Using a Scaffolded, Multi-modal Approach in Multiple Learning Environments to Improve Student Success

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Background

Our Course:

- Accelerated, undergraduate 12-month Nursing Program

- Advanced Med/Surg Course 3rd Semester

- 7.5 Credit course including didactic, clinical, community health and simulation.

Our Goals:

- Better prepare nurses for complex healthcare system

- Integrate clinical and classroom

- Scaffold content using multimodal approach

- Opportunities to practice clinical judgement

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What's Involved (Methods)

Pre-learning → In-class learning → Post-clinical learning → Simulation → Exam

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Pre-Learning

- Voice-over Power Point lecture
- Readings
- Notebook Entry

- **Complete the section within the Notebook as assigned**:
- Kelly's group: **Neurogenic Shock** (Use blank template)
- Regina's group: **Cardiogenic Shock**,
- Becca's group: **Anaphylactic Shock** (use blank template),
- Rachel's group: **Hypovolemic Shock**
- Hannah's group: **Septic Shock**

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The Notebook

Related Concepts:	Related Exemplars/Diseases:
Reading/Resources - Clinical Judgment	Class/Lab/Clinical - Clinical Judgment:

Priority Assessments or Cues:	Priority Labs & Diagnostics:	Priority Nursing Interventions:
1.	1.	1.
2.	2.	2.
3.	3.	3.

Priority Medications:	Priority Potential & Actual Complications:	Priority Collaborative Goals:
1.	1.	1.
2.	2.	2.
3.	3.	3.

NurseThink®(r) Quick:

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In-Class Learning

- Compare/contrast the different types of shock/sepsis
- Next Gen case study within clinical groups

Hypovolemic	Anaphylactic	Cardiogenic	Neurogenic	Septic
Brief Pathophysiology:	Brief Pathophysiology:	Brief Pathophysiology:	Brief Pathophysiology:	Brief Pathophysiology:
Causes & Risk Factors:	Causes & Risk Factors:	Causes & Risk Factors:	Causes & Risk Factors:	Causes & Risk Factors:
Assessment Findings:	Assessment Findings:	Assessment Findings:	Assessment Findings:	Assessment Findings:
Nursing Interventions:	Nursing Interventions:	Nursing Interventions:	Nursing Interventions:	Nursing Interventions:

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Post- Clinical Learning

- Work in clinical group to solve a Virtual Reality escape room
- One student wears the headset, while the rest view ton screen.
- Group works together to solve clues related to exemplar septic shock.

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Simulation

Outcomes:
1. Recognize cues of septic shock.
2. Implement nursing interventions for septic shock
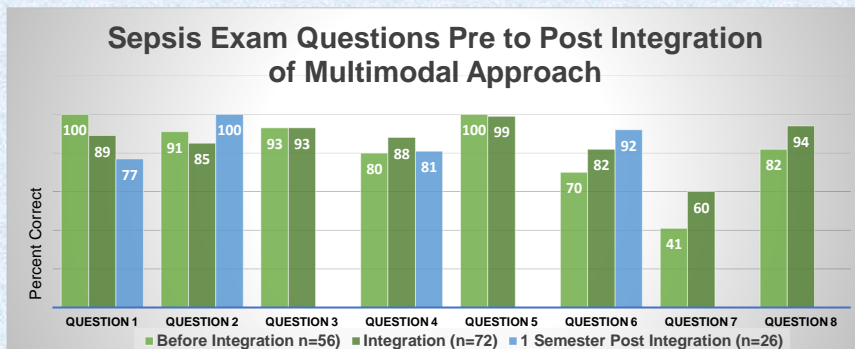3. Collaborate effectively with team

Client:
A 74 y/o client with diagnosis of community acquired pneumonia who becomes confused and febrile after 3 days in the hospital.

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Results

Sepsis Exam Questions Pre to Post Integration of Multimodal Approach

Legend: ■ Before Integration n=56 ■ Integration (n=72) ■ 1 Semester Post Integration (n=26)

Results: Student Feedback

"I really enjoy your teaching methods as it makes me fully learn the subjects rather than just memorize the slides."

"I feel the different forms of activities can help us remember the content."

Conclusions

• A multi-modal approach is beneficial for students to retain information and apply their knowledge.

• Scaffolding content intentionally throughout a course should not be limited to didactic delivery but utilized in a variety of settings, allowing students multiple opportunities to practice clinical judgment skills and apply knowledge.

Truth has nothing to do with the conclusion, and everything to do with the methodology.

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Questions

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References

- Adhikari, R., Kydonaki, C., Lawrie, J., O'Reilly, M., Ballantyne, B., Whitehorn, J., & Paterson, R. (2021). A mixed-methods feasibility study to assess the acceptability and applicability of immersive virtual reality sepsis game as an adjunct to nursing education. *Nurse education today*, *103*, 104944.

- Banks, L., & Kay, R. (2022). Exploring flipped classrooms in undergraduate nursing and health science: a systematic review. Nurse Education in Practice, 103417.

- Lei, Y. Y., Zhu, L., Sa, Y. T. R., & Cui, X. S. (2022). Effects of high-fidelity simulation teaching on nursing students' knowledge, professional skills and clinical ability: A meta-analysis and systematic review. Nurse education in practice, 60, 103306.

- Masso, M., Sim, J., Halcomb, E., & Thompson, C. (2022). Practice readiness of new graduate nurses and factors influencing practice readiness: A scoping review of reviews. International Journal of Nursing Studies, 129, 104208.

- Murphy, Nancy NP, PhD (Associate Professor)[1]; Strong, Caron DNP, APRN, FNP-BC, CDE (Assistant Professor)[1]; Jones, Gloria DNP, APRN, FNP-BC (Assistant Professor)[1]. Flipped learning: A shift in graduate nursing education. Journal of the American Association of Nurse Practitioners 34(1):p 135-141, January 2022. | DOI: 10.1097/JXX.0000000000000581

- Saab, M. M., Hegarty, J., Murphy, D., & Landers, M. (2021). Incorporating virtual reality in nurse education: a qualitative study of nursing students' perspectives. *Nurse Education Today*, *105*, 105045.

- Williamson, G. R., Kane, A., Plowright, H., Bunce, J., Clarke, D., & Jamison, C. (2020). 'Thinking like a nurse'. Changing the culture of nursing students′ clinical learning: Implementing collaborative learning in practice. Nurse Education in Practice, 43, 102742.

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