

CRITICAL THINKING IN NURSING EDUCATION AND NURSING PRACTICE

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ABSTRACT

Critical thinking is an essential component to competent nursing practice. Although critical thinking has been widely studied among student nurses.

Nursing education consists of the theoretical and practical training provided to nurses with the purpose to prepare them for their duties as nursing care professionals.

Nurse educators are under pressure to show critical thinking as a program outcome. Many different strategies have been suggested for developing critical thinking among nursing students. It is easy to believe these strategies increase critical thinking, but not all have actually been measured for reliability or validity. Based on an exhaustive literature search, the author attempted to identify teaching strategies that are being used to increase critical thinking and how effective those strategies have been.

KEYWORDS Critical thinking, Nursing education, Nursing practice

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INTRODUCTION

The nursing profession has evolved from the simple practice of nurturing to the art and science of performing complex procedures. As nursing has evolved from an occupation to a profession requiring cognitive and relational skills nurses have progressed from task oriented to skilled professional based on well developed knowledge. Today's registered nurse (RN) must be able to analyze complex situations. Nurses must develop critical thinking skills to solve complex problems. Decisions made by nurses often involve complex problems concerning the physical and psychosocial well-being of clients and interaction with other disciplines.¹

According to Fesler-Birch (2005)², critical thinking is an essential component to reaching desired patient outcomes. Critical thinking is utilized in the identification of patient problems, the planning of care, and the administration of care. Without the careful examination of all aspects of patient care, the outcome reached may inflict more harm than good on the patient.

With the rapid changes in healthcare and the influx of new technology nurses must be able to use critical thinking skills to make decisions that provide optimal patient care. Critical thinking is viewed as more than a skill that can be used to enhance nursing practice; it is a skill that is necessary for providing quality nursing care. Nurses must be able to engage in critical thinking to handle the onslaught of continuous procedural and technological changes in the current healthcare environment.³

Critical thinking is an essential skill for nurses who practice in complex health care systems. This study explored nursing in the field of nursing education and nursing practices. Faculty members conceptualized critical thinking as "putting it all together" through information seeking, reflecting, assigning meaning, problem solving, predicting, planning, and applying information. Faculty members perceived that they teach critical thinking through a number of approaches that include asking questions, reviewing written products, conducting clinical conferences, and evaluating student performances and research.⁴

According to Brookfield (1987)⁵, critical thinking involves recognizing the assumptions that underlie beliefs and behaviors.⁵ This gives justification for ideas and actions. In his opinion, perhaps most importantly, it means that individuals try to judge the rationality of these justifications. Critical thinkers view their thinking as a process instead of an outcome. Emotions play a pivotal role in this process. The critical thinker becomes conscious of the affect that their emotions have on their thought processes. Brookfield

suggests that critical thinkers are typically individuals that engage in productive and positive activity, in that they are actively involved with life, and perceive themselves as creative and being recreative in aspects of their personal, professional and political lives.

Paul (1993)⁶ offered another definition of critical thinking: Critical thinking is a systematic way to form and shape one's thinking.⁶ It functions purposefully and exactly. It is thought that it is disciplined, comprehensive, based on intellectual standards, and, as a result, well reasoned. Critical thinking is distinguishable from other thinking because the thinker is thinking with the awareness of the systematic nature of high quality thought, and is continuously checking up on himself or herself, striving to improve quality of thinking. Paul (1993) took a similar approach to critical thinking, as did Ennis (1985),⁷ with critical thinking being viewed as an interrelated process requiring reflection. The critical thinker must possess the ability to assess his or her own thinking as a component of the critical thinking process.

Alfaro-LeFever (1995)⁸ defined critical thinking in nursing as purposeful, outcome-directed thinking based on principles of the nursing process and the scientific method. In order to succeed in the workplace, nurses have to engage in independent and group problem-solving skills, use resources, take ownership and responsibility, use technology, and acquire and evaluate information. In order to accomplish these tasks, nurses are required to possess basic skills, which include reading, writing, and listening, and personal qualities, such as self-esteem, self-confidence, and integrity, and finally one needs thinking skills, including knowing how to learn, reason, generate ideas, and how to solve problems.

Brunt (1995)⁹ conceptualized critical thinking in nursing as: the rational examination of ideas, inferences, statements, beliefs and actions. This examination covers scientific reasoning includes the nursing process, decision making and reasoning in controversial issues.

Gordon (2000)¹⁰ compared definition of critical thinking between nurse educators and non-nurse scholars, where Facione's (1990)¹¹ definition served as the non-nursing definition. Unlike non-nurse scholars, nurse educators considered critical thinking to include planning, synthesizing, analyzing, and critiquing literature. Nurse educators also viewed decision making and problem solving as the same, or partly the same, as critical thinking. Non-nurse scholars were likely to equate critical thinking, which was viewed as a non-linear process, with decision making and problem solving, which were viewed as linear processes.

Scheffer and Rubinfeld (2000),¹² viewed critical thinking in

nursing is an essential component of professional accountability and quality nursing care. Critical thinkers in nursing exhibit these habits of the mind; confidence, contextual perspective, creativity, flexibility, inquisitiveness, intellectual, integrity, intuition, open-mindedness, perseverance, and reflection. Critical thinkers in nursing practice the cognitive skills of analyzing, applying standards, discriminating, information seeking, logical reasoning, predicting, and transforming knowledge.

Glaser (1941)¹³ explored the rationale for critical thinking as an educational objective. Glaser defined critical thinking as involving three components, which include an attitude of exploring problems and subjects which are encountered, possessing knowledge of the methods required for logical inquiry and reasoning, and the ability to apply these methods. Later, Glaser teamed up with Watson and more definitions emerged. Critical thinking as more than a specific set of cognitive skills; critical thinking is also a combination of skills, knowledge, and attitudes, and comprises an understanding of making inferences and generalizations. In addition, the authors note the relevance of possessing critical thinking skills in order to be fully functional in modern society (Simpson & Courtney, 2001).¹⁴ From these beliefs, an assessment tool, the Watson Glaser Critical Thinking Appraisal (WGCTA), was created. This tool is the most widely used test for the measurement of critical thinking in nursing (Oermann & Gaberson).¹⁵

Fowler¹⁶ claims that practicing nurses and nurse educators concur that the increasing complexity of modern healthcare demands critical thinking. Every day, nurses sift through an abundance of data and information to assimilate and adapt knowledge for problem clarification and solution. Moreover, nurses are constantly involved in making decisions within their practice. These decisions are frequently concerned with situations where there is no single or absolutely correct response. Colucciello¹⁷ proclaims the use of critical thinking is vital in examining simple and complex situations in nurses' day-to-day responsibilities. It is an essential means of establishing whether the information or assessment obtained has been accurately captured in order to articulate specifically and distinctly what the information conveys.

Ulsenheimer¹⁸ suggests critical thinking is a process for reasoning which anyone has the capacity to master, proposing that "such a reasoning process will provide nurses with a capacity to defend their actions". Alfaro-LeFevre⁸ emphasizes it is imperative that nurses become critical thinkers in order to practice sound clinical judgement. He defines clinical judgement as "critical thinking in a clinical area". Nurses must use critical thinking skills to rigorously investigate and reflect

on all aspects of a clinical observation or problem in order to decide on an appropriate course of action. Alfaro-LeFevre⁸ asserts that critical thinking belongs in nursing because nursing is concerned with purposeful goal-directed thinking, with the primary aim of making judgments grounded on factual evidence rather than conjecture.

The current health care environment reflects societal patterns of constant change and complexity. The rapid growth of knowledge and technology related to health and illness calls for nurses who are able to solve problems and make crucial decisions in clinical situations. Nurse educators must address the challenge of preparing nurse who can think challenge of preparing nurses who can think critically.⁴

The Royal College of Nursing Australia (RCNA)¹⁹ also believes "quality in nursing practice is dependent upon educational preparation of nurses to ensure the capacity of nurses to: critically evaluate and modify nursing interventions"

Miller and Malcolm²⁰ advocate the integration of instructional strategies to foster critical thinking into all levels of nursing curriculum. This is in contrast to the proposition of perceiving critical thinking as an independent unit to be taught as a subject in a curriculum. The authors suggest that the method of integration depends primarily on faculty members' level of discussion and participation, as they consider the necessity to increase teaching strategies that promote critical thinking, re-conceptualize and revise the curriculum. Paul states simply that it is important for nurse educators to "abandon methods that make students passive recipients of information and adopt those that transform them into active participants in their own intellectual growth".

Snyder²¹ states to provide consumer-focused care, nurses will need to develop critical thinking skills that utilize logical/analytical and intuitive/creative approaches to solving problems. Critical thinking skills that integrate these two approaches will provide practitioners expertise in flexible, individualized, and situation-specific problem solving. Nursing staffs who are able to focus on the consumer will be better prepared to meet the demands of today's competitive health care market. The process of critical thinking will enhance the ability of nurses to identify clinical indicators, assess their significance and discuss areas for improvement. Like critical thinking, continuous quality improvement is also seen as a never-ending process; hence, a harmonious relationship exists between the use of critical thinking strategies and effective quality improvement initiatives.

If nurses are to deal effectively with complex change, increased demands and greater accountability, they must

become skilled in higher level thinking and reasoning abilities. Nurses are now required to provide skilled, multidimensional care in multiple, often unfamiliar environments or settings. Consequently, nurses should be prepared to function as safe, competent, intuitive and innovative clinicians in an environment where new information and clinical situations are constantly changing.²²

Strategic for instituting critical thinking

As Lippincott solutions (2018),²³ in assessing new graduate nurses' critical-thinking capabilities, it's helpful to consider the fundamental principles of critical thinking. Ask the following four questions:

1. Can the nurse recognize that the patient has a problem?
2. Can the nurse manage the problem safely and effectively, recognizing his or her scope of practice?
3. Does the nurse have a relative sense of urgency?
4. Does the nurse take the right action for the right reason?

Just as there are similarities among the definitions of critical thinking across subject areas and levels, there are several generally recognized hallmarks of teaching for critical thinking. These include:

- Promote interaction among students as they learn. Learning in a group setting often helps each member achieve more.
- Ask open-ended questions that do not assume "one right answer." Critical thinking is often exemplified best when the problems are inherently ill-defined and don't have a "right" answer. Open-ended questions also encourage students to think and respond creatively, without fear of giving the "wrong" answer.
- Allow sufficient time to reflect on the questions asked or problems posed. Critical thinking seldom involves snap judgments; therefore, posing questions and allowing adequate time before soliciting responses helps new nurses understand that they are expected to deliberate and to ponder, and that the immediate response is not always the best response.
- Teach for transfer. The skills for critical thinking should travel well. They generally will do so only if teachers provide opportunities for students to see how a newly acquired skill can apply to other situations and experiences.

Kurfiss²⁴ offers a range of strategies to encourage the critical thinking process such as:

- formal/informal writing assignments or brief case studies;

- questions that involve reasoning skills and the ability to organize and articulate knowledge; and finally
- dialoging on complex problems.

What Kurfiss suggests is typically what nurses do on a daily basis. Dealing with questions of quality of life and death, nurses are continually weighing alternatives, looking at reasons for choosing one alternative over another in an open, flexible and attentive manner and considering what actions to follow.

Attributes of critical thinkers

As Lippincott solutions (2018),²³ After evaluating where new nurses are at in terms of critical-thinking skills, look at the attributes of a critical thinker. Strong critical thinkers demonstrate the following characteristics: (Based on the APA Expert Consensus Delphi Report description of strong critical thinkers.)

- inquisitiveness with regard to a wide range of issues
- concern to become and remain well-informed
- alertness to opportunities to use critical thinking
- self-confidence in one's own abilities to reason
- open-mindedness regarding divergent world views
- flexibility in considering alternatives and opinions
- understanding of the opinions of other people
- fair-mindedness in appraising reasoning
- honesty in facing one's own biases, prejudices, stereotypes, or egocentric tendencies
- prudence in suspending, making or altering judgments
- willingness to reconsider and revise views where honest reflection suggests that change is warranted.

Dimensions of critical thinking

The dimensions of critical thinking comprise of both (a) cognitive skills and (b) affective dispositions. Facione, Facione and Sanchez²⁵ state that having the requisite cognitive critical thinking skills is essential to being a good critical thinker. The concept of critical thinking is also associated with a set of personal attitudes or dispositions that can be used to describe an individual who is inclined to use critical thinking.

- (a) The cognitive critical thinking skills can be understood as:

- **Interpretation:** accurately interpreting problems as well as objective and subjective data from common information sources, related to the care of the patient;
- **Analysis:** examining ideas/arguments in problems, objective and subjective data and possible courses of action related to the care of the patient;
- **Inference:** querying claims, assessing arguments (recognizes faulty reasoning) and reaching conclusions which are appropriate to the care of the patient;
- **Explanation:** clearly explaining and defending the reasoning in which an individual arrives at specific decisions in the context of the health care of the patient;
- **Evaluation:** evaluating information to ascertain its probable trustworthiness as well as its relevance to particular patient care situations; and
- **Self-regulation:** constantly monitoring one's own thinking using universal criteria. For example, clarity, precision, accuracy, consistency, logicalness, significance etc. and correcting oneself as appropriate in the context of caring for patients.

These skills are employed interactively in the reflective reasoning process of making a judgement of what to believe or do. Therefore, in thinking critically, a person not only tries to determine judiciously what to do or what to believe, a person is also able to apply the core critical thinking skills to one another. In other words, one may analyze one's own inferences, explain one's own interpretation or evaluate one's own analysis.

(b) An individual's disposition is explained as:

- **Open-minded:** having an appreciation of alternate perspectives and willingness to respect the right of others to hold different opinions. Understanding other cultural traditions in order to gain perspectives on self and for others;
- **Inquisitive:** curious and enthusiastic in wanting to acquire knowledge, wanting to know how things work, even when the applications are not immediately apparent;
- **Truth-seeking:** courageous about asking questions to obtain the best knowledge, even if such knowledge may fail to support one's preconceptions, beliefs or interests;
- **Analytical:** Thinking analytically and using verifiable information. Demanding the application of reason and evidence and the inclination to anticipate consequences;
- **Systematic:** valuing organization and a focused and

diligent approach to problems of all levels of complexity; and

- **Self-confident:** trusting one's own reasoning and inclination to utilize these skills, rather than other strategies, in order to respond to problems. For example, making decisions based on scientific evidence and responding to the values and interests of individuals and society.

Facione, Facione and Sanchez²⁵ and Chenoweth²⁶ state these dispositions or attributes/attitudes or habits of mind could be considered as the elements of a process of reasoning in an individual's character that propels or stimulates an individual towards using critical thinking. Without these dispositions the engagement of critical thinking will not occur. This conceptualization of critical thinking was developed by a panel of experts of the critical thinking Delphi Project from the American Philosophical Association.

As summarized by Schank,²⁷ knowing how to think, apply, analyze, synthesize, and evaluate are crucial skills for nursing professionals. Development of critical thinking skills requires educational involvement beyond the level of basic preparation. The diffusion of nursing knowledge afforded by continuing education in nursing makes it the perfect milieu for the enhancement and continuous development of critical thinking skills.

CONCLUSION

Critical skills for nursing are the ability to think, apply, analyze, synthesize and evaluate situations. Nurse educators face many challenges when teaching critical thinking. Therefore, success in teaching critical thinking requires creative strategies. Nurse educators realize the importance of teaching critical thinking skills to students and are aware that these skills can be developed by devising teaching methods that stimulate higher-level thinking in theory and practice. Nursing educators are correct in pursuing the teaching and learning of the reflective process in nursing education. Nurse educators need to utilize various tools and strategies for facilitating the growth of students into reflective practitioners to enhance the ability of nurses to identify opportunities for improving care, documenting that care and recommending, implementing and evaluating actions to bring about improvements.

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