Generation of a Nursing Leadership Development Bundle

Lee A. Galuska
University of Connecticut - Storrs, l.galuska@hotmail.com

Follow this and additional works at: http://digitalcommons.uconn.edu/dissertations

Recommended Citation
http://digitalcommons.uconn.edu/dissertations/55
Nurses are expected to have the skills and competencies to lead as well as partner in the process of healthcare transformation. This dissertation contributes to the understanding of strategies to enhance the development of leadership competency in nurses. Three metasyntheses were conducted using the Noblit and Hare (1988) method and provide holistic, synthesized translations of the experiences of nurses at all levels with leadership development. The first study explored nurses’ experiences with formal education for their leadership role and offers a description of how the content and delivery of formal education has contributed to nursing leadership learning outcomes (Galuska, 2013a). The second study explored the contribution of guided experiential learning to leadership competency development and offers insight into how exposure to relevant learning experiences under the guidance of a skilled mentor facilitates development (Galuska, 2012a). The third study explored the effect of culture on the development of competency in nursing leadership and provides a synthesized understanding of how context hinders or supports leadership growth (Galuska, 2012b). A fourth study used a mixed methods design to study nurses’ perceptions of the contribution of professional journals to their lifelong leadership learning and the content of those journals to support ongoing development (Galuska, 2012c). A fifth study used a mixed methods design to explore leadership development in nursing students and nurses in a dedicated education unit (DEU) clinical experience. Study findings of a significant improvement in leadership behaviors in students after a DEU experience suggest that innovative, integrated learning approaches enhance leadership competency.
Recommendations from the combination of studies culminate in proposal of a “bundle” or integrated set of interventions for nursing leadership development at all levels and begin to elucidate a way to respond to the call for nurse leaders. Radical transformation of the system of nursing education, creation of opportunities within the healthcare system to cultivate leaders, and transformation of practice environments to support healthy growth will enable a future for nursing that can lead change and advance the health and well-being of a nation.
Generation of a Nursing Leadership Development Bundle

Lee Ann Galuska

B.S., University of Connecticut, 1979

M.S.N., University of Hartford, 2000

A Dissertation

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

at the

University of Connecticut

2013
NURSING LEADERSHIP DEVELOPMENT BUNDLE

APPROVAL PAGE

Generation of a Nursing Leadership Development Bundle

Presented by

Lee Ann Galuska, B.S., M.S.N

Major Advisor

E. Carol Polifroni, EdD, CNE, NEA-BC, RN

Associate Advisor

Elizabeth Beaudin, PhD, RN, NEA-BC

Associate Advisor

Tim Porter O’Grady, DM, EdD, ScD(h), APRN, FAAN

Associate Advisor

Cheryl Tatano Beck, DNSe, CNM, FAAN

University of Connecticut

2013
Acknowledgements

I would like to acknowledge the many individuals who made it possible for me to make the journey culminating in this dissertation. I truly appreciate my major advisor, Carol Polifroni, who provided expert guidance and scholarly support all along the way. I also want to thank my committee members Elizabeth Beaudin and Tim Porter O’Grady for inspiring me through great leadership and a commitment to scholarly and practice excellence. Cheryl Beck has been a tremendous inspiration and teacher in the realm of qualitative and mixed methods research; enabling me to bring the voice of nurse leadership to life in my work. I would also like to extend my appreciation to Deborah McDonald whose passion for research, enthusiastic encouragement, and guidance were invaluable in keeping me excited about my studies. I also thank Arthur Engler for his support, attention to detail and shared interest in nursing leadership development. Many thanks to the University of Connecticut, School of Nursing for supporting my scholarly work through a pre-doctoral fellowship and to Sigma Theta Tau, Mu Chapter for a research grant supporting the study of the dedicated education unit and leadership development in undergraduate nursing students.

My colleagues at Saint Francis Hospital and Medical Center have been a wonderful source of support and encouragement. Rebecca Burke, who is a tireless advocate for the advancement of nursing education, lives this belief in her leadership practice. She gave me the gift of time and the collegial support to complete my journey and I will be ever grateful for the opportunity. I would also like to thank Michele McKelvey for her eternal optimism and collegial caring as we journeyed together. Many thanks to my assistant and friend, Denise Erdman, who has been with me for all the ups and downs. Denise helped with transcription but most
importantly with my schedule so I could have some work-life-school balance. My entire team at Saint Francis has cheered me on and I feel blessed to have them as colleagues.

My husband Paul, daughters Julie and Mary Kate, and sons Alex and John, have journeyed along with me. They offered me strength, understanding and unconditional love. I could not have achieved my dreams without them. I also want to thank my parents, Jean and Richard, who have always believed in me and encouraged me to achieve my potential. I truly appreciate the strong foundation they provided for my ongoing development. Although I look forward to continuing the study of nursing leadership development, I also look forward to spending more time with those who have made it possible for me to make this contribution to nursing knowledge.
# Table of Contents

Approval page vi
Acknowledgements vii
Table of Contents viii

Chapter 1. Philosophical and Theoretical Framework for Studying the Development of Nursing Leadership for the Complex Adaptive Systems of Health Care

- Foundations for Complexity Leadership 3
- Complexity Science 7
- Complex Adaptive Systems 9
- Theoretical Framework 12
- Structure of the Dissertation 20

Chapter 2. Formal Education: The Springboard for Nursing Leadership Development 27

- Abstract 27
- Method 30
- Data Collection and Analysis 31
- Theme 1: Evidence-based, relevant content 33
- Theme 2: Optimized learning strategies 36
- Theme 3: Benefits for the learner and others 40
- Theme 4: Tensions and threats to learning and application 46
- Synthesized Translation 48
- Discussion 51
- Implications for Education, Formal Leaders and Research 52
- Study Limitations and Challenges 54
Chapter 3. Leadership Development beyond the Classroom: Purposeful, Guided Experiential Learning

Abstract

Method

Data Collection and Analysis

Theme 1: Not Quite Ready to Lead: Connecting the Dots through Experiences

Theme 2: Key Relationships that Guide the Journey

Theme 3: A Toolkit for the Process

Discussion

Study Limitations and Challenges

Conclusion

References

Appendix A: Demographic and Methodological Characteristics

Appendix B: Individual Study Metaphors and Overarching Themes
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative Results</td>
<td>165</td>
</tr>
<tr>
<td>Qualitative Data Collection and Analysis</td>
<td>174</td>
</tr>
<tr>
<td>Student Focus Groups Results</td>
<td>178</td>
</tr>
<tr>
<td>Clinical Instructor Focus Groups Results</td>
<td>184</td>
</tr>
<tr>
<td>Mixed Methods Data Analysis</td>
<td>188</td>
</tr>
<tr>
<td>Discussion</td>
<td>192</td>
</tr>
<tr>
<td>Study Limitations and Challenges</td>
<td>199</td>
</tr>
<tr>
<td>Appendix A: Residency Program Curriculum Outline</td>
<td>201</td>
</tr>
<tr>
<td>Appendix B: Student Leadership Practices Inventory</td>
<td>203</td>
</tr>
<tr>
<td>Appendix C: SBAR and Delegation Education Outlines</td>
<td>204</td>
</tr>
<tr>
<td>Appendix D: Focus Group Questions</td>
<td>206</td>
</tr>
<tr>
<td>Chapter 7. A Bundle for Nursing Leadership Competency Development</td>
<td>207</td>
</tr>
<tr>
<td>Implications for Education, Practice and Research</td>
<td>210</td>
</tr>
<tr>
<td>Conclusion</td>
<td>215</td>
</tr>
<tr>
<td>References</td>
<td>217</td>
</tr>
<tr>
<td>Appendix A: Copyright permissions</td>
<td>239</td>
</tr>
</tbody>
</table>
CHAPTER 1. PHILOSOPHICAL AND THEORETICAL FRAMEWORK FOR STUDYING THE DEVELOPMENT OF NURSING LEADERSHIP FOR THE COMPLEX ADAPTIVE SYSTEMS OF HEALTH CARE

“…the nursing profession must produce leaders throughout the system, from the bedside to the boardroom…” (Institute of Medicine, 2011, p.7). The vision of a transformed healthcare system requires strong leadership from nurses at every level. Nurses are expected to have the skills and competencies to lead as well as partner in the transformational process.

The expectation that nurses will demonstrate leadership is not new. It is clearly articulated in the Scope and Standards of Practice, which has a historical foundation dating back to the time of Florence Nightingale (American Nurses Association, 2010). Professional nurses are expected to have the competencies to lead in the practice setting and in the profession (AACN, 2008). However, because nurses who are not in formal leadership positions do not always see themselves as leaders, they may not have developed the competencies to fulfill the roles required to create a healthier, more effective healthcare system. The Institute of Medicine (2011) recommendation for leaders at every level of the nursing profession demands examination of how leadership competencies are most effectively developed in nurses throughout their careers.

An exploration of leadership knowledge and skill development must begin with an understanding of what constitutes effective leadership in the complex healthcare system in which nurses practice. The call for nursing leadership at all levels is consistent with a view of the healthcare system as a complex adaptive system requiring different models for leadership. We are in a new age of rapid technological innovation and instantaneous communication. Global
economic and political realities are dramatically changing our businesses and our relationships. There has been an explosion of available information and knowledge. Past models and approaches to leadership, developed for use in the industrial era, are ineffective for addressing this emerging reality. The rapidly changing, complex, global environment we are now experiencing requires leadership models that are based in an understanding of complexity and how complex adaptive systems operate (Crowell, 2011). Nursing leadership development must reflect knowledge and application of complexity principles to fulfill the vision of nurses as effective leaders and partners in the transformation of health care.

Complexity Leadership Theory (Uhl-Bien, Marion, & McKelvey, 2007) has been proposed as a leadership model that is better suited for the dynamics of contemporary organizations and systems operating in a fast-paced, interconnected, interdependent complex world. The theory provides a framework for leadership in complex adaptive systems that will maximize the creative and adaptive capacity of the system to produce positive results. It describes key leadership functions: adaptive, administrative and enabling leadership. Uhl-Bien and colleagues (2007) suggest that mastery and application of these leadership capabilities provide a foundation for success in leading organizations, including healthcare organizations, in an era of complexity.

To understand the relevance of a complexity leadership framework for studying effective nursing leadership and its development, it is important to look at the influences of history, science and philosophy. Scientific developments have profoundly influenced views of the world and have shaped history. From the time of Newtonian classical physics to the time of quantum physics, science has affected how we organize ourselves and attempt to understand our world. Philosophical shifts and approaches to further discovery have paralleled these scientific
advancements. Science and philosophy have helped to shape the way we think about leadership, how we study it, and how we develop it.

**Foundations for Complexity Leadership**

A 17th-century Newtonian mechanistic paradigm has dominated our thinking about organizations and leadership for centuries (Wheatley, 2006). Newton offered a mechanical view of the world where natural laws could explain how things worked. Through reasoning, humans could discover how to predict and control the world. Through observation and description of the parts of a process, an explanation of the whole could be deduced. This linear, reductionist, and mechanical world view dominated in the Industrial Age where organizations were focused on the production of goods. Workers were seen as a means to an end or interchangeable parts. They were trained on the job to do specific tasks. Work was owned by the organization not the workers. Scientific management models developed by engineers like Frederick Taylor aimed to optimize production of the organization as if it were a machine (Crowell, 2011). Organization and communication were hierarchical. Leaders were charged with command and control of workers for maximum production and flow of goods. The belief that effective leaders would keep the organization and workers under control continued well into the 20th century (Porter-O'Grady & Malloch, 2011). Described as “clockware” to reflect the machine view of organizational leadership, structures and processes were “rational, planned, standardized, repeatable, controlled, and measured” (Zimmerman, Lindberg & Plsek, 1998, p. 29).

Early leadership theories reflected a view that the leader was a separate part of the organization whose actions generated responses in the workers and in the production of results. Effective leaders could be studied as separate from followers and the organization. Great
leadership was attributed to certain inherent or personal traits that enabled the individual to achieve extraordinary results (Zaccaro, 2007). Leader characteristics or traits associated with excellent performance have continued to interest leadership scholars. A recent example is Collins’ (2001) studies of high performing or great organizations, which led to a description of “Level 5 leaders” who possess a unique combination of personal humility and strong professional will.

The study of the characteristics of individual leaders acting on the organization expanded to include theories of style and behavior. For example, Likert proposed a model that described how a leader’s style, which ranged from highly directive to least directive, impacted effectiveness (Likert, 1961). More recently, individual leader authenticity, charisma and transformational behaviors have been described as key to leadership performance. Authentic leaders, charismatic leaders and transformational leaders all exhibit positive patterns of behavior. They influence followers through role modeling, strong relationships, and shared values and purpose (Avolio & Gardner, 2005; Bass, 1990; Burns, J.M., 1978; Conger & Kanungo, 1987).

Other leadership theories describe the effect of skills and competencies of the individual leader to solve organizational problems and achieve results. Processes for the acquisition of skills in the leader are expected to produce better leader and organizational performance (Mumford, Marks, Connelly, Zaccaro, & Reiter-Palmon, 2000). One common feature of trait-based, style and behavioral leadership theories is a continued focus on the leader of the organization as a separate force acting on the organization and the workers or followers.

Over the course of the century the study of leadership did evolve to include greater appreciation for the impact of followers and situations on the behavior and effectiveness of leaders. Leadership and management scholars explored the basis for worker motivation.
Crowell (2011) partially attributes this shift to a rejection of a Newtonian mechanistic, deterministic philosophy and an increased influence of a Kantian belief in human freedom and choice. There was a beginning appreciation for workers as autonomous human beings with needs. Based on Maslow’s hierarchy, Herzberg described hygiene factors such as salary and working conditions that influenced the motivation of followers to respond to the direction of the leader (Herzberg, 1966). McGregor’s Theory X and Theory Y provided leaders with a model for modifying factors in the environment to motivate workers to perform (McGregor, 1985).

In addition to modifying behaviors to enhance worker motivation, leadership theories began to describe the importance of leader behavior modification for different situations. Contingency theories such as path-goal leadership or situational leadership include moderator variables that drive the behavior of the leader to increase worker effort and satisfaction (Yukl, 2010). The effective leader behaves differently to elicit the work effort needed to achieve results (House, 1971). The leader chooses the best approach for the particular situation and individuals (Hersey & Blanchard, 1982). These theories began to consider the relationships between workers and leaders but maintained the leader in a position to act on the system and the people within it.

In the middle of the 20th century, science again had a dramatic impact on the world with the development of systems theory. Scientists began to understand that Newtonian thinking could not explain what they were seeing at a subatomic level or in chemical or biological systems (Wheatley, 2006). Their work challenged many of the assumptions of prediction and control characteristic of a mechanistic world (Plsek, 2001a). There was an emerging understanding that studying the parts was not enough to provide understanding of the whole. General systems theory, developed by Ludwig von Bertalanffy (1968) approached the system as
a whole and described self-organization as a property of all systems as they adapt and unfold in response to their environment and in fulfillment of their purpose.

Leadership theories began to include an appreciation for relationships and systems as well. Leader member exchange theory described the reciprocal influence between leaders and individual or small groups of subordinates (Graen & Uhl-Bien, 1995). Greater effectiveness could be realized when leaders and followers were able to develop mature, positive relationships or partnerships. There was a growing understanding of the contribution of all members of the system and their influence on one another as well as organizational outcomes (Balkundi & Kilduff, 2005).

Toward the end of the 20th century, leadership theories and research were much more consistent with an understanding of organizations as human systems. Senge (1990) and Argyris (1991) promoted systems thinking and the value of shared vision, relationships, and double-loop learning. The leader in these models became more a part of the system rather than acting on the system. Transformational leadership theory, although it includes some aspects of trait and behavioral approaches, positions leaders within the system where they engage with followers and elevate performance to produce change (Bass, 2000). Transformational leaders focus on relationships, provide mentorship and promote intellectual stimulation to foster the development of transformational leadership in others throughout the system. These theories are part of an evolving patchwork of beliefs about how leaders can most effectively produce results in organizations. One consistent theme is that the focus has predominantly been on the leader rather than leadership in systems. Recommendations for an integrated approach have not produced a unifying theory for understanding leadership as a dynamic in complex systems (Chemers, 1997). Kilburg and Donahue (2011, p.15) offer a definition of leadership as a
“complex, multidimensional, emergent process…” and make recommendations for developing a unified or integrated model that incorporates complexity science concepts. Such a model would consider the interactions of the external environment, characteristics and feelings of people throughout the system and their relationships, system structures and processes, and performance. In other words, it would be a model that is based in complexity science.

**Complexity Science**

Complexity science, with a foundation in systems theory, offers a more holistic paradigm for conceptualizing how leadership works in organizations. As an interdisciplinary field that considers the dynamics and principles of multiple diverse agents interacting in systems (Lindberg, Nash, & Lindberg, 2008), it is a scientific view that is more congruent with the realities and potentialities of our world. Complexity science as an interdisciplinary field has spawned scientific advancements and led to the introduction of new technologies that have further expanded our connectivity and interdependence. The invention of the computer and other technological innovations have forever altered our reality. Relationships have changed. The work has changed. Availability of information, knowledge and the ability to communicate it has revolutionized our lives.

Complexity science has significant implications for how we view organizations, leadership and work. Workers in complex systems, including nurses, are equipped with specialized knowledge and skills. They have significantly greater control of the work and output of organizations. Worker knowledge and skill are recognized as an asset producing the capacity for innovation that is essential to organizational success. Leadership theory in an era of complexity requires a dramatically different approach and has different philosophical
underpinnings. Postmodernism as a belief system characterized by multiplicity of meanings and no one single meaning of reality or truth or of knowledge development is more consistent with complexity science. Postmodernism came about as a rejection of “positivist reasoning with its neutrality of human values, its concern with control, and dominance of one worldview for predicting and sustaining a given reality whereby knowledge = science = reality” (Watson, 1995, p. 60). It is a recognition that we live in a world characterized by multiple variables interacting in complex, nonlinear ways and that we must consider the impact of context to understand our world. This philosophical movement in conjunction with discoveries in science and technology spurred an interest in studying and understanding complexity in a variety of disciplines (Cilliers, 1999). The principles of complexity science can help inform an approach to leadership in health care that is more congruent with the reality of an interconnected, interdependent, high-tech world (Regine & Lewin, 2000).

Coveney defines complexity science as “the study of the behavior of large collections of… simple, interacting units, endowed with the potential to evolve over time” (Uhl-Bien et al., 2007, p. 299). With the magnitude of the numbers of agents and interactions, complexity in a system means “there are more possibilities than can be actualized” (Cilliers, 1999, p. 2).

Complexity science is most closely aligned with biology and the associated dynamics of living things. Much of our understanding of complexity has come from the study of biological systems as complex adaptive systems. Complex adaptive systems are collections of individual agents interacting and interconnected in ways that are not always predictable but ideally are adaptive for surviving and flourishing. The actions of the individual agents affect the other agents and the system(s). The study of living systems has informed understanding of behavior that is nonlinear, unpredictable, messy, uncontrollable and paradoxical (Zimmerman et al.,
1998). Studying the patterns of behavior and how systems self-organize to produce outcomes has led to a better understanding of how to work within complex systems, including health care.

**Complex Adaptive Systems**

Complex adaptive systems are found everywhere in our lives and in our world. Each word in the notion is important to our understanding (Zimmerman et al., 1998). The concept “complex” suggests diversity, including many elements and many interconnections between and among the numerous and varied elements. The elements mutually affect one another allowing for the emergence of novel or surprise outcomes. Complex must be differentiated from complicated and simple. Complexity is a result of interactions between and among components of a system. It cannot be broken down into discrete parts. It can only be understood in terms of the dynamics of the whole. Complicated systems may have a large number of components and perform very high level functions but can be understood as a combination of those component parts. This is different from complex systems where the sum of the parts is greater than and different from the sum of the components. Simplicity is often misread. Sometimes systems or items appear simple but may actually be complex. This is true of most living things. Simple systems naturally interact with others; self-organizing to make up a greater whole.

The word “adaptive” implies that there is an ability to change and grow. It implies an ability to learn from history and experience and to modify or change behaviors as a result of that learning. It has its origins in evolutionary biology. From the time of Darwin, we have gained a greater understanding of the importance of adaptation for survival. Species that did not adapt did not survive. Living things have the capacity for autopoeisis, which means that they renew themselves through growth and change. Through the process of self-reference and the complex
interactions of the agents operating within it and with other systems, the living system will change and adapt to preserve itself (Wheatley, 2006). What emerges is an evolved state that is better equipped to respond and thrive. This notion is particularly important for a healthcare system poised for transformational change.

System is another concept embedded in the notion of complex adaptive systems. “Systemness” implies the coming together of parts, interconnections and purpose. The power of a system is in how effectively the parts come together through self-organization and self-regulation to fulfill a purpose (Plsek, 2001b). A strong sense of purpose and identity enables the system to preserve itself and maintain relevance while responding to changes in and around the system.

The health care system is a complex adaptive system (CAS) comprised of multiple levels of embedded complex adaptive systems. The systems reflect the features that are characteristic of a CAS (Cilliers, 1999). They include large numbers of dynamically interacting, diverse elements, all with the ability to influence one another. The number of encounters experienced by nurses, patients, and every member of a health care system, and the influence of those interactions on individuals and the system is characteristic of a CAS. The ability of any one agent in the system to impact other agents or systems leads to distributed control throughout the system rather than control by individuals at the top.

Health care CAS are open systems in that they are constantly interacting with the internal and external environment and with other systems. Economic conditions, regulatory requirements, natural disasters, technological advancements, and countless other factors affect the operation of the health care CAS. Influence from all of the forces and interactions, both internal and external, can lead to the emergence of new patterns of behavior or operation. The
CAS self-organizes in response to experiences. It is through this complex responsive process that innovation emerges (Fonseca, 2002).

Complex systems operate under conditions far from equilibrium; that is, there is a constant flow of energy that maintains the organization and ensures its adaptation and survival. Tension, paradox, uncertainty and anxiety are omnipresent. They are considered to be healthy, dissipative structures that stimulate the system to creatively respond and evolve.

The interactions within the health care CAS are both short-range, as with coworkers in a patient care area, as well as long-range across a large health care system or organization. The effects of interactions are nonlinear and unpredictable. Small changes may produce large results and large changes may produce little or no impact. There are loops in the interactions, producing feedback that may be positive or negative. The feedback loops reinforce adaptive changes and work to reduce or eliminate ineffective or outdated responses. The interactions and experiences of the people and the CAS form a history as it evolves over time. The system is co-created by past experiences, both positive and negative. Each agent or part of the system understands its own local experience and interactions, responds to information available locally, and generally lacks understanding of the whole system.

With an understanding of the behaviors of the complex adaptive systems comprising health care has come recognition that current leadership models are inadequate to guide the health care system through transformational change. Formal leaders are unable to predict, plan, and control the operations of the complex system. Rather, leadership behaviors and relationships throughout the system, at every level, will be required to ensure that the system is able to adapt, change and grow to fulfill its purpose. Uhl-Bien and colleagues (2007) have proposed a new framework for complexity leadership. They acknowledge the characteristics of complex
adaptive systems and have established a theoretical model for enabling leadership throughout the system to harness its inherent strengths, adaptability and potential for innovation.

**Theoretical Framework**

Complexity Leadership Theory (CLT) will be used as a theoretical framework for the study of effective approaches to nursing leadership competency development. The framework is consistent with a complexity science worldview that “frames leadership as a complex interactive dynamic from which adaptive outcomes emerge” (Uhl-Bien et al., 2007, p. 298). Leadership as an emergent dynamic or process could arise from anywhere in the CAS to interact with bureaucratic structures and processes to enable adaptability, creativity and learning in an organization. Development of leadership capacity and competency in nurses and others in the health care CAS ultimately positions organizations and the system for greater success in a complex environment.

According to CLT, there are three types of leadership at work in an organization, including administrative, adaptive and enabling (Uhl-Bien et al., 2007). Administrative leadership is associated with formal leaders in the bureaucratic structures of health care who provide traditional leadership and managerial functions. Adaptive leadership is the emergent creative dynamic that produces innovative outcomes. Enabling leadership manages the entanglement between the necessary bureaucratic structures and the adaptive capacity of the organization. In addition, enabling leadership dynamics allow administrative leadership to work in tandem with adaptive leadership to optimize the flexibility and effectiveness of the organization in achieving its mission.
In order to understand CLT as a framework for nursing leadership and a basis for development of nurse leaders, it is important to understand the assumptions, concepts and propositions that make up its structural components. There are a number of premises or notions that are based in complexity science. They include the understanding that leadership dynamics are “embedded in context” (Uhl-Bien et al., 2007, p.299). That is, there is an ambiance that gives the complex adaptive system its persona based on the unique interactions and interdependencies existing within it. This context is understood to display patterns over time and has a history that has been formative and influential. Leadership patterns arise from this context. The history, culture and leadership styles in healthcare organizations influence the position of nurse leaders and the cultivation of nursing leadership throughout. History matters. An appreciation of context is essential for leadership effectiveness.

A second foundational notion is that leadership and leaders are not equivalent. Uhl-Bien and colleagues (2007) propose that leadership is a process or dynamic that emerges within and interacts with the complex adaptive system (CAS) to produce outcomes. Innovative outcomes are the result of adaptive leadership. Leaders as individuals in the CAS may influence the dynamic, the process, and the outcome. Nurses are present throughout the CAS and have well developed relationships with each other, other disciplines, and with patients and families. They are well-positioned to influence how the system functions and provide leadership for the production of positive outcomes.

A third notion is that leadership is distinctly different from managerial positions or roles. Leadership that arises from those in formal positions is characterized as administrative leadership in this model if it serves traditional coordination and organizational activities or bureaucratic functions. Leadership that arises outside of the formal hierarchical structure, emerging from the
adaptive dynamics of the CAS, is identified as adaptive leadership. Stacey (1996) describes this
dynamic as the shadow system and as an arena from which creativity and innovation emerge.
Formal leaders who create opportunities for increased interaction and relationships throughout
the organization set up the conditions to unleash the natural creative capacity of healthcare staff,
allowing leadership to emerge throughout.

A fourth notion for complexity leadership theory is that it is relevant for facing the
adaptive challenges of the Knowledge Era rather than the technical problems of the Industrial
Age. With an acceptance of a complexity view of the world, organizations are facing more
challenges that require creativity, learning and, adaptability, and new ways of behaving.
Leadership development for the Knowledge Era requires a different skill set and dynamic.
Exploration of new approaches for nursing leadership development are required to prepare
nurses to act as leaders wherever they are in the system.

In addition to establishing these foundational notions or premises for understanding the
theory, Uhl-Bien and colleagues offer four “orienting assumptions” (2007, p. 302). First they
acknowledge that they believe that complexity leadership dynamics are immersed in bureaucratic
systems. The infrastructure of health care organizations that establishes a mission, plans and
creates an organizational structure to achieve outcomes is a given. What CLT provides is a way
to understand how leadership can most effectively balance the complexity dynamics and the
bureaucratic structures that organize resources to plan, deliver, and finance healthcare. Nurses
recognize the necessity for structures and processes, but as leaders throughout the system, they
can influence and adapt them to produce better outcomes for patients and better environments for
the delivery of care.
Another assumption is an acceptance of hierarchical bureaucratic structure and an acknowledgement that leadership dynamics and functions differ depending on the level within the hierarchy. They recognize that top level leadership dynamics operate differently from mid-level leadership dynamics and from lower level dynamics, but that individuals in the CAS may influence regardless of positional power. Nurse leaders at each level have unique opportunities to influence the dynamics and outcomes. The development of nurse leaders with the knowledge and skills for effective interactions and decision-making at each level is essential.

Uhl-Bien and colleagues (2007) make clear, as another assumption, that the CAS is the unit of analysis. Nothing can be studied in isolation from the dynamics of the CAS. Organizations must be understood as open systems with variable boundaries. In healthcare organizations, there are many levels of organization such as units, departments, facilities and systems. Each level is interdependent and the activities of each affect the other. Small interactions can have large scale effects. The notion of fractals or repeating patterns at various levels in complex systems has important implications for nursing leadership grounded in core values throughout the system (Raelin, 2003). It also has implications for how we study leadership dynamics and develop nursing leadership capacity.

The last assumption is an assertion that leadership “only exists in, and is a function of, interaction” (Uhl-Bien et al., 2007, p. 302). Leadership dynamics necessarily include an expectation of interaction and interdependency as properties of CAS, which enable change and adaptation. Cilliers (1999) discusses the connectedness of elements in the network or CAS. Individuals are not isolated, autonomous agents. They are connected, in a “fabric of relations that is now more complex and mobile than ever before” (p. 115). Each individual is located at nodal points of communication; located at a post. Relationships are more important than the node itself.
Discourses are always connected to other discourses through constant interaction, cooperation and competition. Nonlinearity and asymmetry and power come into play through this constant interaction and modify the ability of the system to respond, survive and thrive (Cilliers, 1999). The relational and communication competencies of nurses are critical for their leadership in these interconnected, interdependent systems.

There are many concepts in the description and discussion of Complexity Leadership Theory that are derived from complexity science. Key concepts include the three types of leadership that interact in a dynamic way in organization, that is, administrative, adaptive and enabling leadership. Other key concepts are network dynamics which includes context and mechanisms, emergence, and entanglement. Table 1 provides definitions of each of the key concepts.

Table 1

Complexity Leadership Theory Concepts (Uhl-Bien et al., 2007)

<table>
<thead>
<tr>
<th>Concept</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative</td>
<td>“Leadership grounded in traditional, bureaucratic notions of hierarchy,</td>
</tr>
<tr>
<td>Leadership</td>
<td>alignment and control”(p. 299)</td>
</tr>
<tr>
<td>Adaptive</td>
<td>Leadership as an “emergent interactive dynamic that produces adaptive</td>
</tr>
<tr>
<td>Leadership</td>
<td>outcomes in a social system” (p. 306)</td>
</tr>
<tr>
<td>Enabling</td>
<td>“Leadership that structures and enables conditions such that CAS are able to</td>
</tr>
<tr>
<td>Leadership</td>
<td>optimally address creative problem solving, adaptability, and learning” (p.</td>
</tr>
<tr>
<td></td>
<td>299)</td>
</tr>
<tr>
<td></td>
<td>(table continues on p. 17)</td>
</tr>
<tr>
<td>Concept</td>
<td>Definition</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Network</td>
<td>“complex milieu of contexts and mechanisms” that enable adaptive leadership to occur (p. 307)</td>
</tr>
<tr>
<td>Dynamics</td>
<td>“structural, organizational, ideational, and behavioral features—the ambiance of interactions among agents, hierarchical divisions, organizations, and environments—that influence the nature of mechanism dynamics” (p. 304)</td>
</tr>
<tr>
<td>Context</td>
<td>“a set of interacting parts—an assembly of elements producing an effect not inherent in any of them”; how “an effect is produced” (p. 304)</td>
</tr>
<tr>
<td>Mechanisms</td>
<td>“reformulation of existing elements to produce outcomes that are qualitatively different from the original elements” and self-organization which is “a movement in which different reformulation activities find a common cause”</td>
</tr>
<tr>
<td>Emergence</td>
<td>“dynamic relationship between the formal top-down administrative forces (i.e., bureaucracy) and the informal, complexly adaptive emergent forces (i.e., CAS) of social systems” (p. 305)</td>
</tr>
</tbody>
</table>

While the three leadership functions exist and are interrelated in complex adaptive systems, the dynamic must be effectively managed to assure that the organization benefits from each. Enabling leadership plays a powerful role in managing the entanglement between administrative and adaptive leadership in order to achieve the level of innovation and learning that are the basis for organizational success in a complex, rapidly-changing environment. In CLT, Uhl-Bien and colleagues (2007) propose that enabling leadership serves to enhance or diminish the administrative and adaptive leadership effects at work at any given time in the
organization in response to challenges in the environment. There are times when an organization requires a higher degree of administrative leadership and less adaptive leadership. At other times, a high level of adaptive leadership is critical for the organization to respond to challenges requiring creative, innovative modifications or behaviors to achieve success. Enabling leadership works to create the conditions to catalyze adaptive leadership when appropriate to produce innovative responses, and then hardwire successful innovations into the formal system to facilitate organizational growth. Excess administrative leadership can lead to rigidity and stagnation and suppression of creativity, innovation, and learning. Adaptive leadership that is unrestrained may result in changes that are not financially sound, consistent with the mission of the organization or are unsupportable in the environment. A balance between the two in response to the environment and organizational challenges is critical. Uhl-Bien and colleagues (2007) propose that enabling leadership allows the organization to strike that balance. Nurses as leaders throughout the CAS can provide all three types of leadership enabling the system to deliver better outcomes.

To summarize, Complexity Leadership Theory provides a framework for understanding and creating the capacity for nursing leadership throughout the health care system. The CAS requires nurses to fulfill administrative functions, adaptive leadership functions, as well as enabling leadership functions. Nurses will need the competencies to fulfill formal leadership roles and administrative functions. Nurses at every level of the system must also have adaptive leadership competencies to generate the creative, innovative ideas to allow the CAS to respond flexibly and effectively to environmental pressures. Nurses with the competences to manage the relationships throughout the system to assure the right balance between administrative and adaptive leadership will enable optimal delivery of health care services and positive outcomes.
Figure 1 is a visual image of the leadership dynamics suggested by Complexity Leadership Theory.

Figure 1. Complexity Leadership Functions in Complex Adaptive Systems

The challenge posed by the *Future of Nursing* report (IOM, 2011) is to create effective means to cultivate nursing leadership in nurses regardless of role or position in the healthcare system. Complexity Leadership Theory provides a basis for understanding potential nursing leadership functions in the system and related leadership dynamics. It also has implications for study of the development of leadership competencies for complex adaptive systems.

Complexity as a postmodern worldview accepts that there will be no single truth related to optimal leadership development and no single methodology for studying it. The epistemology of postmodernism is closely related to pragmatism in the acceptance of multiple approaches to knowledge development. Both reflect an interest in knowledge that has practical significance.
Warms and Schroeder (1999) identify pragmatism as a “way of doing philosophy” (p.1) where the practical consequences are primary. Theory and action are interwoven and continuously modifying each other to ultimately create something better. This notion is consistent with complexity principles of interconnectedness and interdependency of people within the system, ultimately generating new and better ideas and results.

The interest and urgency for leadership development at all levels requires a pragmatic approach to knowledge development. There is an interest in doing what works. Consistent with complexity principles, mixed method approaches to the study of effective nursing leadership development are appropriate (Creswell & Plano-Clark, 2011). Nurses living and working in complex adaptive systems have experience with effective and ineffective preparation for administrative, adaptive and enabling leadership functions. Qualitative studies of nurses’ experiences with nursing leadership development activities capture their perspectives and ideas for effective preparation for leading in complex systems. Qualitative metasynthesis is a method for interpretation of the findings of relevant studies where the study findings are integrated into a synthesized whole that provides greater insight into the experience than any one study could provide (Sandelowski & Barroso, 2007). Use of metasynthesis and mixed methods studies will comprise the approach to answering the overarching research question: What are the elements of a nursing leadership development model that effectively prepares nurses to lead throughout the complex adaptive systems of health care?

**Structure of the Dissertation**

The dissertation structure will follow the three publishable article format. That is, it will include:
three published or publishable metasyntheses (formal leadership education, guided experiential learning, and contextual factors) and one mixed methods study related to lifelong leadership learning

- a mixed methods study of the application of the findings from the metasyntheses in an integrated approach to leadership learning in dedicated education units

- a concluding chapter that will discuss and synthesize the findings of the studies in an effort to answer the overarching research question and offer implications for future research, practice and education

The three metasynthesis studies were conducted using the Noblit and Hare (1988) method and provide “holistic interpretations” (p. 10) of the experience of nurses at all levels with the development of leadership competencies. The first metasynthesis explored nurses’ experiences with formal education for their leadership role (Galuska, 2013a). Formal leadership learning may be experienced through undergraduate or graduate curricula or through continuing education programs. The synthesized translation of 27 qualitative studies provides an understanding, from the nurse’s perspective, of how the content and delivery of formal education has contributed to leadership learning outcomes. Capturing a synthesized interpretation of what nurses’ voices tell us about formal leadership learning can inform efforts to improve foundational preparation for leadership.

A second metasynthesis explored the contribution of guided experiential learning to leadership competency development (Galuska, 2012a). This synthesis of 24 qualitative studies offers greater insight into nurses’ perceptions of how exposure to relevant learning experiences under the guidance of a skilled mentor facilitates leadership competency development. Although
this study will not be one of the three publishable studies required for the dissertation, it will contribute to the synthesized description of a model for nursing leadership development.

The third metasynthesis, comprised of 21 qualitative studies, explored the effect of context and culture on the development of competency in nursing leadership (Galuska, 2012b). From the perspective of nurses who have experienced the application of leadership knowledge and skill, this study provides a synthesized understanding of how context hinders or supports leadership development. Recommendations from this study will be incorporated into the proposed model for nursing leadership development.

A fourth study was a sequential QUAN + quan mixed methods study of nurses’ perceptions of the contribution of professional journals to their lifelong leadership learning and the content of those journals to support that learning (Galuska, 2012c). Krippendorff’s (2004) content analysis method was used to analyze the content of two broad-based, widely-subscribed nursing journals for the presence of leadership content since the release of the IOM report (2011). The analysis provided insight into the potential of professional literature to contribute to ongoing leadership knowledge and competency development. The second quantitative strand used a descriptive, exploratory survey design to explore nurses’ utilization of leadership content in professional journals and the value of that content for learning. Table 2 provides a brief overview of the studies, research questions and methods.

In complex adaptive systems, each approach to nursing leadership competency development is interconnected and interdependent on other approaches, agents and systems to affect learning. The interconnectedness and relationships of structures and processes impacting nursing leadership development will be proposed in the final chapter as a model or “bundle”. The results of a mixed methods study of nursing leadership development in prelicensure nursing
students will be used as an exemplar of the application of a “bundled” approach to competency
development that includes formal education, guided experiential learning and a supportive
context in which competencies may be cultivated.

This dissertation will contribute to the development of actionable knowledge to enhance
the development of leadership competency in nurses. The included studies are grounded in a
postmodern, pragmatic worldview consistent with complexity science. The theoretical
framework of complexity leadership theory provides a model for understanding effective
leadership in complex adaptive health care systems. The leadership functions and dynamics
described in complexity leadership theory require the development of nursing leadership
capacity in nurses at all levels. The studies of the contributions of formal educational processes,
experiential learning opportunities, practice contexts, and professional literature on the
development of nursing leadership competencies will inform educational and cultural
improvement strategies. The study of structures such as the dedicated education unit, that are
supportive of leadership development in nursing students as well as direct care nurses, may
provide a model for building leadership capacity. A set of interventions that have the potential to
more effectively cultivate nursing leadership will enable nurses to respond to the call to lead in
the transformation of healthcare.
### Studies Contributing to Design of Model for Nursing Leadership Competency Development

<table>
<thead>
<tr>
<th>Study</th>
<th>Research Question</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal Education: The Springboard for Nursing Leadership Development (Galuska, 2013a)</td>
<td>What is the contribution of formal academic and continuing education on nursing leadership competency development?</td>
<td>Metasynthesis (Noblit &amp; Hare, 1988) 7-phase method:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Identify interest.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Select relevant studies.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Read studies and metaphors.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Determine relationships.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Translate studies into one another.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. Express the synthesis.</td>
</tr>
<tr>
<td>Leadership Development beyond the Classroom: Purposeful, Guided Experiential Learning (Galuska, 2012c)</td>
<td>What is the contribution of experiential learning on nursing leadership competency development?</td>
<td>Noblit &amp; Hare (1988) 7-phase method</td>
</tr>
<tr>
<td>Cultivating Nursing Leadership for Our Envisioned Future (Galuska, 2012a)</td>
<td>What are the conditions that nurses have found to be effective and supportive and what conditions have hindered their development as leaders in nursing?</td>
<td>Noblit &amp; Hare (1988) 7-phase method</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>The Power of Journals to Influence Nursing Leadership Development (Galuska, 2012b)</td>
<td>a. What is the utilization of professional nursing journals by nurses for leadership development? b. What are nurses’ perceptions of the usefulness of content in two journals for their ongoing leadership learning and competency development? c. What leadership content has been published since the release of the <em>Future of Nursing</em> (IOM, 2011) report in two widely-subscribed, broad-based nursing journals?</td>
<td>Sequential QUAN → quan mixed methods design: a. Content analysis using Krippendorff’s (2004) method to quantify the leadership content published in the <em>American Journal of Nursing (AJN)</em> and the journal <em>Nursing</em>. b. Descriptive/exploratory survey design to examine nurses’ journal reading practices and perceptions of journal content.</td>
</tr>
<tr>
<td>Dedicated Education Units and</td>
<td>a. Will students in a dedicated education unit Convergent parallel QUAN + QUAL mixed</td>
<td></td>
</tr>
</tbody>
</table>
| Leadership Competency Development: A Mixed Methods Study (Galuska, 2013b) | (DEU) demonstrate greater leadership competency? | methods design.  
a. Quasi-experimental non-equivalent pretest-posttest longitudinal multi-site design with control groups  
b. Focus group study with students in the DEU and with Clinical Instructors using methods described by Krueger and Casey (2009) |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Do direct care nurses who act as clinical instructors exhibit increase leadership behavior?</td>
<td>c. How do the leadership behaviors of students who have participated in a DEU compare with leadership behaviors of newly licensed nurses after a one-year residency program?</td>
<td></td>
</tr>
<tr>
<td>d. What are the perceptions of nursing students regarding the effect of the DEU experience on their leadership development?</td>
<td>e. What are the perceptions of staff nurses who act as clinical instructors in a DEU unit regarding the effect of the experience on their leadership development?</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 2. FORMAL EDUCATION: THE SPRINGBOARD FOR NURSING LEADERSHIP DEVELOPMENT

Abstract

The need for strong nursing leadership for the transformation of the healthcare system is not just a nursing concern, it is a “societal issue” (Kovner & Spetz, 2011). In order to lead effectively in this process, nurses must be prepared for their leadership roles. A strong leadership knowledge base acquired through formal education provides the springboard for nursing leadership competency development. This metasynthesis of 27 qualitative studies, including 1163 participants, provides a broad understanding of the contribution and effectiveness of formal education on leadership competency from the perspective of nurses who have experienced it. Noblit and Hare’s (1988) approach was used for the metasynthesis process. Four overarching themes emerged: evidence-based relevant content, optimizing learning, benefits to the learner and others, and tensions and threats to application of learning. The study affirms the value of a strong educational base for developing nursing leadership. Experiential learning, supportive relationships and healthy communication and feedback are additional contributing factors. With the support of a firm yet flexible educational platform, nurses, teams, organizations and systems will be strongly positioned to more effectively lead in health care transformation.
In countries around the world, nurses are being called to serve as leaders in the transformation of health care (Anazor, 2012; IOM, 2011; Sherring, 2012). The need for strong nursing leadership is not just a nursing concern, it is a “societal issue” (Kovner & Spetz, 2011). In the United States, the evidence of a “quality chasm” in the health care delivery system, with associated patient harm, has led to calls for transformation (IOM, 2001). Not only is there a need for improved quality and safety in the system, issues of cost and access have led to demands for action. With the passage of federal legislation in 2010, intended to make care more affordable, effective, efficient, accessible, safer, and of higher quality, comes the opportunity for transformational change (IOM, 2011). Nurses can play a central leadership role in increasing quality, safety, access and value (Nickitas, 2011).

For nurses to answer this call, they must be prepared for their leadership roles. “Quite simply, without a continued commitment to and investment in nursing leadership development – for executives, managers and frontline staff—the future of our healthcare organizations will be at risk” (O’Neil, Morjikian, Cherner, Hirschkorn, & West, 2008, p. 178). Development includes formal education, continuing education, and guided experiential learning. Formal education provides the foundation for leadership knowledge and competency. According to McBride (2011), “formal education is the best way to master a body of knowledge…” (p.56). In nursing, inclusion of leadership content in nursing curricula has been established as essential by the American Association of Colleges of Nursing (AACN, 2008). Graduate level preparation for nurse leaders has been advocated by the American Organization of Nurse Executives (AONE, 2012). Graduate curricula have been evolving over the last decade to better prepare transformational formal nurse leaders for complex systems (Scott, 2007; Sherman, Dyess & Prestia, 2013).
Continuing education programs to enhance nurse leadership effectiveness are being offered widely. According to O’Neil and colleagues (2008), many of these programs have been successful in meeting the developmental needs of participants but there will be a need for expansion of programs to nurses at all levels and throughout the continuum of care. In the United Kingdom, clinical staff have been engaged in leadership development programs designed to empower them to drive necessary clinical quality and safety improvement (Woolnough & Faugier, 2002). These continuing education programs, designed to develop competencies for leading in the clinical environment, have been found to be successful in increasing leadership behaviors in nurses. Recognition of the importance of clinical nursing leadership has spurred the development of educational models to enhance development and professional excellence (Adeniran, Bhattachrya, & Adeniran, 2012). Developing nursing leadership for the “sharp end of care” (p.42) is as essential as developing nurses for formal leadership roles. Ongoing professional development with career paths that enhance nursing leadership throughout the system are pivotal for enabling nurses to lead in the improvement of care quality.

Qualitative studies of the impact of formal leadership education on participants have offered insight into the experiences of nurses with both academic and continuing education leadership programs. Studies involving novice and experienced staff nurses, charge nurses, and nurses in leadership roles throughout the complex health care system provide rich data about leadership educational needs and strategies. Consistent with a complexity view of healthcare is the belief that nurses are agents in complex adaptive health care systems and can generate the innovative ideas needed for transformational change. This metasynthesis aims to capture the voices and experiences of nurses to provide greater understanding of the contribution and effectiveness of formal leadership education for leadership competency.
Method

A metasynthesis was conducted related to the role of formal education on the leadership development of nurses. Metasynthesis is a method for integrating findings from qualitative studies, translating them into one another, and creating a new interpreted understanding of the experience. Through the interpretive process, the study findings are integrated into a synthesized whole that provides greater insight into the experience than any one study could provide (Sandelowski & Barroso, 2007). The integrated interpretation of the qualitative study findings produces a “holistic” understanding of the phenomenon of interest (Noblit & Hare, 1988, p. 10).

Sample

The sample for this metasynthesis included 27 studies, either qualitative or mixed method, that reported findings related to nurses’ experiences with formal leadership development. Studies published since 2000 were included to align with the shift to a complexity view of healthcare systems and recognition of the need for distributed and emergent leadership (Porter O’Grady & Malloch, 2011). The qualitative research was conducted in various countries throughout the world, including Australia, Belgium, Canada, Ireland, New Zealand, the United Kingdom, and the United States.

A total of 1163 nurses at various stages of leadership development were included in the studies. Nurse participant roles included newly licensed nurses, experienced staff nurses, charge nurses, nurse managers, nurse executives and nurse faculty leaders. Two articles, one published by Spiers, Cummings, Langenhoff, Sharlow, and Bhatti (2010) and one published by Lee and colleagues (2010), were based on the same sample of 179 participants, but focused on different
aspects of the findings. For the purpose of calculating a total sample of participants for this metasynthesis, the 179 participants from these two articles were counted only once.

Various qualitative research designs were used in the studies. The most frequently used designs were descriptive ($n=10$), using interviews to obtain data, and focus groups ($n=10$) used alone or in combination with other data collection methods. Other study designs included surveys with a qualitative component, action research, case study, content analysis and grounded theory. Appendix A includes the demographic and methodological characteristics of the sample.

**Data Collection and Analysis**

Noblit and Hare’s (1988) approach was used for this metasynthesis of the role of formal leadership education in nursing leadership development. The seven phases comprising this systematic translational process are included in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Phase</th>
<th>Research activity</th>
<th>Phase</th>
<th>Research activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identify a research</td>
<td>5</td>
<td>Translate the studies into one another</td>
</tr>
<tr>
<td>2</td>
<td>Search for and select relevant studies</td>
<td>6</td>
<td>Synthesize translations</td>
</tr>
<tr>
<td>3</td>
<td>Read and reread studies and metaphors</td>
<td>7</td>
<td>Express the synthesis</td>
</tr>
<tr>
<td>4</td>
<td>Determine how studies relate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Cumulative Index of Nursing and Allied Health Literature (CINAHL), PubMed and ProQuest were searched for the years 2000 to 2013. Key terms such as leadership development,
nursing, education, curricula, qualitative research, and clinical leadership were used alone and in combination to identify relevant published and unpublished qualitative or mixed methods studies. As studies were reviewed, reference lists were explored for other potentially pertinent qualitative studies. The criteria for inclusion in the metasynthesis were that the study focused on the development of leadership competencies in nurses through some form of formal education and the research design was qualitative or that there was a qualitative component to the study. Studies that reported on nursing leadership at any stage of development or career were included. There were no limitations on the type of qualitative design. This phase culminated in the selection of 27 qualitative studies with findings pertinent to the research aim.

Key metaphors or themes were listed and then entered into a mind map for juxtaposition with one another. The process allowed for movement and placement of related concepts into a visual thematic framework where an initial assessment of the relationships between the studies could be made. Appendix B reflects the results of the juxtaposition process. Translation of the studies into one another resulted in a determination that the translation was reciprocal (Noblit & Hare, 1988). That is, the studies had similar metaphors or themes for translating into one another. The translated synthesis is expressed both through this written description as well as a graphic depiction (see Figure 1, p. 50).
Results

The synthesis of the themes or metaphors in the studies suggests that there are four overarching themes that describe the contributions of formal education to nursing leadership development. They include: evidence-based relevant content, optimized learning strategies, benefits to the learner and others, and tensions and threats to application of learning.

Theme 1: Evidence-based, Relevant Content

The formal leadership course or program content was of critical importance to the leadership learning achieved by participants in 18 of the 27 studies. Successful programs included content that had a strong theoretical foundation and were evidence-based. Educational content addressed specific identified learning or developmental needs. Leadership content that was culturally compatible, developmentally appropriate, and practically relevant was most effective.

A foundation in theory and evidence.

The importance of a foundation in theory and current evidence for academic curricula was described by study participants. Nurses valued the theoretical foundation for leadership provided in their formal nursing education. They described the need for both theory and skills training to prepare them for their leadership roles in clinical settings (Rani, Brennan, & Timmons, 2010; Woolnough & Faugier, 2002). As the health care system becomes more complex and global, the evidence base evolves and the curricula must be adjusted. Participants in a study of global nurse leaders stressed the importance of inclusion of international nursing leadership content in educational curricula as the need for global nursing leadership increases (Kim, Woith, Otten, & McElmurry, 2006).
Recommendations for relevant nursing leadership curricula based on current evidence was particularly important for graduate programs (Eddy et al. 2009). As graduate students in nursing are taught essential evidence-based leadership and communication competencies, they should recognize leadership as a “vital nursing function” (p 7). An academic-practice partnership to develop and implement an evidence-based, nontraditional graduate leadership curriculum to develop the nurse leader of the future has shown positive early outcomes (Dyess, Sherman, & Prestia, 2013).

An evidence and theory base was also considered essential for continuing education programs for nursing leadership development. Nurse leaders participating in a nursing leadership institute with an empowerment framework appreciated that the program was “evidence-based and rigorous” (MacPhee, Skelton-Green, Bouthilette, & Suryaprakash, 2011, p. 6). This appreciation for a strong foundation was also true for programs focused on specific leadership competencies such as conflict communication (Brinkert, 2010). Evidence-based programs resulted in enhanced leadership competency and confidence and helped participants make the connections between theories and practice (Dyess & Sherman, 2011; Werrett, Griffiths, & Clifford, 2002).

Relevance for identified needs.

Leadership development programs were often offered based on perceived developmental needs and the desire to respond more effectively to environmental pressures. Programs in the United Kingdom, Canada and Belgium were implemented in response to perceived needs for improvement in healthcare leadership performance in complex systems (Dierckx deCasterle, Willemse, Verschuren, & Milisen, 2008; Janes, 2008; Spiers et al., 2010; Woolnough &
Faugier, 2002). The Leading an Empowered Organization program, launched as a governmental strategy to improve patient care by enhancing clinical leadership, helped participants lead more effectively and positively affected patient care. “I am clearer with staff about what is acceptable and what is not. This has been reflected in my staff’s performance—their approach towards patients has changed” (Woolnough & Faugier, 2002, p. 420). Similarly, in Canada, a province-wide Leadership Development Initiative was launched not only to improve leadership practices but also to enhance the leadership culture (Spiers et al., 2010). The program was seen as a means to reconnect leaders with one another, the organizational mission and vision and ultimately improve care. All of these leadership programs were implemented with the belief that the content they offered would meet identified leadership development needs enabling the system to produce better results.

In other studies, the identified leadership development content was specific to role, setting or skill. Multiple studies described participant experiences with continuing education content specific to their learning or developmental needs. The relevant content varied as nurses moved through different stages in their nursing careers. A developmentally appropriate design led to greater leadership learning success. For example, the content and structure of a novice nurse leadership institute (NNLI) enhanced the ability of new nurses to acquire clinical leadership competencies. According to one nurse leader participant, “The program (the NNLI) gives the novice nurses an opportunity to reflect on their work and integrate the knowledge with their experiences and their practice setting” (p. 320). Several studies identified specific developmental needs of charge nurses. Program content including unit finances and business management, staff performance and development, effective communication, and the management of difficult patient and family situations was helpful to reduce role ambiguity and
address specific knowledge and skill deficits (McCallin & Frankson, 2010; Patrician, Oliver, Miltner, Dawson, & Ladner, 2012). Nurse manager participants also described the value of program content specific to their leadership development needs and level of experience (Sullivan, Bretschneider, & McCausland, 2003). From newly qualified nurses to nurses in formal leadership roles, participants described a “practical skills deficit” (Rani et al., 2010, p. 98) and expressed an interest in content that was current and relevant to practice. As described by one participant, “Whatever you do, if you could really make it practical and tangible so they could take (the theoretic information) and apply it, that’s the very best” (Eddy et al., 2009, p. 13).

Culturally compatible.

Leadership content must not only be evidence-based, meet identified needs, and be relevant to nursing leadership practice, it must also be culturally appropriate. Participants in one study described dissatisfaction with some of the culturally-incompatible content and language used in the leadership development program and its effect on their learning (Werrett et al., 2002). They shared that the content contained jargon and was “Americanised” resulting in difficulty understanding the concepts (p. 468). Global nurse leaders also discussed the importance of culturally relevant content and mentorship in preparing for international leadership or interacting effectively with international colleagues (Kim et al., 2006). Other considerations for leadership course content include generational differences (Rani et al., 2010), learning styles (Foster, 2000), and the benefits of a specific nursing focus (MacPhee et al., 2011).

Theme 2: Optimized Learning Strategies

Participants in the studies described various structures and processes incorporated into the formal leadership educational experience that enhanced their learning. Factors in the
environment that facilitated learning were also described. The opportunity to utilize newly learned skills in a project assignment reinforced leadership learning.

**Course preparation requirements.**

One structure that benefitted participants in a leadership development program was the expectation of some preparatory work prior to the course. Whether the course was skill-specific or role-specific, participants felt that pre-course work was advisable and contributed to program efficiency (Brinkert, 2010). One participant shared, “… that initial process gave us some perspective to the kind of leadership you were talking about. That’s when it started to gel” (Greenwood & Parsons, 2002, p. 531). Participants in a leadership course where there was no preparatory work reported feeling unprepared and recommended distribution of preparatory material in advance of the course (Cooper, 2003).

**Teaching-learning strategies.**

The structure of the course and delivery of content also contributed to the course effectiveness. Multiple classroom teaching-learning strategies were effective in educating students to be leaders in nursing including case studies, seminars, discussion, debate, and other interactive approaches (Kalb, O’Connor-Von, Schipper, Watkins, & Yetter, 2012). Integration of classroom leadership learning with clinical experiences enhanced leadership development. An integrated, multi-method, participative teaching-learning strategy increased learner engagement and competency development for nurses from novice clinicians to those in formal leadership roles (Brinkert, 2010; Dyess & Sherman, 2011; Rani et al., 2010).

One structural component that was valued by participants in several studies was the requirement to complete a project using newly learned skills (Dyess & Sherman, 2011; Janes,
2008; MacPhee et al., 2011; MacPhee & Suryaprakash, 2012). Project management competency was an important outcome of leadership development programs. One participant stated, “The biggest thing I got from it (the program), I think was to take on a project and see it to completion” (MacPhee et al., 2011, p. 5). For novice nurses, the evidence-based practice project was the highlight of their program and was “instrumental in their development as an emerging leader” (p. 320). The project requirement not only contributed to nurse leadership learning but also benefitted the practice setting (Janes, 2008).

**Faculty role.**

The effectiveness of the facilitator or faculty was another key factor in the success of formal leadership education. Faculty participants in one study described how they contributed to student leadership development. They described their commitment to “engage in self-development as leaders in nursing” (Kalb et al., 2012, p. 3). This included maintaining a passion for nursing, engaging in reflection and self-awareness, and participating in professional organizations. Effective faculty members modeled leadership behaviors, engaged students in their own leadership development, and worked collaboratively to optimize learning. A participant shared, “One role of faculty is to empower and facilitate students to identify and build upon leadership skills… by providing students with opportunities to lead in a safe environment” (Kalb et al., 2012, p.5). The importance of facilitator skill to the effectiveness of continuing leadership development programs was also emphasized by participants (Woolnough & Faugier, 2002). When the faculty or facilitator is not skilled, knowledgeable and confident, students reported a negative impact on leadership learning.

**Contribution of a networking and support structure.**
The benefit of a group-based educational structure for sharing and learning from peers was described by participants in several studies (Brinkert 2010; Lee et al., 2010; MacPhee & Bouthillette, 2008). One participant shared, “I thought it was really valuable as it gave us a chance to network with people from other units” (Woolnough & Faugier, 2002, p.416). In addition to learning from one another, inclusion of sharing and networking opportunities within the programs helped participants to see that they were not alone in facing leadership challenges. “I think that LDI (Leadership Development Institute) to me recognizes that we’ve got so many different groups but really some of our issues are not so different, they’re just in different departments—same issues, different department” (Spiers et al., 2010, p. 11).

Ongoing support from peers, mentors and the organization contributes to the effectiveness of leadership development programs. Relationships with colleagues influence participant ability to apply learned skills and function effectively as leaders (Hancock & Campbell, 2006; Patrician et al., 2012; Wojciechowski et al., 2011). Participants described needing a “critical mass” of colleagues who were fluent in the principles and could lead in a consistent manner. “The more widespread LEO (Leading an Empowered Organization) is the better because we will all be singing from the same song hymn sheet. More people should be encouraged to go on it” (Woolnough & Faugier, 2002, p. 421). Linking practice and academia was identified as another effective way to structure ongoing leadership development (Eddy et al., 2009). Participants recommended “…to have some kind of ongoing leadership seminar… where nurses and students talk with each other and learn from each other… a leadership conversation” (p. 13).

Mentorship and follow-up sessions were identified as crucial for sustainability of newly learned leadership competencies. Mentorship was described by participants in multiple studies
as a structural component of the program (Greenwood & Parsons, 2002; MacPhee and Bouthilette, 2008; MacPhee et al., 2011). Other participants recognized that mentor support would have been of significant benefit in the application of formal leadership learning in a variety of settings and roles (Cooper, 2003; Eddy et al., 2009; Kim et al., 2006; Rani et al., 2009). The skill of the mentor was described as an important determinant of how beneficial the relationship was for leadership learning (Greenwood & Parsons, 2002a).

**Theme 3: Benefits for the Learner and Others**

Participation in formal leadership education has significant benefits for the learner, the team, patients and the organization. Learners gained increased knowledge and skills and enhanced their ability to communicate effectively. They described increased self-awareness, empowerment and confidence. They were energized by the support and encouragement of colleagues. Teams associated with leadership program participants also benefitted as a result of the leader’s growth. Patient care was improved as a result of improved leader and team effectiveness. Organizational alignment and performance were also reported to be enhanced.

**Benefits for the learner.**

Increased knowledge and understanding of leadership and management theory and its application was described by participants in several studies. For student participants in a leadership development program, “gaining an understanding of contemporary views on leadership appeared to have the most wide-ranging effect” (Janes, 2008, p. 4). Novice nurses gained “a more global and systems perspective of nursing” (Dyess & Sherman, 2011, p. 319). Other participants described not only an increase in understanding of leadership theory but how it could be applied and integrated into practice (MacPhee et al., 2011; Werrett et al., 2002).
Emerging leaders were “able to connect the dots between what they are learning in the classroom and their actual clinical leadership experiences” (Sherman et al., 2013, p. 24).

Participation in a formal leadership educational program or course enhanced the leadership skill sets of participants (Dierckx de Casterle et al., 2008; Dyess & Sherman, 2011; Greenwood & Parsons, 2002a; Werrett et al., 2002). They developed enhanced organizational skills (George et al. 2002; MacPhee & Suryaprakash, 2011). Participants also reported improved change management, project management, and strategic management skills (Greenwood & Parsons, 2002a; MacPhee & Suryaprakash, 2011; MacPhee et al. 2011). As one leader shared, “…I’m now confident that I can positively influence change” (MacPhee & Suryaprakash, 2011, p. 255). Participants described more transformational leadership behaviors (Graham & Jack, 2008). One leader described operationalizing newly learned leadership knowledge and skill, “I utilized these tools and concepts from the LDI. I’ve facilitated initiatives to move forward and I’ve had comments reflected back saying this is the first time (staff) feel that things are moving forward” (Lee et al., 2010, p. 1035).

Communication skill enhancement was reported in nine studies. Skill improvements related to listening, conflict management, sharing vision and articulating expectations were described. Communication was clearer, more open, more direct and assertive. One nurse leader stated, “I’m a lot calmer. I think about what I want to say and articulate my expectations. I communicate a lot more assertively”(Woolnough & Faugier, 2002, p. 418).

Armed with new knowledge and improved skills, nurse participants reported feeling empowered and more confident. Empowerment was described as an important benefit of
participating in a leadership course (Cooper, 2003; George et al., 2002; Hancock, 2006; Werrett et al. 2002). As one staff nurse leader described,

Leadership training helped me to understand that as I am trying to meet the needs of who I’m taking care of, it’s okay to be empowered. In other words, I have permission to do this and I should be doing this, you know, act for my patients. You know, it gives me the ability to act as well (George et al., 2002, p. 58).

Courses that provided an opportunity for self-reflection led to greater self-awareness and engagement in learning. The learning experience enabled participants to focus on developing leadership skills and the confidence to practice them. The course was seen as a “confidence-building experience” (Werrett et al., 2002, p. 467). A staff nurse leader stated,

I just feel better about myself and I don’t question the decisions I make now. I used to make decisions based on how other people would accept them rather than because I know that it will work well. So what I have tended to do now is have the self-confidence to make a decision and stick with it….So now with me being more decisive, it has allowed me to become a better leader in the unit… (George et al., 2002, p.58).

In addition to knowledge acquisition and skill building, participants benefitted emotionally from participation in leadership development programs. They were re-energized (Spiers et al. 2010). They felt valued, encouraged and supported by their peers and the organization (Greenwood & Parsons, 2002b; Lee et al., 2010;Spiers et al., 2010).

**Benefits for the team.**
Several studies described benefits to the team as a result of leaders or team members participating in formal leadership development. As leaders developed skills, they in turn developed other members of the team. Examples included helping colleagues develop conflict management skills and coaching them in project management (Brinkert, 2010; MacPhee and Suryaprakash, 2011). Participants acted on opportunities to increase collaboration skills and develop the team to improve results (Graham & Jack, 2008; Janes, 2008). By developing other team members, participants positioned them to take greater ownership in improvement work. “Before I went to the course I took on too much, but now I’m able to delegate much better. This means I’m empowering my staff…as I’m giving them more responsibility and they’re developing new skills” (Woolnough & Faugier, 2002).

Participants described a new commitment to empowering staff. Leaders actively sought staff ideas and encouraged them to take initiative and try new things (Graham & Jack, 2008). They encouraged creativity and engaged staff in projects such as opening a new unit. One leader commented, “Staff are finally feeling empowered in what it is that they do on a daily basis” MacPhee et al., 2011, p. 8). Leaders saw staff become more assertive and more actively engage and contribute in multidisciplinary teams. “Nowadays, our head nurse is in control… and we have a say as nurses. I think it originates from the leadership project” (Dierckx de Casterle et al., 2008, p. 760).

As a result of participating in leadership education, participants committed to optimizing communication within their teams. They used their improved communication skills to enhance clarity related to boundaries, work structures and priorities (Dierckx de Casterle et al., 2008). Participants modeled a willingness to ask for and accept support (Janes, 2008). They displayed empathy which helped to build trust and respectful relationships (MacPhee & Suryaprakash,
George et al. (2002) and Werrett et al. (2002) reported that leadership education positively influenced team building and teamwork. Janes (2008) described that improved leadership skills, sharing skills, and enhanced collaboration led to greater job satisfaction for colleagues. MacPhee and Suryaprakash (2012) reported that some participants described an improvement in the practice environment. “The nurses and medical team are working collaboratively with each other and we have noticed this increased staff morale and an overall positive outlook for the department” (p. 255).

**Benefits to patient care.**

When leadership and team effectiveness are improved through leadership development, patient care is also improved. This was reported in several studies where participants described an increase in patient-centered communication and focus (Dierckx de Casterle et al., 2008; Werrett et al., 2002; Woolnough & Faugier, 2002). One participant described how improved teamwork improved patient care, “I think that anything that reflects on teamwork and how we can work better as a team is beneficial for the patient. Everything I do is with the patient in mind” (Werrett et al., 2002, p. 420).

Continuity of care was enhanced as staff nurse leadership competency was developed through education (Dierckx de Casterle et al., 2008; George et al., 2002). Nurses engaged patients in their own care and empowered them (Werrett et al., 2002). One participant made the connection between the course and patient empowerment saying, “… We ask patients to provide some level of care for themselves and I am much better at articulating my expectations to them in a positive way…” (Woolnough & Faugier, 2002, p. 420).
Several studies identified improved patient outcomes related to improved clinical leadership. George et al. (2002) reported that as a result of nurses participating in a shared leadership development program, there was improvement in patient needs being met, enhanced trust between patients and nurses, faster patient recovery and greater patient satisfaction. One participant shared, “Our patient satisfaction increased…You know, nurses seem to pay attention to all of their needs, not just their medical needs. We see this better because of the systems thinking that we learned” (p. 57). Another participant made the connection between their leadership development and improvement in patient care saying, “Anything that improves me should improve my patient care” (Woolnough & Faugier (2002) p. 420).

**Benefits to the organization.**

For organizations, leadership development served to increase alignment with organizational vision and goals. Participants recognized that this investment in their development helped the organization to deliver better care. One stated,

The organization really is the people and you need people to run the organization. If you invest in the people then they become stronger and resilient as managers and also empowered to be able to do their role…as a result the organization is stronger and we can strive towards meeting our goal around cancer prevention and treatment (Lee et al., 2010, p. 1035)

Participants described organizational performance improvement resulting from increased nursing leadership competency, improved nurse-physician relationships, teamwork, problem-solving ability, and project implementation (George et al., 2002; Janes, 2008).
Theme 4: Tensions and Threats to Learning and Application

While participants in the studies experienced substantial benefit from formal leadership education, they described factors that challenged their leadership learning and tensions in their organizational environments that made it difficult to apply what they had learned. Threats to leadership learning and its application included time and workload constraints, personal challenges and organizational cultural barriers.

**Time and workload constraints.**

Limited time and resources made it difficult for some participants to participate in leadership education and to fulfill all of the requirements of continuing education courses (Brinkert, 2010; MacPhee & Suryaprakash, 2012; Wojciechowski et al. 2011). Participants in more than one study felt that the course length was too short and there was too little time to achieve the learning objectives (Werrett et al., 2002; Woolnough & Faugier, 2002). They added that the course or program alone was not enough to allow for the leadership learning that was needed. According to Dierckx de Casterle and colleagues (2008), “simple participation in the CLP (Clinical Leadership Program) was insufficient for developing effective leadership…” and “leadership development was an ongoing, interactive process” (p. 757). Participants needed additional time to practice and follow up activities to cement the leadership learning and competency development (Woolnough & Faugier, 2002).

Workload was a frequently described condition that limited developing leaders’ ability to apply new learning. Participants cited inadequate staffing and inability to delegate which prevented them from engaging in learned leadership practices or improvement work (Hancock & Campbell, 2006). Challenging workloads and a lack of work-life balance prevented participants
from carrying out their leadership projects (MacPhee et al., 2011). Role overload left some nurses feeling overwhelmed and stressed and unable to find the support they needed in a “resource strapped environment” (McCallin & Frankson, 2010, p. 323). Lee and colleagues (2010) did report that although participants were frustrated and overloaded, participation in the leadership development program helped to mitigate some of the adverse effects by rejuvenating and re-energizing the leaders.

**Personal factors.**

Some of the factors that interfered with application of leadership education were personal. Personality, motivation and experience contributed to participant ability to apply leadership knowledge and skills. As described by the colleague of one participant, “There is something in her personality… and no amount of LEO programmes can change that” (Hancock & Campbell, 2006, p. 45). The participant’s leadership experience influenced how much the leadership education produced change in behavior or application of new skills. Personal motivation influenced individual leader applied learning through completion of an improvement project (MacPhee & Suryaprakash, 2012).

**Organizational factors.**

Organizational culture played a role in the ability of nurses to apply educational content. Organizational customs and traditions sometimes inhibited participants seeking to lead change (Janes, 2008). Periods of rapid or sweeping organizational change also challenged participant ability to apply formal leadership learning (Hancock & Campbell, 2006; MacPhee et al., 2011; Lee et al., 2010). Changes in communication channels, hierarchical structures, responsibility and authority made it difficult for participants to use newly learned behaviors.
Senior leader understanding of the course content and support for implementation of learning was a critical success factor (Woolnough & Faugier, 2002). One participant expressed, “Support needs to come down from the top. You don’t see senior staff using LEO, and that’s a problem” (p. 421). Participants expected that executives would embrace and model changes in leadership practices and behaviors in order to ensure sustainability (Lee et al., 2010; Spiers et al. 2010; Woolnough & Faugier, 2002).

A lack of peer support and understanding was also a threat to application of leadership learning. Whether trying to implement improved leadership practices or a new leadership role, nurses described how important it was to have buy-in of colleagues (Dierckx de Casterle et al., 2008; Greenwood & Parsons, 2002b; Hancock & Campbell, 2006; MacPhee & Suryaprakash, 2012).

Participants attempting to implement newly learned leadership competencies experienced many emotions as they worked through challenges and environmental tensions. Fear of failure and “feelings of loss” for both the participant and their team members were described as nurses adjusted to new leadership behaviors. (Dierckx de Casterle et al., 2008, p. 757; Sherman et al., 2013). Feelings of skepticism, discouragement, and frustration were experienced when participants were unable to utilize their new knowledge to improve patient care and organizational performance (Lee et al., 2010; Spiers et al., 2010; Woolnough & Faugier, 2002).

**Synthesized Translation**

The synthesis of findings from the qualitative studies provides us with a more comprehensive understanding of formal academic and continuing education as a foundation for nursing leadership development. The “what” or the content of nursing leadership education must
be solidly grounded in contemporary leadership theory and evidence, relevant to the learners and tailored as needed. The “how” or the delivery of leadership education is a significant determinant of the effectiveness of teaching and learning for leaders. The “so what” or the difference that formal nursing education can have on the ability of nurses to learn to lead, and for patients, teams and organizations to benefit is significant. However, there are many “what ifs” or possible threats to learning and application of newly learned leadership knowledge and the achievement of competency. Figure 1 graphically depicts the themes and their role in nursing leadership development.
Figure 1. Formal Education: Springboard for Nursing Leadership Development
The perception of nurse participants that leadership educational content must be theoretically sound and evidence-based is consistent with recommendations from nurse leaders in practice and academia for graduate curricula for formal nurse leaders. The American Organization of Nurse Executives (AONE) and the Council on Graduate Education for Administration in Nursing (CGEAN) recognized the need for an “integrative, standardized approach” to graduate education for the advanced role specialty practice of nursing administration (Harris, Huber, Jones, Manojlovich, & Reinech, 2006, p. 435). This academic-practice collaboration resulted in recommendations for a model for evidence-based, developmentally-appropriate, and nursing-focused graduate curricula for nursing administration (Herrin, Jones, Krepper, Sherman, & Reineck, 2006). Scott (2007) proposed that these recommendations be implemented and if “done well” would help to “increase patient safety and satisfaction; promote nursing staff competency and fulfillment; improve professional advancement and advocacy; and assure ethical standards, organizational compliance, and cost effectiveness” (p. 521).

The participant descriptions of the value of relevant, evidence-based leadership education for staff nurses and clinical nurse leaders closer to the sharp end of care is consistent with current understanding of complex systems and the need for nurses to lead from every position. Hast, DiGioia, Thompson and Wolf (2013) illustrate how knowledgeable clinicians play a leadership role in driving innovation and improvement in patient care. Preparation of staff nurses to lead begins with the foundation described in the Essentials of Baccalaureate Education for Professional Nursing Practice (AACN, 2008). Evidence-based transitional programs or residencies that build on that foundation for clinical leadership as nurses enter into practice have
been implemented and described in the literature. Ongoing leadership and specific competency continuing education programs have been implemented to assure “continuing competence” (IOM, 2011, p. 202) to drive improvement in the practice environment. The outcomes described by nurse participants in this metasynthesis are consistent with many of those envisioned by nurse leaders and educators (Scott, 2007). That is, with the appropriate educational preparation, nurses are able to effectively lead in improving patient outcomes, satisfaction, and continuity of care, function more effectively in teams, and improve organizational outcomes.

**Implications for Education**

The study has implications for educators in that it provides qualitative evidence that supports recommendations for incorporation of current, evidence-based nursing leadership content into formal academic curricula as well as continuing education for ongoing leadership competence. The challenge for nurse educators is to keep curricula current and relevant in anticipation of the changing reality and roles of emerging and future nurse leaders. According to Sherman et al. (2013), it will require faculty who are innovative thinkers with a willingness to challenge current practices.

The evidence from this metasynthesis also supports recommendations for flexible, learner-centered, innovative teaching strategies. Advancements in technology have created many options for content delivery that is tailored, and developmentally and culturally appropriate. A word of caution from participants however is the ongoing importance of human connection in the learning process. Some of the greatest benefit described by learners was derived from the sharing and support of peers. The value to participants of the opportunity to complete a project
was also striking. The finding is consistent with recommendations for a capstone component allowing for “analysis, synthesis and application of content” (Herrin et al., 2006).

**Implications for Formal Leaders**

The study also has implications for formal leaders in the practice environment. Because the environment is changing so rapidly and is becoming increasingly complex, formal leaders must continue to seek current, evidence-based leadership education for their own continuing competence to lead in the complex adaptive systems of health care. Emerging leaders look to their formal leaders as role models for best practice in leadership. Leaders are expected to understand what developing leaders are learning and to support them in application of learning.

Participants were clear that although formal leadership education was essential for their development, it was not sufficient to enable them to become competent and confident in their leadership skills. They required an opportunity to practice newly learned knowledge and apply the learning in a supportive practice environment. They expressed a vital need for peer and leadership support and a culture that values and empowers leaders at all levels of the organization. With a significant anticipated shortage of nurse leaders for the future (Sherman et al., 2013), current leaders must provide the necessary support to cultivate leadership throughout the nursing workforce. This includes the creation of healthy cultures that support the practice and mastery of leadership competencies (Galuska, 2012).

**Implications for Research**

Nurse researchers have the opportunity to continue to build the evidence base required to inform curricula for both academic and continuing education. Studies that investigate the learning outcomes associated with new curricular models and teaching-learning strategies are
needed. Increased understanding of the effect of variables in the learning and practice environments that affect the ability of nurses to learn to lead would be of value. There is a need to continue to study the measurable outcomes associated with improved leadership behaviors throughout the health care system.

**Study Limitations and Challenges**

Inherent in the metasynthesis process is the limitation associated with the interpretive and translational process. The findings are interpretations of interpreted findings or metaphors. The researcher offers a synthesized translation of the metaphors in the included studies based on individual experiences and interests (Noblit & Hare, 1988). The criteria for adequacy of the synthesis are economy, cogency, range, apparency, and credibility. The metaphor of formal education as a foundation for nursing leadership is a simple concept that encompasses the “what”, “how” and “why” of formal nursing leadership education at all levels and potential threats to learning. It integrates the overarching themes efficiently and application spans a range of leaders and conditions. According to Noblit & Hare (1988), the synthesis is thought to be complete and credible when its meaning is understood by others.

One of the challenges in conducting this metasynthesis was the number of included studies. Translation of the studies was facilitated through the mind mapping process which allowed for ease in comparing metaphors. The inclusion of studies across all levels of nurses was both a challenge and a benefit. As described by Jones (2010), the content of leadership education changes based on the developmental level of the nurse but the metasynthesis process allowed for the emergence of overarching metaphors that spanned the developmental continuum.
Conclusion

Preparation of nurses to lead in practice, as well as in the transformation of health care, requires a strong educational base. The strength of that base, as perceived by nurses at all levels, is derived from theory, current, relevant evidence and effective teaching-learning strategies. The educational foundation provides the supportive structure for launching nursing leadership competency development. Experiential learning, supportive relationships, healthy communication and feedback provide the network of support that enable nursing leadership to flourish and soar. A strong but flexible formal educational platform provides the springboard allowing nursing leadership to reach the heights required for healthcare transformation, leading to more effective systems and a healthier society.
References


## Appendix A

### Demographic and Methodological Characteristics

<table>
<thead>
<tr>
<th>Author</th>
<th>Sample</th>
<th>Nurse Participant Role</th>
<th>Country</th>
<th>Method</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brinkert (2011)</td>
<td>20</td>
<td>Nurse Managers</td>
<td>U.S.</td>
<td>descriptive/interviews</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Cooper (2003)</td>
<td>15</td>
<td>Grade G and H nurses, senior managers</td>
<td>U.K.</td>
<td>descriptive/interviews</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Dierckx de Casterle, Willemse, Verschueren, and Milisen (2008)</td>
<td>17</td>
<td>nurses, head nurse, nurse manager</td>
<td>Belgium</td>
<td>case study</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Dyess and Sherman (2011)</td>
<td>109</td>
<td>novice nurses</td>
<td>U.S.</td>
<td>focus groups</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Eddy, Doutrich, Higgs, Spuck, Olson, and Weinberg (2009)</td>
<td>23</td>
<td>nursing leaders</td>
<td>U.S.</td>
<td>focus groups</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Foster (2000)</td>
<td>15</td>
<td>Nurse Managers</td>
<td>U.K.</td>
<td>exploratory descriptive, focus group</td>
<td>not stated</td>
</tr>
<tr>
<td>George et al. (2002)</td>
<td>24</td>
<td>nurses</td>
<td>U.S.</td>
<td>descriptive/interviews</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Graham and Jack (2008)</td>
<td>6</td>
<td>nurse leaders</td>
<td>Australia</td>
<td>questionnaire with qualitative component</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Greenwood and Parsons (2002a)</td>
<td>9</td>
<td>Clin. Devt. Unit leaders</td>
<td>Australia</td>
<td>focus groups</td>
<td>not stated</td>
</tr>
<tr>
<td>Greenwood and Parsons (2002b)</td>
<td>9</td>
<td>Clin. Devt. Unit leaders</td>
<td>Australia</td>
<td>focus groups</td>
<td>not stated</td>
</tr>
<tr>
<td>Hancock and Campbell (2006)</td>
<td>36</td>
<td>nurses</td>
<td>U.K.</td>
<td>descriptive/interviews</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Janes (2008)</td>
<td>9</td>
<td>nurses</td>
<td>U.K.</td>
<td>descriptive/interviews</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Kalb, O'Connor-Von, Schipper, Watkins, and Yetter (2012)</td>
<td>44</td>
<td>nurse faculty</td>
<td>U.S.</td>
<td>survey with qualitative component</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Author</td>
<td>Sample</td>
<td>Nurse Participant Role</td>
<td>Country</td>
<td>Method</td>
<td>Analysis</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------</td>
<td>-----------------------------------</td>
<td>-----------------</td>
<td>---------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Kim, Woith, Otten, and McElmurry (2006)</td>
<td>24</td>
<td>global nurse leaders</td>
<td>10 countries</td>
<td>descriptive/interviews</td>
<td>content analysis</td>
</tr>
<tr>
<td>Lee et al. (2010)</td>
<td>179</td>
<td>staff nurses and managers</td>
<td>Canada</td>
<td>individual and focus group interview</td>
<td>grounded theory coding methods content analysis</td>
</tr>
<tr>
<td>MacPhee and Bouthillette (2008)</td>
<td>8</td>
<td>mentor-mentee dyads</td>
<td>Canada</td>
<td>descriptive/interviews</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>MacPhee, Skelton-Green, Bouthillette, and Suryaprakash (2011)</td>
<td>27</td>
<td>nurse leaders</td>
<td>Canada</td>
<td>descriptive/interviews</td>
<td>content analysis</td>
</tr>
<tr>
<td>MacPhee and Suryaprakash (2012)</td>
<td>133</td>
<td>nurse leaders</td>
<td>Canada</td>
<td>content analysis</td>
<td>content analysis</td>
</tr>
<tr>
<td>McCallin and Frankson (2012)</td>
<td>12</td>
<td>charge nurse managers</td>
<td>New Zealand</td>
<td>descriptive/interviews</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Patrician, Oliver, Miltner, Dawson, and Ladner (2012)</td>
<td>36</td>
<td>charge nurses</td>
<td>U.S.</td>
<td>focus groups</td>
<td>content analysis</td>
</tr>
<tr>
<td>Rani, Brennan, and Timmons (2010)</td>
<td>21</td>
<td>nurses and care officers</td>
<td>Ireland</td>
<td>focus groups</td>
<td>Colaizzi</td>
</tr>
<tr>
<td>Sherman, Dyess, and Prestia (2013)</td>
<td>18</td>
<td>emerging nurse leaders</td>
<td>U.S.</td>
<td>action research including focus groups and quantitative measures</td>
<td>not stated</td>
</tr>
<tr>
<td>Author</td>
<td>Sample</td>
<td>Nurse Participant Role</td>
<td>Country</td>
<td>Method</td>
<td>Analysis</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>---------------------------------------------</td>
<td>---------</td>
<td>---------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Spiers, Cummings, Langenhoff, Sharlow, and Bhatti (2010)</td>
<td>179</td>
<td>staff nurses and managers</td>
<td>Canada</td>
<td>focus groups and individual interviews</td>
<td>grounded theory coding and content analysis</td>
</tr>
<tr>
<td>Sullivan, Bretschneider, and McCausland (2003)</td>
<td>94</td>
<td>nurse leaders</td>
<td>U.S.</td>
<td>focus groups</td>
<td>grounded theory coding methods and content analysis</td>
</tr>
<tr>
<td>Werrett, Griffiths, and Clifford (2002)</td>
<td>174</td>
<td>nurse and allied health professional leaders</td>
<td>U.K.</td>
<td>questionnaire with qualitative component</td>
<td>content analysis</td>
</tr>
<tr>
<td>Wojciechowski, Ritze-Cullen, and Tyrrel (2011)</td>
<td>22</td>
<td>charge nurses</td>
<td>U.S.</td>
<td>qualitative survey</td>
<td>content analysis</td>
</tr>
<tr>
<td>Woolnough and Faugier (2002)</td>
<td>109</td>
<td>nurse leaders</td>
<td>U.K.</td>
<td>descriptive/interviews</td>
<td>not stated</td>
</tr>
</tbody>
</table>
Appendix B

Individual Study Metaphors related to Overarching Themes

<table>
<thead>
<tr>
<th>Author</th>
<th>Evidence-based Relevant Content</th>
<th>Optimizing Learning</th>
<th>Benefits for the Learner and Others</th>
<th>Tensions and Threats to Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brinkert, Ross</td>
<td>Programme composition, Programme demand</td>
<td>Program composition, Programme efficiency</td>
<td>Programme outcomes</td>
<td>Programme outcomes</td>
</tr>
<tr>
<td>Cooper, SJ</td>
<td>Good leadership attributes, leadership inadequacies, entry level, suggested improvements</td>
<td>course preparation, suggested improvements, Post-LEO mentorship</td>
<td>Performance enhancement &amp; change in practice</td>
<td>Salient issues</td>
</tr>
<tr>
<td>Dierckx de Casterle, Willems, Verschueren, Milisen</td>
<td>Leadership development</td>
<td></td>
<td>Impact of leadership development on clinical leader, nursing team, caregiving</td>
<td>Leadership development</td>
</tr>
<tr>
<td>Dyess, Sherman</td>
<td>EBP projects</td>
<td>More global and systems perspective of nursing, leadership skills developed and demonstrated, improved confidence that positively influenced the practice setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Author</td>
<td>Evidence-based Relevant Content</td>
<td>Optimizing Learning</td>
<td>Benefits for the Learner and Others</td>
<td>Tensions and Threats to Learning</td>
</tr>
<tr>
<td>--------</td>
<td>---------------------------------</td>
<td>---------------------</td>
<td>------------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Eddy, Doutrich, Higgs, Spuck, Olson, Weinberg</td>
<td>Leadership is a vital nursing function, Essential nursing leadership competencies, Communication with emphasis on listening skills, Conflict resolution is critical to competent leadership, Ability to communicate vision, motivate and inspire, Using and translating evidence and data in decision making and fiscal dexterity, Courage to be proactive in the face of change, Developing a practice relevant curriculum</td>
<td>Linking practice and academia, Last woman standing model of leadership and the Importance of mentor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foster, D</td>
<td>Style preference</td>
<td>Style recognition, Style prevalence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>George, Burke, Rodgers, Duthie et al, Graham, I. and Jack, E</td>
<td></td>
<td>Nurse Outcomes, Patient Outcomes, Workplace Outcomes</td>
<td>Increased awareness, acquisition of new knowledge</td>
<td></td>
</tr>
</tbody>
</table>
### Individual Study Metaphors related to Overarching Themes continued

<table>
<thead>
<tr>
<th>Author</th>
<th>Evidence-based Relevant Content</th>
<th>Optimizing Learning</th>
<th>Benefits for the Learner and Others</th>
<th>Tensions and Threats to Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenwood, J and Parsons, M</td>
<td>The Selection Process</td>
<td>Preparation for the course, The Course: practice and feedback</td>
<td>The Course: development of practical leadership and strategic skills</td>
<td>Reflective mentoring/mentor skill, Research receptivity, Clinical leadership/management tensions, &quot;I am important aren't I?&quot;, &quot;I don't trust anyone&quot; Barriers to implementation</td>
</tr>
<tr>
<td>Hancock, Campbell</td>
<td></td>
<td>Aids to Implementation</td>
<td>Positive influence on competence, communication strategies, empowerment, problem solving, risk taking, leadership and management styles</td>
<td></td>
</tr>
<tr>
<td>Janes, G.</td>
<td>LWAP in context</td>
<td>Factors affecting project success</td>
<td>Impact on the individual, Ability to work with others, Impact on service</td>
<td>Factors affecting project success</td>
</tr>
<tr>
<td>Kalb, O'Connor-Von, Schipper, Watkins, Yetter</td>
<td></td>
<td>Faculty self-development as leaders in nursing, Faculty role in student development as leaders in nursing, Teaching-Learning strategies for student leadership development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Author</td>
<td>Evidence-based Relevant Content</td>
<td>Optimizing Learning</td>
<td>Benefits for the Learner and Others</td>
<td>Tensions and Threats to Learning</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Kim, Woith, Otten, McElmurry</td>
<td>Global competencies of exec/nurse leaders, Educational preparation or support for global leadership</td>
<td>Major influencing factors, Strategies to develop global nurse leaders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lee, Spiers, Yurtseven, Cummings, Sharlow, Bhatti, Germann</td>
<td>LDI as mechanism to share org vision</td>
<td>Peer cohort structure, learning through sharing experiences</td>
<td>LDI as mechanism to share org vision: cohesion, support, encouragement for collaborative leadership</td>
<td>Rapid organisational expansion &amp; deteriorating workplace conditions, Scepticisms grow as individuals cannot implement learning, No win situation Project successes and challenges, importance of organizational support</td>
</tr>
<tr>
<td>MacPhee and Bouthilette</td>
<td></td>
<td>Dialogue and networking with peers, having the tools to succeed, feeling valued, time away for reflection, mentoring relationship</td>
<td>Succeeding at change, benefits of mentor process</td>
<td></td>
</tr>
<tr>
<td>MacPhee, Skelton-Green, Bouthilette, Suryaprakash</td>
<td>Theoretical empowerment framework, rigor, evidence-based resources and tools, nursing focus</td>
<td>Mentorship support, resources and tools, Change management project</td>
<td>Project management competencies, validation/affirmation, confidence in finding own style, staff empowerment, project success</td>
<td>Dealing with organizational change, human resources issues, team-building, project work</td>
</tr>
<tr>
<td>MacPhee and Suryaprakash</td>
<td></td>
<td></td>
<td>Leadership successes attributed to project work</td>
<td>Leadership challenges</td>
</tr>
<tr>
<td>McCallin and Frankson</td>
<td>Role ambiguity, business management deficit</td>
<td></td>
<td></td>
<td>Role overload</td>
</tr>
</tbody>
</table>
### Individual Study Metaphors related to Overarching Themes continued

<table>
<thead>
<tr>
<th>Author</th>
<th>Evidence-based Relevant Content</th>
<th>Optimizing Learning</th>
<th>Benefits for the Learner and Others</th>
<th>Tensions and Threats to Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patrician, Oliver, Miltner, Dawson, Ladner</td>
<td>Formal education (for role)</td>
<td>setting the tone, relationship building, leadership support</td>
<td></td>
<td>Charge nurse challenges</td>
</tr>
<tr>
<td>Rani, Brennan, Timmons</td>
<td>Practical skills deficit, Differences in experience-&quot;three generations, Leadership skills&quot;</td>
<td>Teaching-learning methods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sherman, Dyess, Prestia</td>
<td>Findings influencing curriculum design</td>
<td></td>
<td>Program implementation findings, Early outcomes</td>
<td>Lessons learned</td>
</tr>
<tr>
<td>Spiers, Cummings, Langenhoff, Sharlow, Bhatti</td>
<td>Mechanism to reconnect with the organization</td>
<td>Effectiveness of the LDI</td>
<td>Valuing the LDI, Effectiveness of the LDI, LDI shows how committed corporate executive is to its leaders</td>
<td>Raised expectations and Skepticism, Catch-22: Waiting for Change, The LDI as &quot;a little plant&quot;</td>
</tr>
<tr>
<td>Sullivan, Bretschneider, McCausland</td>
<td>Developmental and educational needs of experienced vs. new nurse managers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Werrett, Griffiths, Clifford</td>
<td>relate management/leadership theories to practice, emphasis on empowerment</td>
<td>Team issues, practical tools</td>
<td>Impact on clinical care, Team issues, personal issues and development</td>
<td>length of programme, language &quot;Americanised&quot;, idealistic, senior leaders not included, more inclusion needed</td>
</tr>
<tr>
<td>Author</td>
<td>Evidence-based Relevant Content</td>
<td>Optimizing Learning</td>
<td>Benefits for the Learner and Others</td>
<td>Tensions and Threats to Learning</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Wojciechowski, Ritze-Cullen, Tyrrel</td>
<td>developing leadership skills, managing behavior of others, creating a healthy work environment on the unit</td>
<td>online learning preferred, charge nurse support, charge nurse education</td>
<td></td>
<td>Challenges with multitasking, staff engagement, patient acuity and staffing, lack of resources, communication</td>
</tr>
<tr>
<td>Woolnough, H. and Faugier, J</td>
<td>aimed at the appropriate level</td>
<td>Networking, the facilitator, venues, language, numbers on the course, action plan</td>
<td>Leadership styles, relating theories to practical situations, Changes made to working practice: articulating expectations, staff empowerment, recognition of differences, increased personal awareness, overcoming blocking methods, Recognition of common ground, Improvements in patient care</td>
<td>Resistance encountered to proposed changes, Sustainability, Communication between healthcare professionals &amp; senior management</td>
</tr>
</tbody>
</table>
CHAPTER 3. LEADERSHIP LEARNING BEYOND THE CLASSROOM: PURPOSEFUL, GUIDED EXPERIENTIAL LEARNING

Abstract

Nurses are being called upon to play a transformational leadership role in creating a better healthcare system. Developing the leadership capacity in nurses at every level of practice is pivotal to the ability of the profession to effect the innovative change envisioned for the future of health care. A metasynthesis was conducted to explore experiential learning of nurses and its contribution to their leadership development. Noblit and Hare’s approach was used for the metasynthesis process. Three overarching themes emerged. They include: not quite ready to lead: connecting the dots through experiences, key relationships that guide the journey, and a toolkit for the process. Providing relevant leadership learning experiences with the support of a guiding relationship, facilitated by helpful tools and techniques, enhances the leadership competency development of nurses at all levels. Inclusion of purposeful, guided experiential learning into the leadership development of nurses has potential to better prepare nurses for their leadership roles in healthcare.
The opportunity for nurses to exercise leadership has never been greater. Nurses are being called upon to play a transformational leadership role in creating a healthcare system that is of high quality, safe, affordable and accessible (IOM, 2011). The nursing profession, with its scientific foundation, understanding of care processes, and close connection to patients and families throughout the continuum of care, is expected to lead as well as collaborate in improvement and innovation. Developing the leadership capacity in nurses at every level of practice is pivotal to the ability of the profession to effect the innovative change envisioned for the future of health care.

Strategies to effectively prepare nurses for their leadership roles are being explored worldwide. The literature describes curricular enhancement, leadership continuing education programs, programs to enhance role transitions, and the creation of opportunities and experiences for nurses to engage in leadership behaviors and activities. Both formal and informal learning experiences have been shown to enhance nursing leadership competence and confidence. Qualitative studies have provided an understanding of strategies nurses perceive to facilitate or limit their leadership development.

The purpose of this study is to construct a synthesized understanding of nurses’ leadership learning experiences beyond the classroom. The intent is to capture nurses’ voices related to the effect of experiential learning on their leadership development. Knowledge of the contribution of these learning opportunities, as described in qualitative studies, will inform efforts to improve the application of formal leadership learning in the practice setting and policy arena, and better prepare nurses for their transformational leadership role.
Method

A metasynthesis related to the role of experiential learning on the leadership development of nurses was conducted. Metasynthesis is an interpretation of the findings of relevant qualitative studies. Through the interpretive process, the study findings are integrated into a synthesized whole that provides greater insight into the experience than any one study could provide (Sandelowski & Barroso, 2007). Noblit and Hare (1988) describe the method as a “holistic interpretation” (p. 10) that preserves the integrity of each of the individual studies while translating them into one another to better explain a phenomenon.

Sample

The sample for this metasynthesis included 24 studies, either qualitative or mixed method, that reported findings related to the contribution of experiential learning to leadership development in nurses. The studies were published between 1999 and 2012. The qualitative research was conducted in various countries throughout the world. Three studies were conducted in Australia, one in Finland, six in the United Kingdom and fourteen in the United States.

A total of 973 nurses at various stages of leadership development were included in the studies. Nurse participant roles included nursing students, newly licensed nurses, experienced staff nurses, charge nurses, nurse managers, nurse executives and nurse faculty leaders. Two articles, one published by Young, Pearsall, Stiles and Horton-Deutsch (2011) and one published by Horton-Deutsch, Young and Nelson (2010), were based on the same sample of 21 nurses, but focused on different aspects of the findings. For the purpose of calculating a total sample of participants for the metasynthesis, the 21 nurses from these two articles were counted only once.
Various qualitative research designs were used in the studies. The most frequently used design was focus groups \((n = 7)\) either alone or in combination with other data collection methods. Descriptive designs, using interviews to obtain data, were also frequently used \((n = 6)\). There were three interpretive phenomenological studies, two case studies, two narrative analyses, and one grounded theory study. Two studies used surveys with qualitative components, including one conducted by email. Appendix A includes the demographic and methodological characteristics of the sample.

**Data Collection and Analysis**

This metasynthesis of the role of experiential learning in nursing leadership development was conducted using the Noblit and Hare (1988) approach for synthesizing qualitative studies. The analytic process consists of a series of phases that allow for the systematic translation of studies into one another; ultimately leading to a synthesized interpretation of the phenomenon of interest. The seven phases may overlap and be repeated until the process is complete.

The study began with an interest in the perspective of nurses on leadership development and the experiences that have contributed to it. Online databases including the Cumulative Index of Nursing and Allied Health Literature (CINAHL) and PubMed were searched from the years 1997 to 2012. Key terms such as leadership development, nursing, qualitative research, clinical leadership, experiential, mentor, preceptor, and coach were used alone and in combination to identify relevant published qualitative or mixed methods studies. As studies were reviewed, reference lists were explored for other potentially pertinent qualitative studies.

It was important to decide what studies would be relevant to this research question (Phase 2). The criteria for inclusion in the metasynthesis were that the study focused on the
development of leadership competencies in nurses, included an experiential learning component, and the research design was qualitative or that there was a qualitative component to the study. Key roles or processes that fostered experiential leadership learning were important to include.

There were no limitations on the type of qualitative design. This phase culminated in the selection of 24 qualitative studies that included findings pertinent to the research aim. Phase 3 required repeated reading of the studies and reflection on their findings and metaphors or themes. Repeated reading and reflection set the stage for Phase 4, the process of deciding how the studies relate to one another and to the research question. It involved identifying the key metaphors and juxtaposing them; conceptualizing how they related or fit together. Key metaphors were inserted into a mind map using Mindjet MindManager software allowing for movement and placement of related concepts into a visual thematic framework. Appendix B reflects the results of the juxtaposition process.

The fifth phase was translating the studies into one another. This was an interpretive process that preserved the integrity of the initial account of the phenomenon and the metaphors used to describe it, but translated those metaphors into those identified in the other studies. In the case of this metasynthesis, the translation was reciprocal (Noblit & Hare, 1988). That is, the studies had similar metaphors or themes for translating into one another. Phase 6 involved synthesizing the translations into a whole which was more than the sum of the individual parts described in individual studies. The last phase in this iterative process was expressing the synthesis in such a way as to fully describe the role of guided experiential learning in nursing leadership development.

Results
The synthesis of the themes or metaphors in the studies suggests that there are three important elements that comprise guided experiential learning as a key ingredient for successful nursing leadership development. They include: not quite ready to lead-connecting the dots through experiences, key relationships to guide the journey, and a toolkit for the process.

**Theme 1: Not Quite Ready to Lead: Connecting the Dots through Experiences**

The development of leadership competency requires exposure to learning experiences that allow the nurse to practice leadership skills and gain competence and confidence. This notion emerged in 10 of 24 studies in the metasynthesis and was consistent across a range of nursing leadership roles. Student nurses, direct care nurses, charge nurses, nurse faculty and nurse managers described the influence that learning from experience contributed to their leadership development.

Although much emphasis has been placed on formal leadership development with competency-based curricula, nurses reported that they needed the opportunity to apply the learned content in practice settings. Clark and Holmes (2006) described the theme in their study of newly qualified nurses in the UK. The nurses had “islands of knowledge” (p. 1214) and had difficulty integrating them and applying them in the practice setting. Leadership or patient care “management skills” (p.1214) were among those that they found difficult due to a lack of experiences to practice the skills. The study identified that in order to be fit to practice competently and confidently, nurses needed to be able to solidify classroom learning with experiences.

The importance of experiential learning to prepare student nurses for their leadership and care management role in nursing was described by Baillie (1999). Themes from this focus group
study centered on augmentation of classroom and placement learning with actual and simulated experiences. Although one participant stated that “nothing can prepare you for it!” (p. 229) fully, students, staff nurse preceptors and ward managers spoke to the importance of relevant, practical experiential opportunities to enable new nurses to gain the leadership and clinical skills required of them.

Cook and Leathard (2004) described that phronesis or the “practical knowledge that is gained through immersion in relevant experience” (p.436) is critical for the development of direct-care nurse leadership effectiveness. The five attributes found in this study to be characteristic of effective clinical nurse leaders were: creativity, highlighting, influencing, respecting and supporting. These attributes were described as transformational leadership knowledge that could be cultivated in a more purposeful way through leadership development programs that incorporated experiential learning opportunities or “contextualized learning” (p. 440).

Relevant experiential leadership learning may expand to include opportunities beyond the practice setting. A descriptive study of Hispanic nurse leaders explored perceptions of leadership skill development (Villarruel & Peragallo, 2004). They identified experiential sources in addition to formal and informal approaches to learning. Volunteer and community organization leadership experiences provided important exposure to skill-building opportunities and were a powerful influence on leadership development. One participant shared,

I am involved in local nursing organizations and work committees…these experiences continue to strengthen my skills. I also want to stress the fact that I have volunteered
throughout my life…and I continue to volunteer, which is very important. Community involvement also allows one to build these (leadership) skills. (p. 177)

Unfortunately, some nurse leaders have learned only through experience. In both nurse manager and nurse faculty leadership roles, study participants describe having little formal preparation for their roles and the leadership competencies required to be effective. They have learned through trial and error. Sherman, Bishop, Eggenberger and Karden (2007) identified the theme: “the nurse manager as a career choice” (p.88). They found that many of the nurse managers interviewed reported that they had not necessarily planned to pursue the role and most had minimal orientation or preparation for it. Participants described having “fallen into the position through assuming it as an interim assignment” (p.85). A similar theme, “career progression” was described by Moran and colleagues (2002). For some participants, advancement into a formal leadership role “just happened” or followed a period of “acting up” (p.17) and they were not necessarily prepared for it.

Similar to the experience of nurse managers, nurse faculty leader participants reported that they had not sought out or anticipated their early leadership roles and were unprepared (Young, Pearsall, Stiles & Horton-Deutsch, 2011). Participants described “being thrust into leadership” (p. 224). They learned through experiences and were generally successful. The experience of taking risks was described by these nurse faculty leaders, referring not only to taking the risk of assuming a formal leadership role, but also a willingness to try new things with acknowledgement that they were not always successful. One participant stated, “…So I would probably say that one of the first ways I was a leader and it was just in trying new things and developing new ways of doing things.”(p.225). Taking risks included speaking up and advocacy.
Nurse faculty leaders learned when and how to speak up through their experiences and the guidance of mentors.

Nurses learn leadership skills through negative as well as positive experiences. Moran and colleagues (2002) reported that negative experiences had almost as much impact on the development of leadership self-confidence of nurse managers as positive experiences did. One participant identified that negative experiences strongly influenced her understanding of “what not to do” (p.16). Formal leadership education was described as less significant for leadership development for the participants in this study than relationships and work experience.

Cathcart, Greenspan and Quin (2010), using Benner’s method of practice articulation, explored the role of experiential learning for leadership development in nurse managers. One nurse manager’s exemplar case illustrated how experiences with complex leadership challenges influence the development of nurse leaders. The nurse manager reflected on one significant leadership learning experience, saying,

...I felt confident that what I was doing was the correct thing for the patient while also not placing the nurse in an unsafe position which would also place the patient in danger. I took charge, made a difficult decision, it was heard (and challenged) but ultimately carried out. It was in this moment that the nurses knew they had a leader who would be with them in the difficult moments and who expected to be involved in a central way in guiding the unit during times of difficult decision making. This helped me gain their respect as a leader and trust that I would not lead them into a difficult position where they were left alone. This is really how the staff will come to respect you and trust you. You
may not always get it right the first time like in this situation, but a decision needs to be made and all eyes are on you. (p. 445)

Similarly, the experience of nurse faculty leaders with this type of leadership learning was captured under the theme “facing challenges” (Young et al., 2011). Their stories characterized the challenges as frustrating, but growth-producing.

Many of the experiential leadership lessons learned were relational in nature. Applying leadership knowledge and skills in the context of relationships with others was one of the many challenges nurse participants faced. Experiential learning for the novice nurse included how to work effectively with peers, delegation, interdisciplinary communication, conflict management, and advocacy (Dyess & Sherman, 2009). For charge nurses, experiences with relationship building emerged as an important theme for effective performance (Patrician, Oliver, Miltner, Dawson & Ladner, 2012). This included building relationships with the nursing staff as well as staff from other departments. One charge nurse described learning how important these key relationships were to her leadership effectiveness saying, “… so you understand my world touches your world… so when I really needed something, I knew whom to contact” (p. 464).

For nurse managers, reflection on experiences were often focused on establishing trust, communication with staff, managing conflict, and setting a course of action based on core values. One nurse manager emphasized the importance of focused relational experiential learning for effective leadership in the role saying, “If you asked me now what a new manager should have in orientation I would say relational work, because without relationships there is nothing. You can learn the rest” (Cathcart et al., 2010, p. 445). Nurse faculty leader participants also expressed the importance of learning to connect with others as a leader and to relate with
others in new ways (Horton-Deutsch et al., 2010). Experiential learning taught them the
importance of active listening and attending to others, enabling the building of relationships
based on trust and shared values.

**Theme 2: Key Relationships that Guide the Journey**

Experiences alone were not always sufficient for leadership learning. Nineteen studies
included some discussion of a key guiding relationship with one or more individuals as an
essential support for leadership competency development. Some described preceptor roles
\((n=4)\), many described the role of a mentor \((n = 11)\), and four described the coaching role. These
key guiding individuals were felt to be influential for every level of leadership development,
from novice to executive.

The preceptor role has been utilized for orientation and guidance of new nurses and
experienced nurses transitioning to new settings or roles. Clark and Holmes (2007) identified the
role of the preceptor as essential in the transition of newly qualified nurses into practice.
Preceptors provide support and guidance and as one participant described, “…Having a good
preceptor was the difference between learning something as a staff nurse and probably
drowning.” (p. 1217). Those preceptors that offer a balance of support and challenge were
optimal. As described by one preceptor, “…I expect them to do most things but with support at
the beginning and gradually untie the apron strings.” (p. 1217).

Dyess and Sherman (2009) described the challenges experienced by novice nurses
participating in a leadership institute for novice nurses. The role of consistent support from
peers and a positive, consistent preceptor throughout the first year of practice was recommended
to address the novice nurses’ experience with confidence and fear, the complexity in the practice
environment and the management of contradictory information from colleagues. One participant stated, “I have a lot of questions and I like to be able to sit with someone and answer those questions…” (p. 408).

From the perspective of the preceptor, being the guide for the leadership development journey for new nurses is rewarding and growth-producing, but also challenging. Lillibridge (2007) conducted interviews with staff nurses who were serving as preceptors for senior nursing students. The preceptors perceived benefits and rewards in the role. They described their own professional growth as a result of the experience. Comments from preceptors included: “I enjoy it because I always feel like it challenges me. I always wonder sometimes who gets the most out of the preceptor experience because I feel like when I’m working with students…I’m learning a whole bunch.” (p. 46) and “Seeing them grow and being able to impart some practical points of wisdom and see them appreciate the information you gave. It’s kind of like lighting up a light bulb.” (p.47). Preceptors also reported challenges and demands associated with guiding the development of new nurses in very busy, complex, acute care environments. They perceived that benefits for their own leadership growth, as well as for the preceptee, outweighed the burdens.

Another key role in guiding the leadership development of nurses is the mentor. Study participants including staff nurses, charge nurses, nurse managers and formal nurse leaders in a variety of settings, spoke of the critical importance of this role for their growth. The mentor and mentee form a relationship that is characterized by mutual respect, sharing, nurturing and support that enhances individual professional growth. McCloughen, O’Brien, and Jackson (2009) described the “esteemed connection” between the mentor and mentee as a foundation for the relationship. The two individuals see value and mutual benefit in their relationship. There is also
a compatibility that is appealing for both parties. One participant shared, “We naturally came toward each other… If you feel connected with the other person, then (the mentoring relationship is) likely to work.” (McCloughen et al., 2009, p. 330). This mutual positive regard emerged as a subtheme in the study and provided the basis for initiating the mentoring relationship.

The mentee sees the mentor as a respected, accomplished role model. The respect has a foundation in the integrity, experiences and skills of the mentor. As one participant stated, “I don’t think it’s about the age as much as they have been somewhere you either think you’re heading, or aspire to go that way.” (McLoughen et al., 2009, p.330). Several studies characterized the effective mentor as strong and having relevant clinical and/or leadership experience (George et al., 2002; Grossman, 2007; Villarruel and Peragallo, 2004). Other mentor characteristics contributing to mentee leadership growth are altruism, generosity, facilitative ability, and a champion of the career of the mentee. A participant summed it up this way, “(Mentors should be able to) confront, be assertive, challenge, critique, not agree with you, and yet still be a friendly, gentle, personhood kind of person” (McCloughen et al., 2002, p.331).

The mentor sees the potential for leadership development in the mentee and value in spending the time to foster their growth. The mentee shows promise and an eagerness to learn from their mentor. They tend to be self-aware, inquisitive and motivated. One participant described the mentee as, “…someone who is able to learn, listen and integrate, or who can share and ask questions” (McLoughen et al, 2009, p.332).

When the esteemed connection is made between the mentor and mentee, it is powerful and meaningful for both. One nurse leader participant described the experience of being
mentored for leadership by someone who was not only experienced and skilled, but who believed in her.

I also attribute my leadership skills to my Head Nurse…she “groomed” me to really become a leader in nursing. I learned by observing her…She gave me the opportunity to grow within the Dept. Finally, our DON (Director of Nursing), was most definitely my everlasting true mentor…I not only learned certain “skills” but most important, she believed in me…I always hesitated when an opportunity would arise… However, she was truly inspiring and helped me see that I had the skills that were necessary for that particular job. Knowing that I had (still have) her support made it easier for me to move ahead. She gave me the courage to take on new challenges and most important, for me to believe in myself. (Villarruel & Peragallo, 2004, p. 176)

When the mentor relationship does not have a foundation in esteemed connection, it limits the development of trust that is essential for mentor-mentee communication and the leadership growth of the mentee. Relationships and trust take time to grow. A successful initiation stage provides the foundation for the cultivation of a working relationship with respectful boundaries. One mentee shared, “We were friends first (but) when we were in the mentoring relationship it was work.” (McCloughen et al., 2009). A participant in Greenwood and Parsons’ (2002) study described the experience of sharing information before trust and respectful boundaries had been established. “I’d like to say that I had (mentor) and whilst s/he was excellent I had a lot of reluctance saying what I was thinking because you don’t know what the Senior Nursing Council talk over a cup of tea.” (p. 538)
Mentor relationships for leadership development have been identified as pivotal for every level of nursing leadership in every setting. The staff nurse who is learning to develop and apply leadership knowledge and skill may develop a mentor relationship with an experienced peer, or a formal nurse leader. Strong, unit-based mentors are recommended by George and colleagues (2002) for the development of shared leadership abilities in staff nurses and by Grossman (2007) for critical care staff nurse leadership development. Direct-care nurses considering formal leadership roles identified that mentor relationships would be the primary support they would need (Sherman, 2005). Nurse manager leadership competency development requires a systematic, consistent mentorship component (Sherman et al., 2007; Sullivan et al., 2003). Nurse faculty leaders also require the encouragement and guidance of experienced mentors in order to fulfill their leadership potential (Young et al., 2011).

Serving as a mentor requires skill and mentors must be prepared for the role. Mentor clinical experience alone is insufficient to support the developmental needs of the mentee. Mentors may be outside the profession or outside of healthcare. The relevance of the mentor’s life experience to the mentee’s learning needs and mutual respect provide a stronger basis for the relationship. Villarruel and Peragallo (2004) described family or community members who served as leadership mentors. Mentorship relationships can form through professional or community organization connections. One participant summed it up this way,

I think the characteristics of being a mentor are outside of expertise. If a potential mentor has the capacity to provide what’s needed in the relationship… know what the issues are for the mentee, and if they are reasonably intelligent or empathetic, they’re going to be helpful… but if they are in the health field then that’s an advantage. (McCloughen et al., 2009, p. 331)
When the mentor is not prepared for the role, and does not have the capacity or skills required, the effect on the mentee is significant. Lack of mentor skill limits the ability of the mentor to promote systematic leadership growth in the mentee, as described by this participant.

It was a bit of a chit chat session and even though I enjoyed it and thought it was good, I think that… having someone more academic who has a structured knowledge and can structure a session like that… (when) looking at how reflective practice should work, then you need someone with the skills to guide the session… (Greenwood & Parsons, 2002, p. 535)

Several studies pointed out the importance of the mentorship being a systematic, planned process, but one that allows for personal connection. The relationship is so influential for leadership development that allowing for appropriate pairing of mentor and mentee based on mutual interest, skill, and compatibility is highly recommended.

Fielden, Davidson, and Sutherland (2009) explored the differences and similarities between the roles of mentor and coach, another key guiding role that contributes to the experiential leadership learning process. The study was conducted because there is often confusion about the nature and purpose of the two roles and how they may most effectively be employed to facilitate the development of nurse leaders. Nurse participants who had experience in either a formal mentoring or coaching program described how they contributed to their growth. The systematic, programmatic use of either mentors or coaches contributed positively to leadership competency. However, mentoring roles were reported to be more comprehensive, often included coaching, and had a greater impact of many aspects of the mentee’s career development (Fielden et al., 2009).
A coach can provide significant support for nurse leader development. However, the role is more action-oriented and specific in its purpose. Reid-Ponte, Gross, Galante, and Glazer (2006) highlighted distinct differences between the roles of mentor and coach and described specific reasons why a nurse executive leader would contact and engage a coach. These included coaching for navigating a challenging situation or relationship, consideration of a potential career transition, addressing a specific performance challenge and to overall improve leadership effectiveness. Fielden and colleagues (2009) also described the coaching relationship as effective in addressing specific performance improvement opportunities and skill development.

Karsten (2010) used a case study approach to describe the impact of executive coaching on leader ability to effect cultural change. Executive coaching was employed to enhance creative competencies. One leader likened the role of the coach to the role of the personal trainer. The coach provided “just-in-time feedback”, acted as a “reflective, neutral colleague” who helped guide her through her “leadership-development moments” (Karsten, 2010, p. 46). Coaching in this organization was provided to leaders at several levels of the organization and contributed to leadership effectiveness and positive business results.

**Theme 3: A Toolkit for the Process**

There are a variety of tools and techniques that can facilitate the leadership development process for both the learner and the guide. Checklists and competency lists were identified as helpful in creating structure for the experiences that would enhance leadership learning for nurses. With a clearly described list of required experiences, the preceptor or mentor was better positioned to provide the appropriate opportunities for practice, application and competency development. Both staff nurses and student nurses in Baillie’s (1999) study reported that the use
of such lists, based on an assessment of the learner’s needs, provided the specifics that could
direct the experiential learning process. Out of Grossman’s (2007) study of critical care nurse
leadership development, arose a program to help novice critical care nurses develop the
necessary skills to fulfill their leadership roles in improving quality and achieving cost-effective
outcomes. The program included the creation of a competency checklist that described the
desired behaviors, enabling mentors to expose nurses to the experiences they needed to develop
important leadership skills. As a result of using the competency checklist as a guide and being
exposed to appropriate learning experiences, one nurse described, “I am doing much better with
delegating tasks and communicating with others on the health care team since I feel competent
with my work” (p. 63).

Clinical supervision as a technique to enhance experiential leadership learning was
described as a way to help nurses develop actionable knowledge for clinical management and
leadership (Alleyne & Jumaa, 2007). Skills gained through a combination of executive co-
coaching and peer clinical supervision helped participants to gain competencies for leading
patient care quality improvement. Nurse managers may benefit from clinical supervision
(Hyrkas, Appelqvist-Schmidlechner & Kivimaki, 2005). Participants shared that clinical
supervision had enhanced their leadership and communication skills, their self-knowledge and
desire for further development, as well as their coping with challenging leadership roles.
Reflecting on the benefit of peer clinical supervision one nurse manager shared, “Clinical
supervision helped Kathy realize that colleagues have the same universal problems. They
struggle with similar problems” (p. 215). Participants also described how the experience of
participating in clinical supervision led them to adopt a broader perspective and actively promote
its use as a process to help other nurses grow.
The process of thoughtfully reflecting on experiences contributed significantly to the leadership development of nurses at every level (Cathcart et al., 2010; Dyess & Sherman, 2009; Graham & Partlow, 2004; Horton-Deutsch et al., 2010; McCloughen et al., 2009; Young et al., 2011). Both self-reflection and reflection with others contributed to the ability of leaders to learn and grow from their experiences. Mentors with “inherent reflective capacity” (McCloughen et al., 2009, p. 331) paired with mentees who were “self-reflective” and “questioning” (p. 332) were more likely to unleash the leadership potential in the mentee. Horton-Deutsch and colleagues (2010) reported that the use of reflective practices allowed for “self-discovery and recognizing one’s unique contributions, abilities or lack of abilities as a nurse leader” (p. 488). Through reflecting on the challenges they faced as nurse faculty leaders, participants were able to develop personal awareness which helped them develop and learn for future challenges.

Purposeful exposure to reflective exercises such as writing, analyzing and discussing narrative exemplars proved to be a growth-producing opportunity for developing nurse managers (Cathcart et al., 2010). Participants were able to describe and reflect on a lived experience that challenged them and helped them grow as leaders. In one example, this exercise helped the manager “realize that this situation was a big deal that helped shape the future of the unit as well as the future of my thinking as a nurse manager” (p. 446). This type of purposeful reflective activity helps to assure that the learning from experiences does not get lost or forgotten, but is a mechanism to propel the developing leader to another level of understanding. Participating in this emotional and intellectual exercise was described by nurse managers to be a “powerful way to learn how to inhabit the role” (p. 447) and develop their clinical leadership practice.

In addition to self-reflective activities, the opportunity to reflect and share with others aids leadership development. Novice nurses who were learning the leadership skills for their
roles benefitted from the collegial support from peers. It gave them an opportunity for “honest reflection on practice in group discussions with other new graduates” (Dyess & Sherman, 2009, p. 407). This ability to reflect, discuss and receive support helped to increase confidence and reduce fear. The opportunity to reflect with a consistent preceptor also helped novice nurse leaders grow through “transformative experiences within their nursing practice” (p. 409). Group reflective opportunities were also growth-producing for nurse managers and nurse faculty leaders (Cathcart et al., 2010; Horton-Deutsch et al., 2010; Graham & Partlow, 2004). One leader described the experience in this way,

> It helped team building between us, sharing what you know, examining mental models, doing it in a structured way. We’ve all grown together as a group and that has proved beneficial, we can work more effectively together because our own base is strong.  

(Graham & Partlow, 2004, p. 464)

Allowing time for reflective activities to enhance experiential learning was recommended in several studies based on the feedback from participants. Deliberately taking time to “pause for the cause” (Horton-Deutsch et al., 2010, p. 491) allowed time for thinking, analyzing and taking more thoughtful action. Creating time to journal or write narratives, as intentional reflective practices, enabled leaders to become more self-aware but also become better attuned to others and more confident to take action.

Building time into the day to reflect was important to leaders at many levels of development. Novice nurses learning leadership practices needed time for reflection on practice as they adjusted to highly complex clinical environments. Allowing for “time and space” (Graham & Partlow, 2004, p. 463) for reflection and discussion within a leadership development
program enabled nurse directors to adopt new perspectives and identify opportunities to make changes. It also helped them reconnect with their values and become more authentic in their leadership.

**Discussion**

The synthesis of findings from the qualitative studies provides us with a more comprehensive understanding of the contribution of purposeful, guided experiential learning to nursing leadership development. In addition to formal learning opportunities, nurses must be exposed to experiences where they can apply what they have learned. They benefit most from those learning experiences when they are guided by someone who can help them make sense of the experience and use it to solidify leadership competency development. Nurses have also found that there are tools, techniques and strategies that help to optimize the value of the leadership learning experience. Together the three themes comprise a more powerful approach to leadership learning beyond the classroom or the program. Figure 1 graphically depicts the themes and their role in nursing leadership development.

Figure 1: Purposeful, Guided Experiential Leadership Learning
The findings also suggest that these three elements are important to optimizing leadership learning for nurses at all levels, from pre-licensure to executive roles. Although the relevant learning experiences are different at each level, nurses at all levels benefit from application of learning in the context of their role, their developmental goals and the goals of the organization in which they practice.

The guide for the leadership development journey may change as nurses progress through their careers. Preceptors are essential guides for nurses transitioning into the profession or new roles. The preceptor provides guidance, instruction and socialization enabling the novice to function competently (Carroll, 2004). Mentor relationships benefit nurses and their leadership and professional development throughout their careers (McBride, 2011). The relationship evolves over time and new or different relationships may develop as the nurse grows professionally. Coaches are often used at the executive level for specific purposes. The descriptions of the guiding roles in the studies in the metasynthesis are consistent with descriptions of their use from a human becoming perspective (Carroll, 2004; Parse, 2002). Viewing these supportive, guiding roles as facilitating nurse leader “becoming” reflects the complexity and multidimensionality of the leadership development process and the importance of human connection in its unfolding.

The tools, techniques and strategies used in the experiential learning process may also vary along the developmental course. Checklists, competency lists and evaluation tools may be helpful at different times depending on the developmental goals of the nurse. Reflection, as an individual and with others, was found to be of value for leadership development throughout the career of the nurse. Thinking and reflection on experiences are important to leaders and provide
the basis for future action. “To lead is to go into the silence and let the thinking come. It is to ponder, to dream, to vision, to strategize” (Smythe & Norton, 2007, p. 78).

This metasynthesis has implications for nurses at all levels. It does not diminish the importance of formal educational experience for the development of nursing leadership competency. Rather it suggests that nurses at all levels must seek and/or be provided with informal experiences where they may practice and apply leadership knowledge and skills. The richness of experiences, particularly those that foster the development of relational skills, is invaluable in cementing formal leadership learning.

The findings also support the notion that “every nurse deserves a mentor” (Mills & Mullins, 2008, p. 313). For new nurses or nurses entering a new role, this means seeking a connection with someone who is willing and able to nurture, support and guide their professional development. Mentors may include preceptors but preceptors are not always mentors. Nurses who have experienced a mentoring relationship, are in a position to engage in the invaluable role of mentor with a mentee; offering guidance and support for the journey. It is not only a way to contribute professionally but also a way to continue to grow professionally. Because of the complex mutuality of the relationship, both mentor and mentee benefit through their evolving relationship.

This metasynthesis has implications for nursing education. Nursing leadership curricula and nursing leadership program content should be designed to include an experiential component. As described by study participants, actual and simulated practice experiences enhance programmatic learning. Creative clinical experiences, such as dedicated education units, should be studied for their effect on leadership skill acquisition. Partnerships with nurse
leaders in practice settings provide great potential for innovative approaches to better prepare nurses for their leadership roles. There are also implications for nurse faculty leadership development. Development for this specialized nursing leadership role should include not only experiential learning, but also some formal preparation and the guidance of mentors.

Implications for nurses in formal leadership or administrative roles are multiple. Nurse leaders are in the position to assure that recommendations for enhancing leadership development are implemented in their organizations and on a broader basis. Enculturating guided experiential learning through the establishment of residency programs for the transition into the profession in every setting and for new roles is an important step. Investment in nurses at the point of vulnerable career transitions has been shown to be a wise and cost-effective strategy for enhancing the professional nursing leadership capacity of organizations (Burr, Stichler, & Poeltler, 2010; Dyer, 2008, Mills & Mullins, 2008). Nurse leaders in some states have formalized preceptor development, internship, residency and mentoring programs on a statewide basis to create a consistent, systematic approach to guided experiential learning for novice nurses (Boyer, 2008; Bratt, 2009; Mills & Mullins, 2008).

Formal nurse leaders are in a position to act as mentors and to develop mentoring capacity in others. Knowledgeable, effective nurse leaders who make the time to engage in mentoring the next generation contribute significantly to the professional leadership capacity of their organizations and the health care system. As the nursing leadership workforce ages, it is critical to succession planning that nurse leaders engage in developing future leaders (Metcalfe, 2010; Patrician et al., 2012). While mentoring others, nurse leaders benefit from exposure to new ideas and challenges. They listen and learn from their followers and in response become more effective, responsive leaders (Smythe & Norton, 2007).
Attending to their own ongoing leadership development is essential for the effectiveness of nurse leaders. Engagement of an executive coach to address specific challenges may be an appropriate developmental strategy. Purposeful planned time for reflection is also time well spent for formal nurse leaders. In the words of Smythe and Norton (2007),

Leadership without the struggle of thinking is simply an act. Thinking alone, however, is not leadership. Thinking-leaders are seen in their commitment to the call, their willingness to be drawn back and forth in the thinking/relating spaces of their world, and in their everyday thinking-being-comportment of living leadership. (p. 87)

Implications for future nursing research include studying the effect of nursing leadership development programs that intentionally include a guided experiential component. The effect could be studied at various levels of nursing leadership development from pre-licensure to executive. Potential outcomes would include not only the effect on the nurse but also the effect on patients and on organizations. Other potential research would include the application of the model beyond nursing to other disciplines that require leadership as part of their scope of practice. In complex adaptive systems like healthcare, optimization of leadership throughout the system is key to optimizing effectiveness.

**Study Limitations and Challenges**

Limitations to this study are those that are inherent in any metasynthesis process. As Noblit and Hare (1988) describe, the synthesized translation is offered by the researcher who has a unique lens based on experiences, interests and worldview. The findings are an interpretation of interpreted findings or metaphors. The adequacy of the synthesis may be judged by the criteria of economy, cogency, range, apparency, and credibility. The metaphor of purposeful,
guided experiential learning provides a simple concept that fully captures the phenomena, integrates the important elements efficiently, and is inclusive in its application to a range of leaders and conditions. The synthesis is thought to be complete and credible when its meaning is understood by others (Noblit & Hare, 1988).

One of the challenges in conducting this metasynthesis was the number of included studies. The study could have been narrowed to focus on the guiding roles or on the experiences. However, considering all of the studies in the metasynthesis enabled insight into how the three elements work together to enhance leadership learning. The study could also have been limited to leadership development in a particular role in nursing. Including various roles and levels of nursing leadership created an appreciation for the need for purposeful, guided experiential learning at all levels. The study could also have limited inclusion to only the perspectives of the learner. Including studies that described the perspective of the preceptor, coach or mentor added to the richness of the descriptions of the concept with illustrative quotes from the participants.

**Conclusion**

Listening to the voices of nurses at all levels who have described how purposeful, guided experiential learning contributed to their leadership development, provides insight into effective developmental approaches. In order to prepare nurses, from the bedside to the boardroom, to effectively lead in the transformation of the health care system, we must assure the incorporation of purposeful, guided experiential learning into our leadership development strategy. There are many techniques we can use, and various roles to guide the way, but consistent, systematic exposure of nurses to meaningful leadership learning experiences must be a purposeful part of the plan.
References


### Appendix A: Demographic and Methodological Characteristics

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Sample Size</th>
<th>Participant Role</th>
<th>Country</th>
<th>Study Design</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alleyne, Jumaa</td>
<td>2007</td>
<td>8</td>
<td>6 district nurses and 2 doctoral candidates</td>
<td>U.K.</td>
<td>case study</td>
<td>not stated</td>
</tr>
<tr>
<td>Baillie</td>
<td>1999</td>
<td>20</td>
<td>16 senior students, 4 nurses</td>
<td>U.K.</td>
<td>focus groups</td>
<td>not stated</td>
</tr>
<tr>
<td>Cathcart, Greenspan, Quin</td>
<td>2010</td>
<td>32</td>
<td>nurse managers</td>
<td>U.S.</td>
<td>practice articulation</td>
<td>narrative analysis</td>
</tr>
<tr>
<td>Clark, Holmes</td>
<td>2003</td>
<td>105</td>
<td>newly qualified nurses</td>
<td>U.K.</td>
<td>focus groups</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Cook, Leathard</td>
<td>2004</td>
<td>4</td>
<td>clinical nurse leaders</td>
<td>U.K.</td>
<td>grounded theory</td>
<td>Corbin and Strauss</td>
</tr>
<tr>
<td>Dyess, Sherman</td>
<td>2009</td>
<td>81</td>
<td>new graduate nurses</td>
<td>U.S.</td>
<td>descriptive/interviews</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Fielden, Davidson, Sutherland</td>
<td>2009</td>
<td>30</td>
<td>nurses</td>
<td>U.K.</td>
<td>descriptive/interviews</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>George, Burke, Rodgers, Duthie et al</td>
<td>2004</td>
<td>24</td>
<td>staff RN</td>
<td>U.S.</td>
<td>descriptive/interviews</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Graham, Partlow</td>
<td>2007</td>
<td>6</td>
<td>5 nurses and 1 midwife</td>
<td>U.K.</td>
<td>descriptive/interviews</td>
<td>content analysis</td>
</tr>
<tr>
<td>Greenwood and Parsons</td>
<td>2002</td>
<td>9</td>
<td>clinical development unit leaders</td>
<td>Australia</td>
<td>focus groups</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Grossman</td>
<td>2004</td>
<td>143</td>
<td>senior nursing students</td>
<td>U.S.</td>
<td>focus groups</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Horton-Deutsch, Young, Nelson</td>
<td>2005</td>
<td>21</td>
<td>nurse educator</td>
<td>U.S.</td>
<td>interpretive phenomenology</td>
<td>hermeneutic analysis</td>
</tr>
<tr>
<td>Hyrkas, Schmidlechnwer, Kivimaki</td>
<td>2010</td>
<td>11</td>
<td>first-line managers</td>
<td>Finland</td>
<td>written essays</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Karsten</td>
<td>2010</td>
<td>1</td>
<td>nurse executive</td>
<td>U.S.</td>
<td>case study</td>
<td>not described</td>
</tr>
</tbody>
</table>
Appendix A: Demographic and Methodological Characteristics

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Sample Size</th>
<th>Participant Role</th>
<th>Country</th>
<th>Study Design</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lillibridge</td>
<td>2006</td>
<td>5</td>
<td>staff RN</td>
<td>U.S.</td>
<td>descriptive/interviews</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>McLoughen, O'Brien, Jackson</td>
<td>2009</td>
<td>13</td>
<td>nurse leaders</td>
<td>Australia</td>
<td>interpretive phenomenology</td>
<td>hermeneutic analysis</td>
</tr>
<tr>
<td>Moran, Duffield, Beutel, Bunt, Thornton, Wills, Cahill, Franks</td>
<td>2002</td>
<td>205</td>
<td>nurse managers</td>
<td>Australia</td>
<td>questionnaire with qualitative component</td>
<td>not stated</td>
</tr>
<tr>
<td>Patrician, Oliver, Miltner, Dawson, Ladner</td>
<td>2012</td>
<td>36</td>
<td>charge nurses</td>
<td>U.S.</td>
<td>focus groups</td>
<td>content analysis</td>
</tr>
<tr>
<td>Reid Ponte, Gross, Galante, Glazer</td>
<td>2006</td>
<td>8</td>
<td>nurse leaders, executive coaches</td>
<td>U.S.</td>
<td>descriptive/interviews</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Sherman</td>
<td>2009</td>
<td>48</td>
<td>staff RN</td>
<td>U.S.</td>
<td>focus groups, ConCensus process</td>
<td>thematic analysis</td>
</tr>
<tr>
<td>Sherman, Bishop, Eggenberger, Karden</td>
<td>2007</td>
<td>120</td>
<td>98 experienced nurse managers, 22 inexperienced nurse managers</td>
<td>U.S.</td>
<td>interviews</td>
<td>grounded theory methods of coding and content analysis</td>
</tr>
<tr>
<td>Sullivan, Bretschneider, McCausland</td>
<td>2004</td>
<td>21</td>
<td>nurse educator, same sample as above</td>
<td>U.S.</td>
<td>focus groups</td>
<td>grounded theory methods of coding and content analysis</td>
</tr>
<tr>
<td>Villarruel, Peragallo</td>
<td>2011</td>
<td>22</td>
<td>nurse leaders</td>
<td>U.S.</td>
<td>internet</td>
<td>content analysis</td>
</tr>
<tr>
<td>Young, Pearsall, Stiles, Horton-Deutsch</td>
<td>2011</td>
<td>21</td>
<td>nurse faculty leaders</td>
<td>U.S.</td>
<td>interpretive phenomenology</td>
<td>hermeneutic analysis</td>
</tr>
</tbody>
</table>
### Appendix B: Individual Study Metaphors related to Overarching Themes

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Not quite ready to lead: Connecting the dots through experiences</th>
<th>Key Relationships that Guide the Journey</th>
<th>A Toolkit for the Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alleyne, Jumaa (2007)</td>
<td>Augment formal student leadership learning with experiences. Incorporate experiential learning into classroom using simulation, scenarios, role play. Opportunity to practice decision making and prioritizing.</td>
<td>Executive co-coaching, group clinical supervision increased participant capacity to improve quality of services to patients</td>
<td>Techniques, tools, methods, increased participant confidence to perform</td>
</tr>
<tr>
<td>Baillie (1999)</td>
<td>Experiential learning, guided interpretation and support from leadership, importance of relational work</td>
<td></td>
<td>written narrative of paradigm case, reflection of lived experience was a more powerful way to learn</td>
</tr>
<tr>
<td>Cathcart, Greenspan, Quin (2010)</td>
<td>Ready for practice? A question of confidence, Approaches to staff development, time and experience needed to allow for integration of knowledge and skills to be integrated and applied</td>
<td>the role of preceptorship</td>
<td></td>
</tr>
<tr>
<td>Clark, Holmes (2006)</td>
<td>Creativity, highlighting, influencing, respecting, supporting, lack of suitable opportunities to learn to lead</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Appendix B: Individual Study Metaphors related to Overarching Themes

<table>
<thead>
<tr>
<th>Not quite ready to lead: Connecting the dots through experiences</th>
<th>Key Relationships that Guide the Journey</th>
<th>A Toolkit for the Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dyess, Sherman (2009)</td>
<td>confidence and fear (need consistent support through first year), contradictory information (consistent preceptor helps sort through conflicting information, encouragement, prof validation, reflection on transformative experiences)</td>
<td>less than ideal communication (simulations), complex critical decision making (reflection with peers)</td>
</tr>
<tr>
<td>Fielden, Davidson, Sutherland (2009)</td>
<td>Coaching v. mentoring effects on career progression, leadership and management development, organizational impact, perceptions of career support, career assets &amp; organizational support, careers impact</td>
<td></td>
</tr>
<tr>
<td>George, Burke, Rodgers, Duthie et al (2002)</td>
<td>leadership program including mentoring by strong unit-based leaders aided in patient, nurse and workplace outcomes</td>
<td></td>
</tr>
<tr>
<td>Graham, Partlow (2004)</td>
<td></td>
<td>Being 'given time and space' within the working day to reflect on past experiences with peer group</td>
</tr>
</tbody>
</table>
### Appendix B: Individual Study Metaphors related to Overarching Themes

<table>
<thead>
<tr>
<th>Not quite ready to lead: Connecting the dots through experiences</th>
<th>Key Relationships that Guide the Journey</th>
<th>A Toolkit for the Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grossman (2007)</td>
<td>preceptor leading in action</td>
<td>Leadership and Management Competency Checklist based on themes</td>
</tr>
<tr>
<td>Hyrkas, Schmidelehner, Kivimaki (2005)</td>
<td>Clinical supervision had positive effects on leadership, communication skills, desire for self-development, self-knowledge, coping, broader perspective on the work, enhanced use of CS as a supportive measure among co-workers.</td>
<td></td>
</tr>
<tr>
<td>Karsten (2010)</td>
<td>Coaching, similarity to personal training, true to values, just-in-time feedback, reflective, neutral colleague</td>
<td></td>
</tr>
<tr>
<td>Lillibridge (2006)</td>
<td>Making it worthwhile for the nurse, Making a difference, Engaging in the process, &quot;I love being a preceptor, but...&quot;, Accepting the role, Taking responsibility</td>
<td></td>
</tr>
<tr>
<td>Not quite ready to lead: Connecting the dots through experiences</td>
<td>Key Relationships that Guide the Journey</td>
<td>A Toolkit for the Process</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>McCloughen, O'Brien, Jackson (2009)</td>
<td>Esteemed connection: creating the mentoring relationship. 3 subthemes: considering each other with positive regard, developing respectful boundaries, honoring key human characteristics</td>
<td>Mentorship role influenced development as manager, mentors held various roles, provided feedback, support, encouragement, opportunities, teaching, role modeling, risk taking, backing up decisions, sounding board, debrief, having faith in mentee ability</td>
</tr>
<tr>
<td>Moran, Duffield, Beutel, Bunt, Thornton, Wills, Cahill, Franks (2002)</td>
<td>Leadership: self-confidence with leadership was fostered by day-to-day work experiences and life experiences.</td>
<td>Facilitators of effective performance: setting the tone, relationship building and leadership support</td>
</tr>
<tr>
<td>Patrician, Oliver, Miltner, Dawson, Ladner (2012)</td>
<td>Challenges: managing staff performance, role clarity</td>
<td>Contacting and engaging a coach, Essential coaching skill set, Coach-client fit, Organizational and client assessment, Deliverables: advice, insight, improved performance, and decision-making</td>
</tr>
<tr>
<td>Reid Ponte, Gross, Galante, Glazer (2006)</td>
<td></td>
<td>Support theme: mentorship top</td>
</tr>
<tr>
<td>Sherman (2005)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix B: Individual Study Metaphors related to Overarching Themes

<table>
<thead>
<tr>
<th>Sherman, Bishop, Eggenberger, Karden (2007)</th>
<th>Not quite ready to lead: Connecting the dots through experiences</th>
<th>Key Relationships that Guide the Journey</th>
<th>A Toolkit for the Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Nurse Manager Role as a Career Choice, Role components, Challenges and Stressors</td>
<td>competencies requires a formal orientation and mentorship early in the transition to role</td>
<td>Developmental and Educational Needs of New Nurse Managers</td>
<td></td>
</tr>
<tr>
<td>Sullivan, Bretschneider, McCausland (2003)</td>
<td>Leadership skills: (Volunteer opportunities, community organizations and activities as a source of informal experiential learning)</td>
<td>Leadership skills (mentors for development of leadership skills), Leadership barriers and supports: (Hispanic mentor, lack of available mentors is barrier)</td>
<td></td>
</tr>
<tr>
<td>Villarruel, Peragallo (2004)</td>
<td>Being Thrust into Leadership (taking on something new and succeeding, being propelled by one's way of being)</td>
<td>With mentor support-Taking risks, trying something new, speaking up, facing challenges</td>
<td></td>
</tr>
</tbody>
</table>
Cultivating Nursing Leadership for Our Envisioned Future

Lee A. Galuska, MSN, RN

Nurses have been called upon to lead and partner in the transformation of health care. Leadership is a component of the scope of nursing practice; however, the optimal approach to development of leadership competency has not been established. A metasynthesis of qualitative studies on leadership development was conducted to enhance an understanding of conditions that nurses reported to support or hinder their development as leaders. Noblit and Hare’s approach was used for the metasynthesis process. Three overarching themes emerged. Opportunity structure, the relationship factor, and organizational culture are essential factors contributing to the successful cultivation of leadership competencies in nurses. Key words: context, development, leadership, metasynthesis, praxis, transformation

The 2010 INSTITUTE OF MEDICINE REPORT, Future of Nursing: Leading Change, Advancing Health,¹ beckons all nurses to participate in the current transformation of the health care system. To fulfill the promise we hold as a profession, nurses at every level must be able to lead as well as partner. Leadership is a fundamental component of the scope of nursing practice. Nurses in every position are expected to demonstrate leadership competencies. The competencies are not role-specific. They include oversight for high-quality care, systems improvement, collaboration, communication, teamwork, conflict resolution, advocacy, and policy influence. They are required in every practice setting as well as in the policy arena. However, for various reasons, the development of nursing leadership competencies has not been systematic, reliable, or lifelong. As a result, not all nurses are prepared for the transformational leadership roles essential to fundamentally changing the health care system.

Our challenge is to ensure that nurses from the bedside to the boardroom are skilled, knowledgeable, and prepared to fulfill their assigned and desired leadership roles. It is time to reexamine how leadership competencies are most effectively cultivated in nurses. Much has been written about the preparation of nurses for formal leadership roles such as charge nurse, nurse manager, advanced practice nurse leader, or nurse executive. As we consider how to develop this knowledge and skill in nurses at every level, it is important that we ask what has worked for nurses to date. The aim of this study was to report the results of a metasynthesis of qualitative studies on nursing leadership development and to enhance an understanding of both those conditions nurses have reported to be effective and supportive, as well as those that have hindered their development as leaders in nursing.

METHODS

The metasynthesis was conducted using the 7-phase approach described by Noblit and Hare.² A metasynthesis of qualitative studies is a method for “interpretive integration of
The full review and retrieval process yielded 40 studies, either qualitative or mixed method, that included findings related to leadership development in nurses. Some of these studies had a primary focus on preparation for a particular leadership role in nursing, specific skill development, specific courses or programs, or aspects of a program. Those describing courses or programs designed to teach leadership skills were well-represented in the literature.8 The voices of participants in roles of staff nurse, charge nurse, nurse manager, and others have been sought as part of the course evaluation process, through interview, survey, or focus groups. Ten studies provided evidence for the development of formal educational opportunities that nurses will find meaningful and effective in facilitating their development.

Nine of the 40 studies explored nurses' experiences with guided experiential learning through the use of preceptors, mentors, coaches, and other specific mechanisms designed to reinforce and sustain classroom learning in the practice environment.9-12 These studies can inform our design of experiences that will support the development of leadership competencies in learning.

Twenty-one of the 40 studies captured factors in the practice environment that support the utilization of developing leadership skills and application of learning.13-17 These studies can help us ensure that the experiences of these nurses guide us in creating the supportive context that will fuel the passion of nurses for their leadership roles rather than extinguish it.

Phase 3

This phase involves repeated reading of the studies and their findings, with great attention to detail. After multiple readings of the original 40 studies, the focus of the metasynthesis was narrowed to the 21 studies with qualitative findings related to the context in which nurses must practice newly learned leadership competencies or apply new leadership knowledge. Although the other studies are
important to the overall understanding of how nursing leadership competencies are developed, the studies that included a focus on the context provided rich data for an interpretive integration, and a deeper understanding of critical factors that contribute to the success or failure of leadership development efforts.

The final sample of 21 qualitative or mixed-method studies were published between 2002 and 2011. Located in Table 1, organized by author, are the demographic and methodological characteristics of the sample. The studies were conducted in various countries, including Australia, Canada, the United Kingdom, and the United States. Participants included 786 nurses in various roles ranging from newly licensed nurses and experienced staff nurses, to charge nurses, nurse managers, and nurse executives. Various qualitative research designs were used in the studies. The most frequently (n = 10) used design was descriptive, using interviews to obtain data. Focus groups (n = 6) were also frequently used alone or in combination with other data collection methods. There was one grounded theory study and 2 phenomenological studies. Two studies used surveys with qualitative components.

Phase 4

This phase includes deciding how the studies relate to one another and to the research question. Key metaphors are identified and juxtaposed with one another to determine how they are related or fit together. To aid in the process of determining relationships, a mind map of the key metaphors and concepts from each of the 21 studies was created, using Mindjet MindManager software. The use of a mind map allowed for creative placement of ideas and their relationships into an overall conceptualization of overarching themes. Key metaphors were moved or connected as the process of translation progressed. Mind mapping was used along with the traditional process using juxtaposition in a table format. In the case of this metasynthesis, the translation was reciprocal. That is, the studies were similar and had similar metaphors for translating into one another.

Phase 5

Conceptualizing how the studies relate to one another in phase 4 led to the next phase of translating the studies into one another. Translating is an interpretive process that preserves the integrity of the initial account of the phenomenon and the metaphors used to describe it but translates those metaphors into those identified in the other studies. Processes in phases 4 and 5 yielded 3 overarching themes or metaphors.

Phase 6

This phase involves synthesizing the translations into a larger narrative that is greater than what the individual studies would imply. This is an iterative and multilevel process. The synthesized findings can be used as a basis for improvement efforts and potentially for theory development.

Phase 7

Expression of the synthesis through the written word or other form is the final phase of the process. Effective expression involves decisions about the appropriate form for the audience and provides an opportunity to express limitations of the study and the process. Limitations to the metasynthesis process are described by Noblit and Hare. The synthesized translation is offered by the researcher who has a unique lens based on experiences, interests, and worldview. The findings are an interpretation of interpreted findings or metaphors. The adequacy of the synthesis may be judged by the criteria of economy, cogency, range, apparent, and credibility.

RESULTS

The themes emerging from the studies described 3 essentials for creating a supportive context for leadership development in nurses including opportunity structure, the relationship factor (with 3 subthemes), and
<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Participant Role</th>
<th>Country</th>
<th>Qualitative Design</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carr and Clark</td>
<td>36</td>
<td>Managers, coordinators, and field staff (health action zone)</td>
<td>UK</td>
<td>Descriptive/interview</td>
<td>Thematic analysis</td>
</tr>
<tr>
<td>Cook and Leathard</td>
<td>4</td>
<td>Clinical nurse leaders</td>
<td>UK</td>
<td>Grounded theory</td>
<td>Corbin and Strauss</td>
</tr>
<tr>
<td>Currie et al</td>
<td>20</td>
<td>Graduate specialist practitioners</td>
<td>UK</td>
<td>Interviews</td>
<td>Grounded theory methods of coding and content analysis</td>
</tr>
<tr>
<td>Dreyer and Sherman</td>
<td>81</td>
<td>New graduate nurses</td>
<td>US</td>
<td>Focus groups</td>
<td>Thematic analysis</td>
</tr>
<tr>
<td>George et al</td>
<td>24</td>
<td>Staff RN</td>
<td>US</td>
<td>Descriptive/interview</td>
<td>Thematic analysis</td>
</tr>
<tr>
<td>Graham and Partlow</td>
<td>6</td>
<td>5 nurses and 1 midwife</td>
<td>UK</td>
<td>Descriptive/interview</td>
<td>Content analysis</td>
</tr>
<tr>
<td>Greenwood and Parsons</td>
<td>9</td>
<td>Clinical development unit leaders</td>
<td>Australia</td>
<td>Focus groups</td>
<td>Thematic analysis</td>
</tr>
<tr>
<td>Hancock and Campbell</td>
<td>36</td>
<td>4 grade 6 nurses and 32 of their colleagues</td>
<td>UK</td>
<td>Descriptive/interview</td>
<td>Thematic analysis</td>
</tr>
<tr>
<td>Lee et al</td>
<td>179</td>
<td>Nurse managers (13 individual interviews, 18 focus groups)</td>
<td>Canada</td>
<td>Individual and focus group interview</td>
<td>Grounded theory methods of coding and content analysis</td>
</tr>
<tr>
<td>MacPhail et al</td>
<td>27</td>
<td>Frontline and mid-level nurse leaders</td>
<td>Canada</td>
<td>Descriptive/interview</td>
<td>Content analysis</td>
</tr>
<tr>
<td>McManus et al</td>
<td>13</td>
<td>Nurse leaders</td>
<td>Australia</td>
<td>Hermeneutic phenomenology</td>
<td>Hermeneutic analysis</td>
</tr>
<tr>
<td>Sherman</td>
<td>48</td>
<td>Staff RN</td>
<td>US</td>
<td>Focus groups</td>
<td>Thematic analysis</td>
</tr>
<tr>
<td>Sherman et al</td>
<td>120</td>
<td>98 experienced nurse managers, 22 inexperienced nurse managers</td>
<td>US</td>
<td>Interviews</td>
<td>Grounded theory methods of coding and content analysis</td>
</tr>
<tr>
<td>Shirley</td>
<td>94</td>
<td>Chief nursing executive, nurse administrator, nurse managers</td>
<td>US</td>
<td>Descriptive/interview</td>
<td>Thematic analysis</td>
</tr>
<tr>
<td>Spiers et al</td>
<td>179</td>
<td>Nurse managers (13 individual interviews, 18 focus groups), same sample as above</td>
<td>Canada</td>
<td>Focus groups and individual interviews</td>
<td>Constant comparative analysis</td>
</tr>
<tr>
<td>Sullivan et al</td>
<td>21</td>
<td>Nurse educator</td>
<td>US</td>
<td>Focus groups</td>
<td>Grounded theory methods of coding and content analysis</td>
</tr>
<tr>
<td>Upenieks</td>
<td>16</td>
<td>Nurse leaders</td>
<td>US</td>
<td>Qualitative</td>
<td>Content analysis</td>
</tr>
<tr>
<td>Villarruel and Peragallo</td>
<td>22</td>
<td>Nurse leaders</td>
<td>US</td>
<td>Descriptive/interview</td>
<td>Content analysis</td>
</tr>
<tr>
<td>Williamson</td>
<td>8</td>
<td>Nurse council members</td>
<td>UK</td>
<td>Action research, participant observations, and interviews</td>
<td>Thematic analysis</td>
</tr>
<tr>
<td>Wojciechowski et al</td>
<td>22</td>
<td>Charge nurses</td>
<td>US</td>
<td>Qualitative survey</td>
<td>Content analysis</td>
</tr>
<tr>
<td>Young et al</td>
<td>21</td>
<td>Nurse faculty leaders</td>
<td>US</td>
<td>Interpretive phenomenology</td>
<td>Hermeneutic analysis</td>
</tr>
</tbody>
</table>
organizational culture for growth. All of the components synergistically influence the development of leadership competencies in nurses and are described later.

Theme 1: Opportunity structure

In order for nurses to grow as leaders, they must be allowed the opportunity to experience situations that require leadership skills and foster their development. Eight of the studies in this metasynthesis described the importance of this kind of opportunity and its impact on leadership practice. Upeniek's study of successful leaders supported Kanter's proposition that opportunity structure is one form of work empowerment structures critical to the development of leadership effectiveness. When individuals are exposed to opportunities for growth and mobility within the work environment and are challenged in such a way as to enhance knowledge and skills, they develop as leaders. As they grow as leaders and advance in their organizations, they, in turn, support the development of other nurse leaders by providing them with growth-producing opportunities. One study participant captured the importance of opportunity structure stating, "I've been given various leadership and advancement opportunities. It makes me feel good. If someone believes you can do a great job and they say 'here, try this', and you do a great job, then you feel acknowledged and validated. They believed in me." This participant also shared the importance of reward and recognition for successful growth as a result of opportunities. Recognition reinforces the learning and increases commitment to ongoing leadership development. This was a theme identified by Greenwood and Parsons as they evaluated a program to develop unit leaders. The theme "I am important, aren't I?" reflected the significance of being recognized as having leadership potential and being selected for a leadership role and development program. Successfully completing a rigorous process enhanced their self-concept and increased their commitment to the leadership role.

The key role that opportunities play in the development of nurses as leaders is described by several other qualitative studies in the sample. Carr and Clarke, in their evaluation of the effects of involvement in a Health Action Zone in the United Kingdom, found that participants developed new individual leadership competencies, including skills in interviewing and effective relationship building across organizational boundaries. The value of networking opportunities provided through this initiative was significant in leadership development and confidence. Shared governance is another opportunity structure that engages nurses and promotes leadership development. As nurses take on lead roles in shared governance councils, they quickly develop skills in meeting management, organization of improvement efforts, and recruitment of volunteers. Nurses who become involved in their local professional organizations or volunteer in the community also grow as leaders through these opportunities. Villarruel and Peragallo found that this was an important influence described by Hispanic nurses in the acquisition of their leadership skills. There is opportunity for skill development as well as exposure to significant community role models.

The lack of opportunity structure is a barrier to leadership development. A study of clinical nurse leaders described a lack of opportunities for leadership development and preparation for leadership roles. The authors contend that the study supports the notion that phronesis or practical wisdom is gained through exposure to opportunities and immersion in experiences that will deepen understanding and knowledge that is important for leadership practice. Nurses who are not provided opportunities for stimulating work or who have a lack of assigned responsibilities are less likely to develop important leadership competencies.

Theme 2: The relationship factor

There are several key relationships in the work lives of nurses that factor significantly
in the development of leadership skills. These relationships may have the effect of cultivating and nurturing the budding development of leadership abilities. They may also have the opposite effect of blocking or undermining the nurse’s attempt to learn and practice leadership skills. Six of the qualitative studies in this metasynthesis described the role that the nurse manager or other supervisor plays in the nurse’s leadership development. Seven studies found that the role of colleagues was significant in the successful development and application of leadership skills. The important role of mentors in guiding the growth of the developing nurse leader was a finding in 9 of the qualitative studies. The impact of these key 3 relationships is described in the subthemes below.

**Subtheme 1: The enabling or blocking role of the manager**

Nurses in a supervisory or managerial relationship to other nurses have an opportunity to strongly influence the “subordinate” nurses’ success in developing the leadership skills they need for professional practice and potential advancement into formal leadership roles. The role of the manager is pivotal to the developmental process. The study themes related to the role of the manager reflect recognition of this powerful role and characterize it either as being positive or supportive or as being inhibitory or blocking. The nurse manager is seen as someone who is in a position to understand the political and social systems and be able to work within them to set the nurse up for success or failure. In fact, the findings reported by Carr and Clarke indicate that the manager actually creates the conditions for learning and “sets the markers for success allowing for fruition of different types of innovation and practice development.”

Their findings led them to conclude that the manager is in the position to nurture generative and engaged learning rather than entrenched ways of learning.

Currie et al also described the helping or hindering role of the nurse manager. They concluded that the nurse manager was part of 4 interrelated dimensions (person, position, policy implications, and processes) that created the context for successful transition of a new clinical leader into the role. They described a spectrum of nurse manager behaviors ranging from encouraging and supportive to obstructive, nonreceptive, or disinterested. They were seen as gatekeepers who could make or break the ability of the new practitioner to fulfill a leadership role in practice development.

In attempting to explain the behaviors of nurse managers, some of the participants noted that the educational level of the manager seemed to influence whether they felt insecure and threatened by the new learner or practitioner. The range of responses of nurse managers seemed to be related to “confidence from knowledge.” Nurse managers who were secure in their own knowledge from having achieved a higher level of education were able to be more encouraging and supportive of the development of leadership in others.

The impact of the role of the nurse in a supervisory or managerial position on the development of leadership skills and professional growth was reported in studies around the world. Regardless of the formal title, the influence of the manager role was described in studies conducted in Australia, the United Kingdom, the United States, and Iran. The role can be motivating and encouraging, or inhibiting as described by Rahimaghaee et al. The inhibiting behaviors included intimidation and discouragement. Participants clearly described their experiences, stating, “My manager slowed down my growth”; “Some managers never give you any opportunity”; and “I think my managers are the main obstacles in the way of my professional growth.” These illustrative comments are in direct contrast to those describing supportive behaviors of managers.

My manager is very strong and competent in management and nursing. She is not only a manager, but also a role model. By her actions, she teaches
me how I should behave. She is very influential in my professional growth.23(573)

Subtheme 2: The bolstering or undermining role of colleagues

Just as managers play a pivotal role in developing leadership capacity in nursing, so do nurse peers. Fellow nurses may have the effect of encouraging the use of newly learned leadership skills, therefore bolstering the self-confidence of the aspiring leader. They may also have the effect of undermining a peer’s attempts to apply these skills and serve to block further application of acquired leadership knowledge. George et al.22 described the experience of study participants attempting to integrate newly learned leadership principles into practice. Nurses reported that the reaction of their peers to those attempts was a significant factor in their success and continued refinement of their competencies. Some nurses experienced a lack of collegiality in the practice environment after attending a leadership course. This was influenced by how many peers had also been through the course, whether peers were also trying to apply their learning, and how peers viewed their professional accountability. When a sufficient number of peers received the same leadership training and were able to apply that learning, many positive outcomes were reported for patients and staff.

Several other studies found that the support of peers was critical to the successful use of leadership knowledge and skills. Hancock and Campbell5 reported that study participants who had attended a leadership development program identified that relationships with colleagues supported their efforts to implement what they had learned. Greenwood and Parsons,19 in their discussion of the theme research receptivity, reported that peer response significantly affected the developing leader’s ability to promote changes in nursing practice based on research. Depending on the educational background of the nurses, the prospect of practicing these higher-level skills was threatening and they resisted the leader’s attempts.

Studies of nurses in specific roles who are trying to utilize leadership skills or apply new learning related to leadership have described some of the challenges those nurses have encountered. Dyess and Sherman24 identified several themes based on focus groups with novice nurses who attended a leadership institute. Some of these themes were (a) perception of professional isolation, (b) contradictory information, and (c) experiencing horizontal violence. All of these themes were reflective of peer behaviors that affected the ability of these new nurses to transition to the practice setting, using newly learned leadership skills. The study participants perceived that nonsupportive behaviors were tolerated by nurse leaders. As young nurses become established in their practice and consider pursuing a leadership role, they note that the support of fellow nursing staff would be an important factor in that decision.25

Another role-specific study explored charge nurses’ experiences in the role and their learning needs for this leadership role. As participants in the study described barriers to their functioning in the charge nurse role, the theme of staff engagement emerged.26 Fellow staff could be resistant and make the charge nurse feel disempowered or disrespected. They identified a need for more learning related to managing staff behaviors.

Relationships with other colleagues on the health care team also have an effect on the ongoing development of leadership competency. For example, nurses in one study described that their ability to exercise newly learned leadership skills was negatively affected by the behavior of members of other disciplines pursuing their own agendas.22 When these nurses were able to use their leadership skills, they were able to positively influence the work environment through improved communication, collaboration, and teamwork. Dyess and Sherman also described a theme of “less than ideal communication” emerging from the reports of novice nurses related to their
interactions with physicians and other disciplines. One nurse described a negative interaction with a physician when she was attempting to advocate for a patient, "... The response was so rude. You would think I did something wrong." Novice nurses also described difficulty practicing leadership through delegation to unlicensed assistive personnel. The accepted cultural responses served to extinguish attempts to use developing leadership skills.

Subtheme 3: Role of the mentor in guiding the growth

In 9 of the qualitative studies, the guidance of a mentor emerged as an important factor in the developmental process for nurse leadership. Although not described in depth in these study findings, the identification of mentor relationships as a success factor was frequent. This was true regardless of the role or leadership level of nurses in the studies. Staff nurses who attended a shared leadership concepts program reported that "mentoring by strong unit-based leaders" was important for their ongoing leadership development. In another study, new clinical nurse leaders described how important the mentor was in providing feedback and guidance in the application of theoretical concepts into practice. One participant shared, "It was very helpful to do it with her there and ... give us feedback straight away." In another study, new nursing faculty leaders recommended that aspiring faculty leaders seek strong mentors who can provide the necessary support and guidance for them as they learn how to lead in the role. This includes mentorship for risk taking, speaking up at the appropriate time, challenging the status quo, and marshaling resources and advocacy. A study of leadership development in Hispanic nurses leaders reported on the positive experience of these participants with mentors. Mentors were identified as informal sources of learning and could be found in various places in the personal and professional lives of the nurses.

The influence was a powerful factor in their success.

Successful mentorship, however, requires a skill set, as identified in at least 3 studies in the metasynthesis. The mentor must be experienced and familiar with best practices. According to Young et al., they should be carefully selected not only for their knowledge about leadership but also for their ability to cultivating leadership in others. McCloughen et al. identified imagination as a key characteristic of the nurse leader-mentor contributing to the outcomes of the relationship. Participants in the Greenwood and Parsons study of unit leaders shared that a lack of mentoring skill could be "deleterious to novice mentee's grasp of mentoring purposes" and their continued development. They also reported that it contributed to a lack of trust in the mentor.

Mentorship as a strategy to enhance continued development of leadership in nurses must be well planned. It should be a systematic process. The timing of mentorship is important and for nurses assuming a new leadership role, it should begin early in the transition to the role. For staff nurses considering a nursing leadership role and the support they would need, mentorship was identified as the most important factor.

Theme 3: Organizational culture for growth

The importance of a positive organizational culture and supportive work environment was reported in 15 of the 21 qualitative studies in this metasynthesis. The organizational culture creates the context that will either support the growth of the nurse in her leadership role or cause it to wither and die. It is either a supportive growth medium or one devoid of nutrients. Shirey reports that positive organizational cultures are characterized by support and empowerment from nurse leaders and engendered a sense of pride and engagement. Participants described how the culture supported the development of authentic leaders who then were able to create
healthy work environments for the delivery of care. One participant put it this way,
That is what makes me proud to work here (referring to the empowerment) that I have an opportunity and failure would not be an option. That’s a daily thing for me. They trust me and I can’t let them down.\textsuperscript{16(p195)}

When aspiring nurse leaders feel both connected to the organization and that they have a place to contribute to overall success, it reinforces the use of learned leadership skills. Participants in one study described how an environment that fostered networking with other leaders in a positive culture contributed to a sense of belonging within the whole system.\textsuperscript{13} This sense of belonging energized them, fuelled their development, and increased their confidence. In another study, nurses who felt connected and saw themselves as a “trusted part of the leadership of the organization”\textsuperscript{22(p51)} found that it enhanced their ongoing leadership development. Pride in being part of an organization’s success and being recognized for that contribution reinforce nurse leader development.\textsuperscript{32}

An organizational culture that celebrates successes and expresses appreciation conveys that leadership development and achievement are valued. The recognition makes nurses feel valued for using their leadership competencies to make a difference in the organization. Upenieks\textsuperscript{17} described this as a component of the organizational power structure, where support from the executive team and nursing administration, along with increased participatory management, enables nurses at all levels to exercise leadership. One nurse participant explained, “Nurses need the opportunity to participate—it helps them feel as though they are part of the larger system, part of the solution. In return, they feel empowered.”\textsuperscript{17(p628)}

While positive organizational cultures and healthy work environments supported development of leadership competencies in nurses, studies also reported that some organizational cultural factors hindered development. These factors include culturally accented negative behaviors, limited financial and human resources, and insufficient time for education and reflection.

Certain behaviors within the culture of nursing in an organization negatively affect leadership development. Culturally accepted behaviors that interfered with leadership growth include experiences with discrimination,\textsuperscript{21} tensions related to the use of leadership titles,\textsuperscript{32} perceived legitimacy of leadership roles,\textsuperscript{13} and professional isolation.\textsuperscript{24} The studies provide evidence that negative cultures continue to persist in some nursing organizations, and as Shirley\textsuperscript{16} has described, they are less likely to support the development of authentic leadership in nursing and healthy work environments for the delivery of care.

An additional factor in the organizational climate that was described in several studies was the effect of tight financial resources and staffing limitations. Carr and Clarke\textsuperscript{13} reported that staff movement due to funding issues placed constraints on organizational learning. When investment in learning is limited to a small number of individuals, the learning can be lost, reducing the dissemination of learning more broadly. George et al\textsuperscript{22} reported barriers to application of leadership skills, including high staff turnover and heavy workload demands. Hancock and Campbell\textsuperscript{5} identified staffing as a significant difficulty for participants attempting to develop as leaders. The lack of staff also limited their ability to delegate to others and to focus on leadership activities. Developing charge nurses reported staffing and patient acuity as serious challenges to effectively practicing leadership competencies. Greater access to financial and human resources emerged as a theme for this group.\textsuperscript{20}

Participants in 7 of the qualitative studies discussed the importance of having sufficient time allocated for focused attention on leadership development as well as time to apply new learning. When provided with an opportunity to attend a workshop or course and have some time away from clinical or operational responsibilities, nurses expressed
appreciation. It contributed to a feeling that their development as leaders is important enough that the organization would invest the time in developing them. A nurse manager shared, "... If you invest in the people then they become stronger and resilient as managers and also empowered to do their role..."[10,15]

Two studies described the importance of time for reflection as the last factor. As one leader stated, "being 'given time and space' within the working day to reflect on past experiences"[15] was a benefit of participation in the leadership development program. Lack of sufficient time for reflection was a barrier to learning from experiences and "what didn't go so well."[15] Novice nurses in complex work environments were challenged to apply their newly learned leadership knowledge and skills. They reported too few opportunities to reflect on their practice.[24]

Not only is it important for learners to have the time allocated for specific leadership programs or courses, it is also important in their role performance to have time within their daily work to practice and apply new learning. Participants in several studies described increasingly heavy workloads with very little time to incorporate new learning. Charge nurses identified a lack of resources, including time, as a barrier to their effective functioning in the role.[29] Frontline leaders in another study described the challenges of workload and how the lack of time interfered with work-life balance and the ability to accomplish their work as leaders.[35]

DISCUSSION AND IMPLICATIONS

In summary, the synthesis of findings from the studies provides us with an understanding of the key elements of a supportive context for development of leadership competencies in nurses at all levels. Opportunity structure, supportive relationships, and a positive, healthy organizational culture are essential for the cultivation of nurses as leaders. The 3 elements are interconnected as part of the complex adaptive systems in which nurses practice and grow. If we are to truly develop the leadership capacity of nurses at all levels as proposed by the Institute of Medicine report on the Future of Nursing,[1] we must engage in praxis related to the environments in which we are trying to grow nurse leaders. There is something wrong with the picture in many organizations. There are power dynamics, structural, political, and economic conditions that are inhibiting nurses from practicing and developing to their fullest capacity as leaders. The studies in this metasynthesis indicate that nurses are engaged in critically reflecting on these conditions, envisioning a better way, and taking action to change the status quo. In organizations where there is a context that is supportive and nurturing, budding nurse leaders are flourishing. By critically reflecting and acting on these conditions in concert with other concerned nurse leaders, we can collectively build the emancipatory knowledge needed for shaping a healthier future.

The synthesized wisdom of the nurse participants from these qualitative studies can guide us in an appreciative process for the cultivation of nursing leadership. If we want nurses to develop as leaders, we must provide them not only with education to increase their knowledge and skills but also with opportunities to apply leadership knowledge and skill. We must plant them in situations where they will have the opportunity to establish roots and thrive. From the studies, we have learned that those opportunities may include stimulating practice environments, shared governance participation and leadership, formal and informal roles that will exercise their budding leadership abilities, volunteer opportunities, professional organization activities, and more. Formal leaders in nursing must make every effort to bring along an aspiring nurse leader to every developmental opportunity that arises. Each leader must be the person who "sees something" in each nurse and provides the chance to allow the leader within to emerge.
If we want nurses to develop as leaders, we must pay close attention to the leaders to whom they report. The relationship factor, particularly the role of the manager, is a critical component in enabling the budding leader to grow. We must assure that the manager's leadership competencies have been developed. Nurses in formal leadership roles must have the educational preparation to allow them to foster the growth of aspiring nurses without feeling threatened and insecure. Based on a study of nurse manager competencies and educational preparation, Kleinman recommended that "given the importance of the role and the competencies required for success, nursing and healthcare administrators must support the possession or eventual acquisition of a graduate degree as an essential requirement for nurse managers." In 2010, the American Organization of Nurse Executives adopted the position that the educational preparation for nurse managers with responsibility for nursing units or departments is at the graduate level. This educational preparation provides the nurse manager with the foundation for creation of a supportive context for nursing leadership development. Formal leaders and managers in nursing must be skilled mentors with ability to provide constructive feedback that will enhance growth and development, promote trust, and encourage risk-taking for developing nurses.

The creation of practice environments with healthy peer and interdisciplinary relationships and teamwork is another critical contextual factor for developing nurse leaders. A systematic review of evidence conducted by Pearson et al. generated several synthesized findings including that "leaders need to have an understanding of the key factors associated with producing a positive organizational climate in order to have an impact on producing positive staff outcomes." The mandate is clear and compelling. If we want to enhance the leadership behaviors of nurses, we must work to create healthy practice environments that allow them to try their newly developed skills, with support and encouragement from all members of the team. Blocking and undermining behaviors from colleagues halt the growth of the developing nurse leader and must not be tolerated. We must address the underlying conditions that inhibit healthy development.

Mentor relationships are widely recognized as essential to optimal development of the professional nurse. Much has been written about this important role. Key learnings from this metasynthesis are that mentors must be developed for their role. They must be skilled at listening, facilitating reflection, and providing constructive feedback for growth. Mentor preparation and careful selection are essential to their effectiveness.

Leadership takes time to develop. The findings of the studies in this metasynthesis illuminate the importance of allowing time for formal courses or programs, time for nurses to be involved in activities where they can practice developing leadership skills, time for reflection, and refinement of skills. Nurse leaders in healthy, supportive practice environments encourage professional growth and development and allocate the time required for various learning activities. Many of the activities that lead to the acquisition of leadership skills are experiential and happen through immersion in growth-promoting opportunities in the practice environment. They do not necessarily require additional time. However, conscious and deliberate efforts at making time for reflection and discussion in a supportive environment allow for the novice leader to better integrate new learning into practice.

CONCLUSION

The findings from this metasynthesis can be used as a basis for action and for further study. Creation of healthy environments for the cultivation of nursing leadership competencies will help ensure that nurses at all levels are prepared for the transformational leadership roles they are expected to fulfill. Further study of the elements essential to the creation of those environments will enhance
the understanding of specific improvement strategies, how strategies relate to one another, and how to optimize the system to unleash the full leadership capacity in nursing.

REFERENCES

30. Sullivan JCCRN, Bretschneider J, McCausland MP. I Desiening a leadership development program.
Cultivating Nursing Leadership for Our Envisioned Future

CHAPTER 5. THE POWER OF JOURNALS TO INFLUENCE NURSING LEADERSHIP DEVELOPMENT

Abstract

Objective:

The purpose of this study was to quantify leadership content in nursing journals, describe the utilization of professional journals by nurses, and perceptions of the usefulness of journals for leadership learning.

Background:

The Future of Nursing report recommends that leadership competencies be developed in all nurses. Few recent studies have examined the role of professional literature in leadership development, journal utilization or nurse perceptions of journals for leadership learning.

Methods:

The mixed-methods design included content analysis of leadership content in nursing journals and a survey to explore nurses’ journal reading practices and perceptions of journal content.

Results:

About 35% of the journal content addressed leadership competencies. Nurse participants value and seek leadership content and would like to see increased content in journals. Interest increased as nurses attained higher levels of education.

Conclusions:

Nursing journals have the potential to positively influence lifelong learning by increasing the types and amount of leadership content published.
The Institute of Medicine report entitled “The Future of Nursing: Leading Change, Advancing Health” (1) made the recommendation that leadership competencies be developed in nurses at all levels. In addition, the Scope and Standards of Practice (2) include an expectation that nurses demonstrate leadership in their practice and within the profession. The development of leadership knowledge and skill has been studied from the perspective of leadership programming, mentorship, and the creation of healthy environments for development. However, the role of professional literature in influencing nursing leadership development has not been well studied. Nursing journals are a source of information for the ongoing acquisition of professional knowledge. The leadership content published in professional nursing journals has the potential to influence the acquisition of the necessary leadership knowledge to enable nurses to contribute as described in the Future of Nursing (1) report.

The importance of lifelong learning for the maintenance of competency for professional nurses has been recognized since the time of Florence Nightingale (3). The American Nurses Association has established an expectation for lifelong learning in order for professional nurses to perform effectively (2). A review of the literature related to the reading practices of professional nurses as a mechanism for lifelong learning revealed very little recent evidence. Several studies were published between 1989 and 2003 about RN reading practices, the importance for lifelong learning and the effect of education on reading practices (3-8). Recognition of the importance of professional reading was the impetus for a systematic review of literature exploring the impact of journal clubs as a mechanism for exposing practitioners to current literature (9).
It is unclear how many nurses currently utilize professional journals for self-directed continuing professional development and lifelong learning. It is also unclear what content practicing nurses are seeking and would find beneficial for their learning needs. The purpose of this mixed methods study was to quantify the leadership content found in two widely-subscribed, broad-based nursing journals since the publication of the *Future of Nursing* report (1), to describe the utilization of professional nursing literature by nurses, and nurses’ perceptions of the usefulness of content in two popular journals for their leadership learning and competency development.

**Study Design**

A sequential QUAN → quan mixed methods design was used. According to Morse and Niehaus (10) two quantitative methods may be utilized when combinations of different quantitative measurements are required to answer the research questions. The first component of the study used Krippendorff’s content analysis method to quantify the leadership content in the *American Journal of Nursing* (*AJN*) and the journal *Nursing* published since the release of the *Future of Nursing* report (1). The second component used a descriptive/exploratory survey design to examine nurses’ journal reading practices and perceptions of journal content.

**Procedure: Data Collection and Analysis**

**Phase 1: Content Analysis**

Krippendorff (11, p.18) defines content analysis as “a research technique for making replicable and valid inferences from texts to the context of their use.” Content analysis may be used for a multitude of purposes. Two uses relevant to this study are to describe trends in
communication content and to reveal a focus of attention. Nursing journal texts were analyzed to
determine how much journal content is focused on leadership knowledge.

The process of content analysis begins with unitizing or deciding on the sampling and
recording units. Sampling units define the boundaries for content that will be included in the
analysis. For this study, the sampling units were feature articles and editorials published in AJN
and the journal Nursing from November 2010 through October 2011. This content was published
in the first twelve months following the release of the landmark Future of Nursing (1) report.
These two highly respected journals were selected because they are widely-read, peer-reviewed,
broad-based journals that nurses in any specialty and at any level of practice might read. The
mission of the journals and information for authors indicate inclusion of content that addresses
relevant professional, legal and ethical issues as well as clinical content.

Recording units are units that are separately coded or categorized. Any editorial or article
that contained substantive information or content related to the identified leadership
competencies was assigned a code. Substantive information or content was defined as the main
point of the article or a substantive portion of the article meeting the definition of an identified
leadership competency. The leadership competencies that were identified in the Future of Nursing (1) were used to establish the coding guide. Each competency was defined and
recording instructions were established. Table 1 contains the definitions used to code for
substantive leadership content in an article. The coding guide was drafted and tested by two
independent coders for clarity and consistency of use. The guide was refined so that coders
could consistently apply the coding instructions. Coders were trained on the use of the coding
guide. Each feature article and editorial published in the sample journals was read and coded by
two independent coders. The sample included 212 editorials and feature articles published in
AJN and Nursing from November 2010 through October 2011. Regular meetings were held with coders to discuss the findings and the process, assure that the guide was being consistently applied, and to assess for inter-rater reliability. Codes were entered into SPSS and analyzed for frequencies. Krippendorff’s α was calculated for inter-rater reliability for leadership content as well as for specific codes.

**Phase 2: Nurse Survey**

A pilot survey instrument was developed to collect data on the journal reading practices of nurses, nurse beliefs about leadership, and the type of content they seek and value in journals. Demographic questions such as gender, educational preparation, employment status, practice setting, and practice experience were also included. Study participants were asked to respond to each statement with a yes or no, or to rate the item using a Likert-type self-report scale. The content validity of the pilot survey was based on the review of literature on nurses’ professional journal reading practices, and expert opinion. The survey was revised based on feedback from a focus group of 9 doctoral students who had recently completed an instrument development course. The instrument was piloted with a group of 13 hospital-based nurse educators. Minor editorial changes were made.

After approval from the hospital Institutional Review Board, the survey was sent electronically to all nurses at one large academic medical center in the northeastern United States and to all nurses in the electronic database of the state nurses association via their biweekly news flash. No identifying information was requested. Questionnaires were returned to the survey vendor electronically and the results imported into SPSS for analysis. The data were analyzed for frequencies and correlations. Logistic regression was used to examine relationships between
responses to belief statements and demographic characteristics for each sample and the combined sample.

Results

Phase 1: Content Analysis

Of the 212 editorial or feature articles included in the sample, 23 editorials and 64 articles were published in *AJN* and 13 editorials and 112 articles were published in *Nursing*. Table 2 represents the final coding for the frequencies and categories of leadership content published. A total of 35.4% of the editorials or feature articles in the 2 journals contained substantive information or content related to the identified leadership competencies, with 50.6% from *AJN* and 24.8% from *Nursing*. Krippendorff’s α inter-rater reliability for leadership content for the total sample, for *AJN* articles, and for *Nursing* articles was $\alpha = .79$, $\alpha = .66$, and $\alpha = .89$, respectively. Inter-rater reliability for leadership categories was lower for the total sample, for *AJN* articles, and for *Nursing* articles was $\alpha = .58$, $\alpha = .43$, and $\alpha = .68$, respectively.

Phase 2: Nurse Survey

One hundred and seven nurses from the academic medical center (N=93(87%)) and from the state distribution list (N=14(13%)) responded to the electronic survey. The nurses in the sample were all licensed in the state and 105 (98.1%) were currently employed. The majority were female (92.5%). Demographic characteristics of the sample are included in Table 3. The respondents from the two different subsamples were significantly different from one another in practice setting, role, highest level of nursing education, and whether they were currently enrolled in an academic program or belonged to a professional organization. When combined
and analyzed as a single sample, the respondents included nurses practicing in a variety of settings and roles, representing nurses from all levels of practice.

The majority of respondents (86%) had read a professional nursing journal in the preceding 12 months. About 35% had read AJN in that time period and about 36% had read the journal Nursing. The time spent reading journal articles per month ranged from less than 2 hours (36.4%) to more than 10 hours (7.5%). When asked if they believed that nurses at all levels should have leadership knowledge and skill, 84.1% either agreed or strongly agreed. Nurses looked for articles about leadership in the journals they read (37.4%) and agreed that leadership content in journals was important to them (55.2%). They reported that content in AJN (34.6%) and Nursing (26.2%) helped them to learn about nursing leadership. Respondents agreed that they would like to see more leadership content in journals (46.7%). A correlation matrix was generated to begin an understanding of the relationships among the statements about leadership content in journals. Belief that nurses at all levels should have leadership knowledge and skill was significantly correlated with whether respondents look for content about leadership in journals and their desire to see more leadership content in journals. In addition, there was significant correlation between nurses’ beliefs about the importance of leadership content in journals and their utilization of journal articles to help them to learn about leadership. Table 4 contains the correlations.

Logistic regression was conducted to explore demographic variables as predictors of nurse response that leadership content in journals was important. The effect size as indicated by the Cox & Snell R Square was .31 and Nagelkerke R Square was .41. The Hosmer and Lemeshow Test was insignificant, indicating goodness of fit. The variables in the model that were significantly related to the belief that leadership content in journals was important were
highest level of nursing education, current enrollment in an educational program and specialty certification. Nurses with higher levels of nursing education were 2.4 times more likely to believe that leadership content was important in nursing journals than nurses with less education. Nurses currently enrolled in an educational program were 11.6 times more likely to believe that leadership content was important in nursing journals than nurses not enrolled in programs. However, nurses with a specialty certification were 74% (OR=0.26) less likely than nurses without a certification to believe that leadership content was important in nursing journals.

Discussion

The findings of the content analysis indicate that there is substantial leadership content in broad-based professional nursing journals. Both AJN and the journal Nursing publish content related to a variety of categories of content that might contribute to acquisition of leadership knowledge. Knowledge of the healthcare system and quality and safety improvement were the content categories most frequently published in both journals for the period studied. An increase in leadership knowledge in both of these content areas would better equip nurses to fulfill the recommendations of the Future of Nursing (1) report. In order to lead as well as partner in the transformation of the health care system, nurses at all levels must understand the current system and have knowledge and skills in quality and performance improvement. The journals also exhibited some differences in their published leadership content focus. AJN included a focus on ethical practice. In an increasingly complex healthcare environment, lifelong development of the ethical dimensions of practice is foundational to leadership development and the ability to advocate for patients and a just system (12). The journal Nursing had a focus on helping and mentoring others. This emphasis is consistent with studies that have shown that these behaviors are essential in developing the next generation of leaders but also in the creation of healthy work
environments and improved patient and staff outcomes (13-17). Important content areas that were not often addressed in the journals included how to work effectively in teams and collaborate with other disciplines, patient advocacy, innovation and how to act as a change agent. Knowledge of how to be an effective, collaborative professional team member is essential for nurses as they seek to partner with physicians and others in innovative ways and to advocate for necessary improvements in the healthcare system. Additional journal content in these focus areas would enhance the development of these important nurse leadership competencies.

The nurse survey indicates strong support from nurses at all levels for the development of leadership competencies. Nurses at all levels of experience and education are reading professional journals. This finding supports the *Future of Nursing* (1) report recommendation for lifelong learning in nursing and the creation of an expectation and culture that supports it. Many nurse survey participants value leadership content in journals and view it as helping them to learn and grow. There is some indication that nurses are looking for leadership content and would like to see more in the journals they read. This perceived interest increases as nurses attain higher levels of education.

The finding that higher levels of nursing education and current enrollment in an educational program are strong predictors of a belief that nurses at all levels should have leadership knowledge and skill, is consistent with recommendations for the advancement of nursing education. As nurses increase their educational levels they perceive value in the leadership role that nurses play, not only in formal leadership positions, but in all practice roles. With higher levels of education, nurses develop competencies in the use of evidence to improve
care and outcomes, teamwork and collaboration, and understand the importance of these skills in every nursing role (18). Nurses with higher levels of education look for content in journals that supports their lifelong leadership learning and believe it is important for their continuing competence.

Several limitations may be identified in this study. The content analysis included two nursing journals. The findings may not be reflective of the various professional journals that nurses may be reading, such as specialty-specific journals. Inclusion of more journals in the study would provide a more complete picture of nurse reader access to leadership content in the professional nursing journals. A second limitation is that the leadership content was defined and coded based on the *Future of Nursing* (1) report and related documents. There are many leadership models described in the literature and they may have included different essential elements and definitions. Limitations of the survey component of the study include that the majority of the participants were from one academic medical center and the response from the larger statewide nursing organization was very limited. Other mechanisms for reaching this target population, such as direct email, may have produced a larger response. In addition, social desirability may have had an effect on responses to some survey questions. The survey was designed to be anonymous to decrease this potential effect. There may also have been a selection effect where nurses who were interested in nursing leadership may have chosen to respond to the survey.

**Conclusion**

The findings of the 2 phases of this mixed methods study complement each other and have implications for journal editors. The content analysis revealed that although there is some
leadership content in the 2 broad-based journals studied, there is opportunity to increase the amount and types of leadership content published to support the development of nurses in this important aspect of their practice. The findings of the nurse survey also lend support for increasing leadership content in journals. As the journals have worked to increase nurses’ knowledge of the complex healthcare system, and to help them understand how to be partners in improving it, they have a great foundation for further building nursing leadership knowledge at all levels. Professional nursing journals have great power to influence the content to which nurses are exposed and to position them to lead as well as partner in positive changes in our healthcare system.

The findings also have implications for nurse leaders and mentors who, by encouraging higher levels of nursing education, are potentially influencing nurse interest in leadership development. Nurse mentors can reinforce the message that every nurse has a responsibility to lead and that leadership competency development is important. By providing opportunities for nurses to apply and practice leadership knowledge and skills, nurse leaders can create the conditions to foster the development of nurse leaders at every level of practice.
References


Table 1. Leadership Coding Definitions

<table>
<thead>
<tr>
<th>Leadership Competency</th>
<th>Content Definition for Coding Purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of the care delivery system</td>
<td>• healthcare systems (structure and finance) and organizational structures and relationships (19)</td>
</tr>
<tr>
<td>How to work in teams</td>
<td>• teamwork skills, including effective teams/characteristics, application to patient care teams, team process (19)</td>
</tr>
<tr>
<td>How to collaborate effectively within and across disciplines</td>
<td>• communication process that fosters innovation and advanced problem solving among people of different disciplines, organizational ranks, or institutional settings, enabling advanced problem solving and identification of innovative solutions without regard to discipline, rank, or institutional affiliation, to produce positive. (20)</td>
</tr>
</tbody>
</table>
| Communication, conflict resolution and negotiating skills | • Convey knowledge or information, thought or feeling so that is satisfactorily received or understood  
• Recognize, resolve and manage conflict  
• Confer with another so as to arrive at a settlement of some matter; to bring about by mutual agreement (21) |
| Basic tenets of ethical care           | • Content reflective of the nine provisions of the Code of Ethics for Nurses (22)                                                                                                                                                                                                                  |
| How to be an effective patient advocate | • How to defend or support a cause or proposal, including work toward equitable distribution and availability of health care services, a system that is sensitive to the needs of individual consumers, dignified and humane care by the team, appropriate and judicious use of products in healthcare, implementation of environmental principles (2) |
| Theories and strategies of innovation  | • creative and imaginative strategies in problem solving, improving quality, cost-effectiveness or efficiency  
• “application of creativity or problem solving that results in a widely adopted strategy, product or service that meets a need in a new and different way” (23) |
| Foundations for safety and             | • patient safety principles, including safety standards, organizational safety                                                                                                                                                                                                                  |
quality improvement; improving work processes and care delivery models at the front line

- quality improvement (QI), including history, elements, Continuous Quality Improvement (CQI) models, concepts, principles, benchmarking, processes, tools, departmental ownership, roles/responsibility, methodologies, regulatory requirements, organizational structures for QI, outcomes, monitoring, Quality Assurance (QA) vs. QI, beginning resource need assessment, and resource identification, acquisition, and evaluation
- overview of QI process techniques, including benchmarks, basic statistics, root cause analyses, and Failure Mode Effects Analysis (FMEA) in the quality improvement process (19)

How to be a change agent

- how to facilitate change which is an intentional intervention to create something new or improve the system
- may include change theory and complexity science, community organizing models, social change theories

How to hold colleagues accountable for improving quality and decreasing preventable adverse events and medication errors

- Understanding accountability as the liability for task performance and quality, requires knowledge of the standards/expectations, assertiveness skills, communication skills, relationship building skills

Helping and mentoring others

- Serve as a trusted counselor or guide
- facilitator of learning for other staff, contributes to a nurturing/supportive environment that fosters mutual respect and professional growth
### Table 2. Leadership Content Coding Results (n = 212)

<table>
<thead>
<tr>
<th>Leadership Code</th>
<th>Total n (%)</th>
<th>AJN n (%)</th>
<th>Nursing n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not leadership</td>
<td>137 (64.6)</td>
<td>43 (49.4)</td>
<td>94 (75.2)</td>
</tr>
<tr>
<td>Healthcare system knowledge</td>
<td>12 (5.7)</td>
<td>7 (8.0)</td>
<td>5 (4.0)</td>
</tr>
<tr>
<td>How to work in teams</td>
<td>1 (0.5)</td>
<td>1 (1.1)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Collaboration</td>
<td>4 (1.9)</td>
<td>3 (3.4)</td>
<td>1 (0.8)</td>
</tr>
<tr>
<td>Communication skills</td>
<td>8 (3.8)</td>
<td>4 (4.6)</td>
<td>4 (3.2)</td>
</tr>
<tr>
<td>Ethical care</td>
<td>12 (5.7)</td>
<td>10 (11.5)</td>
<td>2 (1.6)</td>
</tr>
<tr>
<td>Patient advocacy</td>
<td>4 (1.9)</td>
<td>3 (3.4)</td>
<td>1 (0.8)</td>
</tr>
<tr>
<td>Innovation</td>
<td>3 (1.4)</td>
<td>1 (1.1)</td>
<td>2 (1.6)</td>
</tr>
<tr>
<td>Quality and safety improvement</td>
<td>20 (9.4)</td>
<td>13 (14.9)</td>
<td>7 (5.6)</td>
</tr>
<tr>
<td>Change agent</td>
<td>4 (1.9)</td>
<td>2 (2.3)</td>
<td>2 (1.6)</td>
</tr>
<tr>
<td>Accountability</td>
<td>1 (0.5)</td>
<td>0 (0)</td>
<td>1 (0.8)</td>
</tr>
<tr>
<td>Helping and mentoring others</td>
<td>6 (2.8)</td>
<td>0 (0)</td>
<td>6 (4.8)</td>
</tr>
</tbody>
</table>

Note: Total number of items that were assigned leadership codes assigned was 212, with 87 from AJN and 125 from Nursing.
Table 3. Sample Characteristics (n = 107), Subsample 1 (n = 93), Subsample 2 (n = 14)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Sample n (%)</th>
<th>Subsample 1 n (%)</th>
<th>Subsample 2 n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Nursing Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td>18 (16.8)</td>
<td>15 (16.1)</td>
<td>3 (21.4)</td>
</tr>
<tr>
<td>Associates</td>
<td>28 (26.2)</td>
<td>26 (28.0)</td>
<td>2 (14.3)</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>55 (51.4)</td>
<td>47 (50.5)</td>
<td>8 (57.1)</td>
</tr>
<tr>
<td>Masters</td>
<td>6 (5.6)</td>
<td>5 (5.4)</td>
<td>1 (7.1)</td>
</tr>
<tr>
<td><strong>Highest Nursing Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td>7 (6.5)</td>
<td>7 (7.5)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Associates</td>
<td>20 (18.7)</td>
<td>20 (21.5)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>55 (51.4)</td>
<td>51 (54.8)</td>
<td>4 (28.6)</td>
</tr>
<tr>
<td>Masters</td>
<td>23 (21.5)</td>
<td>15 (16.1)</td>
<td>8 (57.1)</td>
</tr>
<tr>
<td>Doctorate</td>
<td>2 (1.9)</td>
<td>0 (0)</td>
<td>2 (14.3)</td>
</tr>
<tr>
<td><strong>Years of Nursing Experience</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 1</td>
<td>2 (1.9)</td>
<td>2 (2.2)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>1 – 4</td>
<td>12 (11.2)</td>
<td>12 (12.9)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>5 – 9</td>
<td>18 (16.8)</td>
<td>18 (19.4)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>10-14</td>
<td>14 (13.1)</td>
<td>13 (14.0)</td>
<td>1 (7.1)</td>
</tr>
<tr>
<td>15 or more</td>
<td>61 (57.0)</td>
<td>48 (51.4)</td>
<td>13 (92.9)</td>
</tr>
<tr>
<td><strong>Currently employed</strong></td>
<td>105 (98.1)</td>
<td>3 (100)</td>
<td>2 (85.7)</td>
</tr>
</tbody>
</table>
Table 3 continued

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Sample n (%)</th>
<th>Subsample 1 n (%)</th>
<th>Subsample 2 n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Practice Setting**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>99(92.5)</td>
<td>92(98.9)</td>
<td>7(50.0)</td>
</tr>
<tr>
<td>Home or Community</td>
<td>1(0.9)</td>
<td></td>
<td>1(7.1)</td>
</tr>
<tr>
<td>Long-term care</td>
<td>0(0)</td>
<td></td>
<td>0(0)</td>
</tr>
<tr>
<td>Academic</td>
<td>2(1.9)</td>
<td></td>
<td>2(14.3)</td>
</tr>
<tr>
<td>Ambulatory</td>
<td>2(1.9)</td>
<td>1(1.1)</td>
<td>1(7.1)</td>
</tr>
<tr>
<td>Other</td>
<td>3(2.8)</td>
<td></td>
<td>3(21.4)</td>
</tr>
<tr>
<td>Primary Role**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff nurse</td>
<td>69(64.5)</td>
<td>66(71.0)</td>
<td>3(21.4)</td>
</tr>
<tr>
<td>Advanced practice clinical role</td>
<td>5(4.7)</td>
<td>1(1.1)</td>
<td>4(28.6)</td>
</tr>
<tr>
<td>Management or Administration</td>
<td>18(16.8)</td>
<td>15(16.1)</td>
<td>3(21.4)</td>
</tr>
<tr>
<td>Education</td>
<td>12(11.2)</td>
<td>9(9.7)</td>
<td>3(21.4)</td>
</tr>
<tr>
<td>Other</td>
<td>3(2.8)</td>
<td>1(1.1)</td>
<td>1(7.1)</td>
</tr>
<tr>
<td>Certified in Nursing Specialty</td>
<td>31(29)</td>
<td>22(25.8)</td>
<td>7(50.0)</td>
</tr>
<tr>
<td>Enrolled in Academic Program*+</td>
<td>42(39.3)</td>
<td>40(43)</td>
<td>2(14.3)</td>
</tr>
<tr>
<td>Nursing Organization Member*+</td>
<td>56(52.3)</td>
<td>45(48.4)</td>
<td>11(78.6)</td>
</tr>
</tbody>
</table>

*=p<.05, **=p<.001, + = Fisher’s Exact test used instead of Pearson Chi-Square
**Table 4.** Pearson Correlations for Nurses’ Leadership Values, Beliefs, and Behaviors (n = 107)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>.20*</td>
<td>.12</td>
<td>.23*</td>
<td>-.01</td>
<td>.16</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>.76**</td>
<td>.68**</td>
<td>.55**</td>
<td>.36**</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>1</td>
<td>.76**</td>
<td>.42**</td>
<td>.33**</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td>.33**</td>
<td>.19</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>.42**</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**= p < .001, * = p < .05

**Key:**
1. Believe that nurses at all levels should have leadership knowledge and skill.
2. I look for articles about leadership in the journals I read.
3. Leadership content in journals is important to me.
4. I would like to see more leadership content in journals.
5. The content in AJN helps me learn about nursing leadership.
6. The content in Nursing helps me learn about nursing leadership.
CHAPTER 6. THE DEDICATED EDUCATION UNIT AS AN APPLICATION OF A NURSING LEADERSHIP COMPETENCY DEVELOPMENT BUNDLE: A MIXED METHODS STUDY

Chapters Two through Five of this dissertation include studies of the contributions of formal educational processes, experiential learning, practice contexts, and professional literature to the development of nursing leadership competencies. These studies provide qualitative and quantitative findings that may be utilized to inform educational and cultural improvement strategies for nursing and a health care system under transformation. Collectively, the metasyntheses suggest that an effective model for the development of nursing leadership competencies would incorporate a relevant, evidence-based formal educational component, a guided experiential component, and a supportive context for application of learning (Galuska, 2012a, 2012c, 2013). There is evidence that each component is insufficient without the others. The evidence also suggests that these components are essential not only for the novice nurse but for nurses throughout their career, and across practice settings. The bundling, or collective implementation of formal leadership education, guided experiential learning, and a supportive culture into an integrated, evidence-based model has the potential to more effectively cultivate nursing leadership capacity for the complex adaptive systems of healthcare. Professional literature may augment the model by providing a mechanism to support lifelong leadership learning and competency development (2012b).

Innovative structures that build on a strong educational foundation, provide access to experiential learning under the guidance of expert practitioners, and are situated in healthy supportive practice settings provide opportunities to study an integrated, evidence-based model or “bundle” for leadership development. This chapter will describe a study of one such
innovative structure, the dedicated education unit (DEU), as an application of the “bundle”, and explore the effect of the experience on leadership competency development in students as well as staff nurses.

Benner, Sutphen, Leonard and Day (2010) recommend a radical transformation of nursing education to enable nurses to “practice state-of-the-art nursing and enact the profession’s core values of care and responsibility” (p. 9). The goals of nursing education include preparation for clinical practice, leadership, and the advancement of nursing science for better patient outcomes (IOM, 2011). The future of nursing in leading change and advancing health requires an educational system that effectively prepares nurses to meet these goals. Preparation of nurses to lead in the complex adaptive systems of health care begins with undergraduate education and continues throughout the career of the nurse.

Essential nursing leadership competencies involve knowledge of the health care system, communication and collaboration skills, innovation, quality and safety improvement, teamwork, advocacy and more. The American Association of Colleges of Nursing (AACN, 2008) published essential curricular content for leadership knowledge development in baccalaureate students. The recommended content would prepare the graduate with the knowledge of leadership concepts, skills and communication strategies needed for assuring safe, high quality patient care. Experiential learning that is integrated with curricular content would enhance the development of leadership and communication skills (Benner et al., 2010). Nursing students learn well in settings that provide relevant experiences, rich feedback, and opportunities for reflection as well as social support. Berry (2011) proposes that “Communities of Practice” are learning environments that engage students in supportive practice setting experiences that enhance their competency development. The dedicated education unit (DEU), as an exemplar of
a “community of practice,” may represent the type of innovative learning environment that supports development of leadership and communication competencies early in the career of the nurse.

**Review of Literature**

Dedicated education units were first described by Edgecombe, Wotton, Gonda, and Mason (1999) as a model for enhancing the clinical experience of Australian nursing students. This innovative experiential learning structure emerged out of a strategic academic-practice collaboration intended to create positive clinical learning environments and improve student learning outcomes. The DEU model capitalizes on the expertise of clinicians and academicians by pairing the nursing student with a staff nurse mentor who serves as a clinical instructor. Academic faculty support the clinical instructors and the students to assure that learning objectives are met. Students are exposed to a wide range of experiences as both clinical and academic faculty help them to apply theory to practice. The students in a DEU have the opportunity to interact with peers, staff and the multidisciplinary team as they become immersed in the culture of the unit. The immersion experience provides a unique opportunity for students to learn to actualize their professional role as a member of an inter-professional team.

Early evaluative data on dedicated education units suggested that the model was effective (Gonda, Wotton, Edgecombe, & Mason, 1999). Students and clinical staff reported that the DEU created an environment that was conducive to learning. The experience not only enhanced student development but also stimulated clinician learning (Gonda et al., 2009).

The success of the DEU model in Australia led to exploration of implementation of a similar model in the United States (Moscato, Miller, Logsdon, Weinberg, & Charpenning, 2007). A discussion between leaders in practice and academe led to the formation of a community-
university partnership in Oregon to pilot the DEU concept. Common principles were established along with a shared vision of the DEU as a “village” collaborating and committed to “raise” the nursing students (Moscato et al., 2007, p. 32). Each hospital DEU partnered with one school of nursing. Staff nurses acted as consistent clinical instructors for specific students for the entire clinical semester. Clinical instructors were prepared for their teaching role by the academic partners. Faculty educators supported the clinical instructors through instruction and coaching, and the students through the provision of opportunities for dialogue, instruction and feedback. Both clinical instructors and university faculty played a role in the student feedback, evaluation, and achievement of learning objectives. All members of the unit embraced and assumed ownership for the students’ development. The evaluation of outcomes of the Oregon DEU initiative affirmed that the DEU provided a supportive learning environment, positively influenced student learning, and clinical staff satisfaction (Moscato et al., 2007).

Over the last decade, several innovative academic-practice partnerships and variations on the DEU model have been implemented in other states, such as Washington, Massachusetts, and Michigan (Freundl et al., 2012; Glazer, Ives Erickson, Mylott, Mulready-Shick, & Banister, 2011; Miller, 2005, ). The concepts have been applied in acute care medical-surgical settings as well as specialty areas such as pediatric, perioperative, long-term care, primary care and community agencies (Bernal, Shellman, & Reid, 2004; Freundl et al., 2012; Ryan, Shabo, & Tatum, 2011). This evolution of new partnership models for developing nurses and improving learning outcomes in a variety of settings reflects an appreciation for the interconnectedness and interdependence of nurses across traditional lines. Warner and Burton (2009) describe the new thinking that is required to respond to the need for transformation in nursing education and in the health care system. Innovative academic-practice partnership require “letting go, accepting and
shifting” to use resources more creatively, efficiently and effectively (p. 333). Some commonalities have included restructuring staff nurse-nursing student relationships, reconceptualizing the faculty role, enhancing professional development at multiple levels and strengthening clinical experiential learning (MacIntyre, Murray, Teel, & Karshmer, 2009).

The benefits of the DEU and similar innovative models have been explored from a variety of perspectives. Many studies have focused on both the satisfaction of students, staff nurses, and faculty associated with the DEU model and the stronger collegial relationships (Freundl et al., 2012; Gonda et al., 1999; Miller, 2005; Moscato et al., 2007; Murray, MacIntyre, & Teel, 2011; Rhodes, Meyers, & Underhill, 2012). Some described enhanced student and staff learning outcomes, which were evaluated both qualitatively through focus groups and semi-structured interviews, and quantitatively through test scores (Gonda et al., 1999; Miller et al., 2005; Moscato et al., 2007; Murray et al., 2011; Springer, Johnson, Lind, Walker, Clavelle, & Jensen, 2012). Students demonstrated improved competence and confidence in a number of domains. Murray and James (2010) reported gains in critical thinking, prioritization, decision-making, teamwork and improved clinical and inquiry skills as evaluated by students and faculty. Rhodes and colleagues (2010) also described perceived improvements in critical thinking and appraisal of evidence as assessed through student surveys and focus groups. Dyess, Boykin, and Rigg (2010) reported survey and focus group results that indicated student integration of caring theory into their clinical practice in a DEU using that theoretical framework. Focus group studies described increased student accountability (Ranse & Grealish, 2007; Springer et al., 2012). Several studies evaluated the cost-effectiveness of the models, identifying higher costs initially followed by cost savings later in the implementation process (Miller, 2005; Moscato et al., 2007; Springer et al., 2012). The positive effect of DEU on quality and safety competency
development was described by students and staff nurses in a focus group study conducted by Mulready-Shick, Kafel, Banister, and Mylott, (2009). The benefits for the students, staff nurses, faculty and organizations have been well-documented. However, specific improvements in leadership competencies, which are essential for the nurse of the future and for the transformation of the health care system, have not been studied.

Dedicated education units, based in health care organizations and implemented in partnership with educational institutions, are embedded complex adaptive systems. As communities of practice and learning, they are Microsystems where all of the individuals affect one another and can be sources of support and learning. The DEU model provides an excellent context for the intentional development of leadership competencies in students and in nurses. The aim of this mixed methods study was to explore the effect of a DEU clinical experience on the leadership development of baccalaureate nursing students and the staff nurse clinical instructors who teach and mentor them.

**Research Questions**

To achieve the overall research aim, a mixed methods study included multiple research questions and methods to answer them. This study included quantitative, qualitative and mixed methods questions.

Quantitative research questions included:

1. Will students in a dedicated education unit (DEU) demonstrate greater leadership competency as measured by the Student Leadership Practices Inventory (LPI) than students in the control units?
2. Do direct care nurses who act as clinical instructors exhibit increased leadership behavior after one semester, as measured by the Leadership Practices Inventory (LPI)?

3. How do the leadership behaviors of students who have participated in a dedicated education unit compare with leadership behaviors of newly licensed nurses after a one-year residency program?

Qualitative research questions included:

1. What are the perceptions of nursing students regarding the effect of the dedicated education unit experience on their leadership development?

2. What are the perceptions of direct care nurses who act as clinical instructors in a dedicated education unit regarding the effect of the experience on their own leadership development?

The mixed methods research question is: How do the experiences of student nurses and staff nurse clinical instructors explain the changes in measured leadership behaviors?

**Philosophical and Theoretical Foundations**

As described in Chapter 1, complexity leadership theory provides the framework for this dissertation. Developing nursing leadership competencies at every level, from the bedside to the boardroom, requires a perspective on leadership that incorporates the influence of nurses in formal leadership positions as well as the influence of practicing nurses throughout the complex adaptive system. Leadership is an emergent dynamic that involves all nurses in various leadership functions. Nursing students and direct care nurses are part of the network dynamics and should be effectively prepared to exercise leadership in the complex system to produce better outcomes.
Complexity leadership theory has a foundation in complexity science and a view of health care as a complex adaptive system. The philosophic underpinnings for complexity science are postmodern. A postmodern worldview rejects the notion that there is a single truth or metanarrative for understanding the world (Cilliers, 1998). Humans in complex, dynamically-connected, networked systems experience the world in multiple ways and self-organize to produce results. The key to survival and flourishing in complex adaptive systems is the ability to creatively adapt and innovate. A postmodern perspective capitalizes on multiple ways of looking at the world and viewing problems or questions. Creativity is stimulated when we use multiple paradigms to approach knowledge development (Monti & Tingen, 1999). There is no single truth or linear path. There will be no single truth related to optimal nursing leadership development and no single methodology for studying it. A mixed methods approach provides the advantage of viewing the challenge of nursing leadership development in undergraduate students and direct care nurses from different points of view and benefitting from the expanded vision.

The epistemology of postmodernism is closely related to pragmatism in the acceptance of varied approaches to knowledge development. Pragmatism as a philosophy reflects an acceptance that although there may be multiple ways to examine a problem or question, the most important factor in choosing a method of exploration is how useful the answer will be (Hannes & Lockwood, 2011). The approach should “make sense within the context of the problem” being studied (Isaacs, Ploeg, & Tompkins, 2009). Isaacs et al. credit Richard Rorty with revitalizing pragmatism and emphasizing the moral and humanistic value of research. They propose that nursing research use a pragmatic postmodern approach to address what makes sense and has meaning for nurses and the patients for whom they care. As Evans, Coon and Ume (2011) point out, nursing, as a practice discipline, is concerned with “messy confusing problems” (p. 2) and
requires complementary methods that combine scientific rigor with the uncertainty inherent in complex systems. Mixed methods studies reflect a pragmatic approach to research based on a need for science to be useful and to help solve problems in the complex real world (Creswell & Plano-Clark, 2011).

The interest and urgency for nursing leadership development at all levels requires a pragmatic approach to knowledge development. There is an interest in doing what works and what will be meaningful to nurses, patients and the healthcare system. The challenge to effectively prepare nurses to lead in the complex adaptive systems of health care is best addressed through complementary research designs. Thus, a mixed methods design based on a pragmatic postmodern philosophy was used for studying nursing leadership development in the context of the dedicated education unit.

**Method**

Mixed methods research studies are scientifically rigorous, and are designed to answer research questions using a combination of methods. The combination or mixing of methods in the study design results in a better understanding of some research problems than any single method would provide alone.

A convergent parallel QUAN + QUAL mixed methods design was used for this study. This type of design serves to capitalize on the strengths of both the quantitative method and the qualitative method to provide a more complete understanding of the phenomenon under study. According to Creswell and Plano-Clark (2011), a convergent parallel design involves implementing both the quantitative and the qualitative strands of the study concurrently. Both
strands have equal priority and the data are collected and analyzed separately. Integration occurs during the overall interpretation of the findings.

The quantitative strand for this study used a quasi-experimental, non-equivalent pretest-posttest, longitudinal, multi-site design with control groups to evaluate the leadership development of students and direct care nurse clinical instructors participating in a dedicated education unit clinical experience. The design also included comparison of student leadership development with the development of nurse residents over their first year of practice. The comparison of leadership development outcomes associated with a DEU experience with those of a residency program may provide insight into the timing and value of pre-licensure and post-graduate programs for early development of nursing leadership competencies and the potential for scaffolding of programs to optimize growth and minimize costs. The qualitative strand used a focus group design using methods described by Krueger and Casey (2009). The intent of this qualitative approach was to explore with both the students in the DEU and the Clinical Instructors the experience of participating in a DEU clinical experience and perceptions of the impact of the experience on their leadership development. Figure 1 provides an author-created graphic depiction of the mixed methods design.
Figure 1. Convergent Parallel Mixed Methods Design for DEU Study of Leadership Development

**Procedures:**
- Identify student CI and resident participants
- Measures: Student LPI, Demographics, Observer LPI, CI LPI, CI demographic

**Products:**
- Sample descriptions
- LPI mean scores, subsample scores

**Procedures:**
- Identify DEU student participants and CI participants
- Focus groups

**Products:**
- Transcripts

---

**Procedures:**
- Descriptive statistics
- Group comparisons using t-tests

**Products:**
- Leadership competency development, means, significance

**Procedures:**
- Cross tabulate qualitative data with LPI subscales

**Products:**
- Matrix relating qualitative themes with LPI subscales

**Procedures:**
- Consider how merged results produce better understanding

**Products:**
- Student themes
- CI themes

**Interpretation**
Ethical Considerations

Because students and hospital employees are vulnerable subjects who may have concerns about their confidentiality and consequences of their responses, the study was designed to minimize risk by ensuring anonymity of responses through coding and security measures. Student and staff nurse participation was voluntary. They were assured that the principal investigator was acting in the role of researcher and not hospital employee or University of Connecticut faculty. Informed consent was obtained from each participant. Measures to mitigate any risks were taken. Applications were submitted to hospital Institutional Review Boards and approval obtained. In addition, an application was submitted to the University of Connecticut IRB and approved. Hospital and University processes for the protection of human subjects were followed.

Setting and Background

Two hospitals participated in the study in partnership with the University of Connecticut (UCONN), School of Nursing. Hospital A is an urban academic medical center with 610 licensed beds and Hospital B is a community MAGNET-designated hospital with 275 licensed beds. Nursing leaders from both hospitals had been engaged in discussions with UCONN undergraduate faculty leaders about introducing the DEU concept with the shared goals of strengthening academic-service partnerships, improving the educational experience for the students, expanding faculty capacity, and providing growth opportunities for direct care nurses. A task force including hospital Directors of Nursing Education, hospital-based educators, and UCONN undergraduate faculty and coordinators was established to examine the DEU concept, assess feasibility of implementation, and collaborate on an action plan. Early exploration included a review and discussion of the literature on DEU’s and discussions with a
Massachusetts hospital where a DEU model had been successfully implemented in collaboration with the University of Massachusetts. Encouraged by the reported successes of these organizations, the task force entered into the planning process for dedicated education units in both hospitals.

Hospital nurse leaders and UCONN faculty collaborated on the DEU model design. Roles and expectations were established. Modeled after the designs implemented in Massachusetts (Glazer et al., 2011) and Oregon (Moscato et al., 2007) the team agreed to:

- limit the use of the DEU to UCONN students
- engage direct care nurses as Clinical Instructors based on their interest and skill in developing students
- prepare Clinical Instructors for the role through an orientation workshop and ongoing collaborative developmental activities
- assign each Clinical Instructor to one or two students for the entire semester
- employ a University faculty member as a Clinical Faculty Coordinator to support the development of the Clinical Instructors and assure that student learning objectives were being met
- provide formal evaluation of the students by the Clinical Faculty Coordinators in collaboration with the Clinical Instructors
- collaborate in creating a supportive practice and learning environment for students and staff, and
- study the effects of the model on learning outcomes
The task force determined that the DEU concept would be piloted on one medical-surgical unit in each hospital and that UCONN senior students in their final semester would be placed in these units. Specific medical-surgical units were selected based on the interest and passion of the Nurse Manager and staff for teaching nursing students. In Hospital A the unit was a 26-bed medical-surgical unit and in Hospital B, it was a 20-bed medical-surgical unit. Both units had experienced staff members who had performed effectively in the student preceptor role based on Nurse Manager observations and feedback from faculty and students.

The DEU students would be expected to be present for one or two 12-hour shifts on alternating weeks to complete 252 clinical hours in the semester. Their schedules would align with the schedule of the direct care nurse Clinical Instructors. Students self-selected into these placements based on their clinical interests, hospital location, and scheduling requirements. Hospital A accepted 10 students into the DEU and Hospital B accepted 7 students.

Direct care nurses were selected for the Clinical Instructor (CI) role by the Nurse Manager of the DEU. Ideally the CI has a BSN or MSN, is clinically experienced, and has demonstrated effectiveness as a preceptor and mentor. Hospital A identified 5 CIs and Hospital B identified 7 CIs. Hospital A CIs had two students each but their schedules were arranged so that only one student was present per day. Hospital B CIs had only one student assigned. The students remained with their CI for their clinical experiences throughout the semester. The CIs provided ongoing teaching and mentorship. They supported the students in mastering their core competencies, becoming contributing members of the care team, and integrating into the unit culture. Under the guidance of the CI, students gradually assumed all aspects of the nursing role. In addition to providing direct care for a 2-4 patient assignment, they participated with the CI in other activities such as interdisciplinary rounds and shared governance meetings. The CI
participated in the provision of feedback to students and contributed to their overall clinical evaluation, but the accountability for assuring that learning outcomes were met rested with the Clinical Faculty Coordinators.

Clinical Faculty Coordinators (CFC) were members of the clinical or educator staff at the participating hospital and were also members of the UCONN undergraduate faculty. The CFC had experience with the hospital as well as experience teaching undergraduate students. They provided support to the CIs and the students. They guided the CIs in the use of effective teaching strategies, monitoring student performance, and providing effective feedback. They helped the CIs grow in their professional teaching roles. They met with both the CIs and the students regularly to provide ongoing facilitation of the teaching-learning process.

The dedicated education units in both hospitals were implemented in the spring semester of 2011. This study was designed to evaluate the leadership competency development associated with the experience of students and staff CIs during the course of that semester.

The design of the quantitative strand included control groups comprised of students who were not participating in the dedicated education unit clinical experience. Control group units were selected that were similar in profile to the DEU. That is they were also medical-surgical units in the same hospitals and with the same number of beds. Students were placed on these units in the same way they were placed in the DEU; that is, based on clinical interest, hospital location and scheduling requirements. Each control unit was assigned a UCONN Clinical Faculty member and a group of 7-8 students. They had regularly scheduled days and hours on the units. The students were assigned a nurse preceptor for the time that they were present. Student assignment to the same preceptor was not always consistent over the course of the
semester. The control units also had students from other schools of nursing at different levels in their education using traditional clinical experience models.

In addition to examining leadership competency development in students based on their participation in a DEU experience, the study design included comparison of DEU student leadership development with that of newly licensed nurses who had participated in a nurse residency program. The comparison was expected to provide insight into the contribution of each type of program to early nursing leadership development. Nurse residency programs are designed to facilitate the transition of new nurses into practice. They build on the foundation of the pre-licensure education by providing a defined period of time with planned, comprehensive developmental activities and support. Such programs enable new nurses to integrate and apply formal education into the practice setting to competently deliver safe, quality care. Stated goals are the “development of clinical judgment and leadership skills for new nurses at the point of care” (The Joint Commission, 2005, p.32).

Benner and colleagues (2010) have endorsed the inclusion of residency programs as part of the transformation of nursing education. The IOM (2011) has recommended implementation of residency programs to prepare nurses for their practice and leadership roles in a transformed health care system. Nurse residency models and related positive outcomes have been described in the literature (Goode, Lynn, McElroy, Bednash, & Murray, 2013; Krugman, Bretschneider, Horn, Krsek, Motafis, & Smith, 2006; Williams, Goode, Krsek, Bednash, & Lynn, 2007). Nurse residents have perceived improvement in their clinical leadership competency as a result of participating in a residency program (Goode et al., 2013).
Both hospitals participating in this study had well-established formal residency programs. Hospital B uses the program established by the University HealthSystem Consortium (UHC) and the American Association of Colleges of Nursing (AACN) for post-baccalaureate nurse residencies (UHC, 2009). Hospital A modeled a program after the UHC/AACN program but includes both post-associate degree and post-baccalaureate graduates. An outline of content of the residency programs is included in Appendix A. One of the research questions for this study is how the self-evaluated leadership practices of nurses who have participated in a residency program compare with those of nursing students who have completed a clinical experience in a DEU.

**Quantitative component: data collection**

The quantitative strand of the study involved collection of data to describe each of the samples and the self-assessed and observed leadership behaviors of participants. Figure 2 provides an author-designed graphic depiction of the procedures and products for the quantitative strand.

Figure 2. Design of Quantitative Strand for Studying Leadership Development in a DEU

**Procedures:**
- Identify student, CI and resident participants
- Measures: Student LPI, Demographics, Observer LPI, CI LPI, CI demographic

**Products:**
- Sample descriptions
- LPI mean scores, subsample scores

**Procedures:**
- Descriptive statistics
- Group comparisons using paired t-tests

**Products:**
- leadership competency development, means, significance
Sample.

A convenience sample of 32 second-semester senior nursing students participated in the study. In the dedicated education units at both hospitals, the sample included 17 senior nursing students. In the control units at both hospitals, the sample included 15 senior nursing students. The student sample included 30 females and 2 males.

The direct care nurse Clinical Instructor sample for both hospitals included 12 nurses on the DEUs. In the DEU, each student was assigned a consistent Clinical Instructor. Each Clinical Instructor was assigned one or two students. Newly hired Nurse Residents in each hospital comprised the pre-residency sample (n=39). Nurse Residents in each hospital who had just completed the residency program comprised the post-residency sample (n=28). Table 1 includes the numbers and types of subjects in each group.

Table 1
Participant Type, Number and Hospital Setting

<table>
<thead>
<tr>
<th></th>
<th>Hospital A Control</th>
<th>Hospital A DEU</th>
<th>Hospital B Control</th>
<th>Hospital B DEU</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>8</td>
<td>10</td>
<td>7</td>
<td>7</td>
<td>32</td>
</tr>
<tr>
<td>Clinical Instructors</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>12</td>
</tr>
</tbody>
</table>

(table continues)
Instruments.

The quantitative strand of the study involved collection of pre-intervention data, including demographic data and leadership behavior scores, prior to the start of the clinical experience. The instrument used to measure student and staff leadership behaviors in this study was the Leadership Practices Inventory (LPI). The LPI is one of the most widely used leadership development instruments and its validity and ability to produce reliable data have been published. Internal reliability as measured by Cronbach’s alpha was greater than .75 for all subscales (Kouzes & Posner, 2000). A factor analysis using principal components analysis with varimax rotation and Kaiser normalization generated a five-factor solution providing empirical support for the five leadership practices and associated leadership behaviors included in the instrument. The leadership practices and behaviors are described below.

The student version of the LPI was created in the mid 1990’s and the psychometric properties have also been documented (Posner, 2004, 2009). The internal reliability (Cronbach’s
alpha) scores for the overall sample ranged from .80-.85 (Posner, 2010). Self and observer scores of leadership practices were very comparable, with scores from observers being generally slightly higher. Leadership effectiveness assessments supported the validity of the Student LPI. The questions on the LPI are included in Appendix B. The instrument requires the respondent to select the frequency, using a 5-point Likert scale, of engaging in 30 leadership behaviors or actions.

The LPI subscales reflect the five leadership practices described by Kouzes and Posner (2007). Derived from extensive leadership research over more than two decades, the questions on the LPI reflect the behaviors associated with each of the leadership practices including: “Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart” (p. 14). Behaviors associated with modeling the way include setting an example, being clear about values and standards, and following through on commitments. It means leading by example. Behaviors reflective of inspiring a vision include engaging others in a hopeful shared vision of the future, sharing a positive outlook, and enthusiasm for the work of the organization. Challenging the process involves looking for new opportunities to grow and improve, taking risks and learning from mistakes. Behaviors consistent with enabling others to act involve communicating, collaborating and building trust with others. It includes treating others with respect and dignity, listening, and valuing diverse perspectives. Encouraging the heart includes behaviors such as recognizing contributions, and appreciation for a good work. All of the behaviors are consistent with effective leadership in a complex system.
Recruitment.

During routine planning and orientation meetings prior to the start of the semester, the nursing students were invited to participate in the study. The principal investigator explained the study and its purpose, the obligations, benefits, risks, and support mechanisms. Through separate planning meetings prior to the start of the semester, the CIs in each unit were also invited to participate after receiving the same types of information provided to the students. Nurse Residents were invited to participate in the study during a regularly scheduled session within the Residency Program. Each participating student and nurse received a written overview of the study in addition to the verbal overview and consented, verbally and in writing, to participate in the study. All invited participants agreed to be involved in the study.

Pre-semester activities and data collection.

All of the students had participated in a leadership course as part of the standard baccalaureate nursing curriculum at the University of Connecticut and had met all curricular requirements for participating in the senior capstone clinical experience. After consent and prior to beginning the clinical rotation, all students attended a 2-hour educational workshop on SBAR protocol for nurse-physician communication taught by hospital faculty and a 2-hour workshop on delegation and appreciative teamwork skills taught by a Clinical Faculty Coordinator. These programs provided formal content to enhance student preparation for effective leadership communication and relationship-building. The sessions were interactive and allowed time to practice skills. The outline of the content is included in Appendix C. The residents received similar content during the course of their residency program as outlined in Appendix A.

The pre-intervention data collection process included:
1. Student self-evaluation using the Student LPI
2. Student demographic data using a brief survey
3. Clinical Instructor (direct care nurse preceptor) self-evaluation using the LPI
4. Clinical Instructor (direct care nurse preceptor) demographic data
5. Clinical faculty coordinator characteristics using brief survey.
6. Nurse Resident self-evaluation using Student LPI before participation in a residency program at either hospital.

**Intervention.**

Clinical instruction proceeded throughout the semester in accordance with the instructional expectations of the UCONN curriculum. Under the guidance of the CI, students in the DEUs were provided as many opportunities to practice learned leadership and communication skills as possible. These opportunities included such activities as making phone calls to physicians using SBAR format, leading discussions in the interdisciplinary patient care rounds, delegating to assistive staff, and participating in shared governance meetings. The activities were planned based on identified student developmental needs and the demands of the patient care and unit assignments. The matching of student schedules with the schedule of the CI for full 12-hour shifts enabled immersion in the clinical environment and role. Students were exposed to all aspects of the practice of the direct care nurse including patient care, interdisciplinary communication, rounds, meetings, and charge nurse assignments. The CFC interacted regularly with the students, mentored and supported the Clinical Instructors, held post-clinical conferences, and conducted student evaluations.

**Post-intervention data collection.**
At the end of the semester following implementation of the dedicated education units, students from all four units were retested using the Student LPI (self-evaluation). In addition, the Clinical Instructors completed an observer evaluation of the students they had precepted using the Student LPI and completed a post-semester self-evaluation using the LPI. Nurse residents who had completed a residency program completed the Student LPI (self-evaluation).

Table 2 reflects the data collection activities associated with each subsample.

Table 2

Quantitative Data Collection by Subsample

<table>
<thead>
<tr>
<th>Subsample</th>
<th>Student LPI self-evaluation</th>
<th>Observer Student LPI</th>
<th>LPI by CI for respective students</th>
</tr>
</thead>
<tbody>
<tr>
<td>All students</td>
<td>Pre-semester</td>
<td>Post-semester</td>
<td>Post-semester, completed by CI for respective students</td>
</tr>
<tr>
<td>All CIs</td>
<td></td>
<td></td>
<td>Pre-semester</td>
</tr>
<tr>
<td>Incoming Nurse Residents</td>
<td></td>
<td></td>
<td>Post-semester</td>
</tr>
<tr>
<td>Outgoing Nurse Residents</td>
<td></td>
<td></td>
<td>Program</td>
</tr>
</tbody>
</table>

Quantitative Data Analysis
Descriptive data including nurse and student demographics were collected and frequencies analyzed to describe the sample and subsamples. Clinical Instructor LPI data, Student LPI data and Observer Student LPI data were entered into SPSS. A 5-point Likert scale generated a numerical score for each question for each participant. Responses could range from 1 for “rarely” or “seldom”, to 5 for “very frequently”. Each subscale mean score was based on the responses to 6 individual questions related to that subscale and could range between 1 and 5. An overall score based on the mean of all 30 individual questions could also range between 1 and 5.

All of the responses were analyzed for frequency, means and standard deviations. Paired t-tests were used to analyze the mean change in overall score and subscale scores for leadership practices following the clinical semester based on type of unit (DEU or control). Student LPI self-evaluations and observer LPI evaluations were analyzed with paired t-tests for mean differences and correlations. This test compared student perceptions of their skill development with Clinical Instructor perceptions. Nurse resident LPI scores were analyzed with independent t-tests to assess the difference in leadership behaviors between newly hired nurse residents and those who had completed a year-long nurse residency program.

**Quantitative Strand Results**

**Sample characteristics.**

The student sample was comprised of 32 UCONN baccalaureate nursing students in their final semester of study (see Table 1). There were 30 female and two male students. The Clinical Instructor demographic details are included in Table 3. All of the twelve CI participants were female and had experience in nursing practice ranging from 2 to 40 years. All but one nurse in Hospital B had prior experience as a preceptor.
The majority of the direct care nurse CIs had a baccalaureate degree in nursing (66.6%) and one had a MSN. One difference between the two hospitals was in the educational preparation of the CIs. In Hospital A, there was only one CI without a baccalaureate education. In Hospital B, there were three diploma-prepared nurses. The Nurse Managers selected the nurses without a BSN based on their clinical expertise and history of strong performance in the preceptor role. Three CIs in the sample had other degrees in addition to a nursing degree. A second difference in the sample was that 71% of the nurses in Hospital B held specialty certification whereas in Hospital A, none of the CIs held specialty certification. Because of sample size, it was not realistic to analyze the differences in outcomes based on CI characteristics.

Table 3

Clinical Instructor Sample Demographics

<table>
<thead>
<tr>
<th></th>
<th>Nursing Degree</th>
<th>Non-nursing Degree</th>
<th>Specialty certified</th>
<th>Years in Practice</th>
<th>Years in Unit</th>
<th>Years as Preceptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital A</td>
<td>AD (20%)</td>
<td>AD (20%)</td>
<td>0%</td>
<td>Range: 2-30</td>
<td>2-11</td>
<td>1-20</td>
</tr>
<tr>
<td>(academic-teaching) CI (n=5)</td>
<td>BSN (60%)</td>
<td></td>
<td></td>
<td>Mean: 10.2</td>
<td>6</td>
<td>6.1</td>
</tr>
<tr>
<td>Hospital B</td>
<td>Diploma (43%)</td>
<td>BS (14%)</td>
<td>71%</td>
<td>Range: 2-40</td>
<td>2-20</td>
<td>0-23</td>
</tr>
<tr>
<td>(MAGNET, community) CI (n=7)</td>
<td>BSN (57%)</td>
<td>BA (14%)</td>
<td></td>
<td>Mean: 17.6</td>
<td>9.6</td>
<td>6.71</td>
</tr>
<tr>
<td>All CIs (n=12)</td>
<td>Diploma (25%)</td>
<td>AD (8.3%)</td>
<td>58.3%</td>
<td>Range: 2-40</td>
<td>2-20</td>
<td>0-23</td>
</tr>
<tr>
<td></td>
<td>AD (8.3%)</td>
<td>BS (8.3%)</td>
<td></td>
<td>Mean: 14.5</td>
<td>8.13</td>
<td>5.65</td>
</tr>
</tbody>
</table>
BSN (58.3%)   BA (8.3%)   MSN (8.3%)

The nurse resident sample consisted of 67 newly licensed registered nurses. There were 39 residents who were beginning a structured year-long residency program at either hospital. There were 28 residents who had just completed the structured residency program at either hospital. The majority of the nurse residents were female (84%). Their pre-licensure education included associate, baccalaureate, or master’s degree. Baccalaureate educational preparation was the most frequent (74.6%). All nurse residents in Hospital B held a baccalaureate degree in nursing. Nearly 20% of the residents also held another degree. Table 4 includes demographic details of the sample.

Table 4

*Nurse Resident Sample Demographics*

<table>
<thead>
<tr>
<th></th>
<th>% Female</th>
<th>Education Level</th>
<th>Other Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital A (academic-teaching) (n=29)</td>
<td>76%</td>
<td>AD (41%)</td>
<td>AD (3.4%)</td>
</tr>
<tr>
<td>Pre-Residency (n=29)</td>
<td></td>
<td>BSN (59%)</td>
<td>BS (6.9%)</td>
</tr>
<tr>
<td>Hospital B (MAGNET-designated community) Pre-Residency (n=10)</td>
<td>100%</td>
<td>BSN (100%)</td>
<td>None</td>
</tr>
<tr>
<td>Total Sample Pre-Residency</td>
<td>82%</td>
<td>AD (31%)</td>
<td>AD (2.6%)</td>
</tr>
</tbody>
</table>
(n=39) | BSN (69%) | BS (5.1%) |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BA (5.1%)</td>
<td>Other (2.6%)</td>
</tr>
</tbody>
</table>

Table 4

*Nurse Resident Sample Demographics continued*

<table>
<thead>
<tr>
<th>Total Residents (N=67)</th>
<th>% Female</th>
<th>Education Level</th>
<th>Other Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital A (academic-teaching)</td>
<td>86%</td>
<td>AD (29%)</td>
<td>BS (64.3%)</td>
</tr>
<tr>
<td>Post-Residency (n=14)</td>
<td></td>
<td>BSN (64%)</td>
<td>BA (14.3%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MSN (7%)</td>
<td></td>
</tr>
<tr>
<td>Hospital B (MAGNET-designated community)</td>
<td>86%</td>
<td>BSN (100%)</td>
<td>None</td>
</tr>
<tr>
<td>Post-Residency (n=14)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Post-Residency Sample (n=28)</td>
<td>86%</td>
<td>AD (14%)</td>
<td>BS (17.9%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BSN (82%)</td>
<td>BA (7.1%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MSN (4%)</td>
<td></td>
</tr>
</tbody>
</table>

**Leadership Practices Inventory scores.**

Paired t-tests were used to analyze the difference in overall mean score and subscale mean scores of the Student Leadership Practices Inventory for all students before and after participation in the clinical semester. Students overall showed a statistically significant increase in overall mean score (t(df) = -4.41(31), p=.000). Students participating in the DEU experience had a statistically significant improvement in overall mean LPI score whereas the increase in overall mean for the control group students was not statistically significant. For students in the
DEU group, the t-test results were t(df)= -3.33(16), p<.008. For the control group students, the t-test results were t(df)= -2.80(14). Because multiple t-tests were conducted, a Bonferroni correction was conducted (Munro, 2005). Significance required a p-value of <.008.

In addition to the overall score, the subscale data were analyzed for the entire sample and by unit type (DEU or control unit). The subscale-level internal reliabilities (Cronbach’s alpha) ranged from .57 (Enable to Act) to .83 (Encourage the Heart) or lower than the reported reliabilities for the Student LPI. There were statistically significant increases in self-reported leadership behaviors in four of the five subscales for all students. Only the leadership practice subscale of Enable Others to Act did not show statistical significance. For students in the DEU, mean scores on three of the subscales showed significant improvement including: Model the Way, Inspire a Vision, and Challenge the Process. For the students in the control group, only the Challenge the Process subscale showed statistically significant improvement. The results are displayed in Table 5.

The Clinical Instructors completed Observer Student LPI assessments of the student leadership behaviors after spending the semester with the DEU students. Some of the student self-assessed behavior mean post-DEU scores were lower than the Clinical Instructors observed and some were higher. However, the overall observer mean scores at the end of the semester were not statistically significantly different from the student self-assessed post-DEU scores. Only one subscale mean score, Encourage the Heart, was significantly different between the Clinical Instructors observed scoring and the students’ self-scoring (t=4.807, p<.008). Table 6 displays the comparison between observer and self-assessed mean post-DEU scores.
The nurse resident data were analyzed for a difference in overall mean LPI scores and mean subscale scores. There was no statistically significant difference in self-reported leadership practices between the newly hired nurse residents and the residents who had just completed a year-long residency program in either hospital. The responses of incoming residents were compared to those of the students prior to the start of the semester using an independent t-test. The mean and subscale scores for both groups were not significantly different. When the scores for the outgoing residents were compared with those of students at the end of the semester, there were no statistically significant differences. Table 7 displays the comparisons of student and resident scores.
<table>
<thead>
<tr>
<th>Leadership Practice</th>
<th>Alpha Reliability</th>
<th>All students</th>
<th></th>
<th>Pre</th>
<th>Post</th>
<th>t(df)</th>
<th>Students in DEU</th>
<th></th>
<th>Pre</th>
<th>Post</th>
<th>t(df)</th>
<th>Control Group</th>
<th></th>
<th>Pre</th>
<th>Post</th>
<th>t(df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Mean Score</td>
<td></td>
<td>3.54</td>
<td>4.18</td>
<td>-6.38(17)*</td>
<td>3.53</td>
<td>4.00</td>
<td>-3.33(16)**</td>
<td>3.61</td>
<td>4.00</td>
<td>-2.80(14)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model the Way</td>
<td>.70</td>
<td>3.57</td>
<td>4.06</td>
<td>-4.17(31)*</td>
<td>3.38</td>
<td>3.97</td>
<td>-3.31(16)**</td>
<td>3.79</td>
<td>4.17</td>
<td>-2.53(14)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspire a Vision</td>
<td>.78</td>
<td>3.24</td>
<td>3.74</td>
<td>-3.60(31)**</td>
<td>3.13</td>
<td>3.82</td>
<td>-4.13(16)**</td>
<td>3.37</td>
<td>3.66</td>
<td>-1.30(14)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enable Others to Act</td>
<td>.57</td>
<td>4.07</td>
<td>4.33</td>
<td>-2.51(31)</td>
<td>4.13</td>
<td>4.25</td>
<td>-1.01(16)</td>
<td>4.00</td>
<td>4.41</td>
<td>-2.49(14)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encourage the Heart</td>
<td>.83</td>
<td>3.54</td>
<td>4.00</td>
<td>-3.21(31)**</td>
<td>3.59</td>
<td>4.11</td>
<td>-2.50(16)</td>
<td>3.49</td>
<td>3.88</td>
<td>-1.95(14)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\*p = .000. \**p < .008 (based on Bonferroni correction for multiple t-tests)
Table 6

*Mean Self-Evaluated and Observer Student Leadership Practice Inventory Scores for DEU Students*

<table>
<thead>
<tr>
<th>Leadership Practice</th>
<th>Alpha</th>
<th>Pre</th>
<th>Post</th>
<th>t(df)</th>
<th>Observed post</th>
<th>t(df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Mean Score</td>
<td></td>
<td>3.53</td>
<td>4.00</td>
<td>-3.33(16)**</td>
<td>3.94</td>
<td>1.01(9)</td>
</tr>
<tr>
<td>Model the Way</td>
<td>.71</td>
<td>3.38</td>
<td>3.97</td>
<td>-3.31(16)**</td>
<td>4.03</td>
<td>1.62(9)</td>
</tr>
<tr>
<td>Inspire a Vision</td>
<td>.69</td>
<td>3.13</td>
<td>3.82</td>
<td>-4.13(16)**</td>
<td>3.92</td>
<td>1.17(9)</td>
</tr>
<tr>
<td>Challenge the Process</td>
<td>.74</td>
<td>3.40</td>
<td>3.83</td>
<td>-3.40(16)**</td>
<td>3.90</td>
<td>2.53(9)</td>
</tr>
<tr>
<td>Enable Others to Act</td>
<td>.76</td>
<td>4.13</td>
<td>4.25</td>
<td>-1.01(16)</td>
<td>4.13</td>
<td>4.81(9)**</td>
</tr>
<tr>
<td>Encourage the Heart</td>
<td>.85</td>
<td>3.59</td>
<td>4.11</td>
<td>-2.50(16)</td>
<td>3.70</td>
<td>2.57(9)</td>
</tr>
</tbody>
</table>

* p≤.000. ** p<.008 (based on Bonferroni correction for multiple t-tests)
Table 7

Mean Student Leadership Practice Inventory Scores for Nurse Residents and DEU Students

<table>
<thead>
<tr>
<th>Leadership Practice</th>
<th>Alpha</th>
<th>Pre</th>
<th>Post</th>
<th>t(df)</th>
<th>Pre</th>
<th>Post</th>
<th>t(df)</th>
<th>Post</th>
<th>Post</th>
<th>t(df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All residents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students in DEU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-Residency/Post DEU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Mean Score</td>
<td>3.78</td>
<td>3.69</td>
<td>.76(65)</td>
<td>3.53</td>
<td>4.00</td>
<td>-3.33(16)**</td>
<td>4.00</td>
<td>3.69</td>
<td>1.96(43)</td>
<td></td>
</tr>
<tr>
<td>Model the Way</td>
<td>.70</td>
<td>3.85</td>
<td>3.71</td>
<td>1.09(65)</td>
<td>3.38</td>
<td>3.97</td>
<td>-3.31(16)**</td>
<td>3.97</td>
<td>3.71</td>
<td>1.53(43)</td>
</tr>
<tr>
<td>Inspire a Vision</td>
<td>.78</td>
<td>3.59</td>
<td>3.48</td>
<td>.69(65)</td>
<td>3.13</td>
<td>3.82</td>
<td>-4.13(16)**</td>
<td>3.82</td>
<td>3.48</td>
<td>1.78(43)</td>
</tr>
<tr>
<td>Challenge the Process</td>
<td>.69</td>
<td>3.55</td>
<td>3.55</td>
<td>.02(65)</td>
<td>3.40</td>
<td>3.83</td>
<td>-3.40(16)**</td>
<td>3.83</td>
<td>3.55</td>
<td>1.63(43)</td>
</tr>
<tr>
<td>Enable Others to Act</td>
<td>.57</td>
<td>4.12</td>
<td>4.10</td>
<td>.21(65)</td>
<td>4.13</td>
<td>4.25</td>
<td>-1.01(16)</td>
<td>4.25</td>
<td>4.10</td>
<td>1.09(43)</td>
</tr>
<tr>
<td>Encourage the Heart</td>
<td>.83</td>
<td>3.80</td>
<td>3.61</td>
<td>1.15(65)</td>
<td>3.59</td>
<td>4.11</td>
<td>-2.50(16)</td>
<td>4.11</td>
<td>3.61</td>
<td>2.16(43)</td>
</tr>
</tbody>
</table>

*p<.000. **p<.008 (based on Bonferroni correction for multiple t-tests)
Clinical Instructor LPI data were analyzed using paired t-tests. There were no significant differences in overall leadership practices mean scores or subscale scores following one semester of acting as a clinical instructor. Internal reliabilities for the subscales ranged from .60 - .79 or lower than the reported reliabilities for the instrument. Table 8 provides a display of mean overall and subscale scores for CIs before and after the semester.

Table 8

*Mean Leadership Practice Inventory Scores for Clinical Instructors*

<table>
<thead>
<tr>
<th>Leadership Practice</th>
<th>Alpha</th>
<th>Pre</th>
<th>Post</th>
<th>t(df)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Mean Score</td>
<td></td>
<td>3.57</td>
<td>3.78</td>
<td>-1.39(11)</td>
<td>Not significant</td>
</tr>
<tr>
<td>Model the Way</td>
<td>.63</td>
<td>3.69</td>
<td>3.81</td>
<td>-.83(11)</td>
<td>Not significant</td>
</tr>
<tr>
<td>Inspire a Vision</td>
<td>.60</td>
<td>3.38</td>
<td>3.68</td>
<td>-1.46(11)</td>
<td>Not significant</td>
</tr>
<tr>
<td>Challenge the Process</td>
<td>.69</td>
<td>3.29</td>
<td>3.51</td>
<td>-1.12(11)</td>
<td>Not significant</td>
</tr>
<tr>
<td>Enable Others to Act</td>
<td>.79</td>
<td>3.92</td>
<td>4.04</td>
<td>-1.24(11)</td>
<td>Not significant</td>
</tr>
<tr>
<td>Encourage the Heart</td>
<td>.79</td>
<td>3.58</td>
<td>3.86</td>
<td>-1.64(11)</td>
<td>Not significant</td>
</tr>
</tbody>
</table>

**Qualitative component: data collection and analysis**

The qualitative strand of the mixed methods study consisted of focus group interviews with students participating in the DEU experience at each hospital and with CI at each hospital. Focus groups data collection and analysis were guided by the method described by Krueger and Casey (2009). An author-created design for the qualitative strand is depicted in Figure 3.
Focus group planning.

Planning is an important step in the focus group method and begins with clarity on the purpose of the study. According to Krueger and Casey (2009), the purpose “is like our guiding star” (p.114), and provides the basis for planning, data collection and analysis. The purpose of the use of focus groups in this study was to elicit the thoughts and perceptions of both students and CIs who had participated in the DEU experience, particularly as it related to their leadership and communication competency development. Once the purpose had been articulated, participant groups were identified. Groups comprised of people with different degrees of expertise or levels
of authority or power may not create the group dynamic conducive to productively answering focus group questions (Krueger & Casey, 2009, Freeman, 2006). Therefore, a multiple-category design was selected where the student groups and CI groups were conducted separately so each would be comfortable speaking about their experiences and the data would provide a basis for the comparison of the experience from two perspectives.

The focus group process works best when the size of the group allows everyone to have an opportunity to speak and share. The groups were planned to have 7-10 participants in each group of students, and 5-7 CI participants per group. Two student focus groups were planned as well as two CI groups. The remainder of the planning process included communication with participant groups, establishment of a convenient date, time and location for convening the groups, development of a question sequence, decisions about moderators and any other team member roles, logistics of the sessions such as recording and provision of refreshments, and planning for analysis. These planning steps are critical to the success of any rigorous focus group study (Kidd & Parshall, 2000; Krueger & Casey, 2009; Morgan & Bottorff, 2010).

**Focus group data collection.**

Both student and CI participants were initially informed about the focus groups at the first informational sessions prior to the start of the semester. About 3 weeks before the end of the semester, during a regular meeting of the Clinical Faculty Coordinator and students, the plans for focus group sessions were again shared and students invited to participate. Consent forms were distributed to the students with instructions to return them in a sealed envelope to the office of the principal investigator. A separate consent process was used for the qualitative strand because only the DEU students were invited to participate and they had the option to decide whether or
not to participate in the qualitative strand. There had also been a gap in time between initial provision of information about the study and conduct of focus groups.

Student focus groups were held at the individual hospitals one week prior to the end of the semester. Each session included 7-10 students. Refreshments were provided. The focus groups were facilitated by the principal investigator using an established questioning route (see Appendix D). The question sequence began with an introductory question to engage all of the participants early in the discussion. The sequence transitioned to the key questions related to the purpose of the study and concluded with an opportunity for participants to add any final thoughts. The sessions were audiotaped and transcribed.

About 3 weeks prior to the end of the semester, the Clinical Instructors were also notified of focus group sessions and invited to participate. Consent forms were distributed to the CIs with instructions to return them in a sealed envelope to the office of the principal investigator. The CI focus groups were scheduled in a conference room and lunch was provided. Each session included 5-7 CIs. The focus groups were facilitated by the principal investigator using an established questioning route developed in a similar manner to the student questioning route (see Appendix D). The sessions were audiotaped and transcribed.

**Focus group data analysis.**

Focus group data for each participant type (students and CIs) were analyzed thematically to describe the experience with the DEU. The analysis followed the classic strategy described by Krueger and Casey (2009). The focus group transcripts for each type of participant were read to gain insight into their overall experience with the DEU. As the transcripts were reread, participant comments were highlighted as significant statements. Significant statements were
compared and grouped according to categories or themes using Mindjet MindManager 8 software. This process of comparing and grouping of participant quotes enabled the identification of patterns in the data or themes (Krueger & Casey, 2009). Once the quotes were grouped into themes, a descriptive summary of each theme was composed. Direct quotes were used as supporting evidence for the theme. The themes for both student and Clinical Instructor groups were compared for similarities and differences in their respective experience.

**Student focus groups results.**

Analysis of the student focus groups resulted in the identification of two themes: The DEU: a supportive, nurturing learning environment and learning to inhabit the role. The learning to inhabit the role theme has two subthemes: individual development and becoming a respected, contributing member of the patient-centered team. The students expressed an overwhelming sentiment that the dedicated education unit was “the best experience” resulting in significant learning and preparation for professional nursing practice.

**Theme 1: The DEU: a supportive, nurturing, empowering learning environment**

Many of the students commented on the supportive nature of the DEU learning environment. The unit and team members were characterized as welcoming and nurturing; helping the student to feel comfortable. It was a place where they could build relationships and enjoy learning. Students stated, “I have never been more comfortable in a clinical setting before. I felt like I knew what I was doing and all my actions were supported” and “I was very comfortable with the doctors and nurses…and the PCTs, they were very welcoming of me and always asked if I needed something.” Through consistent, supportive relationships with the
Clinical Instructor and the Clinical Faculty Coordinator, the students felt that their individual strengths, weaknesses, capabilities and learning needs were understood. One student shared,

> When it is one to one, you have a lot more responsibility and are given a lot more independence because your Clinical Instructor knows exactly what you are doing, where you are, and they know your strengths and weaknesses. They know what you can do and they can let you fly a little bit more.

The direct care nurse Clinical Instructor served as a trusted role model and a supportive, yet challenging teacher who purposefully engaged the student in learning opportunities. One student characterized it saying, “just like we promote individualized patient care, the clinical instructor provided individualized student care, so it was customized to what I needed more practice in.”

**Theme 2: Learning to inhabit the role.**

Over the course of the experience in the DEU, the students learned to inhabit the professional role of "a real nurse." Some of the growth that they described was in their own individual competence and confidence. They also grew in their ability to serve as a respected, contributing nurse member of an interdisciplinary patient-care team. These two aspects of the students’ formation as professional nurses emerged as two subthemes in the focus group data.

*Subtheme 1: “I’m the nurse.”*

Students described becoming more independent, learning to manage their time, and gaining an appreciation for the complexity of the care and the environment. As one student shared, “I feel prepared to graduate. I guess it was the culmination of everything - the access to
medication administration, charting, working 12-hour shifts, taking and giving report…it was good to have that responsibility.” As the students developed skills, both their confidence and their sense of accountability grew. “When we started you would have one patient and as we progressed it got up to 4 patients. I felt like I’m the nurse, I’m in control and I’m in charge.” Students commented on the value of feedback for their evolving confidence and independence. “When you do need guidance, someone is there for you right away. You’re able to get a lot of feedback.” One student spoke about the power of reflecting on the feedback of the CI or others. Processing feedback on her performance “was a progressive reflective experience” allowing her to grow. This was echoed by another student who shared that

…taking feedback became a lot easier this semester so a criticism of what we were doing wrong became a building of us; becoming a transition of us becoming a registered nurse. So I felt much more supported and I learned to take things people said and translate them into practice instead of taking what they said as you’re doing this wrong. It was much more of a fostering of growth, I felt.

One student summed up the DEU experience on her individual growth by saying, “It has given me the confidence for when I go out and start my own career.”

Subtheme 2: Becoming a respected, confident member of the patient-centered team

With their evolving individual competence and confidence, the students described increasing appreciation and comfort with the role of the professional nurse as a member of the interdisciplinary team. They began to develop confidence in themselves as team members who were earning the respect of the team colleagues, could communicate effectively, and had valid contributions to make on behalf of patients.
Students described tangible “turning points” when the team had accepted them into the nurse role on the team. Their names were placed on the patient assignment whiteboard and they began to “carry the phone.” One student exclaimed, “The phone made me feel like a real nurse—people called ME—the phone gave me power!” The significance of “the phone” reflected student understanding of the pivotal role of the nurse in patient-centered interdisciplinary care. Students learned that to coordinate care and ensure the best outcomes for the patient, they needed to be in communication with all the members of the team.

Students described becoming more comfortable with physician interaction. This included knowing what information to provide and how to deliver it effectively. One shared, “...after I presented in an organized way and they realized that what I had to say was important to the patient condition, I passed their test and they came to find me after—I was happy to have practiced with my preceptor.” Students shared how instrumental it was to practice SBAR (situation-background-assessment-recommendation) communication with the CI and supportive physicians. One shared, “I thought it was helpful because I used SBAR every day so that was very helpful. We learned it in school but just going over it and having the scenarios that we had really helped put it together.” The format helped them organize their thoughts and be more prepared for questions and a productive discussion. “When working with the physicians I learned the value of being prepared for all the questions that could have been asked of me. I would have my vitals ready and all the information I needed to have and be prepared to give it in a concise way.” Students described effectively advocating for patient needs using this developing communication competency. “It made it easier for me to advocate for a patient. I really don’t think this patient will be able to take care of this on his own and being able to call the GI doctor for a consult. I don’t think I would have been able to do that before.”
Patient rounds and opportunities to interact with all members of the interdisciplinary were described as invaluable. Rounds provided a mechanism for learning about team dynamics and individual roles. They promoted skill building because they “forced the student to speak” effectively within the team and required that they be prepared with the appropriate information. Learning to do this reliably and effectively boosted the student’s confidence and credibility with the team. It not only provided an opportunity to “get to know the whole interdisciplinary team” but it also helped the students understand different perspectives and “develop a plan of care for my patient as the whole patient; their physical needs, what’s going on at home; it got me more thinking about the bigger picture.”

The students were exposed to the experience of becoming “the coordinator of care”. They gained confidence and skill in working with all members of the team to assure that the patient-centered plan was in place. One student described that with the guidance of the Clinical Instructor, “I would be on the phone talking to who it was that we had to see, like a consult with PT and it was, I really felt like I was stepping into her shoes and she gave me full responsibility and I really had never experienced that before.” The students took ownership of patient care and collaborated to assure that patient goals were met. One said, “I took it upon myself to get things done. You know who the doctor is and I had the confidence to walk up to the doctor to get the plan for the patient.”

Students learned that in order to fulfill the role of the professional nurse on the interdisciplinary team, they could not do everything themselves. They needed to count on other members of the team to assist with patient care activities. However, delegation of those activities continued to be challenging. One student expressed that “delegation was the hardest part” and that it was “a hard balance to make because we know we can do it but we know we
don’t have enough time to do it all. It was the biggest reality check but it’s an important decision we had to make.” Students gained more comfort and skill with delegation over the course of the semester in a number of ways. They worked on developing relationships with the nursing assistants recognizing that positive relationships provide a foundation for challenging communication. They learned by observing effective and ineffective delegation on the unit. One student shared this observation,

I’ve seen delegations done really badly and also done very well and those interpersonal conflicts that arise in the not so comfortable setting of the break room. That sort of confrontation really taught me how tone plays into things and the relationships you have before an incident occurs matter so much in how it will be resolved in the long run. My preceptor was handling a conflict and it was really well handled. It really taught me that waiting for the right time to address the conflict was really important.

In addition, the Clinical Instructors intentionally provided opportunities for practicing delegation skills. “My instructor just was encouraging. She gave me a lot of opportunities when I needed to go and delegate.” One student described learning the nurse’s role in following up on delegated tasks and the implications for patient safety. “I’ve learned the importance of following up. I had an instance where a blood sugar was done incorrectly and if I hadn’t followed up I could have given the patient the wrong amount of insulin.” Although they gained significant experience with delegation in the DEU, students recognized the need for further development in this competency. “I feel like by the end of the semester I’m at least a little more comfortable delegating than I was previously.”
Clinical Instructor focus group results.

Like the nursing students, the Clinical Instructors described many benefits associated with the DEU model. They also shared their views on opportunities to improve the structures and processes to make the model more efficient and effective. CIs at both hospitals described the DEU getting off to a “rocky start” as everyone learned new roles and expectations. They made recommendations for various improvements that would make the DEU experience more consistent and positive for students as well as staff. Increased communication to team members and the organization about the DEU concept and the implications for their roles would be helpful. Other ideas included signage, focused physician communication, and event calendars for the unit. The CIs also shared a need for greater clarity related to student goals and expectations and would have liked a consistent form for providing feedback for students. Recommendations for educational programs for CIs and forums for feedback, sharing, and networking with other CIs and faculty were also made.

The CIs provided valuable insights into the effects of the model on student learning, the role of team members in student learning, and the contributions of the experience to their own growth as nurses. Analysis of the CI focus group data yielded three themes: contributing to the student “growing as a nurse”, helping the student cultivate team relationships, and reaping the rewards.

Theme 1: Contributing to the student “growing as a nurse”.

The CIs described significant growth in the nursing students in the DEU. They contrasted the DEU experience with their previous experiences with student clinical rotations. They felt that students benefitted from immersion in the daily work of the nurse and were
exposed to many more complex clinical situations, the charge nurse role, as well as unit and personality dynamics. One said, “I think in this case they got a regular view of what a daily routine is like.” They had the opportunity to participate in meetings, including shared governance. “They got to see us at shared governance away from the unit interacting and trying to brainstorm after working 12 hours.” In the words of one CI, “Having exposure to these kinds of things makes it much more practical and real.” One described the feedback from one of her students who said she “was exposed to everything and it was a very good experience compared to other clinical rotations where she did not get to do what she did here.” The students, the team, and the patients also benefitted from the continuity that the DEU provided. They gained an appreciation for the complexity of long-term or “difficult patients” and how the whole team became involved in their care. As one CI said, “That’s something that you (the students) don’t necessarily see in clinical because you’re focused on your patients not the whole unit.”

Over the course of the semester, CIs witnessed a “huge leap” in student development where “things just really started to click with them.” They noted improvements in critical thinking. One CI described a process for “giving them a little space to be responsible for recognizing it (a clinical change)… and then coach them back.” “I wouldn’t just tell her the answer, I’d tell her to look it up and by the end she would have looked up the med before it came up.” Another described improved prioritization, “I would say ‘Look at our assignment. Who do you want to see first and how are you prioritizing your day?’ By the end she would tell me what she would do. So that worked really well.” Another CI described improvements related to patient-centeredness saying that the student was “looking at the whole patient and connecting with the patient.” Another observed the student develop “a really nice manner with the patients even the confused patients and the frightened patients, and that’s not an easy thing to come by.”
The CIs reported improved time management as students developed more comfort and confidence with their clinical and organizational skills. They were pleasantly surprised as the students became more independent, took initiative and provided excellent care. One CI told the story that made her proud of the student’s growth.

I had an admission come in so I asked one of my students to go set up one of my other patients for a dressing change of their foot and I would come back and help. When I got back to the room she had all her tape lined up, signed and dated. She had the patient’s foot on the pillow. I said you’re almost done and you did it all by yourself. All the mechanics were in place, the bed was in the correct position, the foot on the pillow. She pulled the tape and I said “wow that was so good” I was so happy and the student said to me “I am growing as a student” and I said “no, you’re really growing as a nurse.” I was so proud of her.

*Theme 2: Helping the student cultivate team relationships.*

Through the coaching provided by the CI, the student learned not only the role of the nurse, but how all the members of the team “interact to ensure the best patient outcome.” The CIs described how the unit came to embrace the students as part of the team. One said, “…by the end, everyone got familiar with them. It’s about relationships. Once you build a relationship, you have a good environment.” They discussed positive as well as challenging physician interactions and coaching the students in effective communication. They rehearsed conversations using the SBAR format and collaborated with supportive physicians in providing learning opportunities. According to one CI, “The interaction was awesome and some of the doctors really impressed me. Even though they were really busy, they took the time with the students. It was great.”
The CI helped the student develop effective communication strategies with all members of the team. By establishing clear expectations for interaction with nursing assistants, the CI laid the groundwork for positive relationships and student development of delegation skills. One described telling the nursing assistant, “…this student is going to be who you come to… You’re working with me here, but I want you to come to this student with all your questions…” She then established expectations with the student for working with the assistant. Relationships between nursing students and nursing assistants grew stronger over the course of the DEU experience. They were enhanced by the student willingness to be a team player and assist any member of the team when possible. As one CI shared,

…my student would answer call bells when they weren’t even her patient. She was a big team player, a big, big team player. A safety alarm was going off, I was charting, and she said “I’m going to go answer it” and she’ll run and go answer it, and toilet the patient to help…”

**Theme 3: Reaping the rewards**

Clinical Instructors reported satisfaction with supporting the growth of the nursing students. As the student “got better, it was a real joy to have her.” The student and the CI developed strong relationships based on mutual respect and benefitted from mutual support. As one CI noted, “…we respected each other back and forth.” Another shared, “They were willing to have a good relationship and it was nice to be a part of it.”

The CIs also described their own growth through the experience and interest in continuing in the role. “We respected each other and it was professional and I would do it again.”
They expressed hope for the future of the students and a sense of pride and gratification with contributing to the student’s achievement. “I can’t wait to see what she does in the future.”

**Shared themes.**

The themes of the student and Clinical Instructor focus groups converge around the perceived benefit for student development along with staff and student satisfaction. They expressed similar beliefs that students developed significantly in clinical, organizational, communication and relational competencies as a result of participating in the DEU experience. Key markers of this growth were the increased independence and confidence of the students over the course of the semester. Relationships contributed greatly to the learning experience. Student relationships with the CI, other members of the nursing care team, and the interdisciplinary team all provided developmental opportunity. Communication skill development was a fundamental part of the ability to build and sustain those relationships and become a part of the team. As students progressed over the course of the semester, they were able to form a nursing identity from which they were able to collaborate, advocate, and coordinate care. They were gaining comfort with delegation. The groups shared a belief that the DEU model created an environment that enhanced student leadership learning and provided a satisfying teaching-learning experience. In the words of one student, “…I feel better about both leadership and communication—because we lived it in the real world…”

**Mixed methods data analysis**

The convergent parallel design used for this study involved collecting and analyzing data for both the quantitative and the qualitative strands of the study separately. The convergent parallel mixed methods design integrates the findings of both strands into an overall
interpretation of the findings. Table 9 provides a joint display of the student LPI scores with the themes from the focus group analysis. Quotes or key points from the focus group interviews illustrate how the student experiences of the DEU align with the development of specific leadership practices.
Table 9

Joint Display of Student Themes with Leadership Practices

<table>
<thead>
<tr>
<th>Qualitative Themes</th>
<th>DEU: Supportive, Nurturing Learning Environment</th>
<th>Learning to Inhabit the Role: “I’m the nurse”</th>
<th>Learning to Inhabit the Role: Becoming a Respected, Contributing Member of the Patient-Centered Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student LPI Scores</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Mean Score</td>
<td>“individualized student care, customized to what I needed”</td>
<td>“I feel better about both leadership and communication—it’s because we lived it in the real world.”</td>
<td>“I felt very much a part of the team.”</td>
</tr>
<tr>
<td>Post mean: 4.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t(df)=−3.33(16), p&lt;.01</td>
<td>“ownership of the patient”, “advocate for patient” needs</td>
<td>“I was doing my part”</td>
<td>“Rounds-valuing team contributions, seeing the whole patient”</td>
</tr>
<tr>
<td>Model the Way</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post mean: 3.97</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t(df)=−3.82(16), p&lt;.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspire a Vision</td>
<td>Learned to anticipate and make a plan</td>
<td>“I really don’t think this patient will be able to take care of this on his own and being able to call…”</td>
<td>“I had the confidence to walk up to the doctor to get the plan for the patient.”</td>
</tr>
<tr>
<td>Post mean: 3.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t(df)=−4.13, p&lt;.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student LPI Scores</td>
<td>DEU: Supportive, Nurturing Learning Environment</td>
<td>Learning to Inhabit the Role: “I’m the nurse”</td>
<td>Learning to Inhabit the Role: Becoming a Respected, Contributing Member of the Patient-Centered Team</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Challenge the Process</strong></td>
<td>“It was really easy to talk to her about what I needed to do to improve myself.”</td>
<td>“I felt much more supported, I learned to take feedback and translate it into practice”</td>
<td>“When you’re working together and collaborating as a team with case management and talking with physicians you need to have all the pieces together.”</td>
</tr>
<tr>
<td>Post mean: 3.83</td>
<td></td>
<td></td>
<td>“You learn how to pull it all together.”</td>
</tr>
<tr>
<td>t(df)=-3.40, p&lt;.01</td>
<td></td>
<td></td>
<td>“Because we worked as a team it made it much easier to rely on them and help them out as well.”</td>
</tr>
<tr>
<td><strong>Enable Others to Act</strong></td>
<td>“My instructor just was encouraging, she gave me a lot of opportunities when I needed to go and delegate.”</td>
<td>“My preceptor was handling a conflict and it was really well handled. It really taught me that waiting for the right time to address the conflict was really important.”</td>
<td>“…we were very thankful and appreciative of their time.”</td>
</tr>
<tr>
<td>Post mean: 4.25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t(df)=-1.01, no significant change</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Encourage the Heart</strong></td>
<td>“It’s nice to know that you’re doing good work and you’re actually helping.”</td>
<td>“…interacting with them in a social capacity really enhanced our productivity clinically…”</td>
<td></td>
</tr>
<tr>
<td>Post mean: 4.11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t(df)=-2.50, no significant change</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Discussion

Nursing Student Leadership Development

The results of this mixed methods study suggest that the DEU clinical experience contributed to the leadership development of undergraduate students. While all students included in the study showed measurable increases in the frequency of leadership behaviors, the increase in these behaviors was significantly greater in the DEU students.

Specifically, the DEU students’ leadership behaviors reflective of the leadership practices of “modeling the way”, “inspiring a vision”, and “challenging the process” comprised the areas of greatest growth (Kouzes & Posner, 2007). For the students in the control group, only the leadership behaviors indicative of “challenging the process” increased significantly. These findings suggest that the DEU model includes design elements that more effectively support learning and application of certain leadership competencies.

All of the students had exposure to the same formal nursing leadership educational content both at the University of Connecticut and at the hospitals prior to the start of the semester. They were all exposed to experiential learning in the clinical environment. They were situated in similar clinical units in the same hospitals. But the quantitative and qualitative data suggest that the design of the dedicated education unit clinical experience contributed to greater leadership competency development.

The student focus group data help to illustrate some of the learning conditions that may have contributed to the increase in leadership behaviors. The overall improvement in leadership practices is congruent with all of the student focus group themes. The supportive learning environment theme suggests that the welcoming culture in the DEU reflected a strong
commitment to students and a willingness to invest in their development. It provided the context for guided experiential learning that was individualized and tailored for the developmental needs of each student. The CI and the entire team were not only nurturing but actively provided experiences that exposed the students to significant learning and skill development. The continuity of a skilled CI and full immersion in the schedule and role of the professional nurse enabled the students to develop as leaders. They saw it modeled and they “lived it in the real world.”

“Modeling the way,” as a specific leadership practice, was significantly improved in the DEU students. Exposure to repeated learning opportunities under the guidance of consistent CI in a supportive culture enabled the student to begin to take ownership of their patients and develop the skills to effectively advocate for patient needs with the interdisciplinary team. Both students and CIs noted an increase in student accountability and initiative. Students took it upon themselves to get things done and to do it in accordance with hospital and professional standards. They set an example as team players as they built relationships with the team and responded to patient needs.

Many of the DEU students described behaviors associated with the “inspiring a vision” leadership practice in terms of planning for the patient. They spoke in terms of the “whole patient,” anticipation of their needs and looking at the “big picture”. In the supportive context of the DEU, with the guidance of the CI, the students developed confidence in their ability to effectively communicate their assessments and make recommendations for care. By becoming fully immersed in the complex practice environment and role, students began to envision how their own organizational, communication, and delegation skills contributed to patient care as well as the overall functioning of the unit and team.
“Challenging the process” was an area of significant growth for both DEU and control group students. Leadership behaviors associated with this leadership practice involve developing and challenging individual skills and abilities. The qualitative student data reflected the intense student focus on learning skills and becoming “a real nurse.” It is not surprising that this was an area of growth for all students as this is a period in their education where they are all seeking to master the skill and abilities required for clinical practice. In the DEU environment however, the student had the guidance and mentorship of a consistent CI and could benefit from specific, direct feedback that could be translated into practice. The feedback was delivered within the context of a supportive relationship that enabled the student to learn from experiences that did not go well. One student captured the value of balanced, timely feedback saying, “But even if you did a good job, my (CI) would say that was good or I would have added this…she didn’t sugar-coat it but she wasn’t mean either. I learned so much.” The experience also gave them the freedom to try new things and to develop their own practice. “It was like we could really practice in the real world--this experience was like a bridge…”

The biggest challenge for all students was growth in the leadership practice of “enabling others to act”. This was the practice with the highest mean prior to the start of the semester indicating that students felt that they treated others with respect and dignity, listened to diverse points of view, fostered collaborative relationships, and provided opportunities for others. However, the DEU students reported great difficulty with delegation to assistive personnel. They recognized the need for delegation but felt anxious and guilty asking for help. Recognizing this, the CIs provided many opportunities for practice and constructive feedback. The mean scores increased in all students but were not significantly different. In the focus group discussion, students acknowledged this as an opportunity for further growth.
The leadership practice of “encouraging the heart” includes behaviors that reflect appreciation and recognition for the contributions of others. Although the mean scores increased in all students, the improvement was not significant in either the DEU or control units. Students in the DEU described being “very thankful and appreciative” of the time of assistive personnel. They also spoke of being included as a contributing member of the team and feeling appreciated. There was a developing recognition that having relationships with others on the team and interacting on a personal level affected their effectiveness in their professional role.

The leadership development of the students in the DEU environment is consistent with the expectations of enhanced learning in practice disciplines through “apprenticeship learning” (Benner et al., 2010, p.25). This type of learning takes place in communities of practice where students receive support for learning by doing, practicing, situated coaching, and reflecting. Students develop a sense of salience and are able to integrate knowledge from multiple sources and take appropriate action. The DEU as a community of practice provides a supportive environment for situated leadership learning. The supportive practice environment where nurses can apply knowledge and practice new skills is a key ingredient for leadership development at all levels (Galuska, 2012a). The results of this study provide evidence of the impact of context on leadership development at the undergraduate level.

Another important feature of the DEU is the dual contribution of the direct care nurse CI and the Clinical Faculty Coordinator. The students benefitted from the guidance of current, expert practicing nurses as well as the support of the UCONN faculty member who could help assure that classroom and clinical experiential learning were integrated. According to Benner and colleagues (2010), nursing students must have the opportunity for learning in the practice setting with direct care nurses. However, preparation for the role of teacher and coach is essential for
optimal experiential clinical and leadership learning (Benner et al., 2010; Galuska, 2012c). The CIs were prepared for their role initially and on an ongoing basis through the partnership between the hospital and the University. The DEU students expressed appreciation for the complementary CI and CFC roles and their different contributions. They recognized that the CFC coached both the student and the CI, made sure that they were “on track,” and provided a link back to the University. Both students and CIs welcomed the supportive role played by the CFC in the DEU model; “she kept us connected and we really needed that.”

This study provides strong evidence for the role of the CI as a key guide for student clinical and leadership development. Supportive, guiding relationships with the CIs facilitated nurse leader “becoming” and reflect the importance of human connection in the formation of the developing identity of the student as a nurse and leader (Galuska, 2012c). Benner and colleagues (2010) describe the process of formation where students, through knowledge and experiential learning, develop “a way of being and acting in practice and the world” (p.166). Students and CIs in the study described the formation process and seeing the student grow into a nurse. Identify formation is key to the developing nurse’s ability to adopt a critical stance, advocate, and act as a change agent (Benner et al., 2010). Experiences in the DEU, under the mentorship of the CI, contributed to the ability of the student to lead as a nurse.

**Nurse Resident Leadership Development**

The nurse residents in this study did not demonstrate a statistically significant increase in leadership behaviors following a year-long program. In addition, they were not significantly different from the students in LPI overall mean and subscale mean scores. This is an unexpected finding and inconsistent with the literature on outcomes related to residency programs. A recent
study based on ten years of research on post-baccalaureate nurse residency programs reported statistically significant increases in clinical leadership as measured by Casey-Fink Graduate Nurse Experience scores (Goode et al., 2013). Another study of the effect of a novice nurse leadership program provided during the first year of practice reported statistically significant improvement (p<.05) in overall student LPI mean and all subscale scores except for the “enabling others to act” leadership subscale (Dyess & Sherman, 2011). It is interesting to note that the “enabling others to act” behaviors were not only a challenge for nursing students but continued to be a challenge for new nurses in the first year of practice. Strategies to enhance development of these competencies would be of value for nurses learning to lead in the complex adaptive health care system. Enabling leadership requires nurses to develop collaborative relationships, embrace diverse perspectives, and engage others in innovative ways to improve patient care and outcomes.

It would be important to explore how the novice nurse leadership program compares with the UHC/ANCC program related to formal leadership educational content and experiential leadership learning. Both factors contribute to the effectiveness of nursing leadership competency development (Galuska, 2012c, Galuska, 2013a). Some possible explanations of the findings may be related to preparation and structure of the preceptor or mentor role in these settings, design of opportunities to practice specific leadership competencies, and overall practice environments in the organizations. The DEUs are subcultures of the larger organizational culture and may have provided a slightly different learning environment. Future study could explore the effect of some of these variables on nurse resident leadership development. Exploration of how the Casey-Fink Graduate Nurse Experience instrument
correlates with the Student LPI would also provide valuable information for consistent measurement of leadership development in novice nurses.

**Clinical Instructor Leadership Development**

Although the CIs in this study did not demonstrate statistically significant improvements in their leadership behaviors after one semester in the role, all of the post-DEU mean scores increased slightly (see Table 7). It is possible that one semester in the role was an insufficient timeframe for production of significant leadership behavior changes in experienced direct care nurses. It is also possible that the sample size was too small to detect a significant change. The focus group data indicate however that the CIs derived satisfaction and learning from their experiences with the students in the DEU. They described mutual respect and benefit as a result of their relationships with the students. This finding is consistent with studies of preceptor and mentor relationships with nurse learners, as well as other studies of the outcomes of DEUs (Freundl et al., 2012; Gonda et al., 1999; Lillibridge, 2006; McCloughen, O’Brien, & Jackson, 2009). A metasynthesis of the contribution of guided experiential learning to nursing leadership development described the many rewards for mentors including their own leadership growth, exposure to new perspectives and ideas, and pride in contributing to the development of others (Galuska, 2012c).

The CIs in this study made several recommendations for developmental activities that would enhance their ability to grow as leaders and teachers in this role. They suggested educational programs and forums for feedback, sharing, and networking with other CIs and University faculty. Intentional incorporation of recommended formal content and guided experiential learning for this group, along with some changes in the practice environment would
create a supportive context for cultivating further leadership development in direct care nurses in CI roles.

**Study Limitations and Challenges**

Although the study provides much promising evidence that dedicated education units have the potential to enhance leadership development in undergraduate nursing students, there were some threats to validity. The alpha internal consistency reliability coefficients (Cronbach’s alpha) for some of the subscales for both the LPI and Student LPI in this study were lower than the published reliabilities. Lower levels of internal consistency suggest the possible existence of some situational factors that influenced responses to the items or may be associated with the small sample size (Gable & Wolf, 1993). The samples were convenience samples and the sample size was small. Power analyses for two-tailed paired t-tests with an effect size of .8 and power of .95 would ideally have a sample size of 19 participants. The student and nurse residents groups included more than 19 participants, but the CI group did not. With a larger sample size, the relationships between the DEU experience and CI participant leadership development may have been detected. The student, resident and CI samples were as homogeneous as possible and their limited variability has been described. The student sample only included senior nursing students from one baccalaureate nursing program in one state. This may limit generalizability of the findings but it also provided a benefit in that all of the students had the same formal educational foundation and similar comfort levels as a starting point for the clinical experience.

The nurse resident sample was also not optimal in that it included two different groups of residents; one just beginning the residency program and another just completing a program. This cross-sectional design was used to allow comparisons across groups of residents over time
without having to wait for same group to start and complete a program. Although this is a benefit to this design, it also makes inferences about the effects of the residency program on leadership development more difficult. Ideally future studies would assess the development in the same groups of residents prior to and following their residency program. The Clinical Instructor sample may also be considered a limitation because it did include nurses with varying levels of nursing education in contrast to the recommended minimum baccalaureate preparation described in the literature.

Other limiting factors include the duration of the study which was only one semester and that it was the first semester that the DEU was in operation in both hospitals. There may be value in studying student and CI development associated with the DEU over a longer period of time. There would also be value in studying the relationship between the DEU model and leadership competency, not only with initial implementation, but as the structures and processes evolve and mature over time and with experience.

In spite of the limitations related to sampling and duration which may limit the generalizability of these findings, the study does indicate that this academic-partnership DEU model incorporates important elements of a framework for nursing leadership competency development environment (Galuska, 2012a, 2012c, and 2013a). That is, the DEU includes: formal education that is relevant, evidence-based and delivered through optimal learning strategies, guided experiential learning, and situated learning and application in a healthy, supportive learning and practice. Not only does the DEU incorporate the important elements, but it is also linked to positive outcomes. The DEU may be seen as a prototype of a “bundle” of interventions that lead to better nursing leadership development outcomes.
Appendix A

Residency Program Curriculum Outline

- Leadership
  - Resource management (care assignment, utilization of care resources, equipment)
  - Communication (multilevel application, multidisciplinary team, patient/family)
  - Organization and utilization of data (giving/receiving report, patient data sources, delegation)
  - Managing and delivery of care (prioritizing activities, care team delegation supervision, nursing skill mastery)
- Evidence-based patient outcomes
  - Patient safety (managing the changing patient condition, fall prevention, safe medication administration, equipment safety, and restraint prevention)
  - Pain management (comprehensive assessment, pain scales, evidence-based interventions, outcomes documentation)
  - Skin and wound care (assessment tool, supplies/devices, evidence-based interventions, unit prevalence data)
  - Patient/family teaching (learning assessments, teaching methods, age/culturally sensitive, knowledge verification)
  - Responding to emergencies (mock code participation, internal/external roles, clinical emergencies)
- Professional Role
  - End-of-life care (palliative care, ethics consults)
• Diversity: Nursing care environment (non-English speaking patients, culturally diverse patients/families, institution specific cultures)

• Evidence-based practice (what is the evidence, what are the best practices, evaluation of evidence, application of evidence to improve outcomes)

• Stress management/self-care (optimizing professional longevity)
Appendix B

Student Leadership Practices Inventory Items

1. I set a personal example of what I expect from other people.
2. I look ahead and communicate about what I believe will affect us in the future.
3. I look around for ways to develop and challenge my skills and abilities.
4. I foster cooperative rather than competitive relationships among people I work with.
5. I praise people for a job well done.
6. I spend time and energy making sure that people in our organization adhere to the principles and standards we have agreed on.
7. I describe to others in our organization what we should be capable of accomplishing.
8. I look for ways that others can try out new ideas and methods.
9. I actively listen to diverse points of view.
10. I encourage others as they work on activities and programs in our organization.
11. I follow through on the promises and commitments I make in this organization.
12. I talk with others about sharing a vision of how much better the organization could in the future.
13. I keep current on events and activities that might affect our organization.
14. I treat others with dignity and respect.
15. I give people in our organization support and express appreciation for their contributions.
16. I find ways to get feedback about how my actions affect other people’s performance.
17. I talk with others about how their own interests can be met by working toward a common goal.
18. When things do not go as we expected, I ask, What can we learn from this experience?”
19. I support the decisions that other people in our organization make on their own.
20. I make it a point to publicly recognize people who show commitment to our values.
21. I build consensus on an agreed-upon set of values for our organization.
22. I am upbeat and positive when talking about what our organization aspires to accomplish.
23. I make sure that we set goals and make specific plans for the projects we undertake.
24. I give others a great deal of freedom and choice in deciding how to do their work.
25. I find ways for us to celebrate accomplishments.
26. I talk about the values and principles that guide my actions.
27. I speak with conviction about the higher purpose and meaning of what we are doing.
28. I take initiative in experimenting with the way we can do things in our organization.
29. I provide opportunities for others to take on leadership responsibilities.
30. I make sure that people in our organization are creatively recognized for their contributions.
Appendix C

SBAR and Delegation Education Outlines

INTERPROFESSIONAL SBAR EDUCATIONAL ACTIVITY

Overview: A classroom educational activity for nurses will inform learners about the importance of communication and collaboration and the impact on quality of patient care. This session will include didactic and experiential components.

Teaching plan/guideline: This seminar includes a PowerPoint presentation with background information about the importance of communication and relationship of communication to patient safety. YouTube videos will be utilized to demonstrate SBAR technique in practice and participants will be able to role play using SBAR with case studies. Reflection on the activities will wrap up the session. Students will leave the session with a SBAR pocket guide for use in clinical practice.

Learning Objectives:
At the end of the session participants will be able to:

1. Discuss the benefits of inter-professional communication in relationship to patient safety
2. Utilize SBAR method in communicating in the healthcare setting
3. Identify barriers and facilitators to communication in clinical practice
4. Apply communication techniques in clinical practice

THE ART AND SCIENCE OF DELEGATION

Following this program, students will be able to

1. Define delegation
2. Describe the 5 Rights of delegation
3. Identify guidelines for delegation
4. Understand the role of the Unlicensed Assistive Personnel (UAP) at St. Francis
5. Utilize effective decision making strategies for effective delegation
6. Identify barriers to effective delegation. Discuss strategies to breakdown these barrier
7. Apply the principles of delegation to specific clinical scenarios
8. Appreciate the role of delegation within the context of Relationship Based Care

Course Outline:

- Reflection on delegation
- What is delegation?
- The 5 Rights of Delegation
- Guidelines for delegation
- SFH RN Job description
- NAs/UAPs at SFH Job description/Role
- Effective decision making for delegation
- Reflection on “Being a Nursing Assistant”
- Teamwork & Conflict Management
- Delegation Case studies: Rewards and challenges
- Delegation within the context of Relationship Based Care
- Appreciation Case studies
Appendix D

Focus Group Questions

For DEU Students:
1. What is something you are going to do to celebrate your graduation?
2. Please share with the group your general impression about this clinical experience. What was your general reaction to it?
3. What was different about this clinical than any other experience?
4. Describe your relationship with:
   a. Your Clinical Instructor
   b. Your Clinical Faculty Coordinator
5. What activities helped you learn the most?
6. What was the most frustrating part of your clinical experience?
7. As you think about the leadership and communication learning activities and practice what has been the most valuable about the content? The practice?
8. If you had to evaluate this learning experience, what would you say? How can it be improved? What would you want to change?
9. Is there anything else you want to share?

For Clinical Instructors (CIs)
1. Please share one thing you are going to do this summer to take care of yourself.
2. Please share with the group your general impression about this clinical rotation. What was your general reaction to it?
3. What was different about this clinical than any other experience?
4. Describe your relationship with your students
   a. Your students
   b. the Clinical Faculty Coordinator
5. What were the most valuable learning opportunities for students?
6. What was the most frustrating part of this clinical rotation?
7. As you think about the leadership and communication learning activities and practice what has been the most valuable about the content? The practice?
8. If you had to evaluate this learning experience, what would you say? How can it be improved? What would you want to change?
9. Is there anything else you want to share?
CHAPTER 7: A BUNDLE FOR NURSING LEADERSHIP COMPETENCY DEVELOPMENT

The study of the dedicated education unit reported in chapter six offers evidence that the implementation of an educational model that incorporates formal education, guided experiential learning, and a healthy, supportive learning environment produces increased leadership behaviors in nursing students. It supports the notion that there is a set of elements, that when implemented together, effectively prepares nursing students to lead. The combination of studies in chapters two through six provides evidence to address the overarching research question related to the elements of a nursing leadership development model that effectively prepares nurses to lead throughout the complex adaptive systems of health care. The notion of a combination or “bundle” of essential elements has significant implications for nursing education, practice, and further research, which will be presented at the end of this chapter.

In early 2001, the Institute for Healthcare Improvement first introduced the idea of a bundle of interventions for improving patient outcomes (Resar, Griffin, Haraden, & Nolan, 2012). They recognized that effective, safe, high quality patient care in complex environments incorporated many interdependent, interconnected interventions delivered by multiple people. They acknowledged that it required a set of evidence-based interventions reliably applied to influence the likelihood of interventions to improve patient outcomes.

They define a bundle as:

a small set of evidence-based interventions for a defined patient segment/population and care setting that, when implemented together, will result in significantly better outcomes than when implemented individually (Resar et al., 2012, p.2).
This definition is specific to patient populations and patient outcomes but the concepts could apply to nurses and leadership learning outcomes. One key concept in the definition of a bundle is that there are three to five elements or interventions for which there is a strong evidence-base and consensus in the professional community. This is true of the three elements described above. As is reported in the metasyntheses on formal education, guided experiential learning and context for leadership development, there is substantial quantitative as well as qualitative evidence that each is important (Galuska, 2012a, 2012c, and 2013a). A second key concept is that the bundle elements are relatively independent; that is, each can be implemented without necessarily implementing the others. This is also true of the three elements for leadership development. They have often been implemented alone. However, nurse participants in qualitative studies report that each is insufficient or less effective without the others (Galuska, 2012a, 2012c, 2013a).

The next several concepts are interconnected and there are implications for the application to nursing leadership development. Clinical bundles are intended for a defined patient population in one location, are developed by a multidisciplinary team, and allow for local customization based on judgment. Resar et al. (2012) caution against attempting to implement bundles across settings, populations, and teams. The bundle becomes more difficult to design, implement and evaluate. However, this nursing leadership development bundle may be applicable across settings and levels of nurses as described in the metasyntheses. The beauty with the bundle concept is that it is designed by teams or partners for implementation with a target group and customized for local implementation. Bundles arise out of the intentional communication and collaboration of individuals and teams in the complex adaptive system. The academic-service partnerships and collaboratives throughout the system could apply the elements
of the nursing leadership bundle in customized way based on the level of nurses, type of setting, and particular developmental needs. The three elements would still be required but their implementation tailored.

The last concept in the definition of a bundle is that compliance is measured using an all-or-none approach. In terms of application to nursing leadership development, design and measurement would incorporate not only formal educational processes or experiential learning or healthy practice environments. All three elements of the bundle would be expected in an evidence-based set of interventions, that when implemented together, would result in better nursing leadership competency development.

Building on the work of the IHI, the studies included in this dissertation form the basis for a bundle for nursing leadership development at all levels. Any attempt at developing leadership competency in nurses should consider a relevant, evidence-based formal educational program or curriculum which will provide the springboard to launch the nurse learner into application of the acquired knowledge (Galuska, 2013a). The program or curriculum would also be delivered using optimal, current teaching approaches including an experiential learning strategy. Intentional, planned, ongoing opportunities for experiential learning under the guiding influence of an appropriate mentor would enable the nurse-learner to apply leadership knowledge and skills, receive feedback and support, and reflect as they grow as leaders (Galuska, 2012c). The third essential element of the bundle is the assurance that nurses are situated in healthy practice environments that support their growth and development as leaders (Galuska, 2012a). Figure 4 provides a graphic depiction of a bundle for nursing leadership competency development for nurses at all levels.
The notion of a bundled approach to nursing leadership competency development at all levels has implications for nursing education, nursing practice and formal leadership and future nursing research. It would influence academic educational approaches, continuing education program development and implementation, leadership role development, practice environment improvement initiatives, and would provide multiple opportunities to evaluate and study the effectiveness of a bundled approach.

Implications for Education

As discussed in chapter two, there is substantial qualitative and quantitative evidence for transformation of the system for education of nurses. The metasynthesis on formal leadership education supports recommendations for incorporation of current, evidence-based nursing leadership content into formal academic curricula as well as continuing education for ongoing
leadership competence (Galuska, 2013a). Consistent with the recommendations of Benner et al. (2010), a radical transformation of academic nursing education is required. Recommendations include a stronger foundation in the sciences, contextualized knowledge development, integration of classroom and clinical experiential learning, and emphasis on the formation of the nurse as a leader and change agent in the complex adaptive healthcare system. The challenge for nurse educators is to keep curricula current and relevant in anticipation of the changing reality and roles of emerging and future nurse leaders. According to Sherman, Dyess, and Prestia (2013) it will require faculty who are prepared as innovative thinkers with a willingness to challenge current practices.

The evidence from the metasynthesis also supports flexible, learner-centered, innovative teaching strategies that enable nurses to develop a sense of salience and promote multiple ways of thinking and reasoning (Galuska, 2013a). Advancements in technology have created many options for content delivery that is tailored, and developmentally and culturally appropriate. Benner and colleagues (2010) also recommend the “development of pedagogies that keep students focused on the patient’s experience” (p. 220) including the use of narrative structures, unfolding cases, patient interviews, and simulation. These recommendations align with the evidence from nurse participants in qualitative studies who described the importance of human connection in the learning process.

The educational process should also support the development of competencies in inquiry, application of evidence to practice, and preparation for the role as change agent. Educational program requirements should include not only the formal content to prepare nurses for these activities but also the demonstration of competency in these skills in the complex settings of health care (Benner et al., 2010; Galuska, 2013a). Education should improve understanding of
complexity principles, effective communication and relational strategies, and provide a foundation for the nurse to lead.

The DEU is one example of a collaborative, innovative educational model that incorporates many of the recommendations of this study and others. The integration of classroom and clinical learning to allow for the cultivation of competencies in the complex health care setting is a potential benefit (Galuska, 2013b). This model and other educational innovations that emerge from academic-service should be implemented, studied, and continually improved to optimize the educational preparation of future nurses to lead.

**Implications for Practice and Leadership**

Because the environment is changing so rapidly and is becoming increasingly complex, all nurses must continue to seek current, evidence-based leadership education for their own continuing competence to lead in the complex adaptive systems of health care. This includes formal academic and continuing education programs, engaging in challenging opportunities and experiences, development of relationships with mentors, and time for critical reflection. Regardless of the level of leadership or role or practice setting, all nurses must continuously learn across various domains of knowledge and skill in order to keep up with expanding expectations and responsibilities. Benner and colleagues (2010) suggest that future nurses may be called upon to demonstrate that they are not only continuing their education and development but to actually demonstrate professional competency for practice.

Formal leaders must serve as role models for best practice in leadership and a commitment to ongoing development. This includes use of the professional literature to keep current with clinical, professional and leadership evidence and best practices. Professional
nursing journals include content that can provide nurses with greater understanding of the complex health care system and evidence-based strategies to influence positive change (Galuska, 2012b). Formal leaders and mentors must encourage colleagues to utilize the professional literature to assure continued competency.

Formal leaders and mentors, by encouraging ongoing and higher levels of nursing education, are supporting the call to develop nurse leaders at all levels but also creating a pipeline for emerging formal nurse leaders. With a significant anticipated shortage of nurse leaders for the future (Sherman et al., 2013), current leaders must provide the necessary support to cultivate leadership throughout the nursing workforce. Engaging in academic-service partnerships, nurse leaders in both arenas have collaborated on creative strategies to increase the educational levels of nurses to prepare them for advanced roles. They have also produced innovative models to equip nurses with the necessary competencies for the complex health care system. Models like the DEU not only better prepare students but have the potential to enhance leadership in practicing nurses. Continued engagement in these collaborative developmental efforts will position the profession to effectively respond to the leadership challenges of the future.

As formal leaders work to increase the educational levels of nurses through academic or continuing education, they must assure that the educational approach includes not only the formal content but the opportunity for guided experiential learning. Recognizing that formal education alone is insufficient to produce the development of leadership content, formal leaders must commit to developing mentors throughout the system to serve as guides for leadership development. Formal mentor and preceptor programs must be implemented to develop nurses to serve as supportive teachers and guides for the leadership development journey. In addition,
formal leaders must intentionally generate opportunities and experiences for nurses to practice developing leadership abilities. Growth opportunities include shared governance participation and leadership, progressive formal and informal roles that will exercise leadership skills, volunteer opportunities, professional organization activities, and more. Nurses must engage one another in leadership growth-producing activities.

The third element of the leadership development bundle provides a direct challenge for nurses in formal leadership roles. The creation of healthy cultures that support the practice and mastery of leadership competencies is one of the functions of enabling leadership (Galuska, 2012a). Formal nurse leaders serve in an administrative capacity with responsibility for structures and processes that will enable achievement of the organizational mission. In complex adaptive systems, the formal leader can balance the administrative function with enabling leadership that draws on the adaptive capacity of nurses everywhere in the system. Enabling leadership works to set up the conditions to unleash the power of the complex system, including nurses, to produce better outcomes. From the metasynthesis of qualitative studies on the effect of culture or context on nursing leadership development and from the study of the DEU, we have learned that nurses develop best in stimulating, supportive communities of practice (Galuska, 2012a, 2013b). Healthy practice environments are critical for the emergence of authentic, adaptive nursing leadership.

**Implications for Further Research**

There are many opportunities for further study building on the findings offered in this dissertation. In each of the elements of the bundle there is a need to study the most effective approaches to leadership development. For academic education, Benner and colleagues (2010)
describe a research agenda focused on pedagogies in nursing. One research question relates to successful strategies for integrating classroom and clinical teaching. Further study of the contribution of strategies like the DEU and residency programs on specific leadership and communication competencies would make a significant contribution to understanding leadership development early in the career of the nurse. These studies could be expanded to include outcomes in other settings beyond acute care which is the direction of future practice. Studies might also provide evidence for optimal educational content and situated learning strategies for direct care nurses leading at the bedside and as they evolve into formal roles. There is also opportunity to study an interprofessional approach to leadership development as all disciplines seek to improve quality and safety.

In addition to studying ways to optimize the elements of the bundle for leadership development, there is opportunity to design mixed methods studies on the effect of the bundle on development as well as outcomes. In complex adaptive systems, there is no linear path to better outcomes but one that involves interconnected, interdependent, dynamically-interacting network components. Recommended approaches for research incorporate computer modeling procedures such as agent-based modeling and system dynamic modeling, along with qualitative designs (Uhl-Bien, Marion, & McKelvey, 2007). These research strategies require expanding the skill sets of nurse scientists and encourage collaboration across disciplines.

Conclusion

So the need for new leadership is urgent. It is needed in communities everywhere. We need leaders who know how to nourish and rely on the innate creativity, freedom, generosity and caring of people. We need leaders who are life affirming rather than life
destroying. Unless we quickly figure out how to nurture and support this new leadership, we can’t hope for peaceful change…Thus, new leadership becomes a central and pressing challenge of our time. (Wheatley, 2007, p.164)

Margaret Wheatley captures the urgency of the call for new leadership in our complex world. Although she is not referring specifically to healthcare or speaking about nursing leadership directly, she captures the very essence of nursing leaders who can transform a healthcare system in need. It is as if she is speaking about nurses when she describes those who can nourish and draw on the rich creative, adaptive, human capacity to make life better for people. The Institute of Medicine (2011) speaks directly about this kind of leadership potential in nursing and calls on the profession to transform education and practice and to lead throughout the system. This combination of studies which culminates in the recommendation of a bundle of interventions to develop nursing leadership at all levels begins to envision a way to respond to the call. If we can radically transform our system of nursing education, create opportunities within the system to cultivate leaders, and transform our practice environments to support healthy growth, we can respond. We can actualize a future of nursing that can lead change and advance the health and well-being of a nation.
References


Copyright Permission

This is a License Agreement between Lee A Galuska ("You") and Wolters Kluwer Health ("Wolters Kluwer Health") provided by Copyright Clearance Center ("CCC"). The license consists of your order details, the terms and conditions provided by Wolters Kluwer Health, and the payment terms and conditions.

All payments must be made in full to CCC. For payment instructions, please see information listed at the bottom of this form.

License Number 3101610746595
License date Mar 03, 2013
Licensed content publisher Wolters Kluwer Health
Licensed content publication Advances in Nursing Science
Licensed content title Cultivating Nursing Leadership for Our Envisioned Future
Licensed content author Lee Galuska
Licensed content date Jan 1, 2012
Volume Number 35
Issue Number 4
Type of Use Dissertation/Thesis
Requestor type Individual
Author of this Wolters Kluwer article Yes
Title of your thesis / dissertation Generation of a Nursing Leadership Development Bundle
Expected completion date Apr 2013
Estimated size(pages) 211
Billing Type Invoice
Billing address 107 Lee Drive

Southington, CT 06489
United States

Customer reference info
Total 0.00 USD
Terms and Conditions

Terms and Conditions

1. A credit line will be prominently placed and include: for books - the author(s), title of book, editor, copyright holder, year of publication; For journals - the author(s), title of

https://s100.copyright.com/App/PrintableLicenseFrame.jsp?publisherID=130&publisherNa... 3/3/2013
Appendix E

Copyright Permission continued

article, title or journal, volume number, issue number and inclusive pages.
2. The requestor warrants that the material shall not be used in any manner which may be considered derogatory to the title, content, or authors of the material, or to Wolters Kluwer.
3. Permission is granted for a one time use only within 12 months from the date of this invoice. Rights herein do not apply to future reproductions, editions, revisions, or other derivative works. Once the 12-month term has expired, permission to renew must be submitted in writing.
4. Permission granted is non-exclusive, and is valid throughout the world in the English language and the languages specified in your original request.
5. Wolters Kluwer cannot supply the requestor with the original artwork or a "clean copy."
6. The requestor agrees to secure written permission from the author (for book material only).
8. If you opt not to use the material requested above, please notify Rightslink within 90 days of the original invoice date.
9. Please note that articles in the ahead-of-print stage of publication can be cited and the content may be re-used by including the date of access and the unique DOI number. Any final changes in manuscripts will be made at the time of print publication and will be reflected in the final electronic version of the issue.
Disclaimer: Articles appearing in the Published Ahead-of-Print section have been peer-reviewed and accepted for publication in the relevant journal and posted online before print publication. Articles appearing as publish ahead-of-print may contain statements, opinions, and information that have errors in facts, figures, or interpretation. Accordingly, Lippincott Williams & Wilkins, the editors and authors and their respective employees are not responsible or liable for the use of any such inaccurate or misleading data, opinion or information contained in the articles in this section.
10. This permission does not apply to images that are credited to publications other than Wolters Kluwer journals. For images credited to non-Wolters Kluwer journal publications, you will need to obtain permission from the journal referenced in the figure or table legend or credit line before making any use of the image(s) or table(s).
11. The following statement needs to be added when reprinting the material in Open Access publications: "Promotional and commercial use of the material in print, digital or mobile device format is prohibited without the permission from the publisher Lippincott Williams & Wilkins. Please contact journalpermissions@lww.com for further information.
12. Other Terms and Conditions:

v1.5

If you would like to pay for this license now, please remit this license along with your payment made payable to "COPYRIGHT CLEARANCE CENTER" otherwise you will be invoiced within 48 hours of the license date. Payment should be in the form of a check or money order referencing your account number and this invoice number RLNK500969055.
Once you receive your invoice for this order, you may pay your invoice by credit card.

https://s100.copyright.com/Ann/PrintableLicenseFrame.jsp?publisherID=130&publisherNa... 3/3/2011