Problem-Based Learning in Fundamentals of Nursing

Kelli A. Hand
Problem-Based Learning Cycle

Problem Scenario

Identify Facts

Generate Hypothesis

Identify Knowledge Deficiencies

Apply New Knowledge

Abstraction

Evaluation

Self-Directed Learning

Hmelo-Silver, 2004
Problem-Based Learning Cycle with the Nursing Process

- Problem Scenario
- Identify Facts
- Generate Hypothesis
- Identify Knowledge Deficiencies
- Apply New Knowledge
- Abstraction

- Self-Directed Learning
- Evaluation
- Evaluate

Hmelo-Silver, 2004
1. Anchor all learning activities to a larger task or problem.

2. Support the learner in developing ownership for the overall problem or task.
OREM NURSING CARE PLAN GUIDE

Assessment (Subjective - Orem Health History; Objective-Physical Exam [inspection (first), auscultation, palpation and percussion]), Diagnosis, Prescription, Regulation, Evidence Base, Control

A working document

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<td>Assessment of Basic Conditioning Factors (BCF), Power Components (PC), and all Self Care Requisites Statements (SCRS)</td>
<td>Development of Self Care Deficit Statement (SCDS)</td>
<td>Particularized Self Care Requisite Statement (PSCR), and planned Interventions</td>
<td>Performed Interventions</td>
<td>Appraisal of Diagnostic, Prescriptive, and Regulatory Operations</td>
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3. Design an authentic task.

4. Design the task and the learning environment to reflect the complexity of the environment they should be able to function in at the end of learning.
Skin

Mrs. Stein, who is 76 years of age, is 7 days postoperative for a total hip replacement. She developed redness and oozing of foul-smelling tan-colored drainage from the hip incision on postoperative day four. Significant medical history includes arthritis and mild hypertension. Because of surgical pain at the incision site, she did not transfer from her bed to the chair. Now on day seven, she notes some pain at the incision and complains of a painful, burning sensation in the sacral region. She is continent of urine and stool but continues to “scoot” over to the side of the bed when preparing for bed-to-chair transfers.

Assessment:

- You obtain an oral temperature.
  - She has elevated temperature and is diaphoretic.
- You ask Mrs. Stein how the surgical site limits her mobility.
  - She relates that her hip always aches and the pain increases upon movement. She tells you that she prefers to keep the hip immobile to keep the pain level down. Her position of comfort is supine, and Mrs. Stein resists position changes.
- You perform a total body skin assessment, paying special attention to the sacral area.
  - Mrs. Stein has reactive hyperemia around the sacral area; this area does not blanch upon palpation. There is a partial-thickness ulcer directly over the sacral area. No other areas are open, with the exception of the surgical site.
5. Give the learner ownership of the process used to develop a solution.

6. Design the learning environment to support and challenge the learner’s thinking.

7. Encourage testing ideas against alternative views and alternative concepts.
### Diagnostic Operations

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### Prescriptive Operations

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<td>The patient will demonstrate progressive healing of dermal ulcer, as evidenced by the following indicators.</td>
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1. Prevent deterioration of ulcer, once every shift, by washing reddened area gently with mild soap, rinse area thoroughly to remove soap, and pat dry. (Partially compensatory, acting or doing for another) |

2. Assess pressure ulcer, every dressing change, to identify current stage (I-IV) by assessing depth, size, edges, undermining, exudate (type and amount), and surrounding skin color. (Partially compensatory, supporting another) |

3. Assess current stage of ulcer helps to identify healing or deterioration. Monitoring increases in depth, size and edges indicates progressing deterioration. Increased tunneling provides medium for infectious organisms to reside. Large amounts of purulent, sanguineous, and aseptic sanguineous exudate are indicative of inflammation, presence of microorganisms, and possible infection. Non-blanchable surrounding tissue |

### Evidence Base

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1. Avoid massaging areas of the skin, because it could result in deep tissue trauma. Mild cleanser reduces irritation and dryness to prevent disturbance of the “skin’s ‘natural barriers.’” Residual soap irritates the ulcer and prevents healing. Dryness is key to prevent irritation and maceration by urine, feces, sweat, or other moisture that could cause further irritation. (Berman & Snyder, 2012, p.937). |

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### Regulatory Operations

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8. Provide opportunity for and support reflection on both the content learned and the learning process.
What is your assessment of the total group interaction, participation and finished product? Tell me why you have come to this conclusion.

Tell me about your experience with the group care plan project.
“I really enjoyed this project because we were able to come together as a group and discuss the topic. It happened to be before our individual care plan, so we were able to learn as a group how to come up with a care plan before we did it on our own.”

“I feel like it could have been a lot more beneficial if it had been a patient with several health deviations instead of just one (like our patient we had to do our care plans on) and it didn’t help me that much with creating my individual care plan.”