

The Effectiveness of Simulation Based Learning in Today's Classroom

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Our research looks at how effective simulation based learning currently is in the modern classroom. To answer this question we focused on a group of students in a recent Enhanced Clinical Competency (ECC) course here at the University of Michigan's School of Nursing. This course was developed to help students improve their skills to help them perform better in their future clinical rotations and simulations. To determine how well each student improved over the course we had each student engage in a test scenario simulation at the beginning and end of the course so we could examine their hands-on skills visually. Then the students engaged in 7 weeks of simulation based learning experiences which were guided by simulation learning theories and debriefed by expert instructors in simulations. Some of the experiences were graded according to a rubric to further analyze progress. Our findings support or original theory; simulation based learning is effective. All students recommended this course to future students when asked at the end of the semester; all students showed progress from the beginning to the final test scenario. Many students reported increased confidence and improved communication in the clinical setting. The latter being crucial, because 70 percent of errors in hospitals are reportedly due to poor communication between practicing medical professionals. We are now certain incorporating more simulation based learning in classrooms is beneficial. The Nursing School plans to replace 25 percent of teaching hours with simulation and the ECC course is set to repeat next year.

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Abstract

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Objectives

- Test simulation based learning's effectiveness to improve nursing students clinical competence.
- Evaluate the learning outcome of the newly created Enhanced Clinical Competency course

Results

- All students improved their skills from Pre-Assessment to Post.
- Students reported improved confidence and competence in clinical setting outside of the classroom
- Each student recommended the ECC course to future students

Conclusions

- Simulation Based learning is effective
- The class was a success
- Intergrating more simulation based learning in future classes will most likely be beneficial

Methods

- Pre/Post Design
- Pre and Post class evaluation Test simulation
- Reviwed student feedback on their perceptions of the course

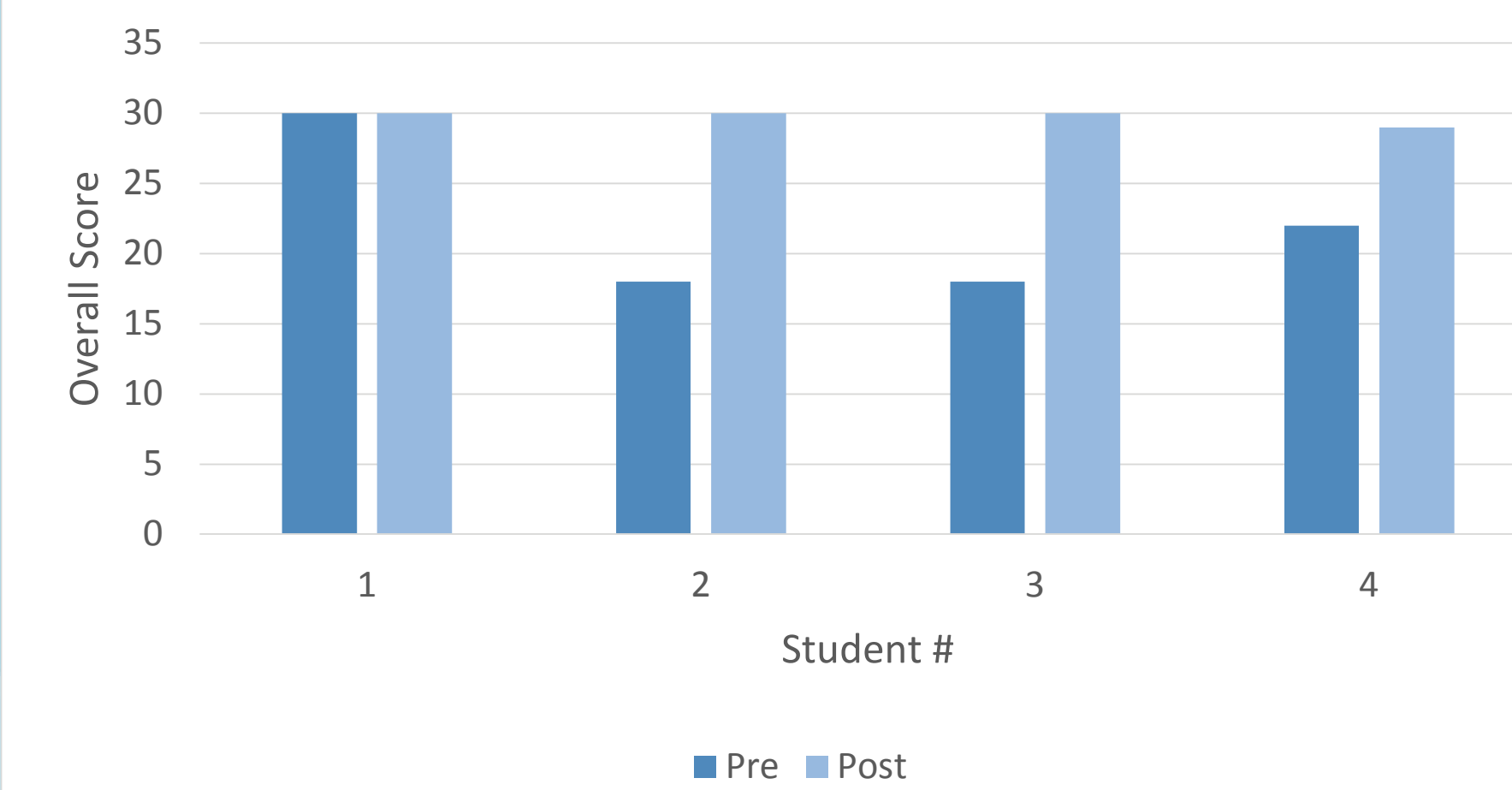
Key Skills in Simulation

Skill	No Action	Partial Action	Complete Action	NA	Comments
Hand Hygiene					
Identify Patient					
Medication Safety Checks					
Focused assessment (2-3)					
Recognized deviation from normal					
Identified priority care areas (1-2)					
Implemented key interventions (2-3)					
Communicate with patient					
Communicate with team					
Demonstrates professional behaviors					

Faculty Assessments of Students A--E

Student	Pre-Assessment	Post-Assessment
	Key Areas to Address for Improvement	Was Improvement Noted in Key Areas
A	Intervene quickly Head to Toe Assessment Prioritization	Improved Situation Awareness Improved Head to Toe Assessment and Prioritization
B	Respond to patient Complete a Head to Toe Assessment	Improved ability to communicate to patient. Completed a very thorough Head to Assessment
C	Intervene quickly Communication Prioritization	Improved ability to intervene Improved communication and prioritization skills
D	Prioritization Communication with patient and health care provider	Improved in interventions, prioritization and communication skills
E	Prioritization Respond to patient needs Medication Safety Checks Communication	Improved in prioritization, responding to patient needs, communication and medication safety checks were performed

Observation of Simulation Key Skills



Weekly Outline--HS200 Enhanced Clinical Competency Course

Week	Modules/Topics
1	Individual Sim Assessment-Pre
2	Focused Skill Development
3	Advanced Skills/Simulations with Skills
4	Simulations-Respiratory/Care Planning/IV
5	Codes, Situational Awareness, Communication Skills, TeamSTEPS
6	Priority settings, handoffs, patient education, delegation, leadership
7	Individual Sim Assessment-Post