



## Critical Thinking and Decision Making: Essential Skills in Nursing

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### ABSTRACT

Critical thinking and Decision-making skills are the crucial skills in the Comprehensive Patient care system where the ability of Physician and nurses is to provide high-quality, safe care depending upon their ability to think, reason, and judge critical clinical situations. Nurse Practitioners, Nurse Educators, and Nurse administrators are required for managing the dynamic health care system along with advancing excellence at every level of patient care in all levels of clinical settings by applying the skills of CT (critical thinking) along with DM (decision making). This narrative review summates the present scientific knowledge state concerning decision-making and critical thinking skills in nursing. Numerous keywords, as well as Mesh terminology, have been used to search Google Scholar and Pubmed databases. Additionally, the relevant lists of reference articles have been examined. In clinical practice, using critical thinking along with decision-making skills enhances professional action based on evidence as well as develops such areas of profession relevant to competence, according to the findings. In terms of providing safer, more competent service, the CT skills' acquisition may help to increase diagnostic precision along with decision making, resulting in better results for patients. Nonetheless, in clinical practice, our literature review revealed that there are just a few studies investigating CT. Improved CT skills may enhance patient quality care, however, the exact relationship between CT as well as outcomes is yet unknown.



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### INTRODUCTION

The nursing profession has emphasized critical thinking and decision-making as fundamental nursing skills for more than 50 years. In nursing education, regulatory and professional bodies

have emphasized that skills of critical thinking and decision-making be central to all nursing curricula. Decision-making is the most vital and significant part of the emergency management situations of the health care system. During many emergency situations, Nurses have to make a decision quickly without enough information about the situation. In addition to these problems that affect everyone, such health workers face specific challenges, including dealing with a large number of employees and persons on the treatment team in the hospital, working with families who are experiencing a crisis, happy and tragic moments of life, and death, disasters, and accidents, etc [1].

Critical-thinking and decision-making skills are considered the main goal of the Nursing profession since they enable students to make the right decisions that can help bridge the gap between theoret-

ical and practical training [2]. The need for these skills is emphasized in a medical emergency, nursing practice in acute wards, community health services, and nursing administration due to the complexity of the current system and rapid changes in the health care field. The ability to critically evaluate a situation is not innate. Critical decision-making skills are high-level skills that are difficult to assess [3]. In Nursing, there has only been a little research conducted on the ability to use knowledge for critical thinking as well as clinical nursing decision-making. In addition, inadequate research was done to determine the best methods of recuperating the clinical decision-making skill of Nurses in critical situations.

## METHODS

In Nurses, this narrative review summarizes the evidence about critical thinking along with decision making as crucial skills. We browsed Pubmed Google Scholar databases using the keyword Decision making, critical thinking, Nursing students, Nurses, Health care workers "Correlation between Critical thinking and Decision-making Skills." Reference lists of all the particular articles have been screened for finding other appropriate research. Studies including qualitative and quantitative research methods, based on evidence, written in English, full-text, published in the previous 20 years, and focusing on nurses have been included in the study. According to databases, 62 relevant articles have been discovered. 14 of the 62 articles are duplicates, and the other 48 have been reviewed. Approximately 14 other articles have been excluded since they were conference proceedings that did not provide full-text access. There have been 34 articles that made the final review results. All such articles have been carefully read as well as evaluated. The description review in Nursing is being organized under broad themes of the Importance of skills of Critical thinking and decision-making, how to acquire critical thinking and decision-making skills in nursing, Development of Critical thinking and Decision-making skills in Nursing, and Application of critical thinking and decision making skills in nursing.

### **The Importance of Critical Thinking and decision making skills in Nursing**

Critical thinking would help nurses for getting a better understanding of a particular subject and, as a result, make better decisions about the treatment of their patients. In order to improve nurses' ability to make their own decisions in nursing, critical thinking is essential [4]. Even though numer-

ous definitions of critical thinking have been proposed, everyone agrees that it involves making decisions. Critical thinking is the process that leads to decision-making. Nevertheless, the results on the correlation between clinical decision-making along with critical thinking conflict with one another. Few studies showed a significant and evident connection between these two subjects, whereas others failed to describe the two concepts in nursing or discover a connection between them [5].

Nurses use critical thinking and creativity to solve patient problems as well as make decisions that have a greater impact. In order to give a safe, efficient, and competent nursing intervention, this is necessary to go through this procedure. As per Scriven and Paul, critical thinking is the active mental procedure along with delicate perception, synthesis, analysis, and assessment of information obtained or generated through observation, reasoning, reflection, experience, or communication that leads to a conviction for action [4].

In clinical practice, Nurses are constantly making judgments as well as decisions that are based on the evaluation and diagnosis of the needs, conditions, or problems of their patients. Clinical judgment is mainly a complex skill to develop since it is based on critical thinking. Nursing activities are based on clinical judgment and are oriented toward obtaining desired health outcomes (Alfaro-LeFevre, 2009). Several mind habits have been identified as being characteristic of critical thinking by nurses, according to [6]. These mind habits include confidence, open-mindedness, reflection, flexibility, perseverance, contextual perspective, intellectual integrity, inquisitiveness, creativity, and confidence. Benner (2008) emphasized that clinical judgements should not rely too largely on technology and that economic incentives to employ technology should not come at the price of human critical thinking and reasoning in specific instances, stressing the need for expert expertise and holistic judgement.

Maryam Azizi et al. (2018) noticed that teaching critical thinking to nursing students has a good impact on their decision-making abilities and self-esteem, according to their findings. As a result, this can be determined that critical thinking education is a significant tool for developing, cultivating, and enhancing Decision-making skills in Nursing [7].

### **How can CT and DM skills acquire by nurses in clinical practice**

In the past few years, critical thinking along with decision-making skills was identified as a crucial component of nursing education and career development. Alfaro-Le Fevre's 4-Circle Critical Think-

ing Model (Figure 1) visualizes critical thinking abilities, which nurses may utilize for making relations between nursing practice and nursing research [8].

Although a critical thinker is not always a good decision maker, nurses working in important areas are required to have exceptional critical thinking abilities when making complicated clinical decisions. According to studies, critical care nurses' decisions are primarily based on action rather than reflection [9]. Nani Asna et al. study's creates a connection between nurses' critical thinking and clinical decision-making ability and nursing handover quality, along with their level of education [10].

*Does good critical thinking equal effective decision-making among critical care nurses?* Critical Care Nursing Department, Malaysia, conducted a cross-sectional survey and revealed that both skills are equally important and have to be acquired by all in their clinical profession [11].

To help new nurses in developing these skills, Lippincott Solutions: a provider of professional development resources, recommends that nurse educators should focus on the following areas in the classroom. For example, they are asking open-ended questions, promoting interactions, giving time for students to reflect on questions, along with Teaching skills through various situations and experiences through simulations, Case-control studies, and concept mapping.

Additionally, In the *Minority Nurse* article, Lakhani S stated that students who thirst for information, knowledge, along comprehension make the best critical thinkers. According to the author, new nurses who are open to constructive criticism might acquire vital skills, translating into effective practice [12].

Contrary to previous research that has found either a positive correlation or no relationship between confidence in decision-making and critical thinking, this particular study conducted by Kerry H. et al (2003) found a negative correlation between CT and DM skills [13].

Such findings may have consequences for tertiary nursing education along with ongoing clinical education. New graduate nurses who score higher on critical thinking tests and appear more cautious in their decision-making must be encouraged to maintain their questioning approach, according to the American Nurses Association. There is a requirement for professional development courses that enhance knowledge of the necessity of a nursing culture that supports a more open questioning attitude of critical thinking and decision-making. Pro-

fessional development courses that promote awareness of the necessity of a nursing culture, which supports a more open questioning attitude of decision-making and critical thinking, are required.

Another practical approach for encouraging critical thinking is the development of concept maps. Even though concept maps are commonly utilized in pre-licensure programs [14] nurse managers might encourage their preceptors to use them with Nurse trainees [15].

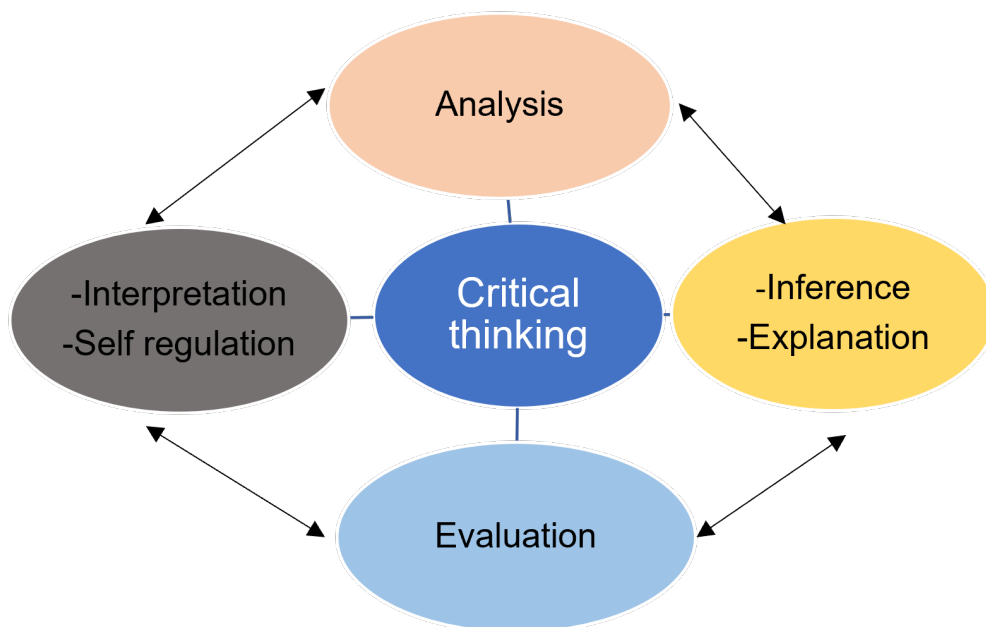
A nurse's critical thinking skills are further developed through the dialogue process when developing concept maps with others. Simulations can also help to develop critical thinking skills. As per [16], simulations may also enhance clinical reasoning and critical thinking, which can lead to the formulation of results in the form of clinical judgments and, as a result, to more productive Decision Making. In educational contexts, the utilization of human patient simulators is well-known and widely used. Simulators are also beneficial in introducing new graduates to the acute care situation [17]. In inter-professional situations using simulators to enhance critical thinking role development has been described by Jeffries (2012) in Decision Making (Volume 17) [18].

The outcomes of the research conducted by Salehi et al. in Iran (2006) revealed that the mean score for critical thinking among nurses was low. This is most likely a result of shortages in the educational system, as well as issues in the working environment. The absence of a connection between clinical decision-making and critical thinking, according to some experts, may be related to the lack of a suitable method to evaluate the correlation.

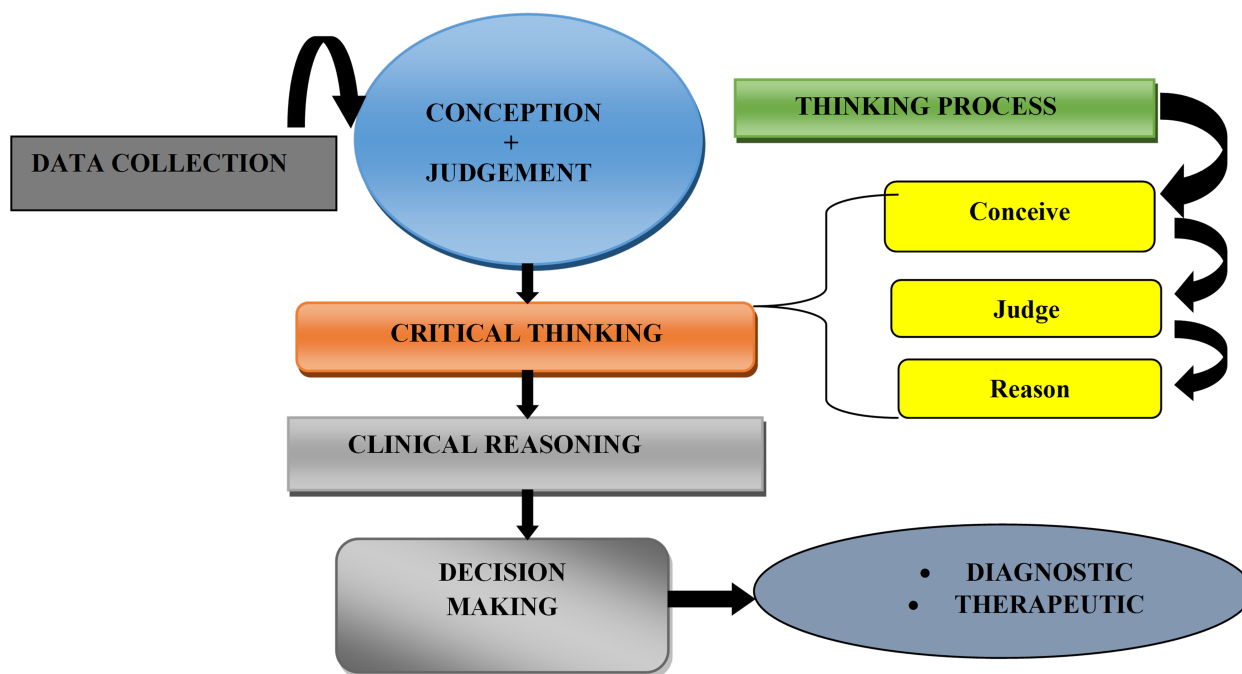
### **Development of Critical thinking and Decision-making skills in Nursing**

Nurse managers and leaders are responsible for establishing a care delivery environment that encourages critical thinking, which results in the development of innovative solutions to challenges that arise within the healthcare delivery system. So that nurses may learn from their mistakes, this kind of atmosphere encourages nurses to ask questions, explore a range of opinions, and come up with creative solutions to Nursing problems.

To build an environment of critical thinking, the following techniques might be implemented in the workplace. Firstly, the nurse leader/manager, in the role of coach, mentor, or preceptor, must encourage questions, for example, "Is what you are doing or proposing based on sound evidence [19]. However, Snowden and Boone (2007) cautioned that



**Figure 1: The Alfaro-Le Fevre's 4-Circle Critical Thinking Model**



**Figure 2: Clinical Reasoning: Related Concepts of Critical Thinking and Decision Making**

best practice, by definition, is past practice” [20]. To properly use best practices, it is necessary to analyze them carefully. Staff Managers and nurses should use critical thinking skills for determining whether or not to apply suggested practice protocols. Managers must provide their employees and themselves with “think time” for reflecting and developing critical thinking skills [21]. A significant aspect of nursing education is the development of clinical judgement skills in both new as well as experienced

nurses. Several new nurses, in particular, require more training in critical thinking [22].

The following habits can be adopted by nurse managers to better improve such skills outside of the clinical area.

1. Open-mindedness and teamwork
2. Asking questions and gathering truthful data
3. Using own thinking process



4. If needed, take the help of a mentor.

The Importance of critical thinking is intended to guarantee that new nurses are proficient to adhere as well as to preserve some fundamental ideas in their profession. When evaluating young Nurses, the article recommends that nursing supervisors or nurse educators consider the following four questions.

1. Can the Nurse identify that the patient is suffering from a problem?
2. Is the Nurse able to treat the situation safely and effectively, recognizing their practice scope?
3. Does the Nurse have a sense of relative urgency?
4. Does the Nurse take the appropriate action for the right reason?

Zahra Kashaninia et al. (2016) study results indicated that teaching critical thinking skills increases the utilization of rational decision-making style by the nursing managers. Nurses' cognitive capability to analyze the information and make decisions is a vital element of their performance and needs critical thinking skills. To allow for the development of professional competencies, problem-solving, decision-making, and self-sufficiency abilities that are all affected by the capability for critical thinking, medical science universities must give the essential assistance to their students [23].

### Clinical Reasoning

#### Related Concepts of Critical Thinking and Decision Making

An intentional thinking approach by a nurse results in the development of a relationship between the skills, knowledge, and attitudes that are attributed to decision making and critical thinking. To obtain categories, as well as evaluate client data along with plan activities, which will satisfy the requirements of the client, nurses must use a creative method to be thinking and actions to successfully implement the nursing process.

After the data collection, the Nurse performs Nursing care based on the concepts or data received to make choices in action (Judgment).

Judgment can notice significant components of an unclear clinical condition, evaluate its significance, and provide an acceptable reaction [2]. Clinical reasoning is the thinking as well as a decision-making process that is integrated into the clinical practice of treating patients or clients (Figure 2). Making

a decision requires the Nurse to use critical thinking skills. Clinical reasoning requires a set of previously learned skills and attitudes to make appropriate decisions [24].

There are three types of skills to consider here. Cognitive skills (analysis, standard applications, knowledge transformation, prediction, interpretation, inference, explanation, information seeking, discrimination, and self-regulation), behavioral skills (systematization, analysis, open-mindedness, and self-confidence), along with mental habits (confidence, understanding, reflection, intellectual perspective perseverance, intuition, intellectual integrity, flexibility, curiosity, and creativity) [25].

### CONCLUSIONS

There are numerous problems in investigating this subject, but the current narrative evaluation of the CT and DM skills in nursing and associated ideas clearly shows that this is an area of interest in nursing. Very little research has been conducted on this topic in India. The worldwide research demonstrates that CT's conceptualization has to be consolidated and adapted to the existing health care system and clinical environment beyond the purely theoretical. Although CT has been highlighted as a critical component of nursing practice, there is limited evidence that CT competency is evaluated regularly. CT used in clinical practice supports professional activity that is evidence-based and develops specific components of the profession that are relevant to competence, according to the authors. The development of CT skills, particularly by primary care health care practitioners, will result in safer and more competent treatment, as well as improved diagnostic precision along with decision making, which will result in more positive outcomes for patients. Despite this, our literature review revealed that only a few researches are examining CT and DM skills in nursing education, practice, and administration, among other areas of study. Structured social problem-solving training can help people enhance their critical thinking cognitive problem-solving, along decision-making skills. The challenge for the future of CT research is to concentrate on the construction of models as well as evaluation instruments that are unique to the discipline of nursing, and also on the analysis of the variables that support and those that obstruct the acquisition of these abilities, for developing strategies to promote CT and DM in clinical practice.

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## Conflict of Interest

The authors declare that they have no conflict of interest.

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