Outcomes Based Assessment of Emerging Professional Behaviors Using Narrative Assessments

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Workshop Objectives

By the end of this workshop, you will be able to:

1. identify the different outcomes that can be assessed during an educational session
2. recognize professionalism as a critical affective outcome and discuss assessment challenges
3. analyze your class/course to identify opportunities for professionalism assessment
3 Domains of Educational Outcomes

<table>
<thead>
<tr>
<th>KNOWLEDGE</th>
<th>PSYCHOMOTOR</th>
<th>AFFECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Related to the acquisition and application of knowledge and understanding</td>
<td>▪ Related to the development of manipulative or physical skills</td>
<td>▪ Related to the attitudes and feelings demonstrated by learners</td>
</tr>
<tr>
<td>▪ Most common learning outcome, esp in preclinical</td>
<td>▪ More common in clinical learning environments</td>
<td>▪ Least common</td>
</tr>
<tr>
<td>▪ Example: “The learner should be able to list the components of the A-a</td>
<td>▪ Example: “The learner should be able to assemble the central line insertion kit”</td>
<td>▪ Example: “The learner should exercise empathy when counselling”</td>
</tr>
<tr>
<td>gradient”</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Knowledge Educational Outcomes

Knowledge = Recalling Information

Comprehension = Interpreting Information

Application = Applying Information in Specific Settings

Analysis = Breaking Information into Constituent Elements

Synthesis = Creating a New Understanding or Applying in a New Situation

Evaluations = Making Judgements or Comparisons

Bloom's Hierarchical Classification of the Cognitive Domain (1956)
Psychomotor Educational Outcomes

- **Gross Motor** = movements of basic parts of the body
- **Fine Coordination** = hand-eye coordination or movement of small body parts
- **Non-Verbal Communication** = facial expressions, gestures
- **Speech Behaviors** = sound production and projection; sound and gesture coordination

Kibler's Hierarchy of the Psychomotor Domain (1970)
Affective Educational Outcomes

Receiving = awareness of emotions or feelings; willingness to hear about emotions or feelings

Responding = attending to and/or reacting to a particular emotion or feeling

Valuing = ability to see the worth of something; expressing worth by committing to an attitudinal position

Organizing = organizes values into priorities and creating a unique value system or internal philosophy

Valuing

Characterizing = internalizing values by possessing values that control behaviors

Bloom/Krathwohl Hierarchy of the Affective Domain (1964)
Exercise #1: When you think about your course or session, are you assessing each of these domains?

Knowledge | Psychomotor | Affective

Do you have opportunities to assess each of these domains?

Do you have explicit objectives that address each domain?

If you have opportunities and/or objectives, are you assessing them?
PROFESSIONALISM

AN IMPORTANT BUT CHALLENGING AFFECTIVE LEARNING OUTCOME
Doctor Carved His Initials Into Patient, Lawsuit Says

The New York Times

Anesthesiologist trashes sedated patient — and it ends up costing her

The Washington Post
A doctor who was being monitored because of a long history of rudeness again yelled at a nurse.

A prominent surgeon's habit of degrading comments aimed at nurses and support staff eventually resulted in "shoving and pushing...in the OR."

A male doctor created "an intolerable work environment for a female physician" through "condescending, bullying" and refusing to acknowledge her supervisory role.

Disciplinary action by a medical board was strongly associated with prior unprofessional behavior in medical school."

Editorials commented on the high prevalence of unprofessional behavior among students in the control group; only with decreased severity of the unprofessional behavior.

"Disciplinary action by a medical board was strongly associated with prior unprofessional behavior in medical school."

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Papadakis 2005

Disruptive Physician Behavior Report by the American College of Physician Executives
May 2011
Assessment of Professionalism

- Professional Identity
- Behaviors
- Values
What We Did:
Self- and Peer-Assessments plus Narratives

CHALLENGES

- Definition of success focuses on individual knowledge outcomes
- Faculty unable to directly observe all students
- Current professionalism assessments use clinically-based language
- Paucity of opportunities to provide critical narrative assessments
What We Did: Self- and Peer-Assessments plus Narratives

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SOLUTION = CHANGE THE SETTING
What We Did: Self- and Peer-Assessments plus Narratives

CHALLENGES

- Definition of success focuses on individual knowledge outcomes
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**SOLUTION = CHANGE THE ASSESSOR**
What We Did: Self- and Peer-Assessments plus Narratives

CHALLENGES

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SOLUTION = CHANGE THE LANGUAGE

- Arrives on Time
- Accepted Feedback
- Balanced Listening & Talking
What We Did: Self- and Peer-Assessments plus Narratives

CHALLENGES

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SOLUTION
Exercise #2: Creating a Professionalism Assessment for Your Educational Venue

Think About and Then Discuss Opportunities For Professionalism Assessment by Addressing the:

- Setting
- Assessor
- Behaviors
Lessons Learned

- Learners wanted to receive the data & the narratives
- Assessors needed training – students particularly on how to give feedback & self-evaluate
- Students wanted a chance to address issues identified before end of courses
- Central management to ensure competence
Lessons Learned

- **Learners wanted to receive the data & the narratives**

- **Assessors needed training – students particularly on how to give feedback & self-evaluate**

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- **Central management to ensure competence**
Lessons Learned

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https://teammatesv4.appspot.com/
What TEAMMates provided

A report that provides:
- a summary of responses,
- the individual ratings given to you,
- the ratings you provided each of your team members
A. Summary of data
1. Please complete the table below using data from questions 1-6:

<table>
<thead>
<tr>
<th>Scale</th>
<th>Average Rating</th>
<th>Maximum Rating</th>
<th>Minimum Rating</th>
<th>Average excluding self-response</th>
<th>Rating you gave yourself (Self Rating)</th>
<th>Difference between average Peer and self rating*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.75</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

1. Arrives on time and is ready to begin the day’s work.

2. Arrives prepared with the required background knowledge.

3. Actively contributes to the discussion.

4. Demonstrate a good balance between participating and letting others participate.

5. Identifies limitations in understanding.

6. How do you rate this student’s overall performance, to date?

   - 5 - Frequently exceeds expectations
   - 4 - Meets and sometimes exceeds expectations
   - 3 - Meets expectations
   - 2 - Partially meets expectations
   - 1 - Does not meet expectations

* Calculate this value by subtracting the rating you gave yourself (self rating in column 5) from the average peer rating (column 4)

Each student then completes a summary report which includes:

- For each numeric question
  - average peer rating
  - maximum peer rating
  - minimum peer rating
  - self rating
  - difference between the average peer and self rating

- Summary of the narrative feedback
Lessons Learned

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**B. Personal Learning Plan**

a. Based on the ratings and feedback you have received, what area(s) do you think you need to focus on in future small group sessions?

b. Is your self-assessment aligned with the assessment data provided by your teammates? If not, describe the nature of the misalignment and reflect on possible causes for this misalignment.
Lessons Learned

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**Central management to ensure competence**
Exercise #3: Ensuring Professionalism Assessments are Meaningful to the Learner, Faculty & School

How would you return the assessment outcomes to your learners?

How would you provide your learners the chance to make improvements?

How would you teach your learners these skills of feedback?

How do your ideas about professionalism assessment fit into a bigger picture of determining competence?
In Conclusion...

- 3 Domains of Educational Outcomes – Knowledge, Psychomotor, Affective
- Affective outcomes are rarely assessed because of frequent challenges
- Professionalism is an important affective outcome in medical training
- Challenges in assessing professionalism can be overcome by changing
  - Setting
  - Assessor
  - Language
- Narratives or comments are key
An Example from WUSM Pre-Clinical Courses

- Assessments emailed students & open x5 days
- De-identified data returned to each student through TEAMMates
- Students use the reporting form to aggregate their data
- Reporting form is submitted directly within Canvas
- Faculty gives feedback on
  - quality of the goals,
  - progression from one feedback session to the next,
  - alignment of peer and self-assessment
  - Ideally, quality of feedback each student provided (not available in Canvas)
Making Professionalism Assessment Programmatic

- Identify all of the opportunities
- Personalize within limits
- Monitor learner progression
THANK YOU...