

Use of Online Unfolding Case Studies to Foster Critical Thinking

Developing critical reasoning skills in a clinical setting is a priority for nursing education. In all care settings, patients are more acutely ill, requiring higher levels of nursing care and time. Clinical sites are limited, and clinical hours are tightly scheduled (American Association of Colleges of Nursing, 2012). Therefore, nursing faculty may need to provide alternative learning opportunities to meet student learning objectives. Case studies have traditionally been used with students to create a connection between didactic knowledge and clinical experiences (Foster & Carboni, 2008).

Following the revised Bloom's Taxonomy, case studies meet both the knowledge and comprehension dimensions. The student uses factual, conceptual, and procedural knowledge consistent with their educational level. The student must then apply and analyze the situation using their knowledge (Krathwohl, 2002).

A traditional case study is static and does not allow the instructor to assess the student's process for clinical decision making. An unfolding online case study using a simulated patient engages students over a period of time and allows the instructor to follow the students' decision-making steps. An unfolding case study requires a student to evaluate and reevaluate a situation by synthesizing the provided information as it follows a natural progression. This article describes an example for implementing the use of an online unfolding case study to provide an alternative clinical teaching and learning opportunity due to a missed clinical day following winter weather concerns.

The goal for this clinical experience is the management of multiple comorbidities in an adult postoperative patient in a surgical stepdown department. This management includes both physical needs and psychosocial concerns. The case study meets these goals in a dynamic manner. The case study is presented in four parts

Initial Patient Assessment	Change in Patient Status	Orders in Response to Change	Psychosocial Issues
<ul style="list-style-type: none"> • Patient: Two days postoperation from a liver transplant, vital signs normal, assessment findings include swollen abdomen, pain 6 of 10. • Student: Develop report, complete laboratory, gather medication and diagnosis information. • Faculty: What patient teaching would you include for this patient? What information is missing that could help you in determining patient priorities for care? 	<ul style="list-style-type: none"> Second part provided 3 hours later. • Patient: Increased pain, increased heart rate, decreased blood pressure, low urine, and Jackson Pratt drain output. • Student: Explain concerns for change in patient condition; create SBAR for contacting provider. • Faculty: What is your first concern? What should you do at this point? What information do you need to gather? 	<ul style="list-style-type: none"> Third part provided 2 hours later. • Provider: Assesses patient, orders albumin. • Student: Research nursing implications of albumin infusion (e.g., rate, assessment, vital signs). • Faculty: Why is this ordered as opposed to an alternative, such as a diuretic? Are there any concerns with giving this patient albumin? List those concerns in order of importance. 	<ul style="list-style-type: none"> Fourth part provided 2 hours later. • Patient: At baseline; quiet; staring at the ceiling. • Wife: Crying, concerned over finances and husband's condition. • Student: Consider therapeutic communication; pose questions to determine support systems. • Faculty: Are there consults that could be helpful? How would you engage the patient in the discussion?

Note. SBAR = *S*ituation, *B*ackground, *A*ssessment, *R*ecommendation.

<p>The case study took some of the stress off...because I knew this was not a real patient... and I was not scared to go with my instinct or trust the things I've learned!</p> <p>It's critical thinking exercises like these that increase my confidence in my ability to think like a nurse.</p> <p>This case challenged me in a way that I have not previously been challenged in this program.</p> <p>I learned how to handle a very critical situation in a safe and effective learning environment.</p>
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across the clinical day (**Table 1**), and the students work on this from home during the clinical day. The initial information included laboratories, assessment findings, medications, and orders. The students look up the medications and laboratories, as well as the diagnosis and surgical procedure. The faculty poses questions to encourage critical thinking

regarding the patient's history and current situation. The next step involves a change in patient status, with updated vital signs and patient assessment. The students explain the concerns for the patient and develop a report to use when contacting the provider. After the provider sees the patient, the students explain the new orders and any nursing concerns regard-

ing those orders. The patient's condition stabilizes and the situation then focuses on psychosocial concerns.

Student and Faculty Evaluation

Student feedback was positive (Table 2), with themes of feeling safe in the learning environment and learning to consider patient care from a variety of perspectives, including that of the nurse, the patient, and the family. The faculty had the opportunity to evaluate each student's level of clinical reasoning without the chaos of the hospital setting. Thoughtful feedback provided students with an opportunity to determine strengths and weaknesses while enhancing learning.

Incorporating unfolding case studies throughout the nursing curriculum can identify students struggling with certain

concepts or the process of clinical decision making. These case studies can be used across the curriculum or to supplement the clinical experience. The case study can be individualized for each student depending on his or her progress. Incorporating a discussion board and a video conferencing debriefing session would allow students to examine and evaluate their performance in making a clinical decision. The use of online case studies as clinical makeup would need to be researched with each state board of nursing to determine the allowed hours. Using these case studies can enhance and improve a student's clinical decision making.

References

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