

CRITICAL THINKING

COURSE CONTENT

1. Critical thinking and reflection-skills
2. Steps in critical thinking
3. Problem solving skills
4. Principles and importance of critical thinking
5. Reflective writing
6. Application of theory to practice.

LEARNING OBJECTIVES

By the end of the lessons, the learner will be able to:

1. Define critical thinking and reflection skills.
2. Steps in critical thinking
3. Characteristics of critical thinking and critical thinkers
4. Importance/benefits of critical thinking
5. Critical thinking skills
6. Components of critical thinking
7. Rationality and insight
8. Critical thinking in nursing practice
9. Predominant thinking strategies used by nurses
10. Other thinking strategies used by nurses
11. Application of critical thinking
12. Steps of the nursing process

DEFINITION:

- Critical thinking is a multidimensional skill of the cognitive (mental) process or set of procedures involving reasoning and purposeful, systematic, reflective, rational, outcome-directed thinking based on a body of knowledge, as well as examination and analysis of all available information and ideas. **OR**
- Critical thinking is the intellectually disciplined process of actively and skilfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action.
- **NB:** *In its exemplary form, it is based on universal intellectual values that transcend subject matter divisions: clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness.*

STEPS IN CRITICAL THINKING

1. **Knowledge:** In terms of critical thinking, the basic level of acquisition of knowledge requires that you be able to identify what is being said: the topic, the issue, the thesis, and the main points.
2. **Comprehension:** Comprehension means understanding the material read, heard or seen. In comprehending, you make the new knowledge that you have acquired your own by relating it to what you already know. Comprehending something implies that you can go beyond recalling but giving the material your own significance.
3. **Application:** Application requires that you know what you have read, heard, or seen, that you comprehend it, and that you carry out some task to apply what you comprehend to an actual situation.
4. **Analysis:** Analysis involves breaking what you read or hear into its component parts, in order to make clear how the ideas are ordered, related, or connected to other ideas. Analysis deals with both form and content.
5. **Synthesis:** Synthesis involves the ability to put together the parts you analyzed with other information to create something original.
6. **Evaluation:** Evaluation occurs once we have understood and analyzed what is said, read or seen and the reasons offered to support it. Then we can appraise this information in order to decide whether to believe and take a particular action.

CHARACTERISTICS OF CRITICAL THINKING AND CRITICAL THINKERS

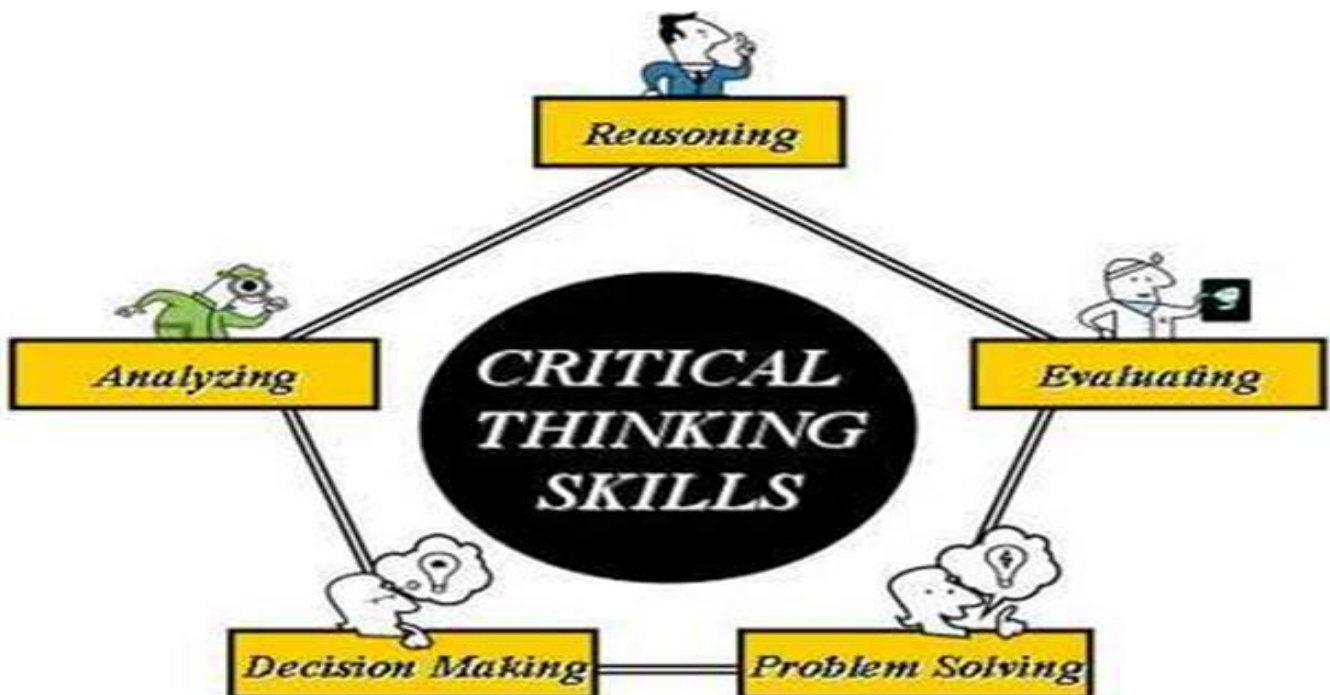
- It is a conscious, outcome-oriented activity; it is purposeful and intentional.
- Inquisitive, fair and open-minded truth seeking to the alternative solutions in relation to practical consequences.
- It is systematic and organized.
- Reflective, involving metacognition, active evaluation and refined thinking process.
- Considers the possibility of personal bias when interpreting data and determining appropriate actions.
- It is insightful with a sense of integrity, questioning personal ethics and minimizes, ethnocentricity and other biases on the decision making process.
- Raises vital questions and problems, formulating them clearly and precisely.
- Gathers and assesses relevant information, using abstract ideas for effective interpretation.
- communicates effectively with others in figuring out solutions to complex problems.

IMPORTANCE/BENEFITS OF CRITICAL THINKING

- It leads to the formulation of conclusions and the most appropriate, often creative, decisions, options or alternatives.
- It includes metacognition, the examination of one’s own reasoning or thought processes while thinking, to help strengthen and refine thinking skills.
- Independent judgments and decisions evolve from a sound knowledge base and the ability to synthesize information within the context in which it is presented.
- Nursing-practice requires the use of high-level critical thinking skills within the nursing
- Process to enhances clinical decision making, identify patient needs and determination of the best nursing actions needed to the patient/client needs.

CRITICAL THINKING SKILLS

These are illustrated on the diagram below:



- 1. Reasoning:** The action of thinking about something in a logical and sensible way. That is, think, understand, and form judgements by a process of logic (reasoning conducted or assessed according to strict principles of validity).
- 2. Analysis:** The detailed examination of the elements or structure of something, typically as a basis for discussion or interpretation.
- 3. Decision Making:** The action or process of making decisions, especially important ones.
- 4. Problem Solving:** The process of finding solutions to difficult of complex issues.

5. Evaluation: The making of a judgement about the amount, or value of something; an assessment.

COMPONENTS OF CRITICAL THINKING

When thinking critically, a person will do the following:

- Ask questions to determine the reason why certain developments have occurred and to see whether more information is needed to understand the situation accurately.
- Gather as much relevant information as possible to consider as many factors as possible.
- Validate the information presented to make sure that it is accurate (not just supposition or opinion), that it makes sense, and that it is based on fact and evidence.
- Analyzes the information to determine what it means and to see whether it forms clusters or patterns that point to certain conclusions.
- Refer to past clinical experience and knowledge to explain what is happening and to anticipate what might happen next.
- Maintain a flexible attitude that allows the facts to guide thinking and takes into account all possibilities.
- Consider available options and examine each in terms of its advantages and disadvantages.
- Formulate decisions that reflect creativity and independent decision making.

RATIONALITY AND INSIGHT

- The skills involved in critical thinking are developed over time through effort, practice, and experience.
- Skills needed in critical thinking include interpretation, analysis, evaluation, inference, explanation, and self-regulation.
- Critical thinking requires background knowledge and knowledge of key concepts as well as standards of good thinking.
- The critical thinker uses reality-based deliberation to validate the accuracy of data and the reliability of sources, being mindful of and questioning inconsistencies.
- Interpretation is used to determine the significance of data that are gathered, and analysis is used to identify patient problems indicated by the data.
- The nurse uses inference to draw conclusions where explanation is the justification of actions or interventions used to address patient problems and to help a patient move toward desired outcomes.
- Evaluation is the process of determining whether outcomes have been or are being met, and self-regulation is the process of examining the care provided and adjusting the interventions as needed.

CRITICAL THINKING IN NURSING PRACTICE

- To develop a nursing care plan while considering the human factors that might influence the plan.
- To interact positively with the patient, family, and other health care providers in the process of providing appropriate, individualized nursing care.
- Enhances patient-nurse interaction and rational decision making across multi-cultural, attitude and perception diversities.
- Nurses must use critical thinking skills in all practice settings—acute care, ambulatory care, extended care, and in the home and community. Regardless of the setting, each patient situation is viewed as unique and dynamic.
- Enables the nurse to correctly interpret information presented allowing the nurse to focus on those factors that are most relevant and significant to the clinical situation.
- Decisions about what to do and how to do it are then developed into a plan of action.

PREDOMINANT THINKING STRATEGIES USED BY NURSES

- Recognizing a pattern
- Setting priorities
- Making predictions
- Forming relationships
- Judging the value
- Drawing conclusions
- Providing explanations
- Searching for information
- Generating hypotheses
- Stating a proposition (“if–then”)
- Asserting a practice rule
- Making choices (alternative actions)

OTHER THINKING STRATEGIES USED BY NURSES

- Pondering
- Posing a question
- Making assumptions (supposing)
- Qualifying
- Making generalizations

APPLICATION OF CRITICAL THINKING

Throughout the critical thinking process, a continuous flow of questions evolves in the thinker's mind.

Although the questions will vary according to the particular clinical situation, certain general inquiries can serve as a basis for reaching conclusions and determining a course of action:

- What relevant assessment information do I need, and how do I interpret this information? What does this information tell me?
- To what problems does this information point?
- Have I identified the most important ones?
- Does the information point to any other problems that I should consider?
- Have I gathered all the information I need (signs/symptoms, laboratory values, medication history, emotional factors, mental status)? Is anything missing?
- Is there anything that needs to be reported immediately?
- Do I need to seek additional assistance?
- Does this patient have any special risk factors?
- Which ones are most significant? What must I do to minimize these risks?
- What possible complications must I anticipate?
- What are the most important problems in this situation?
- Do the patient and the patient's family recognize the same problems?
- What are the desired outcomes for this patient?
- Which have the highest priority? Does the patient see eye to eye with me on these points?
- What is going to be my first action in this situation?
- How can I construct a plan of care to achieve the goals?
- Are there any age-related factors involved, and will they require some special approach? Will I need to make some change in the plan of care to take these factors into account?
- How do the family dynamics affect this situation, and will this have an affect on my actions or the plan of care?
- Are there cultural factors that I must address and consider?
- Am I dealing with an ethical problem here? If so, how am I going to resolve it?
- Has any nursing research been conducted on this subject?

STEPS OF THE NURSING PROCESS

The nursing process is a deliberate problem-solving approach for meeting a person's health care and nursing needs.

The Traditional Steps are:

- 1. Assessment:** The systematic collection of data to determine the patient's health status and identify any actual or potential health problems. (Analysis of data is included as part of the assessment. For those who wish to emphasize its importance, analysis may be identified as a separate step of the nursing process.)
- 2. Diagnosis:** Identification of the following two types of patient problems:
 - a. *Nursing diagnoses:* Actual or potential health problems that can be managed by independent nursing interventions.
 - b. *Collaborative problems:* "Certain physiologic complications that nurses monitor to detect onset or changes in status. Nurses manage collaborative problems using physician-prescribed and nursing-prescribed interventions to minimize the complications of the events".
- 3. Planning:** Development of goals and outcomes, as well as a plan of care designed to assist the patient in resolving the diagnosed problems and achieving the identified goals and desired outcomes.
- 4. Implementation:** Actualization of the plan of care through nursing interventions.
- 5. Evaluation:** Determination of the patient's responses to the nursing interventions and the extent to which the outcomes have been achieved.
- 6. Documentation:**