td>7-2 Demonstrate basic awareness and early skills in appraisal of both the sources and content of medical information using accepted criteria. 9-1 Identify team members’ roles and the responsibilities associated with each role.</td>
<td>n/a</td>
</tr>
<tr>
<td>A-2 Use research tools and indicators of authority to determine the credibility of sources, understanding the elements that might temper this credibility.</td>
<td>7-2 Demonstrate basic awareness and early skills in appraisal of both the sources and content of medical information using accepted criteria.</td>
<td>IV.A.5.c Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning. (Practice-Based Learning and Improvement)</td>
</tr>
<tr>
<td><strong>ACRL Frame: Information Creation as Process (IC)</strong></td>
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<tr>
<td>IC-1 Articulate the capabilities and constraints of information developed through various creation processes</td>
<td>7-2 Demonstrate basic awareness and early skills in appraisal of both the sources and content of medical information using accepted criteria.</td>
<td>n/a</td>
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How you can use the framework

- Use it to help you understand how the library can help teach in areas related to UGME and GME.
- Use it to frame conversations with faculty about how the library is prepared and has expertise in the areas that map to EPAs and ACGME Competencies.
AAHSL Task Force Members

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- Judy Spak - Assistant Director, Research and Education Services, Yale Cushing/Whitney Medical Library
Thank you and Questions
References


Appendix 1: Entrustment Scales

- The AAMC modified entrustment scales to help figure out how ‘Entrustable’ a learner is with a given task in a clinical setting.

- The Ottawa Scale asks: In supervising this student, how much did you participate in the task?

<table>
<thead>
<tr>
<th>Modified Chen Scale</th>
<th>Modified Ottawa Scale</th>
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<tbody>
<tr>
<td>Watch me do this</td>
<td>“I did it.” Student required complete guidance or was unprepared; I had to do most of the work myself.</td>
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<tr>
<td>Let’s do this together</td>
<td>“I talked them through it.” Student was able to perform some tasks but required repeated directions.</td>
</tr>
<tr>
<td>I’ll watch you</td>
<td>“I directed them from time to time.” Student demonstrated some independence and only required intermittent prompting.</td>
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<tr>
<td>“You go ahead, and I'll double-check all of your findings.”</td>
<td>“I was available just in case.” Student functioned fairly independently and only needed assistance with nuances or complex situations.</td>
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