Decision Making, Problem solving, and Critical thinking
“In any moment of decision the best thing you can do is the right thing, the next best thing is the wrong thing, and the worst thing you can do is nothing.”
Decision Making

- The process of choosing one course of action over another.
- Means that there was a doubt about several course of actions and a choice was made to eliminate the uncertainty.
Example:

- Which patient should nurse see first in the ER department?
  1. 56 years old male with CVA occurred before 8hrs.
  2. 23 years old female with three days acute bronchitis
  3. 6 years old child with difficulty in breathing after bee sting.
Problem solving

- A systematic process that focuses on analyzing a difficult situation, and deciding a decision to solve the problem.

- Problem solving and decision making are similar. Although, they are different terms.
Example:

- The in-charge nurse in the medical unit has three nurses being absent because of bad weather conditions.
Critical Thinking

- Sometimes referred to as reflective thinking, is related to evaluation and has a broader scope than decision making and problem solving.

- “Critical thinking is the ability for person to use her/his intelligence, knowledge, and skills to question and carefully explore the situation to arrive at thoughtful conclusion based on evidenced and reason.”
Six Cognitive Skills Used in Critical Thinking

- Interpretation: involve clarifying the meaning.
- Analysis: understanding data
- Evaluation: determine the outcomes
- Inference: draw the conclusion
- Explanation: justify actions based on data
- Self-regulation: examine one professional practice.
Why do we need to think critically?

- Need to make accurate and appropriate clinical decisions
- Need to solve problems and find solutions
- Need to plan care for each unique client and client problem
- Need to seek knowledge and use it to make clinical decisions and problem solve
- Need to be able to think creatively when planning care for clients
Critical Thinking involve

- Reflecting upon the meaning of the statement.
- Examining the offered evidences.
- Developing a judgment about facts.
How do nurse's accomplish this?

- Learns to be flexible in clinical decision making
- Reflect on past experiences and previous knowledge
- Listen to others point of view
- Identify the nature of the problem
- Select the best solution for improving client’s health
Type of Thinking:

- Deductive Reasoning

- A form of logical thinking in which a conclusion is reached based on true facts called premises.
Example:

- Premise: A patient with serious lung disease will experience shortness of breath on exertion.

- Premise: Mr. M has advance lung disease and he is trying to help his daughter to move.

- The conclusion in the deductive reasoning is always true if the premises are true.
Inductive Reasoning:

- A form of logical reasoning where the best guess is made based on the premises or facts.
Example:

- Observation: Person to person blood transfusion were most often successful when the donor was a family member.

- Hypothesis: the blood of family is closer in structure.

- Proven theory: blood group is inherited.

- The conclusion has highly probability of being true, but it is not always true.
Theoretical Approach in Problem Solving

- Heuristics thinking

- “Involve being able to recognize pattern and then being able to more rapidly solve the problem and come to a conclusion.”

- More quickly
- More efficiently
- Maximizing what already known
The Intuitive Decision making model

- Act on your first impulse
- May be helpful under limited time
- And/or systematic rational decision making is not possible.
Traditional Problem-Solving Process

1. Identify the problem.
2. Gather the data.
3. Explore alternative solutions.
4. Evaluate the alternatives.
5. Select appropriate solutions.
6. Implement the solution.
7. Evaluate the results.
Weakness of the traditional model

- Time consuming.
- Lack of objective setting step.
The IDEALS Model

1. Identify the problem
2. Define the context
3. Enumerate choices
4. Analyze options
5. List reason explicitly
6. Self-correct
Practice Question:

- As a head nurse of the ICU unit you have three seiner nurses who are about to leave the unit in one month.
Nursing Process as method of Decision making & problem solving.

- Assessment
- Diagnosis
- Planning
- Intervention
- Evaluation
Critical Elements in Problem Solving and Critical Thinking

- Define objective clearly
- Gather data carefully
- Use an evidence-Based approach
- Generate many alternative
- Think logically
- Choose and act decisively.
Define objective clearly

- Define the goals and objectives.

- If a decision lacks a clear objective or if an objectives is not consistence with the organization philosophy, a poor-quality decision is likely.
Gather data carefully

- What is the setting?
- What is the Problem?
- Where is it a problem?
- When is it a problem?
- Who is affected by the problem?

- Keep in mind that facts can be misleading if they are taken out of the context.
Use an Evidence Based approach

- Use outside resources such as: textbook, periodicals, expert in the field, etc.

- Evidence-Base practice: is the integration of the best evidence available, nursing expertise, and the values and the preference of the individual.
Generate many alternative

- At least two choices in every decision.
- Use Brain-Storming technique.
- The greater the number of choices, the more opportunity to reach the correct decision.
Think logically

People may think illogically in three ways:

1. Over-generalizing (Ex, Stereotyping)
2. Affirming the consequences
3. Arguing from analogy
Choose and act Decisively

- Once you get into a decision you have to implement it without delay.

- A decision can be changed and modified later.
Individuals Variations in Decision making

- Gender
- Values
- Life Experience
- Individual Preference
- Individual way of thinking
Decision making in organization

- Effect of organization power (powerful people in organization are more likely to have decision made)

- Rational and administration decision making (economic man VS administrative man)
## Decision making tools

### Decision Grid

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Financial effect</th>
<th>Political effect</th>
<th>Department effect</th>
<th>Time</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
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</tbody>
</table>
Decision Trees
## Consequence Tables:

<table>
<thead>
<tr>
<th>Objectives for Problem Solving</th>
<th>Alternative 1</th>
<th>Alternative 2</th>
<th>Alternative 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reduces the number of falls</td>
<td>X</td>
<td>X</td>
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<tr>
<td>2. Meets regulatory standards</td>
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<td>X</td>
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<tr>
<td>3. Is cost-effective</td>
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<td>X</td>
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<tr>
<td>4. Fits present policy guidelines</td>
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<td>X</td>
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</tbody>
</table>

**Decision Score**
Pitfalls in using decision-Making tools

- Confirmation biases
- Past experience influence the current decision
- Over-confidence of manager’s decision.
Six Cognitive Skills Used in Critical Thinking