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Clinical Teaching and Evaluation: Evidence and Implications for You

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Challenges in Clinical Teaching

- Faculty shortages
- Complex practice environments
  - Increased complexity and acuity
  - Continued shift of care to community
  - New technologies, highly specialized interventions
  - Focus on quality and safety

etc.

Challenges in Clinical Teaching cont'

- Traditional model of clinical teaching
- Clinical learning dependent on:
  - Available patients and experiences
  - When students “there”
  - Research findings: graduates not well prepared

Research on Clinical Teaching

- Studies on qualities of effective clinical teachers 290
  - Sufficient research
Research on Clinical Teaching cont'

Stresses of students in clinical practice 28
- Fear of making mistake that would harm patient
- Interacting with teacher, other providers, patients, staff
- Changing nature of patient conditions
- Lack of knowledge and skill
- Being unfamiliar with clinical setting

Research on Clinical Teaching cont'

Being observed and evaluated by teacher

Research on Clinical Teaching cont'

Stresses of clinical teachers 15
- Multiple demands
- Heavy workload
- Balancing teaching with activities of personal importance

Research on Clinical Teaching cont'

Pressure to maintain clinical competence or a practice…no time
- Balancing demands of students, clinical staff, others
- Teaching inadequately prepared students

Good Clinical Teaching

- Interactional process
- Establish climate for learning and evaluation

Good Clinical Teaching cont'

- Student in clinical setting is learner, not a nurse
  - Yan expectations
  - Need time to learn before evaluated
- Students make mistakes
  - Learn how to prevent those mistakes next time
  - Do not expect perfection
Good Clinical Teaching cont'
- Students think teacher’s role is to evaluate

Teach

Good Clinical Teaching cont'
- Give feedback
  - Most important variable affecting learning
  - Formative (improve performance)
  - Specific, informational
  - Continuous within clinical learning experience

Motor Learning
- Understanding how to perform skill
  - Accuracy
- Refining movements
  - More consistent
- Can perform without thinking about each step
  - Automatic

Practice is Critical
- Meta-analysis of 53 studies on skill decay
  - Substantial loss of acquired skills from nonuse or lack of practice
  - Skills not practiced or used for 1 year:
    - Average participant performs at less than 92% of original skill
    - Skills taught early in nursing program that are not used are not retained

Patient Assignment
• Choose variety of clinical learning activities
  • Patient care, but not all “complete care”
  • Other learning activities

Focused on clinical competencies of course and students’ learning needs

Clinical Learning Activities
• Investigate pain management strategies used on your unit. How do they compare to the literature? To what you learned in class? What are similarities and differences across patients, and why? Present in conference.

• Describe a problem with quality of care. Write a 1-page report about the need for a QI project.

Asking Higher Level Questions
• What studies have been done? 18
  • Consistent findings:
    • Teachers and preceptors ask low level questions (knowledge, recall) during clinical practice and in discussions
    • Most questions seek yes/no response

Asking Questions cont’
• Guide thinking about patients, practice
  • What did you notice?
  • What did you expect? Find?
  • What are other possibilities? Perspectives? etc.
  • Explore student’s understanding

Short Integrated Cases
Focus on specific outcomes to be learned
• Integrate concepts, classes, readings
• Present new or different scenarios than prior examples

Sample Case #1
A patient is transferred to your unit from a community hospital with headache, nausea, and vomiting. The patient’s headache is getting progressively worse, and she is losing vision in her right eye.

1. What data are most important and why?
2. What are the next steps?
3. Prepare a report on this patient for handoff.
Sample Case #2
You make a home visit to an elderly patient with depression who is having loss of memory and crying spells. The patient is taking a selective serotonin reuptake inhibitor (SSRI). Two weeks later, you visit again, and the patient also has loss of appetite and difficulty sleeping.
1. What do you notice in this situation?
2. Provide alternate explanations for the patient’s current symptoms.
3. Discuss the case with a peer. Decide on next steps to be taken.

Sample Unfolding Case
You are making a home visit to see a 71-year-old woman who has a leg ulcer that began after she fell. The patient is coughing and wheezing; she says she “feels terrible.”
1. What additional data would you collect in the initial assessment? Why?
2. What actions would you take during this home visit? Provide a rationale.

Case continues...
In 3 days you visit this patient again. She has shortness of breath, more fatigue, and appears cyanotic around her mouth.
1. Does this new information change your impression of her problems? Why or why not?
2. List priority problems for this patient with a brief rationale.
3. What is the pathophysiology of cyanosis?

Case continues...
The patient recovers from that episode, and you are able to visit her one more time. At this last visit, she is still short of breath but otherwise seems improved.
1. Write your final report on this patient.

Short Written Assignments
• Prevent summarizing what others have written
• Promote students’ thinking about patient care
• Can be done in clinical conferences and critiqued by peers
• Focus on outcomes
  Describe how your patient’s treatments and interventions are similar to or different from your readings and why. (1 p.)
Sequence Papers Across Clinical Courses

- **Foundation (Knowledge and Skills)**
  Identify 1 clinical practice guideline from National Guideline Clearinghouse or 1 best practice from Joanna Briggs Institute. Explain if your nursing care was consistent with it. If not, what would you do differently next time and why?


Sequence Papers Across Clinical Courses cont'

- **Step 1 (low cognitive complexity)**
  Describe one of your patient’s problems. What are different approaches you could use? Describe advantages and disadvantages of each. Which approach is best and why?

- **Step 2 (moderate cognitive complexity)**
  In discussion board describe an issue you had in clinical setting, how you handled it, & why you chose that approach.

  **Peers answer these questions:**
  Do you agree with the analysis of the issue and approach? Why or why not? How would you respond to this situation and why? Write 1-page paper analyzing your decision.

Sequence Papers Across Clinical Courses cont'

- **Step 3 (high cognitive complexity)**
  Identify an intervention you used for your patient. Propose an alternate one for the same problem. Compare evidence and costs and benefits of each. What approach would you use next time for that patient? Provide a rationale. (2 pp)

Too Much to Do?

Too Many Papers?
Not Enough Time?

Try Group Writing in Post Conference

Concept Maps

- What studies have been done? 20
- Effective for problem solving and critical thinking
- Varied measures of critical thinking
- Guidelines for use? Timing in course and clinical experience? How many?

Developed by Deanne A. Blach, from Gaberson & German, Clinical Teaching Strategies
**Concept Maps cont’**

- What studies have been done in medical education? 35
  - Concept maps:
    - Promote meaningful learning
    - Are additional resource for learning
    - Useful to provide feedback to students
    - Assess learning and performance


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**Nursing Care Plans and Similar Assignments**

- Enable students to
  - analyze patients’ problems
  - design plans of care
  - select evidence-based interventions
  - identify outcomes to measure
  - Should be usable, realistic

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**Pre Clinical Assessment**

- Goals
  - Are students prepared for assignments?
  - Fill in GAPS
  - Help set priorities for care
  - Decrease student anxiety

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**Concept Maps cont’**

- Uses
  - Complete from readings to assist students in linking new facts and concepts to their patients
  - Prepare for clinical practice
  - Present in pre clinical conference, revise during clinical practice, discuss in post clinical conference
  - Develop collaboratively by students in conference

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**Nursing Care Plans cont’**

- Do they promote problem solving and higher-level thinking?  
  *No research to support*
- Do students only summarize from textbook without thinking about information?  
  *Probably*
- How many in a course? What type?  
  *Depends on purpose*

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**Post Clinical Conference**

- Goals?
  - Reflect on clinical practice and decisions
  - Focused discussions
  - Evidence suggests…

*15 minutes*
Clinical Evaluation

- What studies have been done? 193
- Evaluation tools and their development
- Specific methods, eg, portfolios n=20
- What methods work best for particular competencies, settings, etc.?

Clinical Evaluation cont'

- Survey of 1573 nursing faculty
- Predominant strategy: Observation of student performance (n=1289, 93%)
- Other clinical evaluation methods: Written assignments (85%), skills testing, conferences, student self-assessments
- Most clinical courses pass/fail (n=1116, 83%)

Clinical Evaluation cont'

- Most use clinical evaluation tool (n=1534, 98%)
- Same tool in all courses but modified to reflect unique aspects of each course (n=1095, 70%)


Clinical Evaluation cont'

- Process by which judgments are made about performance in clinical practice
- Data
- Judgment

Formative Evaluation

- Feedback to learner
- Progress toward meeting outcomes
- NOT GRADED
Summative Evaluation
- Achievement of outcomes, competencies
- End-of-instruction evaluation
- GRADED

Climate for Clinical Evaluation
- Clinical evaluation is a

Public Event

Clinical Evaluation Methods
- Decisions:
  1. What is being assessed?
  2. Formative or summative?
  3. How many times to evaluate each outcome?

Clinical Evaluation Methods cont’
- Observation
- Notes about performance
- Checklists
- Rating scales
- Simulations
- Standardized patients
- Objective Structured Clinical Examination
- Written assignments
- Journals (reflective journals)

Clinical Evaluation Methods cont’
- Nursing care plans
- Concept maps
- Case method, unfolding cases, case study
- Process recording
- Papers
- Portfolios
- Conferences
- Group projects
- Self-assessment

Some Problems with Observation
- Your values and biases
  - Research suggests over-reliance on 1st impressions
- Window of time
- “Good data” but incorrect judgment
  So…
Observation of Performance

Don’t rely on it

Documenting Observations

- Notes about performance
- Detect patterns of performance
- Formative
- PDA, netbook, checklist
- Rating scale/clinical evaluation tool
  - Summative

Clinical Evaluation Tool

1. Consistent with outcomes/competencies
2. Valid
  - Does tool collect intended information about performance?
  - Does tool measure safe, effective practice?

Clinical Evaluation Tool cont’

3. Reliable
  - Same results when used with different student groups and by different faculty?
  - Drift away from meaning/interpretation over time
4. Appropriate number of competencies?

Improving Use of Clinical Evaluation Tool

- Have regular discussion of competencies to be rated
  - Meaning of each competency
  - How to assess it
  - What would performance look like to pass or fail
    - Or at each rating level

Improving Use of Clinical Evaluation Tool cont’

- Use simulation to facilitate discussion
- Observe a performance, assess it with rating scale, and discuss rationale for rating
- Annual evaluation of tool and process
Observation of Performance

Issues with precepted courses

Problems with Observations by Preceptors
- Their values and biases
- Their standards for comparison
- Limited understanding of meaning of course outcomes and competencies
- How to judge the quality of their observations

So...

Critical Faculty Decision
- Which clinical competencies need to be observed and performance rated?
- Prepare preceptors to observe and rate performance
  - Simulation, standardized patients, videotapes of performance for practice

ePortfolios
- Collections of projects by students
  - Demonstrate achievement of outcomes
  - Show work completed over period of time
- Types
  - Best work (graded)
  - Growth and development (formative)

Using Simulation for Clinical Evaluation
1. Competencies to be assessed?
2. Are simulations available or need to be developed?
3. Formative or summative?
4. Rating forms
5. Timing in course

Objective Structured Clinical Examination (OSCE)
- Evidence
- Students rotate through series of stations
  - Clinical—interaction with simulated patient
  - Practical—demonstration of motor skills, techniques
  - Static—evaluation of cognitive skills
- Performance assessed
- Summative
Don’t get stuck with the same clinical teaching or clinical evaluation methods.
Selected References: Clinical Teaching and Evaluation


Journal of Nursing Education, 48, 213-216.