

Structural Empowerment, Magnet Hospital Characteristics, and Patient Safety Culture Making the Link

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Nurse managers are seeking ways to improve patient safety in their organizations. At the same time, they struggle to address nurse recruitment and retention concerns by focusing on the quality of nurses' work environment. This exploratory study tested a theoretical model, linking the quality of the nursing practice environments to a culture of patient safety. Specific strategies to increase nurses' access to empowerment structures and thereby increase the culture of patient safety are suggested. **Key words:** *empowerment, Magnet, nursing practice, patient safety, quality*

PATIENT SAFETY is a major concern in today's resource-constrained healthcare environments. A recent report by the Institute of Medicine (IOM) identified nursing as essential to patient safety and pointed to poor management practices and negative working conditions as major threats to patient safety.¹ The Canadian Adverse Events Study found that 36.9% of the reported adverse events were highly preventable.² The IOM report noted that the quality of patient care is directly affected by the degree to which hospital nurses are active and empowered participants in making decisions about their patient's plan

of care and by the degree to which they have an active and central role in organizational decision making.¹

Research on Magnet hospitals has shown that hospitals that support unit-based decision making, have a powerful nursing executive, and promote professional nursing practice are more likely to provide superior patient care.³ Laschinger et al⁴ found that nurses who rated their work environments high in structural empowerment also rated their work settings highly on Magnet hospital characteristics, and Upenicks⁵ found that nurses who practiced in Magnet hospitals reported higher levels of empowerment than did those in non-Magnet hospitals. Nurses who feel that their work environments are empowering are more satisfied, are more committed to the organization, and report high quality of nursing care in their units.⁶⁻⁹

Logically, there is a link among empowering work settings, Magnet hospital characteristics, and patient safety, but this link has not yet been studied. Therefore, it is important to understand how organizational structures interact to create a culture of safety to ensure that nurses are able to provide the highest

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quality of patient care possible. The purpose of this exploratory study was to investigate these relationships in a small Canadian community hospital.

THEORETICAL FRAMEWORK

Kanter's theory of structural empowerment is the theoretical framework on which this study was based. Kanter defines *power* as an ability to mobilize resources and achieve goals, as opposed to the notion of power in the traditional hierarchical context.¹⁰ Employees are empowered when they have access to information, support, resources, and opportunities to learn and grow in their work setting. Jobs that provide discretion and that are central to the organizational purpose increase access to these empowering structures. Similarly, strong networks with peers, superiors, and other organizational members increase access to these structures.¹¹ These systemic conditions, labeled formal and informal power by Kanter, influence empowerment, which then results in increased work effectiveness.¹² Thus, power is associated with autonomy and mastery, instead of domination and control, and maximizes the power enjoyed by each member of the organization.¹⁰

NURSING EMPOWERMENT RESEARCH

Kanter's theory has been tested extensively in nursing. Numerous studies have linked empowerment to job satisfaction and other work attitudes.^{5-9,12-14} Empowerment has also been found to be associated with nurses' perceptions of autonomy and control over their practice environments, linking empowerment to Magnet hospital characteristics. In another study, leader behavior was shown to have a significant impact on nurses' perceptions of workplace empowerment, highlighting the role of nurse leaders in creating empowered work environments.¹⁵

In a large national study of nurses in 3 provinces, Laschinger et al¹⁶ found that organizational characteristics of autonomy, con-

trol over the practice environment, and nurse-physician collaboration had a strong impact on nurses' level of burnout, and this relationship was moderated through trust in management. These results provide further support for the importance of workplace structural factors, related to nurses' ability to function with autonomy and make decisions about their practice, on the job satisfaction and thus performance of these nurses.

MAGNET HOSPITAL RESEARCH

In the 1990s, the American Nurses Association established the Magnet Recognition Program to acknowledge excellence in nursing services. In a review of Magnet hospital research, Scott et al found consistent support for the positive effects of Magnet hospital characteristics on inpatient mortality and patient satisfaction.¹⁷ Lake¹⁸ identified 5 aspects of the nurse's work environment, which define Magnet hospital nursing settings: nurse participation in hospital affairs; nursing foundations for quality of care; nurse manager ability, leadership, and support of nurses; staffing and resource adequacy; and collegial nurse-physician relations.¹⁸ Laschinger and Leiter¹⁹ and Leiter and Laschinger²⁰ found that these characteristics were significantly related to staff nurse burnout and patient safety outcomes. It seems logical to expect that these characteristics would be stronger in empowered work environments. Laschinger et al¹⁶ linked empowerment to Magnet hospital characteristics in 3 independent studies in a variety of settings.

PATIENT SAFETY RESEARCH

Patient safety research gained prominence following the IOM report in 2000.²¹ The IOM report advocated the importance of ensuring that nursing work environments be designed to promote honest communication and collaborative teamwork to create a safety culture. Numerous studies have been conducted in response to the national agenda on patient safety in hospitals. Aiken and

colleagues have linked nurse staffing levels to patient mortality.^{22,23} Kazanjian and colleagues²⁴ concluded from their systematic review of 27 studies, linking nursing work environment characteristics to patient mortality, that workplace variables, such as autonomy, good nurse-physician relationships, reasonable workloads, care based on nursing standards, positive manager attributes, and professional development opportunities, play an important role. These variables are similar to those described by Lake's professional practice environment characteristics.¹⁸ Similarly, Lang and colleagues²⁵ found evidence in their systemic review to support the relationship between adequate staffing levels and lower hospital mortality levels, failure to rescue ratios, and shorter patient length of stay.

These studies support the argument that nursing work environments that empower nurses to practice according to professional standards are more likely to support a culture of patient safety. When nurses find that their work environment provides the necessary information, support, and resources to accomplish their work, they are more likely to describe their professional practice environment in Magnet hospital terms. These conditions encourage a patient-centered care approach, which would support a strong patient safety culture.

RESEARCH HYPOTHESES

On the basis of Kanter's theory of structural empowerment and the previous review of the literature, the following hypotheses were tested:

1. Greater staff nurse workplace empowerment is related to higher ratings of levels of Magnet hospital characteristics in their work settings.
2. Greater staff nurse workplace empowerment is associated with higher ratings of patient safety culture in their work settings.
3. Higher perceived access to workplace empowerment structures and higher ratings of level of Magnet hospital char-

acteristics in their work environment are related to stronger perceptions of a patient safety culture within the organization.

METHODS

Design and sample

This exploratory study used a predictive, nonexperimental design as part of a quality improvement strategy in a small community hospital in central Canada. Seventy-nine survey packets, which included a questionnaire and a letter of information, were distributed to staff nurses with their paychecks. A follow-up reminder memo was sent to all staff approximately 2 weeks later. A total of 40 surveys were returned for a response rate of 51%. Most (60%) of the staff nurses who responded were 40 years of age or older, and 50% had been in the organization for 13 years or more.

Instruments

The Conditions of Work Effectiveness Questionnaire - II measures 6 components of structural empowerment, which are nurses' perceptions of access to opportunity, information, support, resources, formal power, and informal power.¹⁴ The 6 components are tapped by 19 items, and the questionnaire has 2 additional items measuring global empowerment. A 5-point Likert scale is used for each item, with higher levels of empowerment indicated by higher scores on the scale. A total empowerment score is calculated by summing scores for the 6 components.¹⁴ In previous studies, the Cronbach alpha reliabilities ranged from .79 to .82.²⁶ In this study, all subscale alpha reliabilities ranged from .70 to .95.

Magnet hospital characteristics were measured using the Lake's Practice Environment Scale of the Nursing Work Index, which consists of 31 items on a 4-point Likert scale.¹⁸ This scale has 5 components of Magnet hospital culture described by Lake: nursing participation in hospital affairs; nursing foundations for quality of care; nurse manager ability, leadership, and support of nurses; staffing and resource adequacy; and the degree of collegial

Table 1. Means, standard deviations, and alpha reliabilities for empowerment, professional practice characteristics, and patient safety culture*

Variable	Mean	SD	Cronbach α
Conditions of work effectiveness - II			
Total empowerment scale	17.10	4.26	.94
Opportunity	3.54	0.83	.88
Information	2.52	1.08	.93
Support	2.51	0.92	.90
Resources	2.91	0.83	.86
Formal power	2.69	0.94	.82
Informal power	2.93	0.78	.70
Global empowerment	3.03	1.08	.95
Practice Environment Scale (PES) of NWI [†]			
Total PES - NWI	2.51	0.64	.85
Nursing participation	2.51	0.56	.84
Nursing foundation for care	2.70	0.46	.65
Management ability	2.42	0.83	.92
Adequate staff	2.55	0.58	.81
Collaborative relationships	2.32	0.75	.84
Safety climate survey			
Safety climate	3.53	0.80	.81

* $N = 34$.[†]Reverse scored. High score = high on construct, NWI = nursing work index.

nurse/physician relationships.¹⁸ We reversed the scoring to create high scores, which signified a high level of Magnet hospital characteristics in the work setting. Lake validated the 5 subscales in a confirmatory factor analysis and reported Cronbach alpha reliability estimates ranging from .71 to .84.¹⁸ Leiter and Laschinger²⁰ provided further evidence of the construct validity of this measure as a result of their confirmatory factor analysis of data from a large international study. In this study, all subscale alpha reliabilities were acceptable, ranging from .65 to .84.

The Safety Climate Survey consists of 20 items rated on a 5-point Likert scale and demographic questions such as age range, job position, and years in position.²⁷ Higher levels of patient safety climate correspond to higher scores on the scale. An analysis of the psychometric and benchmarking properties of this survey by Sexton and Thomas resulted in a 7-item scale to measure patient safety climate levels. The Cronbach alpha reliability coefficient

for this scale was .81.²⁸ In this study, the Cronbach alpha of this subscale was .81 also.

Data analysis

Descriptive statistics (means and standard deviations) and Cronbach alpha internal consistency reliability estimates were computed for all study variables. Correlations and multiple regression analyses were used to test the study hypotheses.

RESULTS

Table 1 shows means and standard deviations for the empowerment, professional practice environment characteristics, and patient safety culture measures. Nurses in this exploratory study reported only moderate access to empowerment structures in their work setting ($M = 17.1$, $SD = 4.26$). These results are similar, but slightly lower than those of 3 previous studies of hospital nurses from across Ontario.⁴ Participants in this study also

Table 2. Correlations among empowerment, professional practice characteristics, and patient safety culture^a

	Patient safety culture	Practice Environment Scale (PES) subscales					
		Total PES	Nursing participation	Nursing foundation for care	Management ability	Staffing adequate	Collaborative relationships
Total empowerment	.50 [†]	.55 [†]	.47 [†]	.61 [†]	.52 [†]	.42 [†]	.32*
Opportunity	.45 [†]	.54 [†]	.42 [†]	.54 [†]	.48 [†]	.42 [†]	.43 [†]
Information	.29*	.34 [†]	.42 [†]	.43 [†]	.37*	.28	.02
Support	.51 [†]	.56 [†]	.50 [†]	.69 [†]	.51 [†]	.42 [†]	.28
Resources	.32*	.43 [†]	.31	.48 [†]	.38*	.30*	.36*
Formal power	.38*	.47 [†]	.37*	.48 [†]	.47 [†]	.43*	.24
Informal power	.43 [†]	.25	.15	.27	.24	.10	.24

^aN = 34.

*P < .05 (1-tailed).

†P < .01 (1-tailed).

reported moderate levels of overall Magnet hospital characteristics ($M = 2.5$, $SD = 0.64$), again similar to but slightly lower than those of previous studies of nurses from across Ontario.⁴ Nursing as the foundation for patient care was the strongest Magnet hospital characteristic in their work setting, whereas strong nurse/physician relationships was the weakest. Patient safety climate scores of this group were moderate ($M = 3.53$, $SD = 0.80$) but lower than those of 7100 US healthcare professionals in 250 clinical areas across hospital settings. In that study, the patient safety climate score was higher ($M = 4.07$, $SD = 0.72$).²⁸

Results of hypotheses testing

Empowerment and professional practice environment characteristics

As predicted in the first hypothesis, overall empowerment was significantly positively related to all Magnet hospital professional practice characteristics ($r = 0.316$ – 0.612) (Table 2). Total empowerment was most strongly related to the use of a nursing model of care (vs a medical model) ($r = 0.61$) and good nursing leadership on the unit ($r = 0.52$) and less strongly related to collaborative nurse-physician relationships ($r = 0.316$). This suggests that empowerment is an important fac-

tor in creating environments that support professional nursing practice and highlights the importance of strong nursing leadership in creating Magnet-like work environments. This finding is consistent with those of Laschinger and Leiter.¹⁹

Empowerment and patient safety culture

Total empowerment was significantly positively related to perceptions of patient safety culture ($r = 0.50$), providing support for the second hypothesis. Patient safety climate was most strongly related to access to support ($r = 0.51$), informal power ($r = 0.43$), and opportunity to learn and grow ($r = 0.45$). This suggests that supportive feedback on performance, strong networks of alliances, and opportunities for continuous learning are important conditions for promoting a positive patient safety climate.

Combined effect of empowerment and Magnet hospital characteristics on patient safety culture

As predicted in the third hypothesis, the combination of structural empowerment and Magnet hospital characteristics was a significant predictor of staff nurses' perceptions of patient safety climate in the organization,

explaining 46% of the variance ($F = 13.32$, $df = 1, 31$, $P = .0001$). These results demonstrate the importance of the combined effect having access to information, support, and resources, and working in an environment that supports professional practice for nurses' experience of a positive patient safety culture in their organization.

DISCUSSION

In this exploratory study, strong relationships were found not only between structural empowerment and Magnet hospital characteristics but also between these variables and perceptions of patient safety culture within the unit. These relationships are consistent with the hypothesis that access to structural empowerment factors and characteristics of Magnet hospitals are attributes of hospitals that have a strong culture of patient safety. This suggests that healthcare organizations that provide nurses with high levels of access to information, support, and resources are also organizations that exhibit high levels of Magnet hospital characteristics, which support professional nursing practice. The results also suggest that organizations in which nurses are empowered to practice their profession optimally are organizations that optimize conditions for providing safe patient care.

These preliminary results are not surprising in light of recommendations made by the IOM in the report *Keeping Patients Safe*.¹ Recommendations for creating and sustaining a culture of safety included nonhierarchical communication and decision-making strategies, such as empowering all members of the healthcare team to participate in decisions that affect their work processes as well as empowering them to engage in "constrained improvisation" to immediately address patient safety issues as they arise. Kanter redefined *power* as the ability to get things done by mobilizing resources.²⁶ In healthcare organizations, the effective mobilization of resources by nurses, at the point of patient care, is likely to result in safer, more satisfied patients.

The professional practice characteristics identified by Lake¹⁸ are, in the authors' experience, excellent indicators of a hospital organizational culture that values and fosters the highest level of professional nursing effectiveness. Not surprisingly, our preliminary results also lend support to the theory that environments in which nurses practice optimally, and in collaboration with physicians, are likely to be safer environments for patients. One could argue that 4 of Lake's professional practice characteristics—nurse participation in hospital affairs, nursing foundations for quality of care, nurse leadership and support of nurses, and staffing and resource adequacy—together foster improved collegial relationships between nurses and physicians. In Laschinger and Leiter's¹⁹ study, strong nursing leadership on the unit was positively related to good nurse-physician relationships. In that study, strong nurse-physician relationships were predictive of support for a nursing model of care (vs medical) and adequate staffing levels. As the aviation industry has learned to improve collaboration among flight crews to increase safety, our preliminary data provide evidence to support the need for increased collaboration among members of interdisciplinary healthcare teams.

IMPLICATIONS FOR HEALTHCARE ORGANIZATIONS AND THE WIDER SYSTEM

Silos, departmental turf issues, and professional territoriality in the healthcare system must be removed to enhance patient safety. To advocate for safe patient care, nursing and physician leaders should seek to reduce and remove real and perceived divisions among patient care professionals. Organizational cultures in which persons are intimidated or discouraged from speaking out must be transformed. By ensuring that all members of the healthcare team are empowered and respected advocates for patient safety, political and senior healthcare organization leaders can facilitate an open, honest, and responsive culture of patient safety.

Every healthcare organization should have an influential, multidisciplinary patient safety, and quality care team. By practicing simple quality-improvement strategies, such as root-cause analysis, Plan-Do-Study-Act change cycles, and valid quality metrics identification, patient safety teams can work with all members of the patient care team to enrich the culture of patient safety in every healthcare organization. Many of these simple tools can be found on the Institute for Healthcare Improvement Web site (www.ihl.org).

Implications for nurse managers

At the unit level, nurse managers play a critical role in establishing the conditions for professional nursing practice that support a culture of patient safety. The results of this exploratory study suggest that by ensuring that work environments provide access to the structures of empowerment, nurse managers also support professional nursing practice, which in turn was associated with a positive safety climate. Nurse managers must take specific steps to ensure that they are effectively in touch with the concerns and needs of nurses and consistently demonstrate support for them. It is important for nurse managers to listen carefully to nurses' concerns, help them identify methods to measure improvement, and then work collaboratively with others in the organization to facilitate improvement in organizational processes that are currently constricting nurses' ability to provide optimum patient care. For example, nurse managers could implement information system improvements that provide nurses with timely access to patient diagnostic test results directly to the patient's bedside. By empowering nurses through increased access to information, the patient care environment is likely to be safer because they have more timely and accurate clinical information on which to base patient care decisions.

Another initiative for the nurse manager to lead is an assessment of the availability of resources needed by nurses to care for their patients. Are nurses in the emergency department, for example, having difficulty access-

ing medication for patients because of a cumbersome and slow special order process with the pharmacy? By working with staff to create a more efficient and effective system that reduces the amount of time spent ordering special medications, managers can empower nurses by improving their access to resources, including more time to provide patient care. This, in turn, promotes a culture of patient safety by replacing a slow and labor-intensive process that is prone to error with one that is more accurate and responsive. By increasing the level of nurses' structural empowerment, in this case increased access to resources, the nurse manager helps support a patient care process with fewer errors.

A final example of specific actions nurse managers can take to improve their organization's patient safety culture relates to taking a proactive stance on patient safety issues. By actively seeking a place and role in the senior leadership activities of the organization, nurse managers can ensure that the voices of nurses are heard. These actions not only serve to empower staff nurses but also exemplify a crucial feature of Magnet Hospital work environments—leadership and support of nurses. By acting as another voice for nursing at the highest levels, managers can ensure that threats to safe patient care processes are openly discussed and action plans created to address these issues.

Limitations

Given the small sample in this study obtained from one rural Canadian small hospital, no attempt should be made to generalize these preliminary findings to other nurses or organizations. However, this is the first study to link empowerment and Magnet hospital characteristics to a culture of safety. The study should be replicated in larger samples in other healthcare settings to validate these results.

CONCLUSIONS

The results of this exploratory study provide preliminary evidence of important relationships between workplace empowerment

and professional practice environment conditions and patient safety climate. The results are consistent with suggestions made in the 2004 report by the IOM on workplace conditions that ensure patient safety.¹ By ensuring staff nurse access to empowering working conditions, nursing leaders will not only increase their organizations' ability to attract

and retain nurses but will also create a positive patient safety climate that supports high-quality patient care. The results of this exploratory study provide evidence to suggest that nurse leaders have the ability to improve the level of patient safety in their organizations by creating an empowering professional practice environment for staff nurses.

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Structural Empowerment, Magnet Hospital Characteristics, and Patient Safety Culture: Making the Link

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CE TEST QUESTIONS

General Purpose: To familiarize the registered professional nurse with an exploratory study testing a theoretical model linking the quality of nursing practice environments to a culture of patient safety.

Learning Objectives: After reading this article and taking this test, the nurse will be able to:

1. Explain the links between structural empowerment, Magnet hospital characteristics, and patient safety culture.
2. Identify the methodology, findings, and implications of the exploratory study presented in this article.
1. A recent report by the Institute of Medicine identified nursing as essential to
 - a. leadership behavior.
 - b. shorter patient length of stay.
 - c. patient safety.
 - d. lower hospital mortality.
2. According to a recent report by the Institute of Medicine, which of the following were identified as major threats to patient safety?
 - a. a poor management practices and negative working conditions
 - b. lack of professional development and empowerment by nursing staff
 - c. organizational decision-making abilities and empowerment by nursing staff
 - d. lack of access to information and nurses' level of burnout
3. Nurses who are more satisfied, more committed to the organization, and report a high quality of nursing care in their units are nurses who
 - a. have a strong network with their peers.
 - b. have an active and central role in organizational decision making.
 - c. have the highest level of education.
 - d. feel that their work environments are empowering.

4. The study presented in this article was based on which theoretical framework?
 - a. Lake's theory on practice environment
 - b. Kanter's theory of structural empowerment
 - c. Aiken's theory on perceived access to workplace
 - d. Laschinger's theory on organizational structures
5. Studies have shown which of the following to have a significant impact on nurse's perceptions of workplace empowerment?
 - a. nurse-physician collaboration
 - b. nurse staffing levels
 - c. leader behavior
 - d. organizational decision making
6. Which aspect of the nurse's work environment defines Magnet hospital settings according to Lake?
 - a. patient safety outcomes
 - b. nurse participation in hospital affairs
 - c. staff nurse educational level
 - d. low hospital mortality levels
7. To create a safety culture, the 2000 Institute of Medicine report advocated the importance of ensuring that nursing work environments be designed to promote
 - a. leadership and reasonable workloads.
 - b. professionalism and organizational support.
 - c. adequate staffing levels and shorter patient lengths of stay.
 - d. honest communication and collaborative teamwork.
8. The exploratory study presented in this article used staff nurses from a hospital located in central
 - a. Connecticut.
 - b. Colorado.
 - c. Canada.
 - d. California.
9. Which of the following questionnaires was used in the exploratory study?
 - a. the Conditions of Work Effectiveness Questionnaire II
 - b. the Hospital Practice Environment Questionnaire
 - c. the Nursing Work Index Safety Survey
 - d. the Hospital Safety Climate Index
10. The findings of the exploratory study demonstrated
 - a. strong relationships between structural empowerment and Magnet hospital characteristics.
 - b. that patient safety was most strongly related to good nursing leadership on the unit.
 - c. that total empowerment was most strongly related to collaborative nurse-physician relationships.
 - d. that the combination of informal power with good nursing leadership was a significant predictor of staff nurse's perceptions of patient safety climate.
11. In healthcare organizations, the effective mobilization of resources by nurses, at the point of patient care, is likely to
 - a. optimize conditions for providing safe patient care.
 - b. create nonhierarchical communication and decision-making strategies.
 - c. empower all members of the healthcare team.
 - d. result in safer, more satisfied patients.
12. Laschinger and Leiter's study found that strong nursing leadership on the unit was positively related to
 - a. organizational decision making.
 - b. staffing and resource adequacy.
 - c. good nurse-physician relationships.
 - d. quality care.

13. One simple quality improvement strategy is

- a. Plan-Do-Study-Act change cycles.
- b. quantity metrics identification.
- c. optimal cause strategy.
- d. quality assessment analysis.

14. Quality improvement strategy tools can be found at which of the following Web sites?

- a. www.ihl.org
- b. www.qis.com
- c. www.quality.org
- d. www.improvestrategy.com

15. Which of the following best describes the role nurse managers play in supporting a culture of patient safety?

- a. ensuring adequate resources and staffing
- b. establishing the conditions for professional nursing practice
- c. listening to nurses' concerns
- d. working collaboratively with others in the organization

CE Enrollment Form

Journal of Nursing Care Quality April-June 2006

Structural Empowerment, Magnet Hospital Characteristics, and Patient Safety Culture: Making the Link

A Registration information:

Last name _____
 First name _____
 MI _____
 Address _____
 City _____ State _____ Zip _____
 Telephone _____ Fax _____ email _____

Registration Deadline: June 30, 2008

Contact Hours: 2.5

Fee: \$19.95

☐ LPN ☐ RN ☐ CNS ☐ NP ☐ CRNA ☐ CNM ☐ Other _____

Job Title _____ Specialty _____

Type of facility _____

Are you certified? ☐ Yes ☐ No

Certified by _____

State of License (1) _____

License# _____

State of License (2) _____

License# _____

Social Security _____

☐ From time to time we make our mailing list available to outside organizations to announce special offers. Please check here if you do not wish us to release your name and address.

B Test Answers: Darken one for your answer to each question.

- | | A | B | C | D |
|----|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

- | | A | B | C | D |
|----|-----------------------|-----------------------|-----------------------|-----------------------|
| 5. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

- | | A | B | C | D |
|-----|-----------------------|-----------------------|-----------------------|-----------------------|
| 9. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 10. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 11. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 12. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

- | | A | B | C | D |
|-----|-----------------------|-----------------------|-----------------------|-----------------------|
| 13. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 14. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 15. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

C Course Evaluation*

- 1. Did this CE activity's learning objectives relate to its general purpose?
- 2. Was the journal home study format an effective way to present the material?
- 3. Was the content relevant to your nursing practice?
- 4. How long did it take you to complete this CE activity? _____hours_____minutes
- 5. Suggestion for future topics _____

A ☐ Yes ☐ No
 B ☐ Yes ☐ No
 C ☐ Yes ☐ No

D Two Easy Ways to Pay:

☐ Check or money order enclosed
 (Payable to Lippincott Williams & Wilkins)

☐ Charge my ☐ Mastercard ☐ Visa ☐ American Express

Card # _____ Exp. Date _____

Signature _____

*In accordance with the Iowa Board of Nursing Administrative rules governing grievances, a copy of your evaluation of the CE offering may be submitted directly to the Iowa Board of Nursing.

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