

# Educating nursing students in clinical leadership

Sarah Ailey and colleagues show how integrating course work and practice can enable everyone to improve patient care

## Correspondence

Sarah\_H\_Ailey@rush.edu

**Sarah Ailey is an associate professor**

**Karen Lamb is an associate professor**

**Both in adult health and gerontological nursing**

**Tanya Friese is an instructor**

**Beth-Anne Christopher is an assistant professor**

**Both in community, systems and mental health nursing**

**All at the Rush University Medical Center, Chicago, Illinois**

**Date of submission**  
October 2 2014

**Date of acceptance**  
December 4 2014

## Peer review

This article has been subject to double-blind review and has been checked using antiplagiarism software

## Author guidelines

nm.rcnpublishing.com/r/nm-author-guidelines

## Abstract

One of the goals of nursing education is to develop caring and responsible nurses with clinical reasoning skills who are capable of improving outcomes in complex healthcare systems. Using the Model of Situated Learning in Nursing Leadership, generalist entry graduate nursing students at Rush University in Chicago, part of a large academic medical centre with Magnet recognition for excellence in nursing practice, are educated using a curriculum based on the clinical nurse leader (CNL) competencies. This article presents a case study that demonstrates how the model is used to provide experiences for learning the CNL role. The students learn leadership in practice through their involvement in ongoing efforts at the medical centre to improve the care of patients with intellectual and developmental disabilities. The case study provides lessons in teaching CNL leadership competencies through efforts to improve the quality of care for an at-risk group of patients.

## Keywords

Clinical competence, nurse education, nursing roles, leadership, standards of care, intellectual disability

## Introduction and background

The Institute of Medicine (IOM) (2000) issued a landmark report *To Err is Human: Building a Safer Health System* that highlighted serious safety and quality problems in the US healthcare system. Another IOM (2010) report, *The Future of Nursing: Leading Change, Advancing Health*, suggested that nurses, with their time spent with patients and their focus on developing relationships and education in evidence-based practice, can play a crucial role in improving healthcare safety and quality. To address these issues, nursing education in the US faces the challenge of educating nurse leaders who

can identify problems, assess the context of the problems, use the best available evidence to develop plans for improvement, evaluate improvements, and lead redesign for a high quality, safe and effective healthcare system.

**Clinical nurse leader role** The American Association of Colleges of Nursing (AACN) issued the Clinical Nurse Leader (CNL) White Paper (AACN 2007) in response to *To Err is Human: Building a Safer Health System* (IOM 2000) focusing on the high rate of medical errors in health care and the fragmented health system in the United States, along with comprehensive strategies for improvement.

In the White Paper the AACN stated that the envisioned role of the CNL is to manage comprehensive patient and population care in a variety of settings (AACN 2007). Research indicates that graduates of student education programmes in CNL competencies improve patient care outcomes, including reductions in readmission rates, decreased length of stay for patients with heart failure, fewer patient falls, and decreased post-surgical infection rates (Stanley *et al* 2008, Ott *et al* 2009). In 2010, the IOM in its *Future of Nursing* report recognised the CNL role as innovative.

## Teaching leadership – an integral part of CNL education

To advance the CNL role a key question is how to teach leadership and develop the leadership capacity of a new generation of nurses most effectively. Nursing is a practice profession, and preparation for leadership roles requires teaching leadership in practice and with intensive socialisation, including coaching and modelling by nurse educators and nurse and healthcare leaders (AACN 2007).

Discussion of teaching leadership in nursing has focused on identifying and transmitting

characteristics of leadership, advancing the dual and complementary roles of management and leadership, and describing the cognitive processes of learning leadership, with limited discussion of educational strategies for teaching leadership (Cook 2001, Calpin-Davies 2003, Feldman and Greenberg 2005, Pepin *et al* 2011).

Advancing the dual, complementary roles of nursing leadership and management can be accomplished by investment in technology and skills; support of lifelong learning; and creation of an empowered stakeholder workforce capable of transforming health care (Calpin-Davies 2003).

Cognitive processes of learning leadership in a practice profession are described by Pepin *et al* (2011) as five critical-learning turning points:

- Awareness of clinical leadership.
- Integration of clinical leadership in action.
- Leadership with patients, families and colleagues.
- Leadership in teams.
- Leadership at organisational levels and above.

Some proposed educational strategies for leadership development include encouraging students to analyse their own and others' leadership styles, shadowing leaders in health care, and developing change projects to practise leadership skills (Feldman and Greenberg 2005). Previous work gives us important understanding of the characteristics of nursing leadership and critical turning points in leadership development. However, considering that nursing is a practice profession, discussion is limited to how to provide learning contexts and practical experiences for leadership role formation among nurses.

Benner *et al* (2009) noted the need for situated learning in nursing, which they described as 'experiential learning that requires interaction with a community of practice, situated coaching by faculty, and demonstration of aspects of a complex practice that are not easily translated', while Walker *et al* (2011) propose that situated learning provides the theoretical foundations of clinical learning in nursing. Situated learning is well-established in other practice professions, such as governmental middle management (Warhurst 2012) and teaching (Browne-Ferrigno and Muth 2006), and is recognised as providing a framework for teaching leadership. However, it has received little attention in nursing.

### Situated learning theory

Situated learning theory was initially proposed in the 1990s as learning in a community of practice, and builds on concepts of apprenticeship or learning knowledge and skills in contexts that reflect the way they will be used in real life (Lave and Wenger 1991, Wenger 1998). The theory originates from the same

traditions of conceptualising the learning process as the Dreyfus model of skills acquisition (Dreyfus and Dreyfus 1986, Dreyfus *et al* 1996) and Benner's (1984) novice to expert model. Situated learning is described by Lave and Wenger (1991) as legitimate peripheral participation in communities of practice.

Learning is an evolving form of increasing participation in communities of practice and involves developing identity as a full practitioner, while knowledge is co-constructed and learning environments approximate contexts in which ideas and behaviours will be applied (Lave and Wenger 1991, Wenger 1998). Similar to the Dreyfus and Benner models, situated learning is developmental, based on situated performance and experiential learning, and often uses unstructured complex practice problems where learners recognise the importance of context-free and situational information and to use the most salient to develop plans for action and/or improvement (Hall-Ellis and Grealy 2013).

### Model of Situated Learning in Leadership

The Model of Situated Learning in Nursing Leadership (MSLNL), based on the work of Lave and Wenger (1991) and Benner's (2009) description of situated learning, was developed by the authors to guide the education of nursing students in leadership with consideration for the need for socialisation and practice in leadership (Figure 1, page 24). Learning about leadership is combined with opportunities to practise it in context, and to acquire the reasoning to move from individual patient care concerns to group/population concerns and system solutions, and from awareness of clinical leadership to leadership at micro and mezzo system level.

Students at Rush University are coached in leadership problems that require multiple steps, advocacy and interprofessional/interdisciplinary action for improvements in the safety and quality of care. Learning the CNL role is threaded throughout the curriculum, and student learning is embedded in an environment that seeks to advance nursing leadership and in a community of scholars and practitioners. By graduation students are expected to be advanced beginners and have the lifelong learning skills and agency to move on to the expert stage (Benner 1984).

The case study below describes how the MSLNL is used to educate nursing students at Rush University. Generalist master's students educated in CNL competencies participate in leading ongoing efforts at Rush University Medical Center (RUMC) to develop programmes to improve the safety and outcomes of care of individuals with intellectual disabilities and developmental disabilities (IDDs).

## Application of the Model of Situated Learning in Leadership

### Preparation of students and recognition of group/population concerns

From the beginning of their education to the role of professional nurse, students are taught that patient-centred care meets the needs of specific patients, is co-ordinated and sensitive to non-medical dimensions, and involves families and support networks (Shaller 2007). Students are taught to address health issues at individual and group/population levels. Didactic and clinical coursework stress the need to address health at group/population level and include epidemiology, management of patient care across the lifespan, and public health. Clinical content stresses patient-centred care, conceptualised as patient, family and community depending on context, and focuses on meeting individual patients' concerns and recognising group/population concerns. Faculty and multidisciplinary staff coach students in following up clinical concerns and recognising that these are often micro and mezzo system issues.

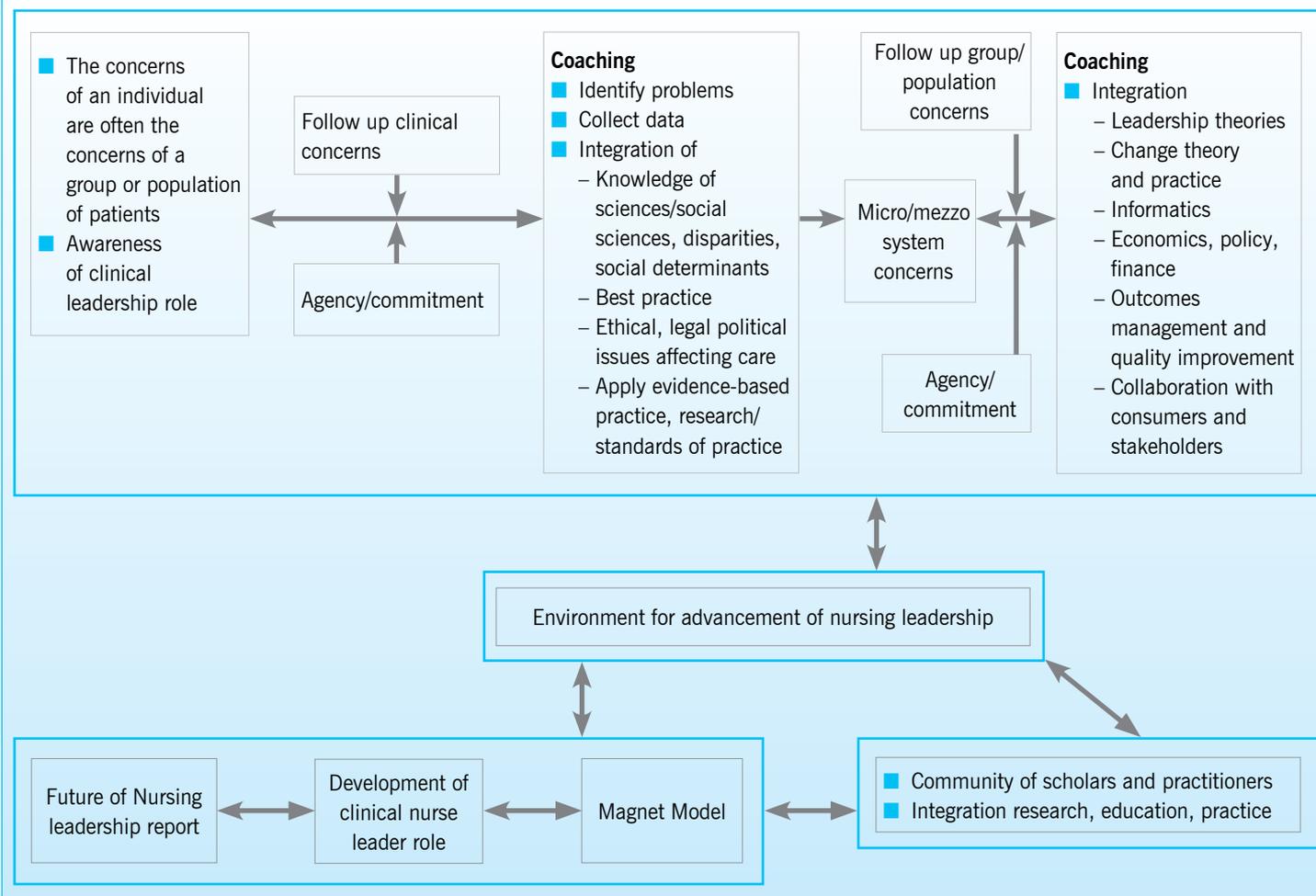
### Awareness and development of leadership role

In the first year of the two-year programme subjects covered include introduction to the CNL role, socialisation into professional nursing, research for evidence-based care, health promotion and disease prevention, the management of complex care, clinical leadership and organisational and systems leadership. Students must have completed public health didactic and clinical courses before they are able to complete required end-of-programme leadership hours in direct patient care and in population, systems and organisational care, and work on their final leadership projects that demonstrate synthesis of leadership learning and ability to implement leadership at the micro or mezzo-system level.

### Case study: care of people with intellectual and developmental disabilities

Individuals with IDD have significant healthcare needs and are not well-served by healthcare systems; for example, in the US they are 1.89 times more likely to report unmet health needs than people

Figure 1 Model of situated learning in nursing leadership



without IDD (Anderson *et al* 2003). Not surprisingly people with IDD are more likely to be hospitalised for ambulatory sensitive conditions, with an overall adjusted rate ratio of 6.1 and higher for certain conditions such as seizure and psychotic disorders (Balogh *et al* 2010). Improving care for this patient population is an area in which nursing leadership can make a difference.

In the generalist entry master's (GEM) degree, where the emphasis is on CNL competencies, students are involved in ongoing efforts at the medical centre to improve the care of patients with IDD as part of their leadership role development, with opportunities for coaching and socialisation into leadership in communities of practice. Twenty two graduate nursing students in the GEM programme have used the experiences for final leadership projects and other projects are in process (Table 1).

**The programme** In 2007 at a meeting with the chief executive officer of RUMC a patient care technician (nursing assistant staff) raised concerns about the ability of nursing and nursing assistant staff to properly care for patients with IDD. Based on the issues raised, the multidisciplinary Adults with Intellectual and Developmental Disabilities Committee

(AIDDC) was established (Ailey and Hart 2010), which developed a systematic approach to improving quality care and clinical care systems for patients with IDD. One of the committee's first projects was to conduct a survey among employees with patient contact regarding their perceived needs in caring for patients with IDD. Survey responses were anonymous and conducted as quality improvement.

Communication, understanding sensory issues, managing the environment, enhancing co-operation, preventing patients from becoming upset, assessing pain levels and preparing for discharge were identified as issues. During and following the survey several employees indicated that they thought patients with IDD were hospitalised longer than expected (Ailey and Hart 2010), which prompted a retrospective review of patient charts over a two-year period along with a review of University Healthsystem Consortium (UHC) data for a two-year period. The retrospective review of patient charts and UHC data were approved under exempt status by the Institutional Review Board at RUMC (Ailey *et al* 2014a, 2014b).

Graduate nursing students conducted the chart reviews having taken human subjects protection training and participated in discussions about what data to collect, and how to collect and analyse them. With coaching, the students provided leadership in the process of determining how to and actually conducting chart reviews to provide the data needed for quality improvement.

The review of UHC data indicated that length of stay for adult patients with IDD was longer than expected (Ailey *et al* 2014a) and highlighted statistically higher complications and percentage of patients with intensive care unit stays for three of the top five discharge base Medicare Severity Diagnosis Related Groups (MS-DRGs) compared with adult patients without IDD with the same discharge base MS-DRGs (the principle diagnosis valid on the date of discharge). The retrospective review of patient charts addressed patient and hospitalisation characteristics related to complications among hospitalised individuals with IDD and found complications being related to patients having multiple chronic health conditions (Ailey *et al* 2014b). Taken together, the new knowledge from the employee survey, the review of UHC data and the retrospective review of patient charts highlighted the need for improvements in the care of this patient group.

Following the chart reviews, discussions were held with medical centre leadership and the Professional Nursing Staff Standards of Patient Care Committee (SPCC), a shared governance committee, and it

Table 1 Student final leadership projects		
Year	Student project	Number of students
2011	Analysing community input on care of people with intellectual and developmental disabilities (IDDs)	One
2011	Developing educational modules for Special Needs Buddies Program volunteers	Three
2011	Chart reviews of patients with IDD, covering two years	Four
2012	Development of standards of patient care	Four
2012	Chart review of patients with IDD in the emergency department (ED)	One
2012	Revisions of standards of patient care	One
2013	Developing educational module for nurses on standards of patient care	Two
2013	Developing educational module for nurses in ED on care of patients with IDD	Two
2014	Developing a mock tracer to follow the care of patients with IDD on hospital units	Two
2014	Creating a health resume to improve the care for individuals with IDD in the ED	Two

was decided to take additional steps with a quality improvement project to develop specific care plans for individuals with IDD. Nursing students wrote the initial drafts of the standards, collaborating with a librarian to find the best evidence from nursing, medicine, social work, education and psychology on interventions in the areas of concern.

Using data from the earlier staff survey and the literature, the standards focus on communication, managing the environment, addressing behaviors that interfere with care, obtaining input from caregivers and assessing the capacity of caregivers to manage ongoing care of individuals with IDD (Friese and Ailey 2014). Graduate nursing students, after completing human subjects protection training, conducted the retrospective review of patient charts, participated in discussion of what data to collect and how to collect and analyse the data.

After final standards of patient care were adopted another student worked with faculty and leaders from the continuing education department to develop an online educational module for staff. A subsequent group of students worked to operationalise the module in the medical centre's online learning system and met with unit leaders to develop plans for its use by staff nurses.

Before the care plans were implemented and the educational module put online, in-house training workshops were conducted with staff on targeted units about the new standards of patient care and how to access educational materials online; surveys were conducted before and after staff took the online educational module. Another group of students analysed the pre- and post-survey data and found a statistical improvement in nurses' confidence in managing their patients' care (Friese and Ailey 2014). The students are conducting follow-up in-house training workshops and ongoing chart reviews are planned to determine use of the standards of patient care. To our knowledge no other medical centre in US has specific standards of patient care for patients with IDD.

Another group of students, in collaboration with nurse educators and the Department of Quality Improvement at RUMC developed a mock tracer tool that follows patients with IDD through the hospital. The tool mimics a Joint Commission tracer (a methodology that follows a patient through the hospital to evaluate the systems of providing care and compliance with standards of care (Joint Commission 2014)), again providing students with leadership experience in developing practice beyond current standards of care. Other students are involved in projects to improve the care of patients with IDD in the hospital's emergency department.

## Advanced beginner in leadership

At the end of their course of study students must complete an end-of-programme final leadership project. Components of the project include identifying a group/population health or health-related concern at micro to mezzo system level, reviewing literature related to the issue, collecting data, collaborating with involved stakeholders, identifying a change theory to guide a framework for an intervention, implementing the intervention and evaluating the intervention or proposing an evaluation framework.

The end-of-programme final leadership project is also intended to demonstrate integration of knowledge gained in classroom and clinical settings.

Participating in ongoing patient care improvement work has provided opportunities to practise learning and skills related to students' leadership projects. Twenty two students have completed graduation end-of-programme final leadership projects based on their efforts to improve the care of patients with IDD and others are doing similar projects. Students have also presented their work at local and national conferences and webinars, providing guidance to others on the issues and programmes (Ailey *et al* 2012a, 2012b, Stoneman and Long 2014). The work to improve the care of patients with IDD is highlighted on the Agency for Healthcare Improvement Innovations Exchange (2010).

## Environment for the advancement of nursing leadership

Situated learning takes place in communities of practice with environments conducive to learning, and the education of nursing students in leadership is enhanced by a culture recognised by the Magnet Model (American Nurses Credentialing Center (ANCC) 2008). The Magnet Model includes transformational leadership, structural empowerment, professional practice, development of new knowledge and practice, and outcomes (ANCC 2014).

In the case study, elements of Magnet Model culture are demonstrated by leadership, willingness to listen to staff concerns and development of new practice to address these concerns, the work of mechanisms of shared governance, the development of new knowledge through employee surveys and chart reviews, and the development of mechanisms to assess outcomes. Other elements of the environment include efforts to develop nursing leadership as recommended by the IOM (2010) and the development of the CNL role (AACN 2007). The environment also includes the community of scholars and practitioners and the integration of research, education and practice.

Ongoing efforts at multiple levels are necessary to improve health care for patients with IDD and other populations with complex needs. Faculty and practice leaders coached students in leading the care improvement efforts, while conducting the ongoing projects required collaboration with multiple stakeholders including consumers and professional and non-professional staff and leadership. Development of the standards of patient care required students to apply their knowledge of care of patients with complex needs, population health and evidence-based practice. Participation in mechanisms of shared governance in this work gave students opportunities to gain knowledge of organisational and systems leadership.

### Conclusion

The MSLNL is a useful adaptation of situated learning theory, applying the concept of situated learning to learning nursing leadership. The model provides a valuable way of integrating teaching leadership with

situated learning, taking advantage of a community of scholars and practitioners, and using its elements to integrate coursework with practice in leadership. The role played by nursing students in the medical centre's efforts to improve patient care highlights how student leadership can support change.

Based on the experiences outlined here, it is recognised that it would be beneficial to organise projects so that successive groups of students build on the work of previous cohorts since improvements in health care usually require ongoing efforts that address multiple issues. Many issues in health care are pertinent to working with students in this way, for example improving hospital care for other at-risk populations, reducing readmission rates, and follow up with root cause analyses of never events. Situated learning in leadership might also be useful in community settings in programmes such as improving chronic disease management and developing sustainable programmes for health promotion.

### Online archive

For related information, visit our online archive and search using the keywords

**Conflict of interest**  
None declared

### References

- AHRQ Health Care Innovations Exchange (2010) *Comprehensive Program to Support Patients and Staff Improves Hospital Experience for Adult Patients with Intellectual and Developmental Disabilities*. <https://innovations.ahrq.gov/search/node/ailey> [Last accessed: December 15 2014.]
- Ailey SH, Hart R (2010) A hospital program for working with adult clients with intellectual and developmental disabilities. *Intellectual and Developmental Disabilities*. 48, 2, 145-147.
- Ailey SH, Johnson T, Fogg L, Friese T (2014a) Hospitalizations of adults with intellectual disabilities in academic medical centers. *Intellectual and Developmental Disabilities*. 52, 187-192.
- Ailey SH, Johnson T, Fogg L, Friese T (2014b). Factors related to complications among adult patients with intellectual disabilities at an academic medical center. *Intellectual and Developmental Disabilities*. (In press).
- Ailey SH, Umali D, Uyen C (2012a) Standards of care for adults with intellectual and developmental disabilities. In Keller SM, Kunzier TJ, Ailey SH (Eds) *Emergency Healthcare in Adults with Intellectual and Developmental Disabilities: An Introduction to the Issues and Challenges*. [aadmd.org/articles/webinar-emergency-healthcare-adults-idd-introduction-issues-and-challenges](http://aadmd.org/articles/webinar-emergency-healthcare-adults-idd-introduction-issues-and-challenges) [Last accessed: January 20 2015.]
- Ailey SH, Umali D, Uyen C (2012b) Standards of care for adults with intellectual and developmental disabilities. In Keller SM, Kunzier TJ, Ailey SH. *Emergency Health Care in Adults with Intellectual Disabilities: Part 2 Hospital Care*. [aadmd.org/articles/webinar-emergency-healthcare-adults-idd-part-2-hospital-care](http://aadmd.org/articles/webinar-emergency-healthcare-adults-idd-part-2-hospital-care) [Last accessed: January 20 2015.]
- American Association of Colleges of Nursing (2007) *White Paper on the Education and Role of the Clinical Nurse Leader*. [http://www.nursing.vanderbilt.edu/msn/pdf/cm\\_AACN\\_CNL.pdf](http://www.nursing.vanderbilt.edu/msn/pdf/cm_AACN_CNL.pdf) [Last accessed: January 20 2015.]
- American Nurses Credentialing Center (2008) *Magnet Recognition Program: Application Manual 2008*. American Nurses Credentialing Center, Silver Spring MD.
- American Nurses Credentialing Center (2014) *Hallmarks of the Professional Nursing Practice Environment*. American Nurses Credentialing Center, Silver Spring MD.
- Anderson LL, Larson SA, Lakin KC et al (2003) *Health Insurance Coverage and Health Care Experiences of Persons with Disabilities in the NHIS-D*. Research and Training Center on Community Living, University of Minnesota, Minneapolis MN.
- Balogh R, Brownell M, Ouellette-Kuntz H et al (2010) Hospitalization rates for ambulatory sensitive conditions for persons with and without an intellectual disability: a population perspective. *Journal of Intellectual Disability Research*. 54, 9, 820-832.
- Benner P (1984) *From Novice to Expert: Excellence and Power in Clinical Nursing Practice*. Prentice Hall Health, Upper Saddle River NJ.
- Benner P, Sutphen M, Leonard V et al (2009) *Educating Nurses: A Call for Radical Transformation*. Jossey-Bass, San Francisco CA.
- Browne-Ferrigno T, Muth R (2006) Leadership mentoring and situated learning: catalysts in principalship readiness and lifelong mentoring. *Mentoring and Tutoring: Partnership in Learning*. 14, 3, 275-295.
- Calpin-Davies PJ (2003) Management and leadership: a dual role in nursing education. *Nurse Education Today*. 23, 1, 3-10.
- Cook MJ (2001) The attributes of effective clinical nurse leaders. *Nursing Standard*. 15, 35, 33-36.
- Dreyfus HL, Dreyfus SE (1986) *Mind over Machine: The Power of Human Intuition and Expertise in the Age of the Computer*. Blackwell, Oxford.
- Dreyfus HL, Dreyfus SE, Benner P (1996) Implications of the phenomenology of expertise for teaching and learning everyday skillful ethical comportment. In Benner P, Tanner C, Chesla C (Eds) *Expertise in Nursing: Caring, Clinical Judgment, and Ethics*. Springer Publishing Company, New York NY.
- Feldman HR, Greenberg MJ (2005) *Educating Nurses for Leadership*. Springer Publishing Company, New York NY.
- Friese T, Ailey SH (2014) Specific standards of care for adults with intellectual disabilities. In press. *Nursing Management*.
- Hall-Ellis SD, Grealy DS (2013) The Dreyfus model of skill acquisition: a career development framework for succession planning and management in academic libraries. *College and Research Libraries*. 74, 6, 587-603.
- Institute of Medicine (2000) *To Err Is Human: Building a Safer Health System*. National Academy Press, Washington DC.
- Institute of Medicine (2010) *The Future of Nursing: Leading Change*, Advancing Health. National Academy Press, Washington DC.
- Joint Commission (2014) *Facts about the Tracer Methodology* [www.jointcommission.org/facts\\_about\\_the\\_tracer\\_methodology](http://www.jointcommission.org/facts_about_the_tracer_methodology) [Last accessed: December 15 2014.]
- Lave J, Wenger J (1991) *Situated Learning: Legitimate Peripheral Participation*. Cambridge University Press, New York NY.
- Ott KM, Haddock KS, Fox SE et al (2009) *The Clinical Nurse Leader: Impact on Practice Outcomes in the Veterans Health Administration*. [www.nursingconomics.net/ce/2011/article27363383.pdf](http://www.nursingconomics.net/ce/2011/article27363383.pdf) [Last accessed: January 20 2015.]
- Pepin J, Dubois S, Girard F et al (2011) A cognitive learning model of clinical nursing leadership. *Nursing Education Today*. 31, 3, 268-273.
- Shaller D (2007) *Patient-centered Care: What does it Take?* [http://www.commonwealthfund.org/usr\\_doc/Shaller\\_patient-centeredcare/whatsdoestake\\_1067.pdf?section=4039](http://www.commonwealthfund.org/usr_doc/Shaller_patient-centeredcare/whatsdoestake_1067.pdf?section=4039) [Last accessed: January 20 2015.]
- Stanley JM, Gannon J, Gabuat J et al (2008) The clinical nurse leader: a catalyst for improving quality and patient safety. *Journal of Nursing Management*. 16, 5, 614-622.
- Stoneman V, Long S (2014) *Healthcare Related Issues for Individuals with Disabilities*. [www.thearc.org/healthmeet/webinars#healthcarerelated](http://www.thearc.org/healthmeet/webinars#healthcarerelated) [Last accessed: January 20 2015.]
- Walker R, Cooke M, Henderson A et al (2011) Characteristics of leadership that influence clinical learning: a narrative review. *Nurse Education Today*. 31, 8, 743-756.
- Warhurst RP (2012) Leadership development as identity formation: middle managers' leadership learning from MBA study. *Human Resource Development International*. 15, 4, 471-487.
- Wenger E (1998) *Communities of Practice: Learning, Meaning, and Identity*. Harvard University Press, Cambridge MA.