

Case Studies for an Accelerated Bachelor of Science in Nursing Pathophysiology Course

The need to change the way in which we educate nursing students was most clearly articulated by Benner, Sutphen, Leonard, and Day (2009) in *Educating Nurses: A Call for Radical Transformation*. Realizing this need, we revised our lecture-based Pathophysiology course for Accelerated Bachelor of Science in Nursing students. The pedagogical goal was to bridge the gap between classroom teaching and clinical learning (Benner, et al., 2009). We sought to improve the students' understanding of pathophysiologic processes through applied or active learning with clinical case studies based on evidence that this is an effective active approach (Day, 2011; Popil, 2011). We prepared to launch the course in the following semester by using a strictly case study-based approach and removing traditional lectures from the course.

An initial barrier of the course was the lack of a resource for pathophysiology case studies. The only resource we could identify at that time, *100 Case Studies in Pathophysiology* (Bruyere, 2009), contained cases organized by body system. The questions provided for each case focused on pathophysiology, assessment, pharmacology, and treatment. We modified the questions to focus strictly on pathophysiologic processes, as our students take separate pharmacology and adult health nursing courses in the following semester.

Despite the belief that our revised format had pedagogical merits, some students were not comfortable with the format, possibly because their prior classroom experiences may have involved passive learning approaches. A few students who preferred a lecture format approached us, the course faculty, to discuss their discomfort, whereas some students responded negatively to this format by disengaging from the new course delivery and discussion. We subsequently shifted to a mix of didactic lecture and case study discussion at approximately 5 weeks into the semester to reduce overall student anxiety.

Modifications

For the last two semesters, we incorporated case discussions into the course content, and approximately half of the class time was spent on case discussion and half was spent on lecture content. Another change came from feedback and observations from the first-semester students regarding the time allotted for them to understand clinical information so early in their nursing education. We realized that the weighting for the case study questions and discussion was not commensurate with the time and effort spent on weekly assignments. In the subsequent semesters, the total case study credit was increased from 15% to 25% of the overall course grade. We also modified the case study assignments so that some were completed prior to coming to class, were turned in, and then were discussed in class, whereas others were completed in small groups during class time and then discussed as a class. We correlated the small group work with weeks when the students had examinations. This group work has been rich with students' sharing of their knowledge and understanding of the case studies, often thoughtfully debating on the "correct" answers.

To match our evaluation of student learning with the teaching approach, two to four short-answer questions were added to each examination. This allowed the examinations to be more reflective of our case study approach and to better assess student understanding of the pathophysiologic processes. Revisions of all course examination questions, including multiple choice items, are underway to reflect clinical scenarios and application, in addition to maintaining some short-answer questions on each examination.

Clinician experts from the faculty supplement the class discussions and case study analyses. Anecdotal feedback revealed that the ongoing dialogue between the coteaching faculty members and guest experts added to student learning and provided an example of collegial discussion. Feedback on formal end-of-semester course evaluations revealed that

the students indicated enhanced learning of the material reflected in the course objectives and included comments regarding enjoying and incorporating knowledge from the case studies. Many students have commented in subsequent semesters that the cases and the course aided their understanding of other courses, such as Adult Health (Medical-Surgical).

Implications for Future Course Changes

Throughout this process, the primary course textbook was maintained, yet we realize the problems that arise by using a basic science text with a more clinical application approach to the Pathophysiology course. We are in search of a more relevant textbook or resources to use while maintaining the graduate level of the class. In future semesters, we also hope to participate in ongoing projects with colleagues who have expertise and interest in this area of nursing education, using cases to teach the course, collecting appropriate data to evaluate the process, and identifying how the case-based approach is best implemented to bridge the gap between clinical and classroom learning.

References

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