F 307
Developmental Clinical Evaluations: Assessing Students Over Time

Cathy C. Ruff, MS, PA-C
David Eckhardt, MS, PA-C
University of Colorado CHA/PA Program
Objectives

• Describe the advantages of using a developmental approach to student assessment
• Describe the ORIME system for student assessment
• Describe strategies to successfully implement a new clinical assessment tool
• Identify ways in which this approach ties to the PA competencies and informs curricular improvements
Approach to Student Assessment

• Clinical performance rarely followed longitudinally
  – 4-6 week rotations
  – Variety of preceptors
  – Preceptor may not observe students regularly
    • May not be able to give clear feedback

• Expectation is that with a variety of experiences, students will develop necessary clinical skills
Approach to Student Assessment

• Typically an “analytical” approach
  – Separating skills, knowledge and attitudes
• Often numeric scale of measuring ones’ abilities
• Little use of “narrative”
  – Often considered subjective
  – May be very general
Developmental Approach to Assessment

• May help preceptors target teaching strategies to student needs
• Considered a “synthetic” process
  – Synthesizes skills, knowledge, attitudes
  – Practiced from early training to completion of training
• May help to distinguish between basic and advanced levels of performance
Descriptive Evaluation

• One framework is the “reporter, interpreter, manager, educator” (RIME) framework
  – Provides descriptive evaluation
  – Helps in guiding feedback
  – Each step is developmental
    • Requires student synthesis of knowledge, skills and attitudes before moving forward
ORIME

• Mechanism to improve the credibility of descriptive evaluations of students
• Develop a standard vocabulary
  – Hope to increase reliability and validity
• Incorporate formal feedback session
• Decrease subjectivity and/or perception of subjectivity
ORIME

- Observer - often omitted since observation may play little role in resident training
- Reporter - consistently good in interpersonal skills, reliably obtains and communicates clinical findings
- Interpreter - ability to prioritize and analyze patient problems

ORIME

• Manager - consistently proposes reasonable options incorporating patient preferences

• Educator - consistent level of knowledge of current medical evidence; can critically apply knowledge to specific patients

ORIME in Medical School

• Incorporated into University of Colorado School of Medicine residency evaluations in 2008

• Met with great resistance from preceptors
  – Dramatic change from the numeric scale
  – Unfamiliarity created some anxiety around evaluation
Implementing into PA Program

• PA students trained alongside MD students
  – Same clinical sites
  – Same preceptors
  – Using different evaluation methods
    • Adding to preceptor confusion and resistance to “new” evaluation methods
    • PA program agreed to move to ORIME for consistency with MD program and to decrease preceptor confusion
Implementing ORIME

• Review of School of Medicine ORIME evaluations
  – Descriptors were all negative and MD-specific

• Rewrote descriptors
  – Positive
    – More “PA friendly”
Strategies to Implement

• Focus groups
  – Students
  – Preceptors

• Piloted
  – Same group of students - clinical year
  – Same group of preceptors
    • Mainly in academic settings

• Debrief
  – Second student and preceptor focus groups to
Strategies to Implement

• Developed instructional information
  – Students
  – Preceptors
• Launched with one class of students
  – Class of 2013
  – Followed by all three years of students
    • Class of 2014 had two years of ORIME
    • Class of 2015 had all three years using ORIME
Developmental Evaluation

• During the didactic phase early clinical experiences are mainly observational
  – Students may progress to gathering history or performing components of a physical exam
  – Expectation of beginning early clinical students is that they perform at the “O” or “R” level
Developmental Evaluation

• Early clinical experiences progress from observational to more “hands-on”
  – Students should be gathering histories, performing physical exams and developing differential diagnoses and assessments
  – Expectations of early clinical students as they progress is that they perform at the “R” or “I” level
    • Level “I” by the end of early clinical experiences
Developmental Evaluation

• During the clinical year experiences are more progressive
  – Students should be fairly skilled at history, PE and assessments, while continuing to develop management skills
  – Expectations of students in the clinical year is that they perform at the “I” or “M” level
    • Level “M” by mid-to-late clinical year
Developmental Evaluation

• The “Educator”
  – Used for exceptional students
  – Students assuming “sub-intern” role in in-patient settings
  – Students who demonstrate ability to educate peers and/or members of the interprofessional team
Student Perceptions

• Some confusion about new format during transition from one evaluation to another
  – Re-educated about use of ORIME

• Students find ORIME straightforward and easy to follow
  – They can clearly identify at what level they are expected to perform
Preceptor Perceptions

• Some initial confusion
  – Could have be related to move from Likert to descriptors -
  – Many wanted to give students “educator” level

• To address this, evaluations were color coded
  – Expected performance range is highlighted
<table>
<thead>
<tr>
<th>1st Year Evaluation</th>
<th>Observer</th>
<th>Reporter</th>
<th>Interpreter</th>
<th>Manager</th>
<th>Educator</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient/Clinical Care (History taking):</strong></td>
<td>Student watches preceptor perform history, does not contribute to patient care.</td>
<td>Student demonstrates consistent, complete and adequate data collection during history taking.</td>
<td>Student demonstrates consistent, complete and adequate data collection during history taking and is able to identify issues of clinical concern.</td>
<td>Student performs a focused or comprehensive medical history, as indicated by presenting issue, in an organized, complete and efficient manner, identifies area of clinical concern, and suggests next steps.</td>
<td>Student is a self-directed learner who contributes to the education of others.</td>
</tr>
<tr>
<td><strong>Patient/Clinical Care (Physical Exam Skills):</strong></td>
<td>Student watches preceptor perform physical examination, does not contribute to patient care.</td>
<td>Student is able to perform all important components of the physical examination correctly with some guidance as to parts of the exam to be included.</td>
<td>Student performs all important components of the physical examination correctly.</td>
<td>Student performs either a focused or comprehensive physical examination, as indicated by presenting issue, in an efficient, correct and sensitive manner and is able to identify abnormal findings.</td>
<td>Student is self-directed learner who educates peers on physical examination techniques.</td>
</tr>
<tr>
<td><strong>Patient/Clinical Care (Oral Presentations):</strong></td>
<td>Student hears preceptor perform oral presentation, does not contribute to patient care.</td>
<td>Student oral presentations are generally organized, complete and accurate with occasional extraneous material; preceptor may occasionally need to ask for clarifying information especially in a specialty setting.</td>
<td>Student oral presentations are organized, accurate and complete. Student is able to prioritize medical issues.</td>
<td>Student oral presentations are organized, accurate, complete, concise and include prioritization and analysis of medical issues and suggestions for management; preceptor can rely on these presentations to contain all relevant material necessary to determine plan of care.</td>
<td>Student is self-directed learner who educates peers on organization of oral presentations.</td>
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<tr>
<td><strong>Patient/Clinical Care (SOAP notes):</strong></td>
<td>Student observes preceptors preferred method of medical documentation, does not contribute to patient care.</td>
<td>Student written communications are generally organized, or complete and accurate in a primary care setting, though may need additional guidance in a specialty practice.</td>
<td>Student written communications are organized, accurate and complete.</td>
<td>Student written communications are organized, accurate, complete, concise and incorporate prioritization and analysis of most medical issues; they accurately reflect the major issues important for patient care and contain a plan.</td>
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</tr>
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<td><strong>Medical Knowledge (Basic Knowledge of common illnesses):</strong></td>
<td>Student observes preceptors but does not have opportunity to share medical knowledge related to common illnesses encountered.</td>
<td>Student participates but has gaps in medical knowledge necessary to fully understand common illnesses encountered.</td>
<td>Student has understanding of etiology, clinical manifestations and pathophysiology of common illnesses encountered; asks appropriate questions to further assess where knowledge is lacking or incomplete.</td>
<td>Student has outstanding fund of knowledge with regard to both common and uncommon illnesses encountered.</td>
<td>Student is self-directed and educates peers on common and uncommon illnesses encountered.</td>
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<td><strong>Practice Based Learning and Improvement (Ability to learn from system &amp; individual errors):</strong></td>
<td>Student observes but does not contribute to system error identification.</td>
<td>Student is able to identify some gaps in learning and receives feedback appropriately.</td>
<td>Student understands own limitations and seeks help when needed, able to identify system and individual errors.</td>
<td>Student actively creates plans for addressing individual limitations and initiates self-improvement; able to propose system changes.</td>
<td>Student is self-directed and educates peers on system errors; proposes practice based changes designed to improve patient care.</td>
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<td><strong>System-Based Practice (Knowledge of practice systems and community resources):</strong></td>
<td>Student observes but does not contribute knowledge of practice systems and community resources.</td>
<td>Student able to identify some important health care resources that would benefit his/her patient.</td>
<td>Student demonstrates an understanding of the importance of interdisciplinary teams, consultants, and health care resources for the benefit of the patient.</td>
<td>Student seeks out and utilizes local and community resources for the benefit of the patient; actively participates in multidisciplinary meetings or is able to help patients navigate the system of care.</td>
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<td><strong>Interpersonal and Communication Skills (Listens and communicates clearly and effectively with patients/families and care team):</strong></td>
<td>Student observes communication with patients and families; does not participate in patient care.</td>
<td>Student communicates appropriately with patients/families but may not use active listening skills or open-ended questions consistently.</td>
<td>Student creates rapport with patients/families through active listening, use of open-ended questions, limited interrupting and use of words that demonstrate compassion and caring.</td>
<td>Student communicates even complicated or difficult information to patients and families and appropriately responds to their concerns/questions.</td>
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<td><strong>Professionalism (Sensitivity/compassion with patient/staff; Adheres to ethical principles; promptness; demonstrates gender and culture sensitivity):</strong></td>
<td>Student is prompt and dresses professionally, observes but does not participate actively in patient care.</td>
<td>Student is prompt, dresses professionally, and fulfills basic patient care responsibilities when asked.</td>
<td>Student is punctual and reliable in day-to-day tasks; fulfills basic patient care responsibilities required of him/her; helps with team tasks when requested; demonstrates sensitivity and compassion.</td>
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Lessons Learned

• Link to professional competencies helps faculty assess student performance in specific areas
• Developmental progression helps to illustrate learner growth over time
• ORIME has served as a cornerstone in creating our new program of assessment
Program of Assessment

• Multiple clinical assessments over the course of the curriculum
  – Begins early in didactic phase
  – Extends through program completion
  – Allows for review of student progress over time
  – Evaluations are tied directly to professional competencies
Clinical Evaluations

• Not only do our preceptors evaluate student performance
  – Program of assessment offers us opportunity to evaluate and provide direct feedback to students
  – Formative clinical exams during the didactic phase
    • Use of Objective Structured Clinical Exams (OSCE)
    • Ability to assess areas of strength
    • Ability to assess areas of challenge
    • Ability to help students develop goals for clinical phase
Clinical Evaluations

• Summative clinical exam late didactic phase
  – Formative component
    • Students do receive feedback on performance
    • Discuss goals for clinical year with advisor
    • Must pass before entering clinical year

• Summative clinical exam end of clinical year
Updates to ORIME

• During development of program of assessment
  – Review of curriculum
  – Feedback from preceptors

• Added descriptors to professionalism and interpersonal/communication domains

• More closely matches how we evaluate students in didactic phase
Relation to Curriculum and Standards

• Institutions have greater accountability for learner competence
• Increased use of highly quantified assessment tools (OSCE)
  – Lends itself to objectivity
  – Clearer outcomes
• Trends in student challenges on clinical exams inform curricular change
• Descriptive evaluations now considered more valid and reliable and supplement what we know about a learners competence
References


• Hauer KE, et al. Faculty Verbal Evaluations Reveal Strategies used to Promote Medical Student Performance. Medical Education Online, 2011; 16: 6354.
