Integration of Problem-Centered Nursing Care Plans into a Foundational Pharmacology Course

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Conflict of Interest and Disclosures: Neither the planner or presenter indicated that they have any real or perceived vested interest that relates to this presentation.

Learner Outcomes

Describe the current concerns about nursing students' and graduates' pharmacology knowledge.
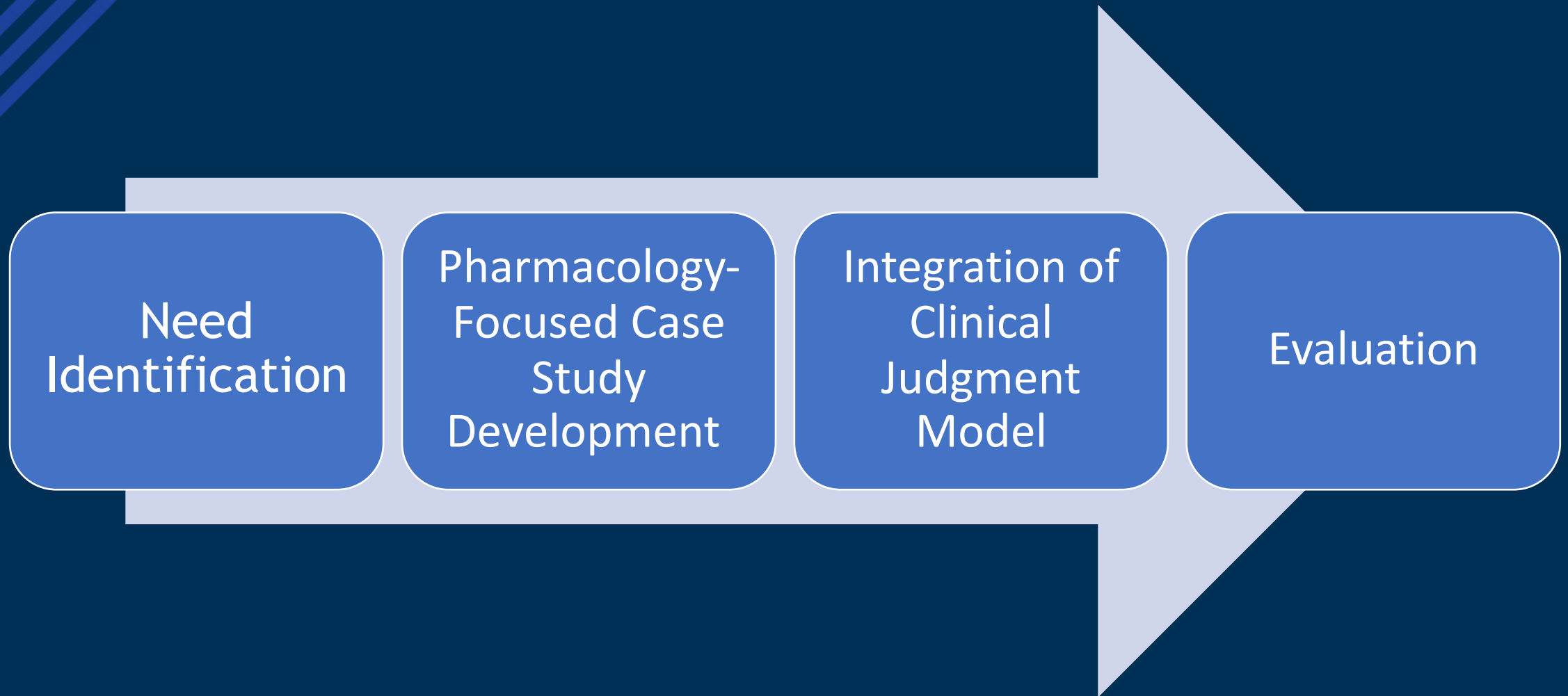
Describe the components of the Clinical Judgment model.

Outline a strategy to incorporate the Clinical Judgment model into a pharmacology problem-centered care plan assignment.

Project Development

Need Identification → Pharmacology-Focused Case Study Development → Integration of Clinical Judgment Model → Evaluation

Pharmacology Care Plan Assignment

1. Create groups, each with 6 students
2. Create 3 sub-groups in each group of 6
   a. Label each sub-group: A, B, C
3. Create Google doc with patient scenario and problem-centered care plan template
4. Review NGN questions based on patient scenario
5. Group A is assigned to complete assessment data, disease process and prioritized problem
6. Group B is assigned to complete the goal and outcomes
7. Group C is assigned to complete interventions and rationales
8. Sub-groups work together to align all parts of the care plan

Why Pharmacology?

- Pharm knowledge

  - NCLEX component
  - Nurse accountability
  - Medication errors
    - Nurses' perceptions: lack of medication knowledge

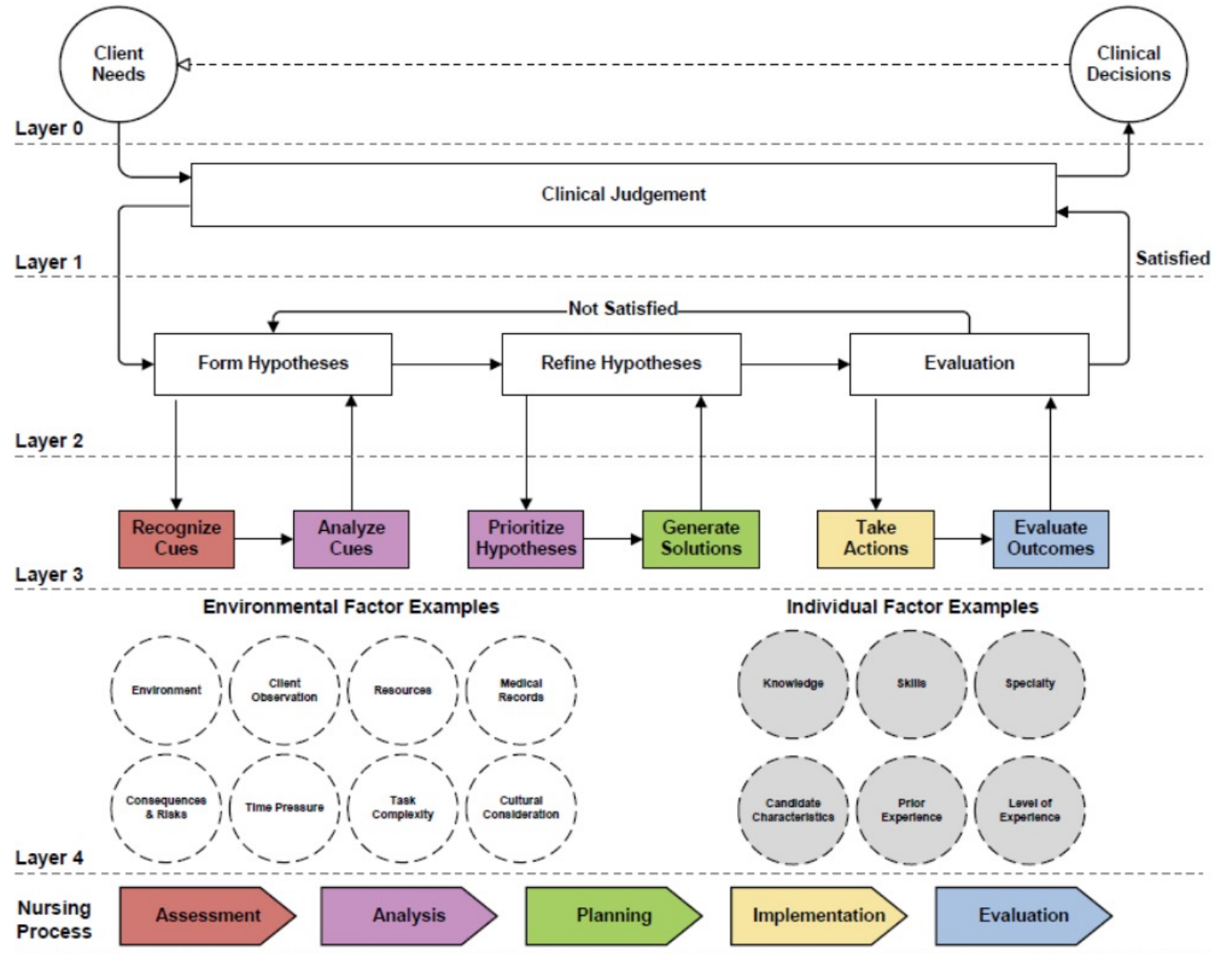- Problem-centered care plan
  - Clinical Judgment model

Why Integrate the Clinical Judgment Model?

- Promote student nurses' pharmacologic clinical judgment

- Promote student nurses' pharmacologic decision-making skills

- Promote student nurses' critical thinking skills

- Framework to measure clinical judgment and decision-making

NCSBN Clinical Judgment Measurement Model

Problem Centered Care Plans

- Assessment data (recognize cues)
- Disease Process or situation
- Main Problem (analyze cues, prioritize hypotheses)
- Goal and outcomes(generate solutions)
- Interventions (take action)
- Evaluation (evaluate outcomes)

Recognize Cues

Assessment Data

- List abnormal assessment data that aligns with patient problem
  - Subjective
  - Objective
  - Include disease process/situation that causes the assessment findings

Analyze Cues
Prioritize Hypothesis

Main Problem

- Evaluate likelihood and risk involved

- Cluster assessment cues

- Align with disease process (etiology) or patient situation
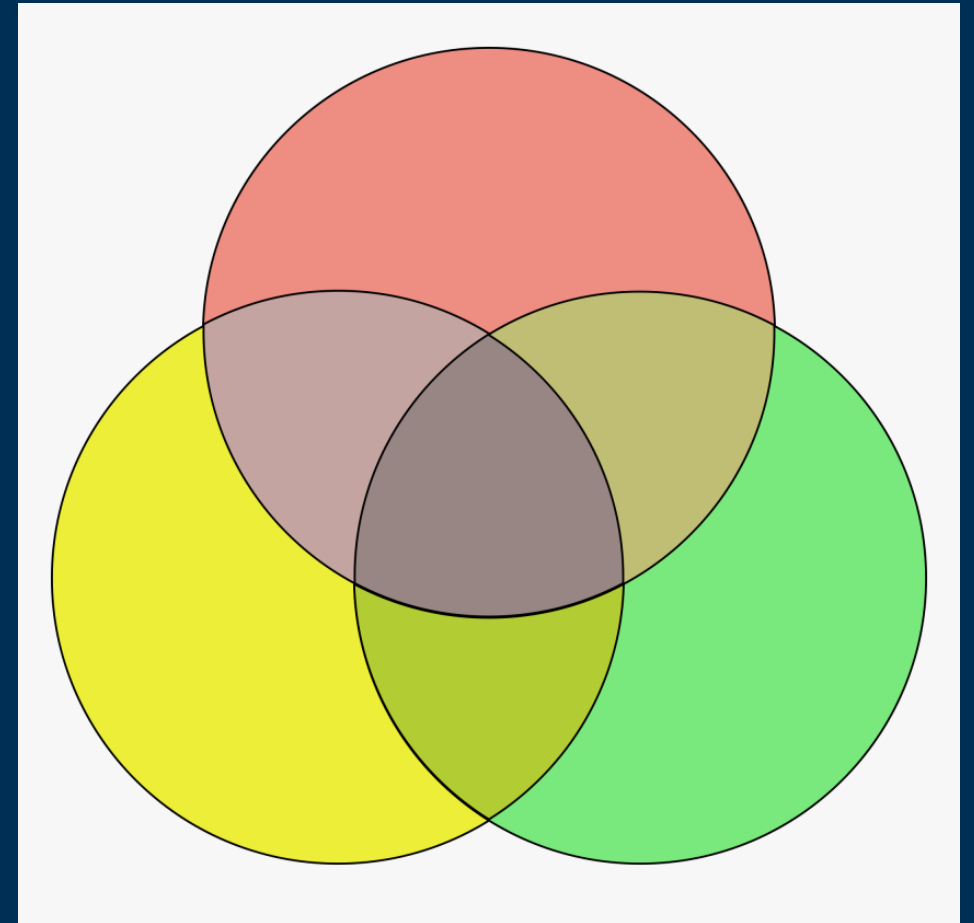
Generate Solutions

Goal

- Solution
- Must be general and broad
- Must be feasible

Outcomes

- S--Specific
- M--Measurable
- A--Achievable
- R--Realistic
- T--Timeable

Take Action

Interventions

- Decision making process to improve patient outcomes
- Each intervention includes an evidence-based rationale
- Implementation of strategies that mitigate the patient's problem
- Individualized to the patient's situation and problem
- Realistic

Evaluate Outcomes

Evaluation

- Evaluate goal
- Evaluate patient's response to interventions
- Must understand what signs point to improving patient status or declining health
- If interventions not effective, judgment skills needed to identify alternative options

A 68-year-old patient with Type II diabetes Mellitus and COPD was admitted into the hospital four days ago for an elective left knee replacement surgery. Surgery was uneventful but now there is edema, redness and serosanguinous drainage at the incision site and the patient verbalizes 3/10 L knee pain. The outgoing nurse said that the edema, redness and drainage are new developments, which the patient confirmed. Blood sugars have ranged between 150-220 mg/dL since admission. Upon admission the blood sugar was 250 mg/dL. The following medications were administered to this patient this morning:

      Prednisone 2mg
      Metoprolol (Lopressor) 50mg
      Enoxaparin (Lovenox) 30mg
      Biguanide (Metformin) 1000mg

The patient also complains of occasional severe headaches for the past 72 hours. A CAT Scan of the head with contrast is scheduled for later today.

The patient complained of nausea today after ingesting morning medications and asked if it would be OK to skip morning medications after discharge as they have done in the past. The patient also admitted that they have not checked their blood sugar at home for the past year. They live alone and eat out often at fast food restaurants and told you that they have no desire to cook at home and find it difficult to grocery shop. A relative will be helping at the home for the first couple of weeks after discharge.

NGN Question

Based on this clinical scenario, choose one client need to fill in each blank in the following sentence.

The priority clinical need would be _1_____ followed by _2_____

Options for 1
- Education
- Wound management
- Provider notification of am medications prior to CAT Scan

Options for 2
- Education
- Wound management
- Provider notification of am medications prior to CAT Scan

NGN Question

- Based on the clinical scenario, match each patient sign or symptom with a potential medication related underlying cause.

Nausea	_____	A. biguanide (Metformin)
Delayed healing	_____	B. Metoprolol (Lopressor)
Bradycardia	_____	C. Enoxaparin (Lovenox)
Bruising	_____	D. Prednisone

Evaluative Criteria

- Each sub-group is graded on their part of the care plan using a rubric

- Assignment is done 3 times during the semester (sub-groups switch parts)

- Student remarks:
  - Helped with care plan development in clinical setting
  - Increased medication knowledge
  - Increased awareness of medication related patient problems

Let's Practice

Today you are assigned to provide nursing care to a 92-year-old hospitalized patient, who had hip surgery five days ago and developed a urinary tract infection three days ago. The patient is a fairly healthy older adult. The medical history includes osteoarthritis, and a myocardial infarction five years ago for which they take the antidysrhythmic drug amiodarone. After receiving the results of the urine culture and sensitivity, the patient was prescribed ciprofloxacin (Cipro). The nurses have been administering Cipro to the patient for 72 hours. The patient is scheduled to be discharged tomorrow and will be staying with a relative, who will provide assistance as needed. Vital signs today are within normal limits. Pain level is a 4/10 and appropriate relief is obtained from ibuprofen 200mg every 6 hours prn. Today the patient developed watery stools and has had diarrhea several times throughout the morning. The patient is alert and oriented x 3, slightly nauseated and complains of "weakness.". The latest lab results are unremarkable with the following exceptions:

RBC's: 3.9 x 1,000,000/mm^3
Hemoglobin: 9.5 g/dL
Hematocrit: 32%
BUN: 25 mg/dL
Creatinine: 1.3 mg/dL

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Q & A

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