Assessing the Professional Development Needs of Experienced Nurse Executive Leaders

Linda Searle Leach, PhD, RN, NEA-BC, CNL
Patricia McFarland, MSN, RN, FAAN

OBJECTIVE: The objective of this study was to identify the professional development topics that senior nurse leaders believe are important to their advancement and success.

BACKGROUND: Senior/experienced nurse leaders at the executive level are able to influence the work environment of nurses and institutional and health policy. Their development needs are likely to reflect this and other contemporary healthcare issues and may be different from middle and frontline managers. A systematic way of assessing professional development needs for these nurse leaders is needed.

METHODS: A descriptive study using an online survey was distributed to a convenience sample of nurse leaders who were members of the Association of California Nurse Leaders (ACNL) or have participated in an ACNL program.

RESULTS: Visionary leadership, leading complexity, and effective teams were the highest ranked leadership topics. Leading change, advancing health: The future of nursing, healthy work environments, and healthcare reform were also highly ranked topics.

CONCLUSIONS: Executive-level nurse leaders are important to nurse retention, effective work environments, and leading change. Regular assessment and attention to the distinct professional development needs of executive-level nurse leaders are a valuable human capital investment.

Author Affiliations: Assistant Professor (Dr Leach), School of Nursing/UCLA Health System Patient Safety Institute, University of California Los Angeles; CEO (Ms McFarland), Association of California Nurse Leaders, Sacramento.

The authors declare no conflicts of interest.

Correspondence: Dr Leach, UCLA School of Nursing, 700 Tiverton Ave, Factor Bldg 3-234, Los Angeles, CA 90095-6917 (lleach@sonnet.ucla.edu).

Nurse leaders across the nation are called upon to lead change and actively participate in the redesign of our nations' healthcare system.[1] By virtue of their years of experience, senior nurse leaders have the knowledge, passion, and integrity to make a difference on local, state, and national levels. Nurse leaders at the executive level are able to influence the environment in which nurses practice, whether their practice involves care delivery, education, or management. Organizational leaders are challenged to optimize productivity and engagement of employees as demand for innovation and flexibility continues.[1] Senior nurse leaders are responsible for the professional environment of nursing. The effectiveness of the nurse leader affects how nursing practice and nursing education are carried out. They are positioned to convey a vision for a preferred future that inspires creativity and makes meaning of the continuous change and uncertainty that characterizes healthcare reform and quality improvement (QI). The knowledge base of science is expanding, and application of new knowledge and technologies into healthcare practices necessitates a commitment to lifelong learning and professional development even in light of role experience and success.[2] There are 2 key challenges that emerge as nurse leaders learn to empower providers to improve systems and practices at the point of delivery and care processes are redesigned to be patient centered and continuous from 1 setting and episode to the next: (1) expanding leadership capacity to guide transformative change in sociotechnical organizations and

(2) developing the next generation of leaders capable of stewardship for advancing global health.

The development needs of senior nurse leaders are distinct and, in many cases, different from the professional development needs of nurses in middle and 1st-line management positions.[3,4] Recognizing this as an opportunity to serve this cohort of nurse leaders, the Leadership Development Committee (LDC) of the Association of California Nurse Leaders (ACNL) established a goal to determine the topics that experienced nurse leaders at the executive level identify are important to their professional development and continuing education.

Review of Literature

Leadership development has been defined as personal development that advances leadership effectiveness.[5] Leaders learn through their experiences. Experiences that can have the most impact are those that challenge people.[5] Feeling challenged can occur when an individual is in a situation that requires skills and abilities that are beyond existing capacity and in the context of confusion or ambiguity. Challenging situations can be motivating to people to pursue mastery. The importance of the situation to the individual can promote a desire for competency.

The guiding framework for leadership development among nurse executive (NE) leaders is the American Organization of Nurse Executives (AONE) Nurse Executive Competencies (NEC).[6] These were developed from a model delineating common, core competencies for leadership among executives in healthcare through collaborative work. Contributing organizations and societies include AONE, the American College of Healthcare Executives, American College of Physician Executives, Healthcare Financial Management Association, and the Healthcare Information and Management Systems Society and Medical Group Management Association (Healthcare Leadership Alliance).

The AONE NECs are described according to 5 main competencies or categories: communication and relationship building, knowledge of the healthcare environment, leadership skills, professionalism, and business skills.[6] A competency assessment tool is available for self-assessment[6] and to identify and plan for development relevant to the executive-level nursing leadership role. The competency framework is a guide for continuing education programs and topics as nurse leaders pursue mastery of their roles.

A review of the literature on competencies for the executive-level nurse leader and the professional development needs for their role development revealed 4 studies from 2005 to the present, as well as a narrative of the evolution of leadership development

and a description of a leadership program developed for 3 levels of nurse leaders. The 1st study reported assessing the leadership challenges and competencies among executive nurse leaders and nonnursing healthcare leaders who identified essentially similar challenges among executive-level leaders with some variation.[7] Nurse leaders rated funding and budget as the top challenge followed by workforce: recruitment, retention, aging workers; patient safety/QI; time management/handling workload; and change management. In contrast, nonnursing leaders ranked funding and budgeting last, workforce 1st, followed by strategic planning/mission, and vision; patient safety and QI; and managing relationships with medical staff, whereas nurse leaders did not include strategic planning or medical staff relations as a top 5 leadership challenge.[7] Although the samples (n = 54 and n = 27, respectively) were not large, these findings do offer some support for the unique role demands perceived by executive nurse leaders. Data were also collected to identify the top 5 competencies for NEs using a 3-point scale for those viewed as absolutely critical. The 5 competencies were (1) building effective teams, (2) translating vision into strategy, (3) communicating vision and strategy internally, (4) managing conflict, and (5) managing focus on patient and customer. Each had a median score of 2.8 (total possible = 3) or higher, indicating the high level of importance perceived by the nurse leaders.[7]

Findings from research using a Delphi technique[8] about the competencies for NEs employed in the Veterans Health Administration (VHA). The competencies with the highest ranked skills, knowledge, and attitudes (SKAs) in the future were about ethics, continuous learning, change, clinical outcomes, conflict resolution, interpersonal skills, openness to new ideas, and honest self-critique. Results identified that the core competencies adopted for executive-level leadership at the VHA in a model for high performance were (1) organizational stewardship, (2) interpersonal effectiveness, (3) systems thinking, (4) technical skills, (5) creative thinking, (6) flexibility/adaptability, (7) customer service, and (8) personal mastery.[8]

An Australian study explored the role responsibilities as well as the professional development needs of NEs and assessed these among NEs across remote, rural, provincial, and metropolitan areas.[9] The professional development needs identified from all locations were human resource management, financial management, and information technology.[9]

A review of the evolution of leadership development by scholars at the Center for Creative Leadership (CCL) identified that leadership competencies continue to be a core dimension of leadership development.[10] The CCL identified that most organizations have

identified leadership competencies and use them to plan development programs.[10] In addition, the authors note that organizational context is important and that competencies need to align with the organization's distinct strategy and business model.[11] Five key forces identified as influential to leadership competencies in the future are global competition, information technology, need for rapid and flexible organizations, teams, and differing employee needs.[10,12]

Wolf and colleagues[13] identified 3 levels of leadership as they developed a leadership development program for nurse leaders in 19 hospitals in their university system. They used learning plans for different levels with 1 level targeted for middle and upper-level managers to advance to the top level of organizational leadership. The competencies they identified from secondary research and interviews include the ability to: coach and develop for results, inspire loyalty and trust, manage work, partner within and across teams, influence through personal power, drive performance, and select talent.[13] The gaps that were revealed (n = 50) included visionary leadership (96%), project and program management (96%), valuing diversity (90%), a gap in change leadership (80%), and building business partnerships (66%).[13]

A study conducted in the United Kingdom pursued identifying the factors contributing to the NE director's role success.[14] Their interest was to develop the factors to improve role effectiveness. Ten characteristics associated with success were reported: (1) total organization view/visionary; (2) communication; (3) powerful, influential operator; (4) collaborating effectively in multidisciplinary teams; (5) business astuteness; (6) human management skills; (7) providing nurses with the right tools and resources; (8) knowledge of nursing; (9) quality management; and (10) project management skills.[13]

The purpose of this study was to determine the professional development topics identified by executive nurse leaders as most important to meet their needs in response to role demands and organizational and industry challenges from their perspective as experienced leaders.

Design

A cross-sectional, descriptive design was used to explore the development of topics of interest to experienced executive nurse leaders. The University of California Los Angeles institutional review board (IRB) determined that because the intent of the study was for nonresearch purposes, in order to learn the development needs of experienced nurse leaders who have different role priorities and challenges than 1st-line or middle managers and would not include iden-

tifiable information about the survey participants, an IRB review was not required. A quantitative field survey was disseminated via e-mail to a convenience sample of 400 executive-level nurse leaders that was generated from the ACNL membership list and from deans and directors of schools of nursing in the state who are members of the California Association of Colleges of Nursing (CACN). This was followed by an e-mail letter to all ACNL members (1200) informing them of the survey, inviting them to self-identify their level of leadership to participate as senior nurse leaders, and indicating that the message could be forwarded to executive-level nurse leaders who might want to participate. There were 155 respondents who submitted answers to the online survey. Those who received the survey were expected to decide if they were experienced, executive-level nurse leaders.

Survey Development

The 45-item questionnaire included 5 demographic questions and was developed by the investigators and designed as an online survey, The Experienced Nurse Executive Survey for Professional Development. The investigators were 3 members from the LDC that worked together as a task force of ACNL to design the survey. The creation of topics included in the survey of senior leaders began with a brainstorming process among the LDC members of the ACNL. Topics identified as important for executive-level nurse leaders included healthcare reform, leadership presence and presentation skills, creating vision in an organization, systems science and complexity theory, exploring/developing healthcare technologies, advanced finance, lean skills, succession planning/mentoring, and evidence-based practice.

Each year, ACNL provides an annual educational conference. At the conclusion, program evaluations are submitted. These evaluations include recommendations for program topics generated by attendees at the ACNL annual program. These recommendations were reviewed, and the task force identified the topics that were relevant to executive nurse leaders and integrated these with the topics identified by the LDC. The next step involved reviewing the AONE competencies for chief NEs[6] and identifying any topics that were not already included. The categories from the AONE competencies (leadership, knowledge of healthcare, communication/relationship building, professional development/advancing the profession, and business skills) were used to organize the topics identified. The AONE categories were selected as the organizing framework because of their direct relevance for the role of a NE in general rather than using other frameworks such as the competencies identified specifically for NE in the VHA or the broader categories

for healthcare leadership of purpose, personal, people, or process.[6,8] In addition, the competencies that would be grouped into those 4 broad categories are not explicitly clear without further definition and agreement. The AONE competencies[6] were developed and reviewed by association leaders and have been available and in use for several years. They seemed to provide the best fit for organizing the newly developed survey and were likely to be familiar among the target audience. The list of competencies was sorted by category, and the content under each category was evaluated for completeness in assessing that category. The number of survey items under each category ranged from 6 to 10 questions. Respondents were asked to rank the items based on importance from very important, important, and not important. Importance was defined as very important = I would attend, important = I might attend, or not important = I would not attend. These definitions were intentionally derived to have the respondents identify if a topic was important enough to them that they would attend a program on that topic. In this way, respondents did not generate topics they thought were important for the executive-level leader in general but rather prioritized their own development needs by stating their intention to attend or not.

The investigator task force also wanted to determine what type of program offering would be most useful for this audience. Survey questions about the format of the program asked if the respondent was interested in a particular course topic, and it was offered in one of the following formats, would the individual make arrangements to attend? The format types included the following:

- courses before the opening of ACNL annual meeting—half day to 2 days depending upon subject matter
- course after the closing of ACNL annual meeting—half day to 2 days depending upon subject matter
- for courses 2 hours or less, build into the breakout sessions at annual conference
- an annual midyear summit focused on education/courses—may require travel within California (if enrollment from participants is sufficient for a course in both southern and northern California, offer in both places)
- quarterly educational summits, for example, 2nd, 3rd, and 4th quarters of the year—may require travel within California (if enrollment from participants is sufficient for a course in both southern and northern California, offer in both places)
- webinar
- group phone conferencing

The draft survey was reviewed by the LDC and approved for use by the 2011 ACNL board of directors. The survey was entered into SurveyMonkey and distributed via e-mail.

Results

There were 155 surveys submitted with responses. The individual respondents represented acute care, academia, ambulatory settings, and nursing informatics. The majority (47%) were chief NEs (16% CNEs and 31% chief nursing officers [CNOs]). There were 29% from academia as deans or program directors. Nurses who were chief operating officers (COOs) and chief executive officers (CEOs) also participated (4%). In addition to position titles of CEO, COO, CNE, CNO, dean, and director, which were the survey choices, there were quite a variety of job titles for executive-level leaders. For example, the title of associate director in an academic medical center might be used for the individual who is the CNE. The title manager might be used in an ambulatory setting for the highest-level nurse administrator. Accordingly, there were 20% of the respondents who selected other and described their position or wrote in their job title. One was a chief clinical officer, 2 vice presidents (quality and ambulatory care), several directors (education, outpatient departments, corporate), a few managers, 3 consultants, 3 associate directors, several faculty, and 1 who indicated both COO/CNO. From this information, about 17 of these respondents seemed to be in senior executive positions. As a result, an estimated 95% of those responding indicated they were experienced, executive-level nurse leaders.

The majority (66%) had a master's degree as their highest education level, and 22% were doctorally prepared (17% PhD or DNS and 5% EdD or other and 1% doctorate of nursing practice [DNP]), with the remainder reporting a baccalaureate degree (12%). The length of time they had been in a nurse leader role ranged from 2 to 38 years, and the average was 18 years. Ethnic diversity was limited, with only 5% reporting Hispanic or Latino ethnicity. Racial diversity was also limited, with 84% white, 6% black or African American, 3% Filipino, 1% mixed, and 1% Asian.

The work setting or type of organization was primarily acute care hospitals (59%), with 10% indicating an academic medical center or university-affiliated hospital. A few were from skilled nursing facilities (7%), consulting business (5%), public health (2%), rural settings (3%), academic settings (23%), and 16% were other that included ambulatory, health systems, home health, specialty hospitals, and

business settings. Some respondents checked more than 1 category, creating a total of 125% for this demographic.

Professional Development Topics

The professional development topic categories were leadership, knowledge of healthcare, communication/relationship building, professional development/advancing the profession, and business skills. The leadership topics were as follows:

1. creating vision; visionary leadership
2. leading effective teams
3. evidence-based practice; leading translation of evidence into management and clinical decision-making
4. leading complexity and complex adaptive systems
5. coaching: integrating into your leadership practice, learning, and competency development
6. succession planning; identifying and developing leadership potential in staff, developing emerging leaders
7. mentoring the diverse nurse leader
8. leading in matrix organizations; best practices in nursing leadership
9. role of nurse leaders in emergencies/disasters
10. innovation in nursing

The top 3 leadership topics were as follows:

1. leading translation of evidence into management and clinical decision making
2. innovation in nursing
3. leading in matrix organizations best practices in nursing leadership. (Figure 1).

The range of percent among the top 7 leadership topics was small (68%-53%), so a secondary analysis was done to further delineate the topics of importance. The percentages for very important and important were combined and showed that *innovation* was the most important (97%), *creating vision/visionary leadership* (95%) tied with *leading complexity and complex adaptive systems* (95%) followed by *leading effective teams* (94%). We then examined the average score for each of these topics. The range of scores was from 1 to 3, with a score of 3 for very important, 2 for important, and 1 for not important. *Leading translation of evidence* was 1st at 2.65, *innovation in nursing* 2nd at 2.61, and *leading effective teams* 3rd at 2.51. Those topics that were among the top 3 in 2 of these 3 rankings for leadership were *leading translation of evidence*, *innovation in nursing*, and *leading effective teams* (Table 1).

In the category *knowledge in healthcare*, the survey items were as follows:

1. systems management; improving flow/throughput
2. performance improvement
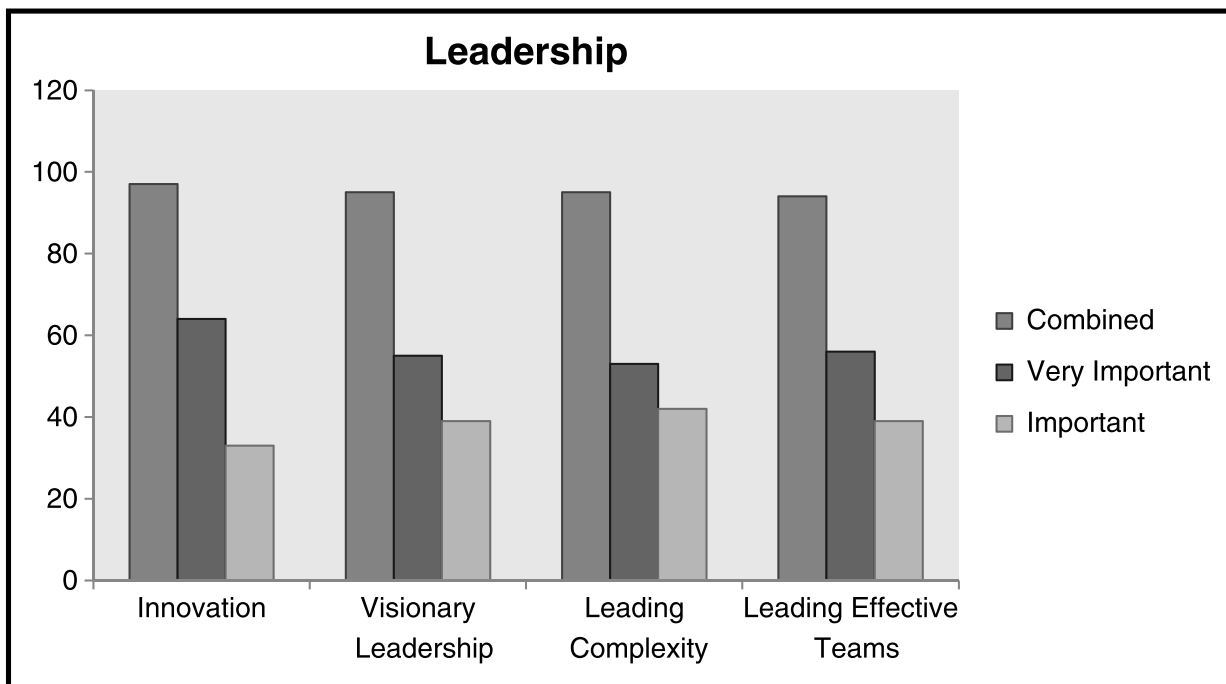3. culture of safety; just culture

Figure 1. Top leadership topics.

4. workforce changes human factors engineering
5. healthcare reform; accountable care organizations and coping with healthcare reform initiatives
6. changes in reimbursement; patient experience scores; meaningful documentation

The top 3 *very important* topics were as follows:

1. healthcare reform
2. changes in reimbursement; patient experience; meaningful documentation
3. workforce changes; human factors (Figure 2)

The top *3 important* knowledge topics were *culture of safety/just culture*, *systems management/improving workflow that tied with workforce changes*, and *performance improvement*. When *very important* responses and *important* responses were combined, the top 3 knowledge topics were *culture of safety/just culture* and *workforce changes*, which tied for 1st (95%), then *systems management/workflow* (94%) and *performance improvement* (92%). When the average score was used, the rankings are the same as they were for *very important*: *healthcare reform*, *changes in reimbursement*, and *workforce changes*. The score for healthcare reform is 2.59, but the rest of the items range from 2.45 to 2.40. In this cate-

gory, therefore, there are 3 topics that are very important and 3 that are important. One topic, *workforce changes*, is important to half but very important to the other half of the respondents (Table 2).

The items in the communication/relationship building category were as follows:

1. presentation skills; leadership presence; conveying ideas that impact and influence
2. media skills: developing ability to influence through media
3. communication skills; communication with the executive suite
4. conflict management
5. engaging and empowering staff at an advanced level (Figure 3).

The *very important* topics in this category for half of the respondents were communication/relationship building and engaging and empowering staff, communication skills/communication with the executive suite, and presentation skills/leadership presence/conveying ideas that influence. These topics also had the highest scores. About half viewed the *important* topics as conflict management, media skills, and communication skills/executive suite. When *very important* and *important* responses were combined, 1 topic was the highest (84.5%), and that was *engaging*

Table 1. *Ranking of the Leadership Topics*

| Leadership	Combined Very Important and Important, %	Very Important, %	Important, %	Not Important, %	Average Score	SD
Creating vision; visionary leadership	95	55	39	5	2.5	1.414
Leading effective teams	94	56	39	5	2.51	0.707
Evidence-based practice; leading translation of evidence into management and clinical decision making	9	68	29	3	2.65	1.174
Leading complexity and complex adaptive systems	95	53	42	5	2.47	0.995
Coaching: integrating into your leadership practice, learning, and competency development	96	41	55	4	2.37	0.489
Succession planning; identifying and developing leadership potential in staff; developing emerging leaders	91	54	37	9	2.45	0.329
Mentoring the diverse nurse leader	86	36	50	14	2.22	0.384
Leading in matrix organizations; best practices in nursing leadership	91	58	33	9	2.48	0.395
Role of nurse leaders in emergencies/disasters	85	18	56	26	1.92	0.571
Innovation in nursing	97	64	33	3	2.61	0.5468
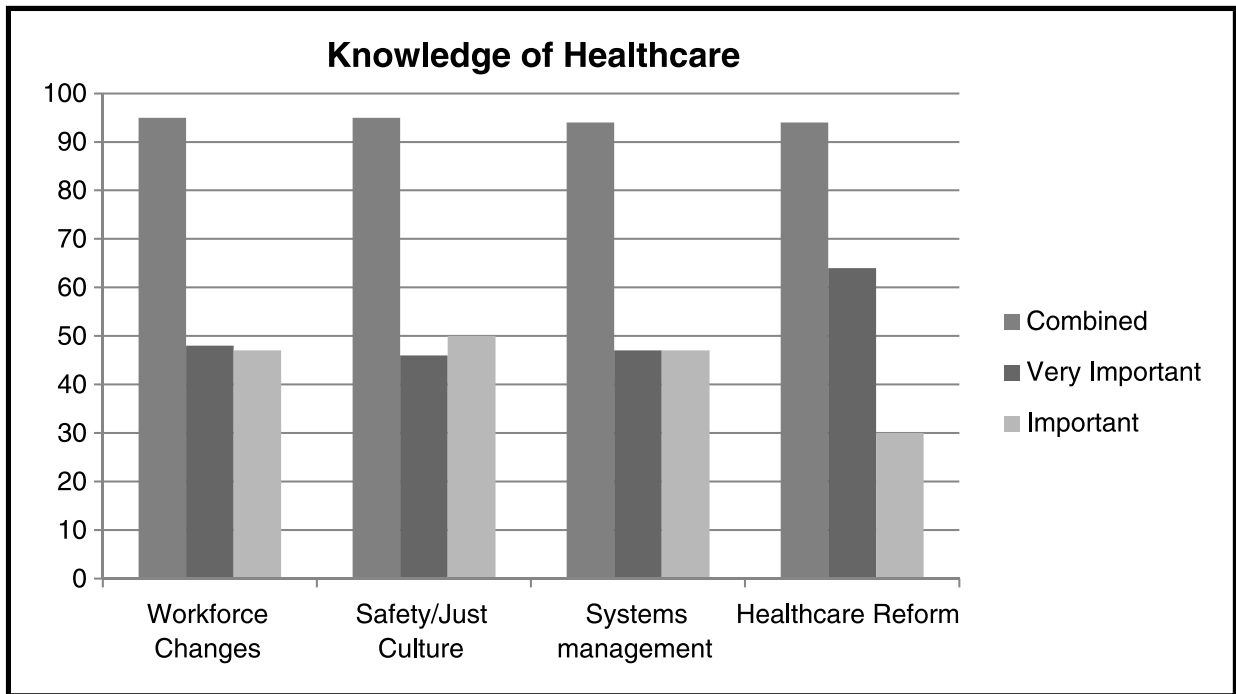
Figure 2. Top knowledge of healthcare topics.

and empowering staff. Engaging and empowering staff was also highest in *very important*, had the highest score, and was highest in combination (Table 3).

In the category *professional development/advancing the profession*, the items were as follows:

1. the Institute of Medicine (IOM)/Robert Wood Johnson Foundation (RWJF) *Future of Nursing: Leading Change, Advancing Health* report[15]; leading professional advancement strategies and operations to effect change/updates

2. trends in education: introduction of DNP-trained nurses; simulation
3. using evidence/knowledge and skills for rating/interpreting evidence
4. preparing and developing staff for participation in a shared-governance structure
5. emerging care delivery models; healthy work environments
6. using technology to improve personal skills
7. compassion fatigue
8. multiculturalism; cultural competency

Table 2. *Ranking of the Knowledge of Healthcare Topics*

Knowledge of Healthcare	Combined, %	Very Important, %	Important, %	Not Important, %	Average Score	SD
Systems management; improving flow/throughput	94	47	47	6	2.41	0.777
Performance improvement	92	48	44	8	2.40	0.502
Culture of safety just culture	95	46	50	5	2.41	0.489
Workforce changes human factors engineering	95	48	47	5	2.43	0.476
Healthcare reform; ACOs and coping with healthcare reform initiatives	94	64	30	5	2.59	0.465
Changes in reimbursement; HCAHPS; meaningful documentation	88	57	31	12	2.45	0.455

Abbreviations: ACOs, accountable care organizations; HCAHPS, Hospital Consumer Assessment of Healthcare Providers and Systems.
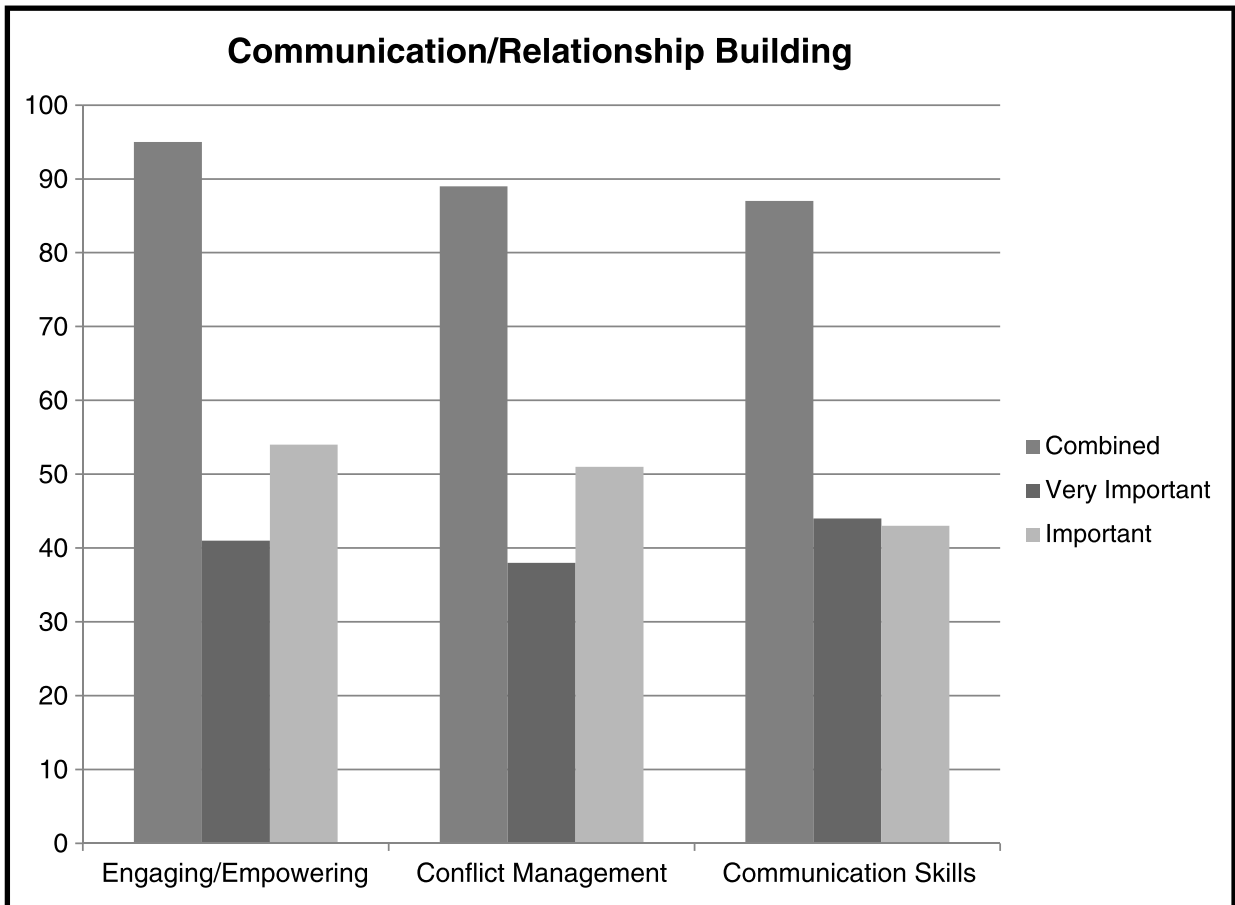
Communication/Relationship Building

Figure 3. Top communication/relationship building topics.

The topics for professional development/advancing the profession that surfaced as *very important* were as follows:

1. *Future of Nursing*,[15] leading professional advancement strategies and operations
2. emerging care delivery models; healthy work environments (HWE)

3. using/interpreting evidence.

These 3 had the highest scores also (Figure 4). The *important* topics were as follows:

1. using technology to improve personal skills
2. cultural competency
3. trends in education: DNP; simulation (Table 4).

Table 3. *Ranking of the Communication/Relationship Building Topics*

| Communication/Relationship Building	Combined, %	Very Important, %	Important, %	Not Important, %	Average Score	SD
Presentation skills: leadership presence, conveying ideas that impact and influence	85	44	41	15	2.28	0.455
Media skills: developing ability to influence through media	85	36	49	15	2.21	0.311
Communication skills; communication with the C suite	87	44	43	13	2.31	0.313
Conflict management	89	38	51	11	2.26	0.313
Engaging and empowering staff at an advanced level	95	41	54	5	2.48	0.312

Professional Development/Advancing the Profession
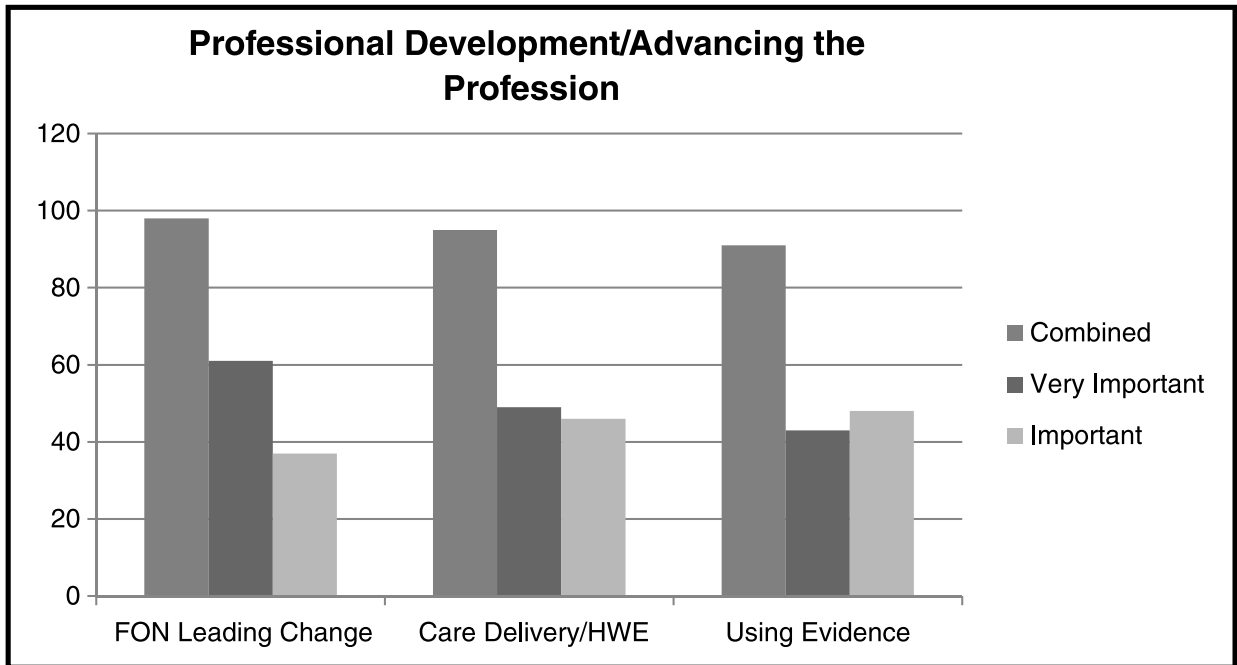
Figure 4. Top professional development/advancing the profession topics. Abbreviations: FON, *Future of Nursing*[15]; HWE, healthy work environment.

The topics in the business skills category were as follows:

1. negotiation and political savvy
2. using lean skills effectively; Six Sigma
3. healthcare technologies: exploring the development of new technologies/implications of new technologies; using technology to improve organizational processes
4. advanced finance
5. beginning finance
6. project management
7. enterprise risk management

Business skills that were rated *very important* were as follows:

1. negotiation and political savvy
2. new technologies
3. using Lean skills effectively, and advanced finance was very close to being 3rd (Figure 5).

The highest average scores were the same as the top 3 *very important* topics. The *important* topics were *project management*, *enterprise risk management*, and *new technologies*. *New technologies* were ranked in the top 3 in both *important* and *very important* (Table 5).

Format for Courses

Responses to the format for courses indicated 91% were in favor of courses more than 2 hours as break-

out sessions at the annual meeting; 87% were also in favor of a midyear summit focused on education that might require travel to northern or southern CA. The next format with the highest rate was webinar, and 84% of the respondents indicated they would attend if this format were used. Of note, 79% also conveyed they would attend half day to 2-day courses before the opening of an annual leadership meeting. There were 64% who would attend a quarterly education summit that might require travel within the state. About half would attend a group phone conference on a topic.

Implications

In light of IOM's report, *The Future of Nursing: Leading Change, Advancing Health*,[15] NEs need to be able to extend their leadership in arenas beyond their own organization. Executive nurse leaders have a significant role to play and are instrumental in implementing the IOM recommendations for the future of nursing.[15] Recognizing the professional development needs of individuals with executive-level experience is 1 way to prepare to support their continued growth. To evolve and grow as a leader, it is important for leaders to know their strengths and weaknesses and be able to apply strengths while augmenting weakness. Individual NEs can reflect on their own experiences and abilities and develop professional leadership goals that stretch them to the next level. The next level may be a job promotion, or it could be staying in a current position but venturing into the community as an advocate for nursing education. The next

Table 4. Ranking of the Professional Development/Advancing the Profession Topics

Professional Development/Advancing the Profession	Combined, %	Very Important, %	Important, %	Not Important, %	Average Score	SD
The IOM/RWJF *Future of Nursing*[15]: leading professional advancement strategies and operations to effect change/updates	98	61	37	3	2.58	0.311
Trends in education: DNP; simulation	86	32	54	15	2.17	0.599
Using evidence/knowledge and skills for rating/interpreting evidence	91	43	48	10	2.33	0.284
Preparing and developing staff for participation in a shared-governance structure	80	35	45	20	2.14	0.359
Emerging care delivery models; healthy work environments	95	49	46	20	2.43	0.322
Using technology to improve personal skills	89	30	59	5	2.20	0.299
Compassion fatigue	83	31	52	17	2.14	0.281
Multiculturalism: cultural competency	89	33	56	12	2.22	0.267

level may be involvement in the political arena by visiting an elected state or national representative or speaking at a town hall meeting. The topics that the nurse leaders identified as most important seem strongly aligned with the IOM report[15] and the call for nurses to lead in the redesign of health systems, especially recommendation 7: "Prepare and enable nurses to lead change to advance health; nurses, nursing education programs, and nursing associations should prepare the nursing workforce to assume leadership positions across all levels, while public, private, and governmental healthcare decision makers should ensure that leadership positions are available to and filled by nurses."[15(p5)]
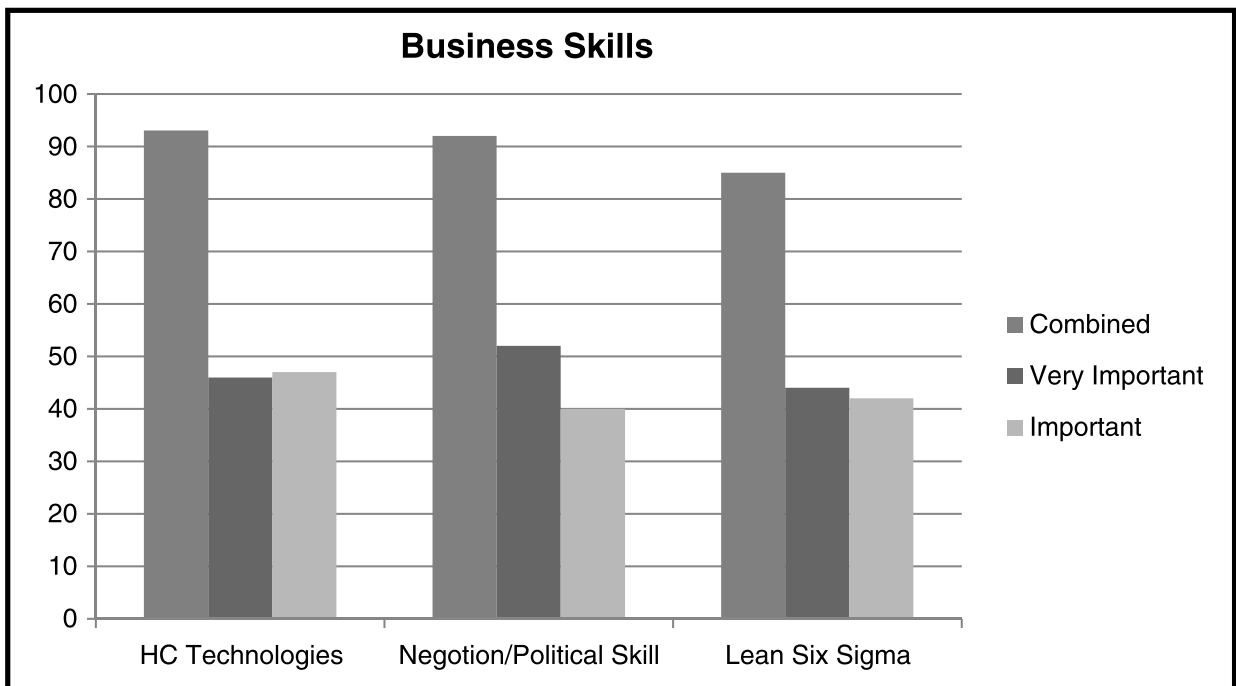

Figure 5. Top business skills. Abbreviation: HC, healthcare.

Table 5. *Ranking of the Business Skills Topics*

Business Skills	Combined, %	Very Important, %	Important, %	Not Important, %	Average Score	SD
Negotiation and political savvy	92	52	40	9	2.43	0.595
Using Lean skills effectively; Six Sigma	85	44	42	15	2.29	0.557
Healthcare technologies: exploring the development of new technologies/implications; using technology to improve organizational processes	93	46	47	7	2.39	0.525
Advanced finance	83	42	41	18	2.24	0.223
Beginning finance	46	16	30	54	1.62	0.224
Project management	78	27	51	22	2.05	0.471
Enterprise risk management	76	27	49	24	2.03	0.214

The most important topics were leading the translation of evidence, innovation, leading effective teams, healthcare reform, reimbursement, workforce changes, engaging and empowering staff, and the IOM/RWJF *Future of Nursing* report,[15] leading professional advancement strategies and operations to effect change. When these topics are fulfilled as professional development goals by senior NEs, then they will be well on the way to effectively responding to the call for nurses to lead health and advance change. Regular needs assessment, both individual and collective assessments, offer a guide for goal setting, learning opportunities, and the chance to create new ways to influence and implement the IOM report[15] recommendations.

Limitations

The cross-sectional, exploratory design precludes causal inference. Another limitation is the possibility of response bias with the use of a convenience sample and respondents self-determined if they were experienced NE leaders. However, the nurse leaders' perception of their development needs and interests can influence their behavior and can be an accurate reflection of their intended actions to advance in their role. This new survey assessment tool needs psychometric evaluation to determine further use.

Recommendations

Clearly, this is an important time for leadership. The results from this survey can be used to inform the development of educational programs and offerings for experienced NEs from healthcare organizations and academia. Findings indicate that innovation and leadership are salient overarching themes for development with a focus on complexity, complex adaptive systems, effective teams, and healthcare reform.

A variety of formats offer different time commitments. An in-person session of up to 2 hours and a virtual meeting via webinar were the most popular. Combining travel with an annual leadership conference provides efficiency while targeting specific topics of interest to those with experience in this role.

Continuing assessment of senior executive nurse leaders is important to their professional development and preparation for role success. Capturing an ethnically and racially diverse sample of senior executive nurse leaders is indicated to determine if there is variation in perceived areas of interest and importance relative to the enactment of their roles.

Conclusion

The NE leader is important to clinical care delivery in contemporary healthcare organizations and to the educational preparation of new and specialty nurses in academia. They are important to the retention of nurses and nurse faculty. These nurse leaders face a multitude of challenges. They initiate and sustain organizational change and are increasingly responsible for the success of improvements. Nurses comprise the majority of the workforce in healthcare organizations, and their involvement is critical in all aspects. Indeed, the leadership excellence and competency of executive nurse leaders have been denoted as one of the most important influences on organizational culture, care delivery, and the work environment for nurses.[6,16,17] Regular assessment and attention to the development needs of these leaders seem essential at the professional association, health system, organization, and individual levels. The opportunity to provide educational

programs for experienced executives based on topics of importance to their professional development and success in their roles is a human capital investment with far-reaching potential returns and should not be overlooked.

References

1. Leach LS. Nurse executive transformational leadership and organizational commitment. *J Nurs Adm*. 2005;35(5):228-237.
2. Khoury C, Blizzard R, Moore L W, Hassmiller S. Nursing leadership from bedside to boardroom: a Gallup national survey of opinion leaders. *J Nurs Adm*. 2011;41(7/8):299-305.
3. Frederickson K, Nickitas D. Chief nursing officer executive development: a crisis or a challenge? *Nurs Adm Q*. 2011;35(4): 344-353.
4. Batcheller JA. Onboarding and enculturation of new chief nursing officers. *J Nurs Adm*. 2011;41(5):235-239.
5. VanVelsor E, McCauley CD. Our view of leadership development. In: McCauley CD, Van Velsor E, eds. *The Center for Creative Leadership Handbook of Leadership Development*. 2nd ed. San Francisco, CA: Jossey-Bass; 2004:1-22.
6. AONE. AONE nurse executive competencies. *Nurse Lead*. 2005;3(1):15-22.
7. O'Neil E, Morkikian RL, Cherner D. Developing nursing leaders: an overview of trends and programs. *J Nurs Adm*. 2008;38(4):178-183.
8. Sotto NB, Knowll MD, Zucker K, Finstruen K, Mangelsdorff AD. Executive competencies of nurses in the veterans' health administration. *Mil Med*. 2008;173(1):47-53.
9. Courntey M, Yacopetti J, James C, Walsh A, Finlayson K. Comparison of roles and professional development needs of nurse executives working in metropolitan, provincial, rural or remote setting in Queensland. *Aust J Rural Health*. 2002;10(4):202-208.
10. Hernez-Broome G, Hughes RL. Leadership development: past, present, and future. *Hum Resour Plann*. 2004;27(1):24-33.
11. Intagliata J, Ulrich D, Smallwood N. Leveraging leadership competencies to produce leadership brand: creating distinctiveness by focusing on strategy and results. *Human Resour Plann*. 2000;23(3):12-23.
12. Barrett A, Beeson J. *Developing Business Leaders for 2010*. New York: The Conference Board; 2002.
13. Wolf G, Bradle J, Greenhouse P. Investment in the future: a 3-level approach for developing the healthcare leaders of tomorrow. *J Nurs Adm*. 2006;36(6):331-336.
14. Kirk H. Factors identified by nurse executive directors as important to their success. *J Nurs Manag*. 2009;17:956-964.
15. IOM (Institute of Medicine). *The Future of Nursing: Leading Change, Advancing Health*. Washington, DC: The National Academies Press; 2011.
16. Marquis BL, Huston CJ. *Leadership Roles and Management Functions in Nursing: Theory and Application*. 7th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2011:201.
17. O'Grady TP. Creating a context for excellence and innovation: comparing chief nurse executive leadership practices in Magnet and non-Magnet hospitals. *Nurs Adm Q*. 2009; 33(3):198-204.