

Jumbled Data Cases Provide Context for Teaching Quality and Safety Principles to New Accelerated BSN Students

The accelerated baccalaureate nursing (BSN)-to-master of science in nursing program, a response to the nursing shortage in which second-degree students are pre-accepted into an advanced practice registered nurse specialty program as they begin the fast-track BSN program, necessitates efficiency in teaching the quality and safety essentials of nursing practice. During a 3-week health assessment course, the first course in the accelerated BSN curriculum, faculty actively promoted the integration of quality and safety caregiving concepts for new students who were academically and experientially accomplished yet who had no other knowledge of nursing content or clinical terminology. At the end of each daily laboratory experience, students were asked to contextualize technical skills acquired by organizing a “jumble,” which embedded principles of patient-centered care into disorganized subjective and objective data. This required students to summarize data and take steps toward seeking evidence-based care strategies.

Beginning in 2005, the Robert Wood Johnson Foundation initiated the Quality and Safety Education for Nurses project to provide a framework that would prepare nursing students with knowledge, skills, and attitudes that lead to improved quality and safety of patient care (Cronenwett et al., 2007). Toward a similar end, Benner, Sutphen, Leonard, and Day (2009) advocated the integration of clinical scenarios in the classroom setting to promote flexible clinical reasoning skills. An important goal of our health assessment course was to use clinical cases to insert patient-centered care and evidence-based practice principles into each teaching-learning and evaluation tool, such that Quality and Safety Education for Nurses concepts were integrated as fundamental to effective efficient practice.

The rigorous design of this course involved 4 contact days per week, with classroom and laboratory components each day. At the end of each laboratory experience, student pairs completed the jumble assignments, which were composed of roughly 50 to 100 pieces of disorganized subjective and objective data exemplified in the following:

Fears exercise will trigger asthma attack. Denies sore throat. E.C. states difficulty obtaining medicine. Tonsils: no exudates, 1+, non-erythematous. “I would like to have better control of my asthma so I do not worry about it as much.” Married with one child. Episodes last 30-60 minutes. Asthma episodes more frequent on pollution alert days. Trachea midline. Sensitive to environmental smoke. Albuterol 2 puffs q 4-6 hours as needed for cough or wheezing. One year ago was in ICU [intensive care unit] for acute respiratory failure. NKDA [no known drug allergies]. Vesicular lung sounds throughout. Pulmicort 2 puffs BID.

Students were asked to sort these data into a coherent, organized clinical note with traditional headings (e.g., patient goals, chief complaint, history of present illness, past medical history). Patient goals, beliefs, and cultural preferences were important data also included within each data set. After the subjective and objective fragments were organized under traditional headings, the students interpreted the data by constructing a nursing diagnosis. For the example above, the student might summarize the data with this diagnosis: Anxiety related to perceived threat of asthma attack as evidenced by patient statements of concern. The assignment also required students to develop a Population-Intervention-Comparison group-Outcome (PICO) question that could help guide a literature review (not required) to find evidence-based care practices relevant for the jumble patient. In this case, an appropriate PICO question might include: P = adult men with asthma, I = daily

meditation, C = no meditation, and O = reduced anxiety about symptoms.

Teaching strategies involved for nursing diagnosis and PICO question formation includes one 30-minute didactic session, as well as an additional 15-minute breakout into small groups. Following the small group work, students reported and demonstrated a tentative grasp of the strategies. By course end, all 36 students consistently and accurately organized jumbled data, including patient-centered data, and all students properly constructed relevant nursing diagnosis and PICO questions, both on laboratory worksheets and on several multiple choice test items focused on these skills.

In addition, all students responded on a 0-4 Likert-scale survey that the jumble assignment components helped them to learn the health history, body systems assessment, and clinical language portions of the course. Most of the students evaluated the strategy as either 3 (*very helpful*) or 4 (*extremely helpful*) in each case. All students were able to provide properly constructed examples of nursing diagnoses and PICO questions in a 3-month follow-up questionnaire. Integrating patient-centered care and evidence-based care principles in the development of a 3-week health assessment course facilitates assimilation of assessment content and processes and ensures that these principles are incorporated into students' caregiving habits.

References

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