Portfolios in Clinical Medical Education

One Method to Foster Inter-Clerkship Growth

Introduction

- The Alliance for Clinical Education (ACE) is a multidisciplinary group formed in 1992 to enhance clinical instruction of medical students.
- ACE Mission: to foster collaboration across specialties to promote excellence in clinical education

ACE Member Organizations

- Association for Surgical Education (ASE)
- Association of Directors of Medical Student Education in Psychiatry (ADMSEP)
- Association of Professors of Gynecology and Obstetrics (APGO)
- Clerkship Directors in Internal Medicine (CDIM)
- Consortium of Neurology Clerkship Directors (CNCD)
- Council on Medical Student Education in Pediatrics (COMSEP)
- Society of Teachers of Family Medicine (STFM)

Panel Participants

- William Raszka, MD, Pediatrics
- Karen Brasel, MD, MPH, Surgery
- Imran Ali, MD, Neurology
- Mitchell Cohen, MD, Psychiatry
- Heather Harrell, MD, Internal Medicine
- Maya Hammoud, MD, OB/GYN
- Anne Walling, MB, ChB, Family Medicine

Session Objectives

- Define uses of academic portfolios in medical school curriculum
- Describe the potential of portfolios in sharing educational goals across clerkships
- Identify benefits for use of portfolios to assess growth across the clerkship year
- Discuss the inter-clerkship agreements necessary to assess growth across the clerkship year

Workshop Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:15</td>
<td>Types of portfolios</td>
</tr>
<tr>
<td>10:30</td>
<td>Potential for shared goals</td>
</tr>
<tr>
<td>10:45</td>
<td>Assessing growth</td>
</tr>
<tr>
<td>10:53</td>
<td>Ideal portfolio</td>
</tr>
<tr>
<td>11:00</td>
<td>Questions/Discussion</td>
</tr>
</tbody>
</table>
**Portfolio: General Definition**

- A purposeful collection of student work that exhibits the student's efforts, progress, and achievements
- Student participation in selecting content, the criteria for selection, the criteria for judging merit, and evidence of student self-reflection

**Medical Student Portfolios**

- Document students' progressive achievement of competencies
- Student self-assessment AND faculty assessment
- Challenge: avoid teacher-centered
  - Constraints of accreditation requirements
  - Established standards or competencies

**Portfolios responsibilities**

- Faculty members:
  - Identify/define competencies and standards
  - Define what constitutes acceptable evidence of accomplishment of competencies
  - Determine timelines and guidelines for evaluation
- Students:
  - Collect evidence (e.g. seeing the patients)
  - Document
  - Defend evidence of accomplishment

**Types of Portfolios**

- Working portfolio:
  - Evidence of what the student has completed
- Assessment portfolio:
  - Work demonstrating that the student has met specific learning goals and requirements.
- Reflective portfolio:
  - Evidence that attests to achievement as well as personal and professional development through a critical analysis and reflection of its contents

**Reflective Portfolio Caveats**

- Student buy-in (not extra work) is critical
- Learning v. assessment - reliability and validity
- Importance of student-faculty meetings

**Portfolio Use in Medical Schools**

- For specific courses in the curriculum
- In the experiential component of the curriculum: entire or specific rotations
- As an integrated component throughout the entire curriculum
- Following: two types of portfolios
  - Several residency/fellowship programs
  - Integrated medical school curriculum
Types of portfolios:
MCW

- Actual Portfolio Use at MCW:
  - Residency: 54% Currently in Use, 41% Developing
  - Fellowship: 33% Currently in Use, 33% Developing

What do we mean by "portfolio?

- Type of Portfolio Used:
  - Learning: 38% Residency, 47% Fellowship
  - Assessment: 33% Residency, 33% Fellowship
  - Program Evaluation: 33% Residency, 33% Fellowship

Resident Role?

- Resident Contribution:
  - Self-assessment: 53% Required, 19% Optional, 19% Not Yet Determined
  - Written Reflection: 59% Required, 12% Optional, 18% Not Yet Determined
  - Experience-based Entries: 38% Required, 18% Optional, 35% Not Yet Determined

KUSOM, Wichita Pilot

- Developed from Year 3-4 Committee
- 1:1 Student/Faculty mentor
- Portfolio used to address 3 competencies:
  - Develop reflective practice habits, using analysis of experiences to improve performance.
  - Accept and provide constructive feedback as part of a commitment to continuous learning and improvement.
  - Recognize and address personal limitations, attributes or behaviors that might affect their effectiveness as a physician.

- Student selection of items generated from clerkships
- 3 meetings over 3rd and 4th year
- Pre-work, 1 hour meeting, post-work
- Agreement among CDs to release students for a meeting

KUSoM, Wichita Pilot

- Collaboration across clerkships:
  - Decisions about type of portfolio
  - Selections of competencies
  - Potential items for portfolios
  - Pilot/full implementation timelines
  - Release of students
- Shared goals
Potential shared goals

- Role in Neurology Clerkship
  - Variable, not clearly defined (yet)
    - Encounter Logs
    - Procedural Logs
    - Case Vignettes
    - Self Reflection
  - Each with overlap among specialties

- Portfolio Role in:
  - Development of Clinical Skills
  - Longitudinal assessment
  - Tied to formative and summative assessment
  - As part of life long learning portfolio

Integrated curriculum: Mental Status Examination

- Taught in ICM, Neurology, Psychiatry and Medicine, and others
- Skill development includes:
  - Perform MSE in uncomplicated patient
  - Assess MS in a patient with neurological or psychiatric complaints
  - Interpret and analyze information
  - Use self-reflection to improve performance
  - Apply EBM

Clinical Skill / Core Competency

- Lumbar Puncture
  - Role of Lumbar Puncture
  - Observation of procedure
  - Performance of procedure with supervision
  - Interpretation and analysis of findings
- Does competency=competency on another clerkship?
- Can development of MSE skills be tracked and continued on subsequent clerkships?

Required Minimums set for 1 clerkship

- W/U and follow 15 different patients
- Complete 5 full admission evaluations
- Perform 15 full MSE
- Perform 2 Mini-MSE (Folstein) screens
- Participate in 1 family meeting
- Performance directly observed or findings presented to faculty

Required Clinical Experiences - Current

- Evaluate or observe evaluation of:
  - Unipolar or Bipolar DO, Schizophrenia or other Psychotic DO, Substance Use DO, Cognitive DO
  - Anxiety DO, Personality DO, Child/Adolescent DO, Somatoform DO, Eating DO
- Observe delivery of ECT
- At least 40 individual meetings with patients
Potential shared goals

- More direct faculty/housestaff observation of students performing essential skills possible
- Continuous skill development possible
- Increased required clinical experiences across 2 clerkships
  - Movement DO, dementia, delirium, secondary depression, somatoform DO, chronic pain, neuropsych/cognitive testing, observe OT/PT
- Inter-disciplinary case conferences and journal club foster inter-clerkship collaboration

Potential shared goals

- Specialty content
  - Aspect of PE
  - Procedure skill
- Non-specialty content
  - Reflection
  - Personal limitations
  - Professional growth

UF Experience

- Pilot portfolio years 1&2
  - Enhanced version of existing advisor program
  - Reflections and tracking of academic progress
- Medicine Clerkship
  - Competency-based extensive portfolio
  - Separate portfolio advisor
- Pediatrics Clerkship
  - Limited "portfolio" submissions
  - Submitted, end of clerkship to CD

Facilitating shared growth assessment

- Evaluation Criteria
  - Consistent standards across specific activities
  - Caution if linking evaluation to grade
- Convenience: Electronic portfolio
  - Facilitates cross-talk between courses/advisors
  - Facilitates feedback between learners and advisors
- ED-2 (what) vs Growth (how well)
  - Electronic ED2 log ≠ portfolio
  - ED 2 forced clerkship directors to agree on core presentations, skills, procedures
  - Portfolio moves conversation to level of mastery

Assessing growth: barriers

- Longitudinal advisement
  - Who?
  - How often?
- Faculty development
  - Major if summative/high-stakes

The Ideal Portfolio

- Components:
  - Carefully selected and agreed on by curriculum committee
  - Produce achievement of learning outcomes
  - Include reflection on and evaluation of the material in order to promote life-long learning principles
- Assessment:
  - Mostly formative
  - For summative, criteria has to be standardized; validity and reliability
  - Assessment instrument should be designed in a way to demonstrate that competencies cut across courses and years in the program

The Ideal Portfolio

Advantages:
- Help to assess and promote critical thinking
- Encourage students to become accountable for their own learning
- Act as a focus of discussion between student and advisor

Disadvantages:
- Depends on student maturity and motivation, does not suit all learning styles
- Reluctance of students to engage in self-reflection
- Conflict between summative assessment and the developmental value of a portfolio
- Time it takes to complete and assess them

Implementation:
- Students need to receive clear guidelines on their purpose, content, and structure
- Have a clear portfolio template to begin with, and show them examples of what is expected
- Good assessor guidelines by giving clear criteria for assessment with regular feedback and facilitating sessions
- Grading criteria should be explicit
- Use holistic approach to assessment
- Use of e-portfolios
Updated presentation will be available at
www.allianceforclinicaleducation.org
by November 12, 2007