Critical Thinking in Nurse Managers

THE FRONT-LINE NURSE manager plays a key role in achieving organizational goals of delivering high-quality care to satisfied patients. Creating a positive work environment that fosters staff satisfaction is required of nurse managers (McGuire & Kennerly, 2006). The nurse manager must be a transformational leader capable of influencing staff to align with organizational goals (Robbins & Davidhizar, 2007). Critical thinking skills and the inclination to engage in critical thinking are essential for the nurse manager to function as a transformational leader (Robbins & Davidhizar, 2007; Kjervik & Leonard, 2001).

Identifying nurse manager skills that lead to successful outcomes of high-quality patient care, patient satisfaction, and staff satisfaction is important to consider as Baby Boomer nurse managers begin to retire and a new generation of nurse managers are recruited and developed. Critical thinking skills lead to successful outcomes of high-quality patient care, patient satisfaction, and staff satisfaction is essential to consider as Baby Boomer nurse managers begin to retire and a new generation of nurse managers are recruited and developed. Critical thinking skills and the inclination to engage in critical thinking are essential for the nurse manager to function as a transformational leader (Robbins & Davidhizar, 2007).

Critical thinking can have a powerful influence on the decision making and problem solving that nurse managers are faced with on a daily basis. The skills that typify critical thinking include analysis, evaluation, inference, and deductive reasoning. It is intuitive that nurse managers require both the skills and the dispositions of critical thinking to be successful in this pivotal role at a time of transformation in health care.

Incorporating critical thinking into education and support programs for the nurse manager is necessary to position the nurse manager for success.

EXECUTIVE SUMMARY

- Formal education and support is needed for nurse managers to effectively function in their role in the current health care environment.
- Many nurse managers assume their positions based on expertise in a clinical role with little expertise in managerial and leadership skills.
- Operating as a manager and leader requires ongoing development of critical thinking skills and the inclination to use those skills.
- Critical thinking can have a powerful influence on the decision making and problem solving that nurse managers are faced with on a daily basis.
- The skills that typify critical thinking include analysis, evaluation, inference, and deductive reasoning.
- It is intuitive that nurse managers require both the skills and the dispositions of critical thinking to be successful in this pivotal role at a time of transformation in health care.
- Incorporating critical thinking into education and support programs for the nurse manager is necessary to position the nurse manager for success.

CNE Objectives and Evaluation Form appear on page 80.

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nursing managers. Formal education and support are needed for nurse managers to effectively function in their role in the current health care environment. Many nurse managers assume their positions based on expertise in a clinical role with little expertise in managerial and leadership skills. Effective functioning in the management role requires knowledge and skills related to financial management, human resources, collective bargaining, communication with multiple departments and levels of staff, and quality management. There is additional demand for a nurse manager to function as a transformational leader who translates vision, goals, and purpose to staff on the unit level. Operating as a manager and leader requires ongoing development of critical thinking skills and the inclination to use those skills. Yet many nurse managers receive little or insufficient education and support for the manager role (Wilson, 2005). The development of critical thinking is seen as an antecedent to effective functioning in the manager role. Critical thinking can have a powerful influence on the decision making and problem solving that nurse managers are faced with on a daily basis. The skills that typify critical thinking include analysis, evaluation, inference, and deductive and inductive reasoning (Facione, Facione, & Sanchez, 1994). The dispositions that foster use of critical thinking skills include inquisitiveness, systematicity, analyticity, open-mindedness, truth seeking, confidence, and maturity in using critical thinking (Facione et al., 1994). It is intuitive that nurse managers require both the skills and the dispositions of critical thinking to be successful in this pivotal role at a time of transformation in health care. Incorporating critical thinking into education and support programs for the nurse manager is necessary to position the nurse manager for success.

Literature Review of Critical Thinking

The early studies of critical thinking were reported in the education literature and described the skills, attributes, and teaching techniques that foster critical thinking. John Dewey (1910), the noted educator, used the term reflective thinking to describe thought based on reflection, related to beliefs, purposeful, and involving outcomes. This concept of reflective thinking has shaped the field of education for decades and can be viewed as a forerunner of the more current usage of the term critical thinking. Brookfield (1987), and Norris (1985) expanded the concept of critical thinking by describing components of critical thinking that include challenging assumptions, imagining alternatives, considering the context of a situation, and engaging in reflective skepticism. Ennis (1985) described the dispositions of a critical thinker that allow one to employ critical thinking skills in the course of daily life.

Research in critical thinking was piqued when the California Critical Thinking Disposition Inventory was developed by Facione and Facione (1994) based on the Delphi study conducted by the American Philosophical Association that identified the dispositions of critical thinking. The Delphi study on critical thinking commissioned by the American Philosophical Association convened a panel of 46 experts on critical thinking from the disciplines of philosophy, education, social sciences, and physical sciences (American Philosophical Association [APA], 1990). The APA Delphi Panel (1990) participated in six rounds of inquiry and described critical thinking and the dispositions of a critical thinker as:

...purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based...The ideal critical thinker is habitually inquisitive, well-informed, trusting of reason, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, prudent in making judgment, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry, and persistent in seeking results which are as precise at the subject and the circumstances of inquiry permit (p. 2).

A Delphi study specific to nursing was conducted by Scheffer and Rosenfeld (2000) to create a consensus definition of critical thinking in nursing. The nursing Delphi study was consistent with the APA Delphi study except for creativity and flexibility that were described as part of the dispositions of critical thinking specific to nursing.

Several researchers examined the attainment of critical thinking skills and dispositions of students progressing through nursing education programs (Colucciello, 1999; May, Edell, Butell, Doughty, & Langford, 1999; McCarthy, Schuster, Zehr, & McDougal, 1999). Knowledge about critical thinking has been advanced through development of a mid-range theory of critical thinking that describes the improvement of critical thinking with attainment of knowledge and experience (Martin, 2002).

Studies that apply critical thinking to practicing nurses include critical thinking in staff nurses related to research utilization (Profetto-McGrath, Hesketh, Lang, & Estabrooks, 2003), a study of critical thinking in nurse educators (Raymond & Profetto-McGrath, 2005), and an exploration of critical thinking and evidence-based practice in nursing (Profetto-
McGrath et al., 2005). Little research is published exploring critical thinking in nurse managers despite a persistent sense that critical thinking is essential to the practice of nursing management. This notion is supported by the survey reported by Kjervik and Leonard (2001) that identified critical thinking as an essential skill needed by nurse managers in the 21st century.

**Critical Thinking Defined**

A concept analysis was completed by these authors to define critical thinking within the context of nursing management. The definition that emerged from the concept analysis is: to engage in processes of reflection, judgment, evaluation, and criticism that leads to decisiveness that is vital to achievement of intentioned outcomes. Assumptions are challenged and a more robust understanding of the causes and implications of problems and creative solutions are identified when critical thinking is engaged. Not engaging in critical thinking results in the use of reactive, automatic responses to solve problems and cope with challenging situations. Using reactive thinking rather than critical thinking often results in missing the opportunity for self-growth as well as the opportunity to create fundamental changes that are long lasting and goal driven (Brunt, 2005; Schmieding, 1999; Senge, Scharmer, Jaworski, & Flowers, 2005).

**Case Example**

The following case examples are presented to describe a nurse manager who engages in a critical thinking process to solve a problem and one who uses reactive thinking to solve the same problem. The nurse manager who used critical thinking changes the process of time scheduling on the unit which results in empowering the staff to be responsible for unit scheduling with an anticipated increase in staff satisfaction.

**Critical Thinking Case Example**

A nurse manager faced with the common scenario of creating a time schedule that covers the Christmas and New Year holidays reviews the past practice on the unit. The practice on the unit is that staff must work one or the other holiday and preferences are based on seniority. Junior members of the staff do not receive their preferred holidays off resulting in dissatisfaction. In reflecting on this situation, the manager recognizes that senior members of the staff always being granted their holiday preferences for days off disadvantages junior members of the staff resulting in dissatisfaction.

To find alternatives to the current time scheduling process the nurse manager conducts an inquiry of time scheduling practices both within the hospital and at other hospitals. She reviews the hospital policy and determines that the policy is flexible enough to allow for changes in the unit’s practice of time scheduling.

The manager considers the goal of the nursing department to achieve Magnet® status which requires staff to be involved in self-governance. Improving patient and staff satisfaction scores are also unit goals that are considered when seeking a solution to completing the holiday time schedule.

The manager decides to create a time scheduling unit committee and invites nurses of various amounts of seniority to be a part of the committee. At the first meeting the nurse manager reviews the current practice, the policy, and presents several alternative practices. She sets the ground rules for producing a schedule with sufficient staffing. She asks the committee to complete the time schedule. The committee meets and creates a time schedule that is satisfactory to both junior and senior staff using a combination of full and partial shifts that allow all staff to have some time off on major holidays. The staff are satisfied with the process of creating this time schedule and within a few months the unit has an ongoing unit committee comprised of staff who are responsible for creating and managing all time schedules (see Figure 1).

**Contrasting Case**

A contrasting case example is provided to illustrate decision making that is made without applying critical thinking to the situation of creating a holiday time schedule. In this case the nurse manager sees no problems with the practice of always granting holiday time off to senior staff members. Her assumption is that senior staff should be rewarded and granting preferences for holiday time off is seen as a reward. The manager announces to the staff that holiday time scheduling will be completed as it was in the past. Senior staff members are granted the holidays they requested off and are satisfied, junior staff are disgruntled and unsatisfied. Assumptions about seniority, fairness, and rewards are not challenged and creative solutions are not explored. Staff nurses are not given the opportunity to become engaged in the process of time scheduling, the goal of self-governance is not advanced, and dissatisfaction among staff is likely.

These two examples illustrate the difference between the inclination to use critical thinking to explore options and find a creative solution and using reactive thinking that maintains the status quo. A nurse manager who is inclined to engage in critical thinking may be better able to create and manage change that is constantly required in health care organizations.

**Implications for Nurse Leaders**

Health care organizations face a growing challenge from a shortage of health care workers including nurse managers. A deficit in the number of RNs needed is
expected to reach 285,000 by 2020 and 500,000 by 2025 (Donelan, Buerhaus, DesRoches, Dittus, & Dutwin, 2008). This projected sustained shortage is due to multiple factors that include changing demographics, insufficient nursing faculty in nursing education programs, and health care worker dissatisfaction. Additionally, the public demand for transparency of quality outcomes places competitive pressure on health care organizations to be accountable for achieving measurable, specific goals at a time that the aging of the population will create an increase in the need for health care (American Hospital Association, 2002; American Nurses Association, 2002; Sherman, 2005). This chaotic health care environment requires a new breed of nurse managers who are competent in management and skilled in leadership. The nurse manager must be able to redesign the way care is delivered and staff are engaged on a patient care unit in order to achieve the organizational goals of the health care organization.

Nursing leaders are challenged to think creatively about ways to foster the development of both critical thinking skills and the dispositions that lead to use of critical thinking in nurse managers. Formal educational programs that teach managerial and leadership skills are necessary. When these programs are being developed, strategies known to foster the development of critical thinking must be included. Inquiry-based learning techniques such as questioning, discussion, debates, case studies, and critical incident analysis can be used when planning curriculum for management and leadership education programs (Edwards, 2007).

In addition to developing critical thinking skills, the dispositions that encourage the use of critical thinking must be nurtured in nurse managers. Encouraging the development of critical thinking dispositions can occur in formal or informal settings. Mentoring programs that encourage critical thinking related to discussions of leadership/management situations can be effective in developing and using critical thinking. Critical thinking is developed by the use of questioning and appreciative inquiry that challenges one to envision what might be and should be encouraged (Cooperrider & Whitney, 2005). Techniques that encourage self-reflection and self-assessment such as reflective journaling, writing prompts that require thought-provoking responses to a question or situation, role modeling, questioning, and concept mapping have been useful in developing critical thinking (Profetto-McGrath, 2005).

**Tips to Increase Critical Thinking**

One way nurse managers can develop critical thinking is to start writing in a reflective journal. Establishing a consistent routine of writing at least weekly in a journal can improve critical thinking (Profetto-McGrath, 2005). Writing about critical incidents, complex situations that require decision making, as well as emotions and feelings about interactions and events stimulate analysis, synthesis, judgment, and creativity that are components of critical thinking. Through the process of writing, connections are made between theory and practice. Patterns of behaviors are recognized and a hypothesis may be formed that can lead to a change in practice (Profetto-McGrath, 2005).

Establishing electronic communication such as an on-line chat group would provide a safe environment to dialogue with nurse managers from a variety of institutions and settings. Ongoing chats of complex or challenging situations would promote sharing different perspectives and approaches to
problem solving. This ongoing dialogue is a way to provide nurse managers the opportunity to engage in critical thinking to analyze and discuss real life situations.

Nurse managers can create a journal club. Journal clubs are a way for nurse managers to engage in a discussion group with colleagues. Articles on leadership, management, and evidence-based practice can be presented. Nurse managers can take turns engaging the group in dialogue based on an article. In discussing the article, critical thinking skills are used to analyze, critique, and draw parallels from the article to the practice environment (Profetta-McGrath, 2005).

When a nurse manager is faced with developing a new procedure, process, or analyzing an occurrence such as a medication error, concept mapping can be used. Concept mapping has been found useful in developing critical thinking. Concept mapping involves representing linked ideas or steps in a graphic diagram and may include flow charts, diagrams, or the pictorial representation of steps in a procedure, event, or idea (Toofany, 2008). Graphically portraying the steps in a procedure or events surrounding an occurrence allows for a methodical analysis that leads to decision making based on critical thinking (see Figure 2). The process of mapping out each step of a process or occurrence facilitates critical thinking skills such as analysis and synthesis that can then lead to goal-directed decision making.

**Conclusion**

The current and future generations of nurse managers have a pivotal role that is at the forefront of managing the rapidly changing health care system. Nurse managers who are adept at using critical thinking and have the “habits of mind” of a critical thinker are in a good position to assume a leadership role and create the changes that will achieve positive outcomes in health care organizations. Nursing leaders are challenged to create formal and informal education and mentoring programs to support the development of critical thinking in nurse managers.

**REFERENCES**


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**Figure 2.**

Critical Thinking Concept Map for Nursing Management

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<thead>
<tr>
<th>Antecedents</th>
<th>Critical Thinking</th>
<th>Consequences of Empirical Referents</th>
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<tbody>
<tr>
<td>Clinical Knowledge</td>
<td>Management Knowledge and Skills</td>
<td>Experience</td>
</tr>
<tr>
<td>Reflective Thinking</td>
<td>Context/Situation</td>
<td>Intentioned Outcome/Goal</td>
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<th>Achievement of Goals</th>
<th>Satisfaction of Nurse Manager Role</th>
<th>Advancement of Practice</th>
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<td>Patient satisfaction</td>
<td>Nurse manager retention</td>
<td>Evidenced-based practice</td>
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<td>Staff satisfaction</td>
<td>Nurse manager recruitment</td>
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<td>On budget</td>
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