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ABSTRACT

Students spend more time in clinical settings with smaller student-to-faculty learning ratios than in the didactic setting, yet many clinical faculty have had little exposure to evidence-based teaching strategies and learning theories. Orientation for newly employed clinical faculty, whether novices or experienced teachers, typically focuses on the details of running the clinical experience and not on teaching and learning. Multiple barriers for clinical faculty limit the ability to provide consistent and comprehensive education. The purpose of this article is to share the use of simulation as a strategy to prepare and support clinical faculty in their teaching role.

Students spend more time in clinical settings with smaller student-to-faculty learning ratios than in the didactic setting. Yet many clinical faculty have had little exposure to evidence-based teaching strategies and learning theories. Like most teachers without formal knowledge of teaching and learning, they teach intuitively or similar to the way they were taught. A common mistake of new teachers is to focus on the volume of content that needs to be taught (teacher-focused paradigm), rather than on what students need to learn or the critical concepts required for understanding (learner-focused paradigm).

Orientation for newly employed clinical faculty, whether novice or experienced teachers, typically focuses on the details of running the clinical experience, rather than on teaching and learning. If they attend a session on teaching and learning theory, it is presented in the classroom; therefore, like students, the new clinical faculty struggle with application. In addition, experienced faculty have few opportunities for continuing education in best teaching practices. Feedback regarding clinical teaching is often given to faculty members; however, this feedback comes from student evaluations rather than from peer review, the lead teacher, or master teachers. The purpose of this article is to discuss an excellent strategy to prepare and support clinical faculty in their teaching role via high-fidelity simulation.

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Literature Review

Most of the textbooks on clinical teaching describe how clinical faculty can structure and manage a group of students in the clinical setting (Billings & Halstead, 2005; DeYoung, 2003; Gaberson & Oermann, 1999; O'Connor, 2001; Schoolcraft & Novotny, 2000). These resources provide faculty with theories and descriptions of clinical teaching strategies, but many are descriptive in nature and are not based on student learning outcomes from program evaluation or intervention research (Oermann, 1996).

Infante (1975), echoed by Tanner (2002, 2006), called for creative ways to teach nursing in the clinical setting, including the need for simulation for effective student clinical learning. Bradshaw (2001) thought that clinical faculty need to undergo self-reflection and development of clinical teaching skills. Using simulation to help clinical faculty practice teaching with immediate feedback from master teachers and students is a viable method for developing teaching strategies.

High-fidelity simulation is a controlled, clinical practice scenario designed to resemble reality (McCausland, Curran, & Cataldi, 2004). Simulation has been used extensively in nursing education to teach, remediate, evaluate, and reflect on the clinical practice of nursing students (Feingold, Calaluce, & Kallen, 2004; Johnson, Zerwic, & Theis, 1999) in a controlled, nonthreatening environment. Clinical simulations offer opportunities to observe and deliberately practice clinical skills before entering a clinical setting (Childs, 2002; Dearman, Lazenby, Faulk, & Coker, 2001; Feingold et al., 2004). These features of simulation are equally applicable to the needs of clinical faculty as they develop and progress in their teaching role.

Method

The need for clinical faculty development was often a topic of discussion during collaborative meetings

TABLE

Clinical Faculty Development Simulation Exemplars

Best Practices	Poor Practices
Asks students how they plan to organize their patient care; students are in charge of locating patient information	Tells students how to approach care; looks up items (orders, medication administration record, laboratory values) for students and relays information
Students enter the room first and introduce themselves, then introduce clinical faculty	Introduces self to patient before students do, thus establishing nurse-patient relationship before the students
Makes eye contact; pays attention to the students; uses inviting tone of voice	Makes no eye contact; uses rushed, harsh tone of voice
Reviews procedures and client care before entering the room; asks students about prior experience and what help they want or what they want faculty to do	Abandons the students; pushes students to work independently before they are prepared
Scaffolds student learning by using appropriate questions; allows students time to formulate answers to questions; allows students time to think through the problem and how to formulate a resolution	Asks questions without allowing time for students to answer; tells students what the problem or error is; does not allow students to formulate their own answers or think through patient problems
Signals students to stop a procedure in a manner that preserves the learning moment; preserves confidence in students and promotes learning opportunities and patient safety; provides students with performance feedback in a positive and constructive manner	Points out errors in a manner that stops learning; destroys patient confidence in the nursing students; allows students to make an error; abruptly pulls students out of room
Uses key phrases to prompt students in the next best course of action; uses lines of questioning; encourages students to explore patient care options; asks probing or rhetorical questions	Tells the students what they should do and how they should do it; takes over patient care in situations where it is unwarranted

between the university and its clinical partners. Further investigation revealed the following four faculty development needs:

- Learn how to capitalize on teaching moments.
- Apply evidence-based teaching.
- Provide performance feedback constructively.
- Adapt teaching to match varied student learning needs.

In response, the creative idea to use simulation for clinical faculty development resulted.

A 3-hour clinical faculty development program was developed. The program provided theory on clinical teaching through didactic material, prerecorded clinical teaching simulations, and reflection on teaching strategies prior to participating in a simulation. The prerecorded clinical teaching simulations were developed to help faculty analyze and reflect on clinical teaching strategies that either facilitate or hinder student learning. The clinical teaching simulation allowed faculty to practice teaching and receive immediate feedback from student volunteers and master teachers.

University faculty prerecorded two simulation scenarios in the simulation laboratory. The two prerecorded clinical teaching scenarios focused on medication administration and providing spiritual and cultural care. Both clinical scenarios were recorded to purposefully provide exemplars of best and poor teaching practices (**Table**). The clinical teaching simulation provided an opportunity for clinical faculty to interact with a student who does not adhere to sterile technique while placing an indwelling urinary catheter.

Prerecorded Simulation

Medication Error. The clinical faculty in this scenario is working with a nursing student on the first day of her first clinical rotation. The student makes the error of drawing up insulin in a tuberculin syringe. Specific examples of poor teaching practices highlighted in this scenario include:

- Faculty did the critical thinking by telling the student what needed to be done and how to prioritize the patient's care. For example, faculty states, "The patient's blood sugar is 210; therefore, according to the sliding scale, you need to draw up 2 units of regular insulin now."
- Faculty tells the student they will meet in the patient's room, thus leaving the student to draw up the medication alone, without assistance.
- Faculty undermined the student's role as primary caregiver by entering the room and introducing herself to the patient before the student and setting the stage for the nurse-patient interaction.
- Faculty eliminates the opportunity for the student to problem solve the error by identifying it and then telling the student how to correct it. Faculty confronts the student in the patient's room about the medication error by stating, "You made a mistake. You have the wrong syringe," alarming the patient and abruptly halting student learning.
- Faculty patronizes the patient's fears by stating, "Everything will be fine. She's a student. Don't worry, I'll make sure you get the right medication," which reinforces negative generalizations about the ability and safety of nursing students.
- Throughout the scenario, faculty makes minimal eye contact, uses few nonverbal supportive gestures, is curt, and uses pragmatic language focusing on what needs to be done, thus preventing the development of a student-teacher relationship.

Best teaching practices highlighted in this scenario include:

- Faculty places the student in charge of the learning by asking probing higher-order questions that stimulate clinical thinking. For example, faculty asks, "Now that you have heard the report, what are your plans for providing care for this patient?"
- Faculty remains in the background, both physically and verbally, while observing the student performing the actions of medication delivery.
- While providing feedback, the student's correct, appropriate actions are validated until the error. For example, faculty states, "Your technique for drawing up insulin is solid. I want to focus your attention on the syringe you have used to draw up insulin." Faculty purposefully avoids following positive feedback with the word *but,* as it places more emphasis on the negative action and negates what the student did correctly.
- After the student correctly draws up the insulin, the student is asked to visually compare and contrast the insulin dose in the two different syringes. Faculty uses higher order questioning, guiding the student to reflect on the potential patient outcome of the wrong dose (Savage, 1998; Wink, 1993a, 1993b). For example, faculty asks, "What might have happened if the patient had received the insulin in the tuberculin syringe?"
- Throughout the scenario, the faculty encourages student learning through eye contact and encouragement and cordially welcomes the student into the learning process by acknowledging that the student is capable and using a collaborative approach (Cook, 2005).

Promoting Spiritual and Cultural Care. This scenario presents a senior nursing student and clinical faculty who have been working together to care for one patient for 3 days. The patient had open-heart surgery 1 week previously and has become septic and nonresponsive; the patient's spouse is coping with end-of-life issues. While the student is conducting the physical assessment, the wife places soil from their homeland directly on the chest dressing, as an end-of-life ritual. The differences between the poor and best teaching practices revolve around guiding the student through the exploration of the wife's actions and their meanings. Many of the poor teaching strategies outlined in the previous prerecorded scenario were purposefully repeated. In addition, the following poor teaching practices occurred:

- Faculty fabricates a reason for them to abruptly leave the room, role-modeling unethical professional behavior, disrupting the learning process, and creating a negative nurse-patient relationship.
- Faculty is judgmental of the wife's actions.
- Faculty is focused on the physical outcome of putting soil on the dressing and ignores the importance of exploring the spiritual or cultural dimensions of the action.
- Faculty forces the student to return to the patient room alone to further investigate the situation even as the student requests support.

Additional best teaching practices highlighted in this scenario included:

- Faculty role models display "being present" and acceptance of the family's needs in a challenging patient-family interaction.
- Faculty facilitates student thinking by interjecting key words or rhetorical questions that guide the student's potential actions and stimulate critical thinking.

Clinical Faculty Teaching Simulation: Sterile Technique Error

Faculty practice clinical teaching at the bedside with a nursing student in the simulation laboratory. Nursing students volunteered to play the role of a student in their first medical-surgical rotation and were instructed to not adhere to sterile technique while inserting an indwelling urinary catheter. A master teacher observes faculty during the teaching simulation. Individual feedback is given immediately to the clinical faculty by the student and the master teacher. The master teacher leads a group reflection on the experience among the clinical faculty and students.

Discussion

Immediately following the simulation, clinical faculty were asked to reflect on three topics: how simulation contributed to their ability to teach clinically, how it replicated the experience of teaching in a clinical setting, and the value of clinical simulation. Three themes emerged as they described the simulation's contribution to their clinical teaching ability, including:

- Enhancing their repertoire of teaching strategies.
- Highlighting the importance of intended and incidental verbal and nonverbal messages to students.
- Prompting them to be more conscious and thoughtful in their teaching behaviors.

Faculty emerged as more reflective teachers and practitioners after the simulation.

The clinical faculty considered simulation to be reasonably realistic or "fairly close to the real thing." The realism it lacked concerned the depth of the relationship between the student and the faculty and the kind of preparation they would perform with the student.

All clinical faculty perceived simulation as a valuable teaching-learning strategy in a safe environment where one could "practice prior to the real thing." One faculty member stated:

> I don't believe anything is as powerful as walking through it—then reflecting on events and language (both words and body).

Faculty cited the ability to step back and be more analytical about their role and behavior, as well as learning how to let students make "safe mistakes" or how to "proceed without interrupting the learning-teaching process." Faculty said immediate feedback from students allowed them to understand the importance of their body language, tone, and messages in the learning process.

Conclusion

The clinical faculty reflections described simulation as a powerful and safe strategy to enhance their ability to effectively facilitate learning in a clinical setting.

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