



EMERGENCY

# Critical Thinking *in the* Emergency Department

*Skills to Assess, Analyze, and Act*

SHELLEY COHEN, RN, BS, CEN

# Contents

---

<b>List of figures</b> .....	<b>.vii</b>
<b>About the authors</b> .....	<b>.ix</b>
<b>Introduction: Critical thinking in the emergency department</b> .....	<b>.xi</b>
Back to basics .....	.xi
Critical thinking and the ED setting .....	.xii
Triage .....	.xiii
Attributes of critical thinking during triage .....	.xiii
Treatment .....	.xiv
Attributes of critical thinking during treatment .....	.xv
Disposition .....	.xvi
Attributes of critical thinking during disposition .....	.xvii
Encouraging the development of critical thinking in ED nurses .....	.xviii
<b>Chapter 1: Defining critical thinking</b> .....	<b>.1</b>
Why critical thinking? .....	.1
Becoming a professional nurse .....	.2
Benner's stages of growth .....	.2
So what is critical thinking? .....	.3
Del Bueno's definition of critical thinking .....	.4
References .....	.5
<b>Chapter 2: New graduate nurses and critical thinking</b> .....	<b>.7</b>
Why don't new graduates think critically? .....	.7
Stresses for new graduate nurses .....	.7
Strategies to minimize stress .....	.9

## Contents

New graduates' levels of development	.10
Prioritization	.10
Prioritization principles: Assessment	.11
Prioritization principles: Time management	.12
Prioritization principles: Administrative	.13
Identifying worst-case scenarios, stereotypes, and expected abnormal findings	.13
Worst-case scenarios	.13
Stereotypes	.14
Expected abnormal findings	.14
Ongoing development	.15
References	.15

## **Chapter 3: The critical thinking classroom . . . . .17**

Critical thinking can be taught	.17
Background preparation	.18
Teacher preparation	.18
Consider the learner's motivation	.18
Generational differences	.18
Professional nurses' goals	.19
Setting the stage	.20
Classroom environment	.20
Classroom content	.21
New graduate content	.21
Teach in the context of clinical application	.23
Prioritization	.24
Strategies to teach prioritization	.25
Use test questions and illustrative stories	.26
Classroom processes	.28
Repetition is the mother of all learning	.28
Use unfolding case scenarios	.28
Instructional approach and style	.29
Cooperative learning	.29
Multi-sensory learning	.29
Effective use of discussion questions for class interaction	.30
Exude passion, as well as purpose	.30
References	.31

**Chapter 4: Orientation: Bringing critical thinking to the clinical environment . . . . .53**

Moving from the classroom to the bedside . . . . .53

Beginning with orientation . . . . .54

    Self-assessment . . . . .54

The role of preceptors . . . . .59

    How can preceptors teach critical thinking? . . . . .60

Teachable moments . . . . .63

    Evaluating skills . . . . .68

Handling judgment or action errors during orientation . . . . .68

    Remediation . . . . .70

Orientation sets critical-thinking expectations . . . . .72

**Chapter 5: Nursing practice that promotes and motivates critical thinking . . . . .73**

Maintaining momentum . . . . .73

Nurse managers and staff educators . . . . .74

Making critical thinking part of the culture . . . . .77

    Job descriptions . . . . .77

    Clinical guidelines . . . . .78

    Policy and procedure . . . . .79

    Performance reviews . . . . .79

    Goal setting . . . . .83

**Chapter 6: Novice to expert: Setting realistic expectations for critical thinking . . . . .85**

Setting realistic expectations . . . . .85

Novice to competent: New graduate nurses . . . . .86

Greatest challenges for new graduate nurses . . . . .88

    Coaching new graduates through bad patient outcomes . . . . .88

    Growing collaborative relationships with the medical staff . . . . .89

    Growing collaborative relationships with the interdisciplinary team . . . . .90

    When new graduates fail to reach competent levels of critical thinking . . . . .90

Competent to expert: Experienced nurses . . . . .91

    Handling experienced nurses who need remediation . . . . .92

Measuring critical thinking in daily practice . . . . .94

## Contents

<b>Chapter 7: Applying critical thinking to nursing documentation</b> .....	<b>95</b>
Turning critical thinking into critical writing .....	95
Examples of critical writing skills .....	101
<b>Chapter 8: Relating critical thinking to its higher purpose</b> .....	<b>105</b>
<b>Chapter 9: Resources and tools</b> .....	<b>107</b>
Resources and further reading .....	108
Additional sample questions .....	110
<b>Nursing education instructional guide</b> .....	<b>137</b>
Continuing education exam .....	141
Continuing education evaluation .....	147

# *Defining critical thinking*

**By Polly Gerber Zimmermann, RN, MS, MBA, CEN**

## ***LEARNING OBJECTIVE***

After reading this section, the participant should be able to

- identify the key aspects of critical thinking and how nurses develop competency

## **Why critical thinking?**

For educators and nurse leaders, critical thinking is like the weather: Everybody is talking about it, but nobody seems to know what to do about it. Passing the NCLEX only validates that new graduates have the *minimal* amount of knowledge needed to provide safe nursing care. Application of clinical critical thinking and judgment is at the heart of what makes a healthcare provider *nurse* (as a verb) compared to being a technician who completes tasks by rote. Critical thinking is at the core of safe nursing practice, and thus encouraging its development in every nurse should be an aim for all educators.

# Becoming a professional nurse

Nursing is a hands-on profession for which clinical experience plays a crucial role in professional development. Nurses have to progress through various levels before they reach proficiency. Managers and educators need to appreciate that new graduate nurses are at a different level, with different needs, than experienced nurses in their professional critical thinking.

### ***Benner's stages of growth***

Benner (1984) is well known for identifying and describing the five stages through which nurses proceed in their professional growth. Benner's stages are

**Beginner:** Has little experience and skills, learning by rote, completing education requirements.

**Advanced beginner:** Can perform adequately with some judgment, usually at this stage upon graduation.

**Competent:** Able to foresee long-range goals and are mastering skills. Still lack the experience to make instantaneous decisions based on intuition. Most nurses take up to one year to reach this stage.

**Proficient:** View situation as a whole, rather than its parts. Able to develop a solution.

**Expert:** Intuition and decision-making are instantaneous. Most nurses take at least five years in an area of practice to reach this stage.

So how do you take your inexperienced graduates and set them on the road to proficiency? And how do you help your more experienced nurses—who may have been practicing for years, yet you would never label them experts—reach that higher level? This book provides information, strategies, and tools to help you coach nurses at all stages of development as they hone their critical thinking skills, improve their judgment, and become better nurses. Chapter 3 discusses teaching critical thinking in a classroom setting, and other chapters include ongoing strategies for developing critical thinking in the clinical environment.

The goal in encouraging and developing critical thinking is to help nurses progress effectively through the stages of development. No one wants 10-year nurse employees who have the equivalent of one year of experience simply repeated 10 times.

### So what is critical thinking?

Alfaro-LeFevre (1999) defines critical thinking as careful, deliberate, outcome-focused (results-oriented) thinking that is mastered for a context. Critical thinking is based on scientific method; the nursing process; a high level of knowledge, skills, and experience; professional standards; a positive attitude toward learning; and a code of ethics. It includes elements of constant reevaluation, self-correction, and continual striving for improvement.

Some of the characteristics of people who display critical thinking include open-mindedness, the ability to see things from more than one perspective, awareness of one's own strengths and weaknesses, and ongoing striving for improvement. The strategies commonly (and often subconsciously) used in critical thinking include reasoning (inductive reasoning, such as specific to general, or deductive reasoning, such as general to specific), pattern recognition, repetitive hypothesizing, mental representation, and intuition.

In the practical world of clinical nursing, critical thinking is the ability of nurses to see patients' needs uniquely and respond appropriately, beyond or in spite of the orders. The ability to think critically is developed through ongoing knowledge gathering, experience, reading the literature, and continuous quality improvement by reviewing one's own patient charts. An example of a nurse who displays critical thinking is when a physician orders acetaminophen (Tylenol) for a patient's fever, and the nurse questions the order because the patient has hepatitis C. A critical thinker goes beyond being a "robo-nurse" who simply does as he or she is told.

In Croskerry's study (2003), 32 types of misperceptions and biases (cognitive disposition to respond) were identified in clinical decision-making. Everyone is influenced by what they see most often, most recently, or most dramatically. Cognitive errors may be avoided by always striving to consider alternatives; by decreasing reliance on memory (instead, use cognitive aids such as reference books); by using cognitive forcing strategies, such as a protocol; by taking time to think; and by having rapid and reliable feedback and follow-up to avoid repeating errors.

## Chapter 1

The overarching goal is to help shorten new graduate nurses' on-the-job learning curve, and give directed assistance to all nurses in their critical thinking development.

### ***Del Bueno's definition of critical thinking***

There are many definitions of critical thinking, and one of the most helpful is Dorothy Del Bueno's Performance-Based Development System. Del Bueno determined that nursing competency involves three skills: interpersonal skills, technical skills, and critical thinking.

Del Bueno defines critical thinking in a clinical setting with the following four aspects:

- Can the nurse recognize the patient's problem?
- Can the nurse safely and effectively manage the problem?
- Does the nurse have a relative sense of urgency?
- Does the nurse do the right thing for the right reason?

Del Bueno discussed an example from her work on responses to a taped scenario of a one-day postop trauma patient. On the tape shown to nurses, the patient suddenly becomes diaphoretic, pale, short of breath with tachypnea, and holds the right side of the chest, complaining of pain. An ABG result is given showing respiratory alkalosis. The expectation is that nurses will recognize this is a potential pulmonary embolism or pneumothorax (an alteration in respiration), manage the patient with oxygen, assess breath sounds, raise the head of the bed, call the physician, etc. And experienced nurses should anticipate physician orders, such as a portable chest x-ray or an EKG. But Del Bueno found that 75% of inexperienced and 25% of experienced nurses said they would manage the patient's alkalosis by *only* having the patient breathe into a paper bag.

Overall, she found that only 25%–30% of inexperienced nurses (less than one year of clinical experience) had acceptable results. The range of acceptable results was from 12% to 60%, and there was no difference between nurses' performance based on their educational preparation and/or whether they had previous healthcare experience (such as being a technician or an LPN). She found that 65% of experienced nurses had acceptable results, and that the number was higher (85%) in some specialties. Overall, she found that nurses' greatest limitations were in recognition and management of renal and neurological problems.

## References

- Alfaro-LeFevre, R. 1999. *Critical Thinking in Nursing: A Practical Approach*. Philadelphia: WB Saunders.
- Benner P. 1984. *From Novice to Expert*. Menlo Park, CA: Addison-Wesley.
- Brown, S. 2000. "Shock of the new." *Nursing Times* 96 (38): 27.
- Charnley, E. 1999. "Occupational stress in the newly qualified staff nurse." *Nursing Standard* 13 (29): 32–37.
- Croskerry, P. 2003. "The importance of cognitive errors in diagnosis and strategies to minimize them." *Academy of Medicine* 78 (8): 775–780.
- Del Bueno, D. 2001. "Buyer beware: The cost of competence." *Nursing Economics* 19 (6): 259–257.
- Gries, M. 2000. "Don't leave grads lost at sea." *Nursing Spectrum*. Accessed on July 27, 2006 from <http://community.nursingspectrum.com/MagazineArticles/article.cfm?AID=800>.
- Huber, D. 2000. *Leadership and Nursing Care Management*, 2nd ed. Philadelphia: WB Saunders.
- Norris, T. L. 2005. "Making the transition from student to professional nurse." In B. Cherry and S. R. Jacob, *Contemporary Nursing: Issues, Trends, & Management*, 3rd ed. St. Louis: Elsevier/Mosby.
- Tingle, C. A. 2000. "Workplace advocacy as a transition tool." *LSNA Insider*. June.
- Zimmermann, P. G. 2002. "Guiding principles at triage: Advice for new triage nurses." *Journal of Emergency Nursing* 28 (1): 24–33.
- Zimmerman, P. G., and R. D. Herr. 2006. *Triage Nursing Secrets*. St. Louis: Elsevier/Mosby.

# HCPro

## Order your copy today!

Please fill in the title, price, order code and quantity, and add applicable shipping and tax. For price and order code, please visit [www.hcmarketplace.com](http://www.hcmarketplace.com). If you received a special offer or discount source code, please enter it below.

Title	Price	Order Code	Quantity	Total
				\$
<b>Your order is fully covered by a 30-day, money-back guarantee.</b>			<b>Shipping*</b> (see information below)	\$
			<b>Sales Tax**</b> (see information below)	\$
			<b>Grand Total</b>	\$

**Enter your special Source Code here:**

Name

Title

Organization

Street Address

City

State

ZIP

Telephone

Fax

**E-mail Address**

**\*Shipping Information**

Please include applicable shipping. For books under \$100, add \$10. For books over \$100, add \$18. For shipping to AK, HI, or PR, add \$21.95.

**\*\*Tax Information**

Please include applicable sales tax. States that tax products and shipping and handling: CA, CO, CT, FL, GA, IL, IN, KY, LA, MA, MD, ME, MI, MN, MO, NC, NJ, NM, NY, OH, OK, PA, RI, SC, TN, TX, VA, VT, WA, WI, WV.

State that taxes products only: AZ.

**BILLING OPTIONS:**

Bill me  Check enclosed (payable to HCPro, Inc.)  Bill my facility with PO # \_\_\_\_\_

Bill my (✓ one):  VISA  MasterCard  AmEx  Discover

Signature

Account No.

Exp. Date

(Required for authorization)

(Your credit card bill will reflect a charge from HCPro, Inc.)

**Order online at [www.hcmarketplace.com](http://www.hcmarketplace.com)**

**Or if you prefer:**

**MAIL THE COMPLETED ORDER FORM TO:** HCPro, Inc. P.O. Box 1168, Marblehead, MA 01945

**CALL OUR CUSTOMER SERVICE DEPARTMENT AT:** 800/650-6787

**FAX THE COMPLETED ORDER FORM TO:** 800/639-8511

**E-MAIL:** [customerservice@hcpro.com](mailto:customerservice@hcpro.com)

© 2008 HCPro, Inc. HCPro, Inc. is not affiliated in any way with The Joint Commission, which owns the JCAHO and Joint Commission trademarks. Code: EBKPDF

P.O. Box 1168 | Marblehead, MA 01945 | 800/650-6787 | [www.hcmarketplace.com](http://www.hcmarketplace.com)