Effective Clinical Evaluation

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A Lexicon of Clinical Teaching and Evaluation
Clinical

- An adjective -- must modify a noun
- NOT:
  - “My students are in clinical.”
- BUT:
  - clinical laboratory
  - clinical practice
  - clinical practicum
  - clinical work
Supervision

- You do:
  - Clinical instruction
  - Clinical teaching

- You don’t do:
  - Clinical supervision (oversight, direction, management)

- Your role is competent guidance
Experience

- The student has:
  - clinical experiences

- The teacher can only provide:
  - clinical activities

- Each student will experience the activity in a different way
Evaluation

- The process of judging the worth or value of a performance
- Root word is VALUE; therefore, the process is inherently subjective
- Can make the process fair, but cannot make it objective
Measurement

- The process of assigning numbers to represent varying amounts of the phenomenon or variable of interest
- Numbers are symbols; they have no inherent meaning
- Numbers must be assigned according to rules
Grading

- Process of assigning a symbol to represent the quality of performance--summative

- Grades can be:
  - letters (A, B, C, D, F; may include + and -)
  - categories satisfactory/unsatisfactory, pass/fail, integers [4 through 1])
  - percentages
A Philosophy Of Clinical Teaching And Evaluation
A philosophy of clinical teaching and evaluation

“Every clinical teacher has a philosophy of clinical teaching [and evaluation], whether or not the teacher realizes it.”

Gaberson & Oermann, 2007
adapted from Elizabeth Whalen’s philosophy of editing
What is a Philosophy of Clinical Teaching and Evaluation, and Why Do I Need One?
Philosophy

“A belief system about human beings and their place in the world”

(Csokasy, 1998, p. 101)

- Does not prescribe specific actions
- Gives meaning and direction to practice
- Provides a basis for determining if one’s behavior is consistent with one’s beliefs
Without a philosophy to guide choices, a person is overly vulnerable to custom and fashion.

- Tanner & Tanner, 2006
Educational philosophy

- Provides a framework for making curricular choices from among options and understanding the implications of alternate educational decisions.
- Values and beliefs provide structure and coherence for a curriculum, but are meaningless if contradicted by practice.
Philosophy of clinical teaching

- One type of educational philosophy
- A set of beliefs about the purposes of clinical education and the responsibilities of teachers and learners in clinical settings.
Philosophy of clinical teaching and evaluation

To change their practice of clinical teaching and evaluation, educators must first reflect on their fundamental beliefs about:

- the value of clinical teaching
- the roles and responsibilities of teachers and learners
- how desired outcomes are best achieved
Philosophy of clinical teaching and evaluation

Beliefs serve as a guide to action

Profoundly affects:
- how clinical teachers practice
- how students learn
- how learning outcomes are evaluated
Elements of a Philosophy of Clinical Teaching and Evaluation
Clinical education should reflect the realities of professional practice.

- **Nursing: a professional practice discipline**
  - expert knowledge in a specific domain
  - use that knowledge on behalf of society
  - serve specified clients

- Practice component differentiates professional from academic disciplines
Clinical education should reflect the realities of professional practice

- Clinical practice requires:
  - thinking and problem solving abilities
  - specialized psychomotor and technological skills
  - a professional value system
- Practice in clinical settings exposes students to realities of practice
Clinical education should reflect the realities of professional practice

Professional practice: the high, hard ground overlooking a swamp (Schon, 1987)

- high ground practice problems can be solved by applying research-based theory and technique
- swampy lowland problems are messy, confusing, and not easily solved by technical skill--problems of greatest importance to society
Clinical education should reflect the realities of professional practice

- Nurses and nursing students must learn to solve both types of problems
- Most professional practice situations are characterized by complexity, instability, uncertainty, uniqueness, and the presence of value conflict
  - resist solution by the knowledge and skills of traditional expertise
Clinical education should reflect the realities of professional practice

- Professional practice occurs within the context of society--must respond to social and scientific demands and expectations
- Knowledge and skill repertoire of a professional nurse cannot be static
- Must prepare students to practice in the future
  - go beyond current knowledge and skills
Clinical education should reflect the realities of professional practice

- Teaching to reflect the realities of practice
  - Allow students to encounter real practice problems
  - Don't focus on teacher-defined, well-structured problems for which answers are easily found in theory and research
  - Do expose students to ill-structured problems for which there is insufficient or conflicting information or multiple solutions
Clinical teaching and evaluation are more important than classroom teaching and evaluation.

- **Nursing is a practice discipline**
  - What nurses and nursing students do in clinical practice is more important than what they can demonstrate in a classroom.
  - Some learners who perform well in the classroom cannot apply knowledge in clinical practice.
Importance of Clinical Evaluation

Clinical evaluation is more important than classroom evaluation

Lawrence Litwack

The clinical area is “where the rubber meets the road”
The nursing student in the clinical setting is a learner, not a nurse

- The laboratory concept
  - M. S. Infante
- Purpose of clinical learning activities is to expose student to patient or consumer for the purpose of testing theories and learning skills
The nursing student in the clinical setting is a learner, not a nurse.

Purpose of clinical learning activities is to expose the student to patient or consumer for the purpose of testing theories and learning skills.
The nursing student in the clinical setting is a learner, not a nurse.

In nursing education, clinical learning activities historically have been confused with caring for patients:
- Typical activities of nursing students center on patient care.
- Learning is assumed to take place while caring.

The role of the student should be primarily that of learner, not nurse.
Sufficient learning time should be provided before performance is evaluated

- Students need to engage in activities that promote learning and to *practice* skills *before* they are evaluated for a grade.
- Many nursing students perceive that the main role of the clinical teacher is to evaluate.
- Many nursing faculty members perceive that they spend more time on evaluation than on teaching.
Sufficient learning time should be provided before performance is evaluated.

- Nursing faculty members seem to expect students to perform skills competently the first time they attempt them.
- Skill acquisition is a complex process involving making mistakes, learning how to correct them, learning how to prevent them.
- Faculty members should expect students to make mistakes.
Sufficient learning time should be provided before performance is evaluated. Allow plentiful learning time with ample feedback before evaluating summatively.
Later successes count more than earlier mistakes.

Measure success by success, not by the number of failures it takes to achieve it.

Harvey Mackay
Clinical teaching and evaluation are supported by a climate of mutual trust and respect

- Students often enter nursing education with previous negative school experiences
  - teachers are viewed as enemies, out to “get” students, eager to see them fail
- Many teachers also have had students who were untrustworthy
Climate of mutual trust and respect

- Evaluation system should contribute to a climate of mutual trust and respect between student and faculty
- Teacher is responsible for setting and maintaining climate
Climate of mutual trust and respect

- Supportive of student growth
- State early and often a sincere desire to see students succeed
Clinical teaching and learning should focus on essential knowledge, skills, attitudes

- **Essential curriculum**
  - Knowledge, skills, and attitudes that all students must have to be safe and competent

- **Enrichment curriculum**
  - Nice-to-have but not essential knowledge, skills, and attitudes
Clinical teaching and learning should focus on essential knowledge, skills, attitudes.

- No nursing program has the luxury of unlimited time for clinical teaching.
- Clinical teaching and learning time are used to maximum advantage by focusing most of the time and effort on the most common practice problems that students and graduates are likely to face.
Essential vs. Enrichment

**Essential**
- Diabetes
- Hypertension
- Heart disease
- Cancer
- Arthritis
- Depression

**Enrichment**
- Heart and liver transplants
- Dissociative identity disorder
- Pseudocyesis
- Short-gut syndrome
Enrichment curriculum

- Curriculum should not consist solely of essential content
- Use enrichment curriculum to
  - enhance learning
  - individualize activities
  - motivate
Clinical evaluation should focus on essential knowledge, skills, and attitudes.

- Don’t have to evaluate everything summatively
  - Student loses focus on what is important and meaningful
  - Give feedback on both essential and enrichment knowledge, skills, and attitudes
  - Use only data that relate to essential outcomes to determine a clinical grade
The espoused curriculum may not be the curriculum-in-use

- Adapted from Chris Argyris (theory)
- Espoused curriculum
  - What it says on paper
  - What faculty say they teach
- Curriculum-in-use
  - What faculty actually do in the classroom and clinical laboratory
The espoused curriculum may not be the curriculum-in-use

- The subject of how much time nursing students should spend in clinical activities has been the subject of much debate.
  - Infante, 1985
- When teachers schedule a certain amount of time for clinical activities, it will be too little for some students and too much for others.
Quality vs. Quantity

- # of hours spent in the clinical laboratory does not = quality of learning
- Never enough time
- Focus on outcomes of each activity
Using a philosophy of clinical teaching and evaluation to improve clinical education

- Differences in philosophy can profoundly affect how individuals enact the role of teacher.
- Decisions about teaching or evaluation method, setting, outcome, or role behavior are grounded in the teacher’s philosophical perspective.
Using a philosophy of clinical teaching and evaluation to improve clinical education

- Reflection on one’s philosophy of clinical teaching may uncover source of incongruencies between espoused theory and theory-in-use
- The core values of your philosophy of clinical teaching can serve as a basis for
  - useful discussions with colleagues
  - testing of new teaching and evaluation methods
  - improvement of clinical teaching and evaluation
Effective Clinical Evaluation Methods
Effective Clinical Evaluation

Focus on the process, not on the tools
Use a variety of data sources

- Direct observation
- Reflective journal
- Other written assignments
- Feedback from others
  - clients
  - peers
  - staff
Measure quality, not quantity

1 + 1 = 3

- Frequency is no indication of competency, accuracy, or reproducibility
- Some mistakes count more than others
Learning Before Evaluation

- Students need time to learn before they are evaluated.
- Must practice skills and receive feedback (formative) before being graded (summative).
- More learning time than evaluation time.
Summative vs. formative

- Summative evaluation occurs at the end of the learning process
- Formative evaluation occurs throughout the learning process
- Don’t use formative evaluation data for summative purposes
Standards for performance ratings

- Benner/Dreyfus
- Infante/Scheffler
- Garman
- Bondy
- Dave
Benner (Dreyfus)

- **Novice**: no previous experience
- **Advanced Beginner**: marginally more acceptable performance; still needs help with priorities
- **Competent**: 2-3 years experience; planned and organized but may lack speed and flexibility
- **Proficient**: 3-5 years experience; grasps entire situation, learns from experience what typical events to expect and how to modify plans in response, senses early warning signs
- **Expert**: 10 or more years experience; intuitive, will zero in on the problem without wasteful consideration of unfruitful alternative solutions, perceptual acuity
Infante (Scheffler)

- Competency: knowing how to do something
- Proficiency: knowing how to do it well
- Mastery: doing it brilliantly
Imitation: covert imitation of an observed action; lacks neuromuscular coordination or control

Manipulation: performance of skill according to instructions

Precision: refinement in performance so that it is carried out independently, meeting criteria of accuracy, proportion, and exactness

Articulation: performance evidences harmony in series of acts and meets criteria of accuracy, smoothness, and reasonableness of time

Naturalization: a high level of proficiency in the skill; the performance becomes natural and smooth and the learner’s focus is shifted away from the skill; the skill is a means to an end rather than an end
Garman

- **Non-readiness**: not ready to begin skill development; may lack prerequisite knowledge, skills, or attitudes; anxiety may be a barrier
- **Readiness**: has prerequisite knowledge, skills, and attitudes, but has not yet put the skill components together
- **Development**: has begun to combine knowledge and performance; performance is fragmented
- **Practice**: performance of skill prior to mastery; learner is able to perform the skill, needs more practice before desired level of skill is achieved
- **Demonstration**: able to perform skill at expected level of performance, meeting all criteria for satisfactory skill performance
- **Maintenance**: performance of skill beyond the established criteria; consistent maintenance of skill
Bondy

- **Dependent:** unsafe; unable to demonstrate the skill; lacks coordination, confidence, efficiency; needs continuous verbal and physical cues
- **Marginal:** safe but not when alone; performs at risk; unskilled and inefficient; expends considerable excess energy to complete the task; not always accurate; uses excessive time
- **Assisted:** safe and accurate; skillful in performing some parts of the behavior; inefficient and uncoordinated; expends excess energy to complete the task; takes extended time to complete the task; requires continuous verbal and physical cues
- **Supervised:** safe and accurate; efficient, coordinated, and confident; expends some excess energy, but completes task within a reasonable period of time with occasional supportive cues
- **Independent:** safe and accurate; proficient, coordinated, and confident; occasional expenditure of excess energy, but completes task expediently without supportive cues
Grading system

- Don’t mix criterion-referenced and norm-referenced grades
  - e.g., “above average, pass, fail”
- In general, easier to make grading decisions with fewer levels
- “Consistency” is not an indication of excellence
  - does not allow for improvement
  - unreasonable expectation of a learner
Clinical grading systems

- **Norm-referenced**
  - compares each student's performance to that of other students
  - above average, average, below average

- **Criterion-referenced**
  - compares each student's performance to preselected standards
  - exceeds expectations, meets expectations, does not meet expectations:
  - satisfactory, unsatisfactory
Clinical grading systems

- **Multidimensional**
  - letter grades: A through F
  - integers: 5 through 1
  - percentages

- **Two-dimensional (categorical)**
  - pass-fail
  - satisfactory-unsatisfactory

- Using numbers cannot eliminate subjectivity
Clinical grading systems

Two-dimensional systems

- **Advantages**
  - easier to make distinctions between acceptable and unacceptable performance
  - more faculty satisfaction

- **Disadvantages**
  - does not reward exceptional performance
  - may not motivate students to perform at their best
Clinical grading systems

- Multidimensional systems
  - advantage
    - can reward superior performance
  - disadvantages
    - encourages “grade-grubbing”
    - difficult to discriminate among four or five levels of performance
    - difficult to achieve inter-rater reliability
    - students reduce multiple dimensions to two: A or F
Standards for performance levels

- Foundations of nursing/assessment/knowledge and comprehension
  - Unacceptable
    - Does not relate the “textbook picture” to the actual situation, even the most obvious factors
  - Satisfactory
    - Relates the “textbook picture” to the more obvious factors in the actual situation, and sometimes to the less obvious
  - Outstanding
    - Relates the “textbook picture” to the obvious and subtle factors in the actual situation
Common Problems and Proposed Solutions
The weak/unsafe/at-risk student

- When to act
- Documentation
- Can you dismiss an unsafe student?
- Policy on safe clinical practice
Managing the “star”

- Individualize pace of instruction and timing of evaluation
- If student is able to meet essential objectives early, provide enrichment activities
Written assignments

Purpose

- Substitute for clinical activities?
- Set a minimum rather than a maximum number
- Should reflect the realities of clinical practice
Learner dependence vs. independence

- Amount of independence relates to level of learner.
- Encourage independence in thinking and problem solving.
- Encourage interdependence with other learners and staff members.
- Legal aspects
Clinical absences

- Should attendance be required?
- Should attendance count in the clinical grade?
- Focus on meeting objectives
- Policy on professional behavior
Anecdotal notes

- Required?
- Signed?
- How often?
- Recommendation
The evaluation conference

- Individual conferences unnecessarily time-consuming
- Group discussion of group strengths and weaknesses
- Distribute individual written evaluations
- Opportunity for individual conferences at instructor or student discretion
Inter-rater reliability

Would another observer give the same rating to the performance?

Affected by the degree to which the observers are applying the same standards

Faculty development

Collaborate to observe each other’s students
Continual improvement vs. regression

- Human learning does not occur in a consistent linear progression.
- When learning new skills or transferring previously learned skills to a complex setting, students sometimes regress to an earlier level of skill.
- The goal should be a specific outcome, not improvement.
Transfer of knowledge

- Must teach for transfer
  - concept learning
- Correlating classroom and clinical teaching may facilitate but will not assure transfer
- Evaluate transfer by presenting novel stimuli, ill-structured problems
Improving Clinical Evaluation Tools
Practicality

- Most clinical evaluation systems are overly complex and marginally effective
  - Lawrence Litwack
- Don’t need to evaluate everything
  - focus on critical behaviors
Clinical objectives/competencies

- All students should be expected to meet all objectives
  - Reasonable number
  - Available learning opportunities
  - Limit to essential objectives
Program requirements vs. course objectives

- Program requirements are more important than course objectives
- Policy on program requirements
  - hold students accountable regardless of the particular course they are taking
Design elements

- Remove “not observed,” “not applicable,” “no opportunity”
- Consider different colors and grading symbols for formative and summative tools
- Spacing
- Signatures, dates, comments
Achieving rigor

What doesn't work

- Raising the criteria for success beyond a reasonable standard
  - Students will perceive as punitive
  - “Star” students will be motivated by the higher standard; weak students will be demoralized rather than motivated
  - Faculty members will make “exceptions” for students who appear to be trying hard
Achieving rigor

- If you’re concerned about student performance, don’t test or evaluate more, or raise the grading scale—teach more or better.
- You can’t fatten a pig by weighing it.

Anthony Nitko
Achieving rigor

What does work

- Working toward faculty consensus on what constitutes success
  - Criteria based on validity studies
  - Inter-rater reliability studies
- Remove “consistency” as a criterion for success
- Stick to essential outcomes that all students should achieve