According to Del Bueno (2005), 2/3 of our current nursing graduates are unable to clinically reason at the most basic level to recognize a worsening change in patient status. This is commonly called, “failure to rescue” and happens when the nurse does not recognize trends that reflect a deteriorating status change until it is too late and an adverse outcome or patient death results. For example, a patient who is sliding into sepsis but not recognized until they are in septic shock with severe hypotension and a lactate >4, will likely die as a result of the nurse’s inability to clinically reason and think like a nurse.

Is the traditional model of educating nurses that has been relatively unchanged for the past forty years contributing to the inability of new nurses to transfer their knowledge to clinical practice? In the book Educating Nurses: A Call to Radical Transformation, Dr. Patricia Benner and her co-authors lay a clear vision of what must be done to change the paradigm of nursing education that has not kept up with the need to prepare student nurses to think like a nurse in clinical practice by emphasizing clinical reasoning. This outline is intended to be a brief summary of the highlights from Educating Nurses and what the Carnegie Foundation identified is needed to change the paradigm of nursing education so that students are effectively prepared to practice at the bedside and what you as an educator can do to “be the change”.

The Problem is in the Classroom

1. Too much CONTENT!
   a. Nurse educators have a responsibility to emphasize what content is most RELEVANT so students can acquire DEEP learning of what is essential.
   b. With the encyclopedic nature of current textbooks, students are expected to know a chapter’s content, but acquire only a superficial learning.
   c. Dorothy Del Bueno writes in, A Crisis in Critical Thinking (2005), “Why can’t new registered nurse graduates think like nurses? Unfortunately findings reported by the author in the early 1990’s have not changed. Only 35% of new RN graduates regardless of educational preparation meet entry expectations for clinical judgment. Although well versed in content, the majority are unable or have considerable difficulty translating knowledge and theory into practice. Why? The author believes that a highly probable cause is the emphasis on teaching more and more content rather than a focus on application of knowledge. A look at the size and plethora of nursing textbooks supports this conclusion.

2. Content is not contextualized to practice
   a. Content is repeated from the chapter it was derived from with no clinical scenario or “hook” to hang it on and intentionally apply in most classrooms. Have we forgotten that students can read content and our primary responsibility as educators is to spend our lecture time to contextualize essential knowledge to practice?
   b. Nursing is a practice discipline that takes place at the bedside. Therefore all content must be intentionally situated to show how it impacts patient care at the bedside but this is not done consistently.
3. **PowerPoint driven learning that does not engage students with clinical realities**
   a. Benner states this best in Educating Nurses: “Classroom teachers must step out from behind the screen full of slides and engage students in clinic like learning experiences that ask them to learn to use knowledge and practice thinking in changing situations.”
   b. Lecture/PowerPoint driven presentations are a PASSIVE pedagogy. Only 5-20% of content is ultimately retained. After only 20 minutes students begin to disengage. The role of the student is to absorb knowledge, take notes, and passively participate.
   c. Compare this to ACTIVE learning pedagogies that Benner advocates must take place in the classroom. For example, if clinically derived case studies were used to engage learners, up to 50-75% retention occurs as higher level thinking takes place. Students actively participate, experience, and construct/apply knowledge. **What classroom would you rather be in??**
   d. Del Bueno (2005) weighs in: “Recall and understanding of content or selection of the correct answer do not equate to clinical judgment. In the real world, patients do not present the nurse with a written description of their clinical symptoms and a choice of written potential solutions. Smart nurses are effective nurses when they think critically, not when they can pass multiple choice tests.”

4. **Classroom theory is fragmented and poorly integrated with clinical practice**
   a. Currently in most programs, classroom theory and clinical education are in their own separate orbits with little to no intersection.
   b. If theory content is covered in the classroom, it is totally random and by chance that the student will be able to apply it with a patient in the clinical setting.

**The Solution**

1. **Contextualize theory content to the bedside**
   a. Shift from a focus on covering decontextualized knowledge to an emphasis on teaching for a sense of salience, nurse thinking and action in a particular situation.
   b. This can practically be done through clinically derived case studies that situate clinical realities in the safety of the classroom. Students are asked to identify what clinical data is important or relevant and why.
   c. My definition of critical thinking is recognizing the relationships between clinical sets of data. For example, your patient just admitted with heart failure exacerbation, has an ejection fraction of 20%, elevated creatinine, elevated BNP, a chief complaint of SOB and assessment findings of crackles ½ up bilat. in both lung fields. What are the clinical relationships and the physiologic rationale for these findings? This learning can be situated and practiced in the classroom to prepare students to identify these same relationships in the clinical setting.

2. **Provide opportunities to PRACTICE clinical thinking/reasoning by using “clinical imagination” in the classroom**
   a. Isabel Hampton Robb, the most influential American nurse educator of the early modern era also recognized the value of practicing any skill. She writes in Nursing Ethics (1900): *Only by constant repetition can you become really familiar with the work. Only by doing a thing well again and again can you obtain confidence, accuracy and precision. It is this constant, intelligent practice that constitutes the difference between the skilled trained professional woman and the amateur. Despite the common use of the term, the “born nurse” does not exist...it will always be necessary to take hold of each task and do it over and over again, being guided by an intelligent, trained mind.*
b. We must recognize that thinking is a skill that must also be practiced to become proficient. Foley catheterization and other clinical skills require this repetition and we give opportunities to do this in our skills lab. The classroom must become this “lab” environment to practice nurse thinking with clinically derived case studies.

c. Clinical imagination defined by Benner: “Nursing students need to acquire knowledge in a way that relates directly to the skilled know how they are developing in clinical situations and to acquire knowledge in a way that allows them to imagine situations and rehearse for them.” Clinical reasoning case studies are one way to make this possible.

d. Conjure up possibilities of what could happen in this situation and be prepared for the worst possible problem. “What if” questions are an effective pedagogy in the classroom and clinical to develop this needed nurse thinking skill of ANTICIPATE vs. REACT to a patient problem when it develops.

3. **Whittle away content in the classroom and emphasize CONCEPTS**
   a. Concepts are content, just the most important! Using your experiential knowledge as a nurse or drawing from your team, look at existing PowerPoint presentations and make it a goal to whittle 40-50% of the current content to salient concepts. Then use the remaining time in class to situate these concepts with a clinically derived case study.

4. **Emphasize clinical reasoning as a systematic approach that reflects how nurses think in practice**
   a. Critical thinking has long been the emphasis in nursing education, but is inadequate to capture needed priority setting and action when a patient has a change in status. NANDA nursing diagnostic language are also unable to capture the essence of needed priority setting when a status change occurs.
   b. Essence of clinical reasoning is the ability of the nurse to THINK IN ACTION…reason as situation changes by capturing trends in labs, VS and assessment data collection, grasping the essence of the situation and recognizing the NEED TO RESCUE.
   c. Series of clinical reasoning questions that provide a template for thinking like a nurse in clinical practice:
      i. What is the primary medical problem?
      ii. What is the underlying cause/pathophysiology of current problem?
      iii. What labs, VS & assessment data are RELEVANT to this patient?
      iv. What is your concern…nursing priority(s)?
      v. What nursing interventions will you initiate?
      vi. What is the rationale for nursing interventions/physician orders?
      vii. What body system(s) will you most thoroughly assess based on primary problem?
      viii. What is worst possible complication to anticipate?
      ix. What nursing assessment(s) are needed to identify and respond if this complication develops?

**My Response as a Nurse Educator**

As a practicing nurse who continued to work part-time in the ED and ICU while teaching, the paradigm changes advocated in *Educating Nurses* resonated so strongly with me, I knew I could not go back to “classroom as usual” with content heavy presentations. I reworked my content to emphasize concepts, situate the learning with recent examples I had seen in clinical practice, and implemented clinically derived case studies in the classroom that brought “clinical imagination” and situated
knowledge acquisition in the classroom. I have since created three levels of clinical reasoning case study templates that can be downloaded from my website at no cost. I have also created numerous med/surg case studies of all three levels complete with student version and faculty key.

1. Rapid Reasoning Activity: Short/condensed “just right” clinical reasoning activity for any med/surg level to supplement your lecture content. Contains ten foundational clinical reasoning questions that provide a template for “nurse thinking” in practice.

2. Fundamental Reasoning Activity: Ideally suited for first year/fundamental level. Clinical scenario is presented to help students see the RELATIONSHIPS between data that lay the foundation for critical thinking as well as recognize priorities and needed interventions.

3. Unfolding Reasoning Studies: Unfolds over time and is longer in length. The most common changes in patient status are also incorporated as “clinical curveballs” that must be recognized by the student as well as same foundational clinical reasoning questions.

Practical implementation strategies for the classroom:

a. With a typical 50” time block of lecture, I lectured no more than 20-25” and then used the remaining time for a clinical reasoning case study that situated the content I just taught.

c. No Student will RISE to low expectations. This quote is my thesis statement that guides me in classroom and clinical education. Students will go no higher than what you expect of them. High but realistic is the bar I set as an educator and when students see the relevance of your expectations to practice, most will meet or exceed what you expect.

d. These were my expectations as I implemented these needed paradigm changes in the classroom:
   i. Come to class prepared by reading the textbook BEFORE class.
   ii. APPLY your understanding of the content by working through the clinical reasoning case study I posted 1 week before class either individually or preferably in small groups.
   iii. Group DIALOGUE of case study in class. I led the dance, but student response and dialogue was expected with no spoon feeding allowed!
   iv. My role as educator was to facilitate/direct/emphasize salient points of the case study.

e. When I did a survey at the end of the semester implementing these changes in my classroom, not one student wanted to go back to the traditional content lecture. This is a sampling of a student comment and another educator who used this pedagogy.

f. Student response: “It was very helpful. I didn’t feel like I was memorizing for the test. I felt like I was able to apply the information. It helped put knowledge into practice and made it clear why it was relevant”

g. Faculty response: “This format makes such a difference in helping to bring clinical into the classroom. It helps students to apply information and look at the big picture in our patients. I had so much fun teaching in this way and didn’t see anyone nodding off in the back of the class!”

In Closing...

We have two choices as we face a fork in the road regarding our manner and approach to teaching our students. Follow the pack that do what is comfortable and resist needed change or choose the hard and narrow road of radical transformation that Benner is calling us as educators to embrace recognizing what is at stake. Together, one classroom at a time, we can realize Benner’s transforming vision of nursing education to not only promote the learning of our students, but more importantly better outcomes for the patients they care for.
References

