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Sherlock in Scrubs: A Novel Approach to Unlocking Critical Thinking Skills in Novice Nurses

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ABSTRACT

Background:

The increasing complexity and specialization in healthcare have amplified the demand for nurses equipped with advanced critical thinking and clinical decision-making abilities. Novice nurses often face challenges in transitioning from theoretical learning to competent clinical practice. The “Sherlock in Scrubs” approach was developed to address this gap by drawing inspiration from the observational and deductive methods of the fictional detective Sherlock Holmes. This educational innovation aligns with the Miller Pyramid of clinical competence, facilitating learning that progresses from knowledge acquisition to practical application.

Objective:

To evaluate the effectiveness of the “Sherlock in Scrubs” teaching strategy in enhancing critical thinking and clinical reasoning skills among novice nursing students.

Methods:

This action research study was conducted with a sample of 30 Semester IV B.Sc. Nursing students, selected through non-probability convenient sampling. The instructional framework followed the Plan-Do-Check-Act (PDCA) model. Data collection tools included a situation-based questionnaire, an observation checklist, and knowledge-based activities such as quizzes and jigsaw puzzles. Students participated in bedside clinical scenarios requiring application of the nursing process and were assessed at various levels of the Miller Pyramid: 'Knows', 'Knows How', 'Shows How', and 'Does'. Descriptive statistics were used for data analysis.

Keywords:
Clinical reasoning, Critical thinking, Miller’s Pyramid, Nursing education, PDCA cycle

PHASE I [KNOWS]

CASE SCENARIO
A 39-year-old female patient presents to the emergency department with complaints of an intense headache that began suddenly in the morning. She describes the headache as the worst she has ever experienced, located at the base of her skull and radiating upwards. Additional symptoms include nausea, sensitivity to light, neck stiffness and dizziness. The patient also reports difficulty seeing clearly and mild weakness in her left leg. Her medical history includes occasional tension headaches but no history of migraines or neurological conditions. On examination, her blood pressure is elevated, and a focused neurological exam reveals minor weakness in her left leg without other significant findings. A CT scan of the brain is ordered and shows an irregular shape near the base of the brain.

WARNING \RED FLAGS

A	B	C	D
Severe, sudden headache	Neck stiffness	Blurred vision	Differential-Diagnosis

a. CVA
b. Aneurysm
c. SDH

FINAL DIAGNOSIS

ANEURYSM

PHASE II [KNOWS HOW]

A	P	P
ASSESSMENT	PROBLEM PRIORITY	PLAN INTERVENTION

- Sudden & severe headache
- Blurred vision
- Nausea
- Neck stiffness
- Dizziness

Risk for Ineffective Cerebral Tissue Perfusion related to potential subarachnoid haemorrhage as evidenced by sudden onset of a severe headache elevated blood pressure, neck stiffness, nausea & neurological deficits (left leg weakness).

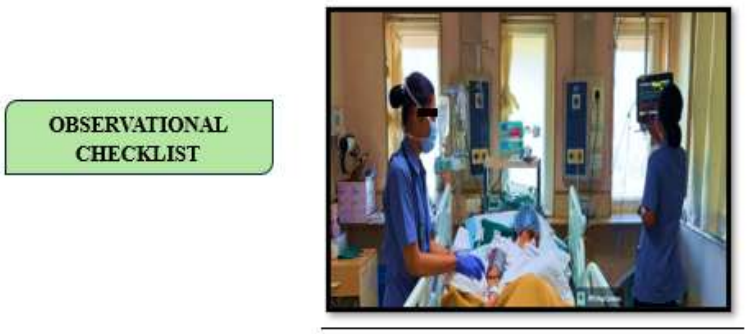
- Monitor Neurological Status [GCS]
- Elevate the head of the bed 30 degrees to promote venous drainage
- Administer antihypertensive medications
- Notify the doctor immediately about any worsening neurological status or changes in vital signs.

E
EXPECTED OUTCOME

The patient will maintain stable neurological function, with a normal GCS score, controlled blood pressure, reduced intracranial pressure, and timely medical intervention for any changes in status to prevent complications.

PHASE III [SHOWS]

PHASE IV [DOES]



Results:

The intervention led to marked improvement across all levels of the Miller Pyramid. Students demonstrated enhanced capabilities in clinical reasoning, situational judgment, and evidence-based decision-making, particularly in high-stakes critical care settings. The 'Shows How' and 'Does' levels showed the most significant gains, indicating successful translation of theoretical knowledge into clinical practice. Participants also reported increased confidence in handling real-life clinical challenges. The result shows pre-test mean score of knowledge was 17.65, standard deviation of knowledge 3.33, and the mean percentage of knowledge was 17.65% respectively. The post-test mean score of knowledge was 25.81, standard deviation of knowledge 2.11 and the mean percentage of knowledge was 25.81% respectively.

Students Feedback:

1. This was a very helpful tool. When we were taught using scenarios, it became much easier to handle real critical patients in the hospital.
2. Through the scenarios & role play, we had already gained an idea of which warning signs could appear with different disease conditions and how to identify them in real ICU patients. This made it easier to deal with patients and greatly assisted in conducting patient assessments.

Conclusion:

The “Sherlock in Scrubs” approach offers a compelling model for bridging the gap between theoretical instruction and practical competence in nursing education. By fostering curiosity, observational acuity, and deductive reasoning, this method promotes active learning and reflective clinical practice. Structured, case-based learning methodologies such as this can substantially improve novice nurses’ preparedness for clinical environments.

Recommendations:

Future research should explore the long-term retention of critical thinking skills developed through this approach and examine its applicability across diverse nursing specialties. Furthermore, incorporating emerging technologies like virtual reality simulations could augment experiential learning and strengthen performance at the 'Shows How' and 'Does' levels of the Miller Pyramid.

References:

- Simpson, E., & Courtney, M. (2002). *Critical thinking in nursing education: Literature review. International Journal of Nursing Practice, 8*(2), 89–98. https://doi.org/10.1046/j.1440-172x.2002.00340.x
- Turner, P. (2005). *Critical thinking in nursing education and practice as defined in the literature. Nursing Education Perspectives, 26*(5), 272–277.
- Miller, G. E. (1990). *The assessment of clinical skills/competence/performance. Academic Medicine, 65*(9 Suppl), S63–S67. https://doi.org/10.1097/00001888-199009000-00045
- Quinn, M., Moadel, T., & Cassara, M. (2022, February 13). *Miller's pyramid of skill development. MedEdMentor.* https://mededmentor.org/theory-database/theory-index/millers-pyramid-of-skill-development/
- *Educational theories you must know: Miller's pyramid.* (2025, July 17). *St. Emlyn's Blog.* https://www.stemlynsblog.org/better-learning/educational-theories-you-must-know-st-emlyns/educational-theories-you-must-know-millers-pyramid-st-emlyns/