Portfolio assessment of behavioral competencies at the Feinberg School of Medicine

Celia Laird O’Brien, PhD
Competency Based Medical Education

- Patient-Centered Medical Care
- Effective Communication and Interpersonal Skills
- Medical Knowledge and Scholarship
- System Awareness and Team-Based Care
- Personal Awareness and Self-Care
- Community Engagement and Service
- Continuous Learning and Quality Improvement
- Professional Behavior and Moral Reasoning
Competency Based Medical Education
Competency Based Medical Education

- Does
- Shows How
- Knows How
- Knows

Workplace Based Assessment
OSCE, simulation
Clinical vignette, essays
MCQ exam
Assessment of behaviors

- One observation isn’t enough.
Assessment of behaviors

- Many data points are necessary, collected from multiple observers, in different contexts, across time.
Assessment of behaviors

Result: Lots of data!

• How do we organize and review this data to determine competence?
The portfolio approach

- The Feinberg electronic portfolio is used to organize this data: a “learning chart”
- Allows students to review and reflect on their performance across time
- Allows us to measure and enhance behavioral competencies in our students
The portfolio approach

Three goals:

1. Permit assessment of competencies not easily measured by traditional grading methods.
2. Develop students’ capacity to self-assess their skills and abilities using external feedback.
3. Develop students’ ability to engage in self-directed learning and improvement.
Assessment at Feinberg

### Traditional grading system

<table>
<thead>
<tr>
<th>Phase 1a and 1b</th>
<th>Phase 2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science in Medicine</td>
<td>Clinical Medicine</td>
<td>Professional Development</td>
</tr>
<tr>
<td>Health &amp; Society</td>
<td></td>
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<tr>
<td>M1</td>
<td>M2</td>
<td>M3</td>
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</table>

- **Portfolio review** in M2 and M4
The portfolio approach

Competencies subject to portfolio review:

- Effective Communication and Interpersonal Skills (ECIS)
- Patient Centered Medical Care (PCMC)
- Professional Behavior and Moral Reasoning (PBMR)
- Systems Awareness and Team Based Care (SATBC)
- Continuous Learning and Quality Improvement (CLQI)
The portfolio approach

Examples of assessment data:

• Faculty and peer evaluations of small group work
• Clinical performance evaluations
• Feedback from standardized patients
• Feedback from nurses

• Narrative data is most informative.
## Professional Behavior and Moral Reasoning

### PBMR - 5  Behave with accountability and dependability.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had unexplained absences or was consistently late.</td>
<td>Consistently arrived on time.</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
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### PBMR - 7  Show initiative and responsibility in daily professional tasks, including participation in learning activities.

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<th>1</th>
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<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is not prepared for small group. Shows no evidence of completing pre-work. Shows no interest in understanding the material.</td>
<td>Prepared for small group. Evidence of completing pre-work.</td>
<td>Well-prepared for small group. Evidence of completing pre-work. Shows interest in understanding the material (e.g., asks follow-up questions).</td>
<td>Shows great interest in understanding the material, and helps teach peers (e.g., makes clarifying comments).</td>
<td>N/A</td>
<td></td>
<td></td>
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</tbody>
</table>

### Positive Observations:

- [ ]

### Suggestions for Improvement:

- [ ]
### Community Engagement and Service
- **Expectations**: Meets or Exceeds 15 of 15
- **Assessments**: ECIS
- **Rating**: 4.3

### Continuous Learning and Quality Improvement
- **Expectations**: Meets or Exceeds 89 of 89
- **Assessments**: OSCE VI
- **Rating**: 4.4

### Effective Communication and Interpersonal Skills
- **Expectations**: Meets or Exceeds 139 of 141
- **Assessments**: Phase 1B ECMH CPE Year End, Phase 1B Direct Observation Form
- **Rating**: 5.0

**ECIS-1**
- **Assessments**: sCBL Peer Assessment, OSCE VI, Profession of Medicine Small Group, HEME-ONC Peer Assessment, REPRO GU - MDM Small Group

**Hematology Oncology**: ECMH
- **Assessments**: Phase 1B ECMH CPE Year End, Phase 1B Direct Observation Form
- **Rating**: 5.0

**Phase 1B**
- **Assessments**: Professionalism: communication with healthcare team, Professionalism: effective healthcare team member, Professionalism: professional conduct, Professionalism: professional identity, Professionalism: professionalism and accountability, Professionalism: professionalism and accountability, Professionalism: professionalism and accountability
- **Rating**: 5.0

**Endocrine**: ECMH Groups
- **Assessments**: Phase 1B CM - ECMH CPE Mid-Year, Endocrine M2 Skills Session Mid-Year
- **Rating**: 5.0

**Endocrine**: CM Small Group Skills Session Evaluation
- **Assessments**: Endocrine M2 Skills Session Mid-Year
- **Rating**: 6.0

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*Click on the first column or gray arrow to expand table row and drill down.

⚠️ Indicates that the student received a below benchmark rating.*
LEARNING PLANS

**Select a Competency:** Effective Communication and Interpersonal Skills

**Select a Standard:**

- **ECIS-1**: Listen carefully, compassionately, and effectively. Knowledge of pharmacology and other therapeutic modalities.

- **ECIS-2**: Demonstrate that information is understood; effectively address communication barriers including health literacy, disparities, authority gradients, and language. Progressive skills for disciplined, continuous learning in order to stay current with evolving medical knowledge.

- **ECIS-3**: Share verbal or written information in a clear and timely manner with appropriate team members and patients. Academic, scientific, and/or clinical presentations will be audience-appropriate. The ability to identify personal and/or group gaps in knowledge or information necessary to solve problems and diagnose/treat/prevent illness.
Please title your Summative Reflections/Learning Plan in this box: - Phase 2

Instructions:

Proof Reflection  Save Draft  Send to Mentor  Submit to Summative Review Committee

SUMMATIVE REFLECTIONS

Click on folder to view evaluations

Active Communication and Interpersonal Skills

Reflect on strengths and accomplishments or areas for improvement. (May write "Not enough data"): 

Insert Tag  Tag Selected Text  Copy Existing Reflection  Format  Size
Portfolio review process

• Portfolio review committees comprised of experienced clinician educators

• Each portfolio is reviewed by at least two clinicians, who judge competence by the following:

a) Contents of the portfolio (institutional assessment data, external uploads)

b) Quality of reflections and learning plans
Portfolio review process

• Decisions:
  • Progressing towards competence
  • Progressing towards competence with some concern
  • Progressing towards competence pending additional development
Portfolio review process

• Assessment of competence isn’t about the numbers.

• Process depends on judgment from experienced educators.

• Involves analysis of qualitative data; uses qualitative methodology to collect evidence of validity.
Portfolio review process

• Reviewers work in pairs

• Independently score portfolios, then come together to reach consensus through discussion and debate

• Third reviewer used if consensus cannot be reached

• Final decisions reviewed by committee as a whole
Portfolio review process

• Multiple training sessions are held, including group standard setting exercise

• Important to work from a shared frame of reference

• Reviewers look for patterns and themes in performance across time
Results – Phase 1

<table>
<thead>
<tr>
<th></th>
<th>CLQI</th>
<th>ECIS</th>
<th>PCMC</th>
<th>PBMR</th>
<th>SATBC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>25</td>
<td>4</td>
<td>4</td>
<td>38</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>39</td>
<td>30</td>
<td>4</td>
<td>16</td>
</tr>
</tbody>
</table>

Legend:
- PC
- PAD

Northwestern Medicine
Feinberg School of Medicine
Evaluation

• Statistical analyses show a significant association between results of the portfolio review in Phase 1 and clerkship performance in Phase 2, even after controlling for medical knowledge.
Evaluation

Median number of clerkship grades awarded by group

- **No concerning behavior (n=111)**
  - Honors: 3
  - High Pass: 2
  - Pass: 1

- **Concerning behavior (n=24)**
  - Honors: 1
  - High Pass: 2
  - Pass: 3

*p < .01*
Mean clerkship performance score

- No concerning behavior: 82.3
- Concerning behavior: 79.4

*p < 0.001*
Lessons learned
“The last two decades have been characterized by happy portfolio developers and grumpy portfolio users.”

- Erik Driessen, 2016
Lessons learned

• Many students don’t see value of mandated reflection or self-improvement efforts
My mentor is able to help me understand my evaluation data as it relates to the competency standards.

Writing reflections about my progress in the competencies has proved to be a useful exercise.
Lessons learned

• Numbered ratings proved to be misleading and often contradicted narrative comments.

• Vast majority of students are rated “above average”... even when they’re not.
Lessons learned

• There is inherent overlap between these competency domains.
Lessons learned

• We need to focus more on training our reviewers to give effective feedback.
Lessons learned

• We need to re-examine our remediation efforts and determine how to best support students with deficiencies.
Lessons learned

• We had to pull back plans to transmit results of the portfolio review to residency directors
Conclusion

- Portfolio assessment is a feasible way to assess behavioral competencies but requires investment of dedicated time and resources.
References


QUESTIONS?