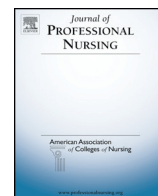




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Roles enacted by Clinical Nurse Leaders across the healthcare spectrum: A systematic literature review☆

Jacqueline A. Clavo-Hall^{a,*}, Miriam Bender^b, Theresa A. Harvath^c

^a School of Nursing, College of Education & Health Sciences, Touro University California, 1310 Club Drive, Vallejo, CA 94592, United States

^b Sue and Bill Gross School of Nursing, University of California, 252C Berk Hall, Irvine, CA 92697-3959, United States

^c Betty Irene Moore School of Nursing, University of California, Davis, Betty Irene Moore Hall, Suite 2400, 2570 48th Street, Sacramento, CA 95817, United States

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ABSTRACT

The Clinical Nurse Leader (CNL) is a master's prepared nurse envisioned to provide clinical leadership at the microsystem level to ensure safe, high quality patient-centered care. The American Association of Colleges of Nurses defined ten 'fundamental aspects' of CNL practice, but as the certified CNL population grows, data suggest they are filling a variety of positions besides formally designated CNL roles. This article reports the results of a systematic review of CNL literature to better understand what roles and activities certified CNLs are enacting when not hired into formally designated CNL roles. Sixty-nine articles met inclusion criteria. Roles identified include: faculty, 62%; clinical management/executive, 12%; specialty clinician, 11%; and staff nurse, 9%. In these roles, certified CNLs are reviewing literature, conducting research, and/or writing commentaries on CNL education and practice and other health foci such as alarm fatigue, insulin practices, and physical exercise for cancer-related fatigue. Results indicate that despite a lack of formal tracking of certified CNLs over time, the available information identifies a variety of roles and job titles used by this group of professional nurses. The study findings add to the body of knowledge informing overall understanding of the CNL initiative.

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Introduction

The Clinical Nurse Leader (CNL) is the first new nursing role to be introduced in the U.S. in over thirty-five years (AACN, 2004; Gabuat, Hilton, Kinnard, & Sherman, 2008; Harris, Roussel, & Thomas, 2018; Jeffers & Astroth, 2013). The American Association of Colleges of Nursing (AACN) introduced the role in 2007, in its *White Paper On The Education And Role Of The Clinical Nurse Leader*:

The CNL is a leader in the healthcare delivery system across all settings in which healthcare is delivered... The CNL functions within a microsystem and assumes accountability for healthcare outcomes for a specific group of clients within a unit or setting through the assimilation and application of research-based information to design, implement, and evaluate client plans of care. The CNL is trained to identify the clinical and cost outcomes that will improve safety, timeliness, effectiveness, efficiency, quality and patient-centeredness.

[(AACN, 2007, pp. 6–7)]

Since the fall of 2007, the Commission on Nursing Certification (CNC) has offered a national CNL certification examination for qualified graduates of CNL education programs (AACN, 2015). The CNC received National Commission for Certifying Agencies accreditation for the CNL certification examination in 2014. The education and certification was developed with a specific formal CNL practice in mind, functioning at the microsystem level and focused on the 10 "fundamental aspects" of practice: (1) clinical leadership for patient-care practices and delivery; (2) participation in identification and collection of care outcomes; (3) accountability for evaluation and improvement of point-of-care outcomes; (4) risk anticipation and mitigation; (5) lateral integration of care; (6) evidence-based practice; (7) team leadership, management and collaboration; (8) information management; (9) resource stewardship; and (10) advocacy for patients, communities, and the health professional team (AACN, 2013).

Data suggest that many certified CNLs are not practicing in formally titled or designated CNL roles (Ailey, Lamb, Friese, & Christopher, 2015; Moore & Spence Cagle, 2012; Beauvais & Frost, 2014b, 2014a; Karas-Irwin & Hoffmann, 2014; O'Grady & VanGraafeiland, 2012). This fact leads to questions about what other roles and/or job titles certified CNLs are enacting, and how these roles are aligned with and/or advancing the overall CNL initiative. To answer these questions, we conducted a systematic review of the literature focused on the certified Clinical Nurse Leader (CNL) who is not hired into a formal CNL role.

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* Corresponding author.

E-mail addresses: Jacqueline.Clavo@tu.edu (J.A. Clavo-Hall), miriamb@uci.edu (M. Bender), tharvath@ucdavis.edu (T.A. Harvath).

Methods

Literature search

A comprehensive and systematic review was conducted using the guidelines set forth in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement (Moher, Liberati, Tetzlaff, & Altman, 2009). The data sources included PubMed and the Cumulative Index to Nursing and Allied Health Literature (CINAHL). The key words included “Clinical Nurse Leader” and “CNL”. The Boolean operator OR was used to maximize the penetration of terms searched (e.g., ‘Clinical Nurse Leader OR CNL’; ‘All fields’). We used the “Customize range” feature to set a time parameter of 2006 through 2016 because the CNL certification exam was first administered in 2006.

Inclusion criteria

Inclusion criteria contained the following: the reports were written in English, and articulated roles certified CNLs are enacting outside of formally designated CNL roles. In this study, the CNL role is defined as one who functions within a formally designated job title as a master’s prepared nurse with specific education based on the AACN Clinical Nurse Leader Competencies and Curricular Expectations (2013) and CNL certification through the Commission on Nurse Certification (AACN). We defined roles outside of this formal designation as “not hired as” (NHA) CNL. The exclusion criteria applied to reports that did not contain any information about NHA CNL roles. The process of exclusion included the researchers reading the title, abstracts, author affiliations, the text itself and the acknowledgements. An audit trail of this process was documented and maintained in a comprehensive Excel workbook.

Quality appraisal

The focus of the review was to identify NHA CNL roles, not synthesize research reports to obtain effect sizes, so appraisal was not focused on the quality of any article’s methodology. Quality control measures were instituted by reviewing the documents for duplicates of direct object identifiers and multiple publications with slightly different titles. Additional quality control measures were taken when one author (JCH) assigned NHA CNL role classification and a second author (MB) independently assigned such classifications and the two sets of classifications were subsequently compared and agreement found.

Data extraction

After we created our inclusion list, we extracted data on: publication year, first author, title, story-summary, theme, NHA CNL role description, role type, broad role type, duplicate author, roles NHAs were filling, NHA CNL Summary, and CNL competencies. The reason we chose the headings of the year of publication, first author and title was to efficiently identify each of the included reports in this study. The story summary and theme headings provided a brief description of the content of the article and the perspective of the article as it related to the CNL role. The role types were extracted because it allowed the researchers to identify and categorize among the many NHA roles reported in the studies. The rationale for extracting data on the NHA CNL role description, role filled, and summary was to clarify what NHAs were doing and to remain focused on our research question that asked what roles NHA CNLs are enacting. The duplicate author criteria informed us of how often NHAs are involved in writing varied types of articles as single authors or co-authors.

Data analysis

For all data extracted, we conducted descriptive statistics to determine frequencies and/or rates of data categories, for example NHA CNL activities counts and percent of total. To derive the categories of NHA CNL roles, we used qualitative content analysis to identify and label NHA roles. Content analysis is a means to categorize data through close reading of text (Elo & Kyngas, 2008). It is an appropriate method to use for inquiry into informational content of relevant texts, such as the information provided about NHA CNL roles in the literature (Forman & Damschroder, 2008). For this review, once an article’s title, abstract, main content, author’s information, or acknowledgement section indicated that a certified CNL was involved, the entire article was read and all places where a CNL was involved were highlighted. The article was subsequently reviewed again to delineate the specific role and/or title of the highlighted CNL involvement. When CNL involvement was found to be outside of a formally designated role, i.e. an NHA CNL, that article was retained for inclusion in the final set of articles, and data was extracted. Both investigators iteratively developed categories of NHA roles based on close reading of the texts and cross comparison of NHA roles across all texts.

Results

Article selection and characteristics of included articles

Fig. 1 demonstrates that our initial search resulted in 519 reports. The reviewers read all titles and abstracts and removed 100 duplicate reports. The researchers then reviewed the full text of the remaining 419 documents and found that 350 did not contain any information about the NHA CNL role. This selection process yielded a final number of 69 reports that were included in this systematic review. Table 1 details included report characteristics. The types of articles included reports/research on some aspect of CNL education or practice (46%), articles describing the potential of CNLs in practice (20%), and non-CNL research reports (25%). The majority (77%) of reports were published in 2011 or later.

“Not Hired As” (NHA) CNL role types

Table 1 details role types by article. The role types described in the included reports spanned across clinical and non-clinical roles. Importantly, each individual article many times described more than one NHA CNL role, so the frequencies add up to more than 69 (the number of included articles). The most frequently reported role, *faculty*, refers to CNLs who are formally working as professors, assistant professors, lecturers, program directors, and adjunct instructors. There were 59 (62%) NHA CNLs identified practicing in a faculty role. The second most frequently identified role was the *clinical management* role (12%), such as chief nursing officer, clinical executive director, and unit manager. Then came *specialty clinical* roles (11%) that included advanced practice nurses, clinical administrators, clinical educators, clinical coordinators, and informatics specialists. The traditional *staff nurse* role was the next most frequently reported role (9%), followed by a variety of other roles ($N = 5, 5\%$). There were 13 NHA CNLs that were represented in more than one article. The majority described the same NHA role across articles, but 15% ($N = 2$) reported different roles across articles over time.

NHA CNL role activities

Table 1 details role activities by article. In reviewing the included articles, the researchers found that NHAs are involved with a host of activities. The most frequent activity was expert commentary (33%) on topics such as: potential for CNL practice in new settings or with unique patient populations; pain management outcomes for total

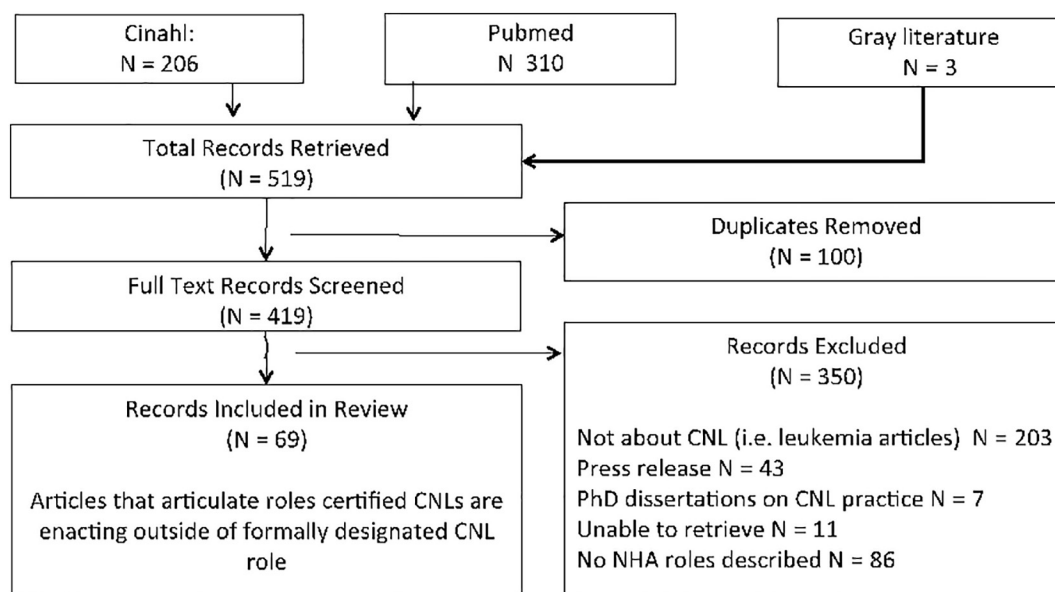


Fig. 1. Article consort flowchart.

knee replacement patients; and in-person peer review. Many NHA CNLs (22%) are actively involved in developing and implementing academic curriculum, including CNL immersion experiences and accelerated nursing programs. NHA CNLs are also involved in developing and/or reporting on CNL implementation in health systems across the nation (18%). Finally, NHA CNLs were also involved in conducting systematic literature reviews (10%) and research (14%) on topics such as CNL practice, dyspnea management for hospice patients, COPD and ventilator-associated pneumonia, and the impact of depressive symptoms on quality of life.

NHA CNL role activity by role type

There was a surprising level of diversity in the activities each NHA CNL role was accomplishing. First, the review revealed that NHA CNLs are often working under multiple job titles and fulfilling several roles. For example, one review article would demonstrate the NHA CNL in the role of faculty and another review article would demonstrate the same NHA CNL in the role of researcher as a primary investigator (e.g. Bender, Connelly, Glaser, & Brown, 2012; Bender, Williams, & Su, 2016; Bender, Williams, Su, & Hites, 2016; Sherman 2008, 2010). More generally NHA CNLs were contributing to many different activities across roles (see Table 2). Faculty showed the greatest diversity of activities being involved in CNL implementation, general research, literature reviews, writing expert commentaries on diverse topics alongside more expected activities such as curriculum development and implementation. NHA CNLs in specialty clinical roles were also diversely involved in activities such as CNL implementation, curriculum development and testing, expert commentary and research on the CNL. Even certified CNLs who identified as staff nurses were conducting research and writing expert commentaries and literature reviews. Overall, NHA CNLs were found to be conducting a diverse amount of academic and clinical scholarship.

Discussion

We have comprehensively reviewed the literature related to roles certified CNLs are enacting who are not hired into officially titled CNL roles. In terms of the types of NHA (not hired as) CNL roles we identified, the findings align with, yet also diverge from, other recent reports on certified CNL practice.

Comparing findings with recent CNL demographic research

A recent study (Bender et al., 2016) surveyed the population of certified CNLs. The respondents represented 18% of the total certified CNL population at the time of the study. More than 57% of respondents reported practicing in formally designated CNL roles, meaning 43% were practicing in NHA roles. NHA CNL roles included “clinical practice” (18%), management (43%), and education (27%) (Bender et al., 2016). These values are similar to what we found in this review, although faculty is represented to a much larger extent in this review (62%) than in the study (27%), and management represented more in the study (43%) than in this review (18%). In the study, there was a statistically significant difference in the perceived accountability for seven of the nine CNL areas of competence (based on AACN, 2013) between respondents practicing in formally designated CNL roles and those that were not: overall, CNLs in formal CNL roles had higher rates of accountabilities for each competency (Bender et al., 2016). In this literature review, NHA CNLs were accomplishing activities such as expert commentary, research, and curriculum development/testing. These activities conceivably benefit from a CNL competency skillset, but it can be argued that they are not required, which aligns with the previous study results. One potential inference is that CNLs accountable for CNL competencies may use their competencies differently than CNLs without direct accountability, for example NHA CNLs. This raises interesting questions for further inquiry about the dimensionality of CNL competencies, and how this dimensionality might play out in formal CNL roles vs. NHA CNL roles.

Comparing findings with CNL job analyses

The CNC conducted two job analyses to support the relevance, validity, and legal defensibility of the CNL examination by establishing a link between CNL competencies enacted by CNLs in their practice settings and the CNL certification examination content (CNC, 2016). The 2011 analysis surveyed the entire certified CNL population ($n = 1560$ at the time) and achieved a response rate of 16.7%, considered an excellent response rate for an unsolicited survey (CNC, 2011). In that survey 40% described their current role as a CNL, followed by staff nurse (18%), faculty and academe (14.4%), and manager/director (10%). However, when asked what their specific job title was, only 26% of respondents answered “CNL”. These conflicting results suggest that while certified

Table 1
Article characteristics and CNL role descriptions

Year	First author	Article title	Article category	NHA role category	NHA CNL activities	NHA CNL role description
2015	Ailey	Educating nursing students in clinical leadership	Report/research on CNL education	Faculty CNL Program	Curriculum development/testing	SA is an Assistant Professor in the Department of Adult Health and Gerontological Nursing, College of Nursing that is currently the Project Director, Better Care Teams and her primary teaching and clinical instruction responsibilities are in the GEM program
				Faculty CNL program	Curriculum development/testing	TF is an Assistant Professor in the College of Nursing and Vice Chair of the Rush University Medical Center's LGBTQ Health Committee that is an expert in LGBTQ issues, individuals with disabilities, active duty, reserve, and retired US military
2011	Baernholdt	The clinical nurse leader - new nursing role with global implications.	CNL explanatory commentary in journal	Faculty CNL program	Literature review	MB is an Assistant Professor, School of Nursing, Department of Public Health Sciences, University of Virginia, Charlottesville
				Staff nurse	Literature review	SC is a Clinician II, Emergency Services, Duke University Hospital, Durham, NC
2015	Baker	A collaborative model for the CNL and CNS	Report/research on CNL education	Specialty Clinical	CNL implementation	JR is a case manager at Harrison Medical Center in Bremerton, Washington
2015	Beasley	Dyspnea management of hospice patients	Non CNL-related report/research	Faculty CNL program	Literature review	MS is a professor, Capstone College of Nursing, University of Alabama, Tuscaloosa, Alabama
2014b	Beauvais	Reducing the fear of falling through a community evidence-based intervention	Non CNL-related report/research	Faculty CNL program	EBP project	AB is the director of the undergraduate nursing program at Sacred Heart University, Fairfield, Connecticut that was first author of this report
2014a	Beauvais	Saving our backs: safe patient handling and mobility for home care	Non CNL-related report/research	Faculty CNL program	Literature review	AB is an assistant professor and the director of the undergraduate nursing program at Sacred Heart University, Fairfield, Connecticut that is first author of this report
2013	Bender	Interdisciplinary collaboration: the role of the clinical nurse leader	Report/research on CNL practice	other NHA	Research	MB was a doctoral student, University of San Diego, Hahn School of Nursing and Health Science
2012	Bender	Clinical nurse leader impact on microsystem care quality	Report/research on CNL practice	Specialty Clinical	Research	MB was a doctoral student, University of San Diego, Hahn School of Nursing and Health Science
2014	Bender	The current evidence base for the clinical nurse leader: a narrative review of the literature	Report/research on CNL practice	Faculty	Literature review	MB was a Lecturer, University of San Diego Hahn School of Nursing and Health Science, San Diego, CA. and an Outcomes Research Specialist, Outcomes Research Institute, Sharp Healthcare, San Diego, CA.
2010	Bombard	Answering the question, "what is a clinical nurse leader?": transition experience of four direct-entry master's students	Report/research on CNL practice	Specialty Clinical Clinical director	Research	EB is a Lactation Counselor, Exeter Hospital, Exeter, NH
				Specialty Clinical Staff nurse	Research	MD is the Director of Quality and Site Administration, Lamprey Health Center, Newmarket, NH
				Unit manager	Research	DW is a Team Leader, Canon City Dialysis, Canon City, CO
2015	Burtson	Author's response regarding "sitter reduction through mobile video monitoring"	Non CNL-related commentary in journal	Unit manager	Expert commentary	KC is a Staff Nurse, Wentworth-Douglass Hospital, Dover, NH
2015	Centrella-Nigro	Effective collaboration among magnet hospitals: a win-win for nurses and institutions	Non CNL-related report/research	Clinical director	Expert commentary	LV is a nurse manager at UCSD
2013	Coleman	Integrating quality and breast cancer care: role of the clinical nurse leader	CNL explanatory commentary in journal	Faculty CNL program	Expert commentary	ML is the director of research in the nursing department at Jersey City Medical Center in Jersey City, CC is an adjunct professor, School of Nursing, University of San Francisco, CA that is a Doctor of Nursing Practice candidate
2010	Edouard-Trevathan	The clinical nurse leader: a catalyst in community healthcare transformation.	CNL explanatory commentary in journal	Faculty CNL program	Expert commentary	EET is an ambulatory care nurse manager at the VA Palo Alto, CA and adjunct faculty at the University of San Francisco, San Francisco, CA
2013	Eggenberger	Discharge phone calls: using person-centred communication to improve outcomes	Report/research on CNL practice	Faculty CNL program	EBP project	TE is the Lead Faculty CNL Concentration, and Assistant Professor, Christine E. Lynn College of Nursing, Florida Atlantic University, Boca Raton, FL
2014	Frank	Attention and memory deficits in breast cancer survivors: implications for nursing practice and research	Non CNL-related report/research	Faculty CNL program	Literature review	AJ is an Associate Professor, School of Nursing University of Alabama, Birmingham, AL

Table 1 (continued)

Year	First author	Article title	Article category	NHA role category	NHA CNL activities	NHA CNL role description
2012	Gerard	Course strategies for clinical nurse leader development	Report/research on CNL practice	Faculty CNL program	Curriculum development/testing	SG is Assistant Professor/Track Coordinator Clinical Nurse Leader, Fairfield University School of Nursing, North Benson Road, Fairfield, CT
2015	Gilmartin	A self-efficacy scale for clinical nurse leaders: results of a pilot study	Report/research on CNL practice	Other NHA	Research on CNL	Of the 147 research study participants, 55% noted that their job title was one other than CNL
2011	Harris	The clinical nurse leader: addressing health-care challenges through partnerships and innovation.	CNL explanatory commentary in journal	Clinical executive	CNL implementation	JLH is the Deputy Chief Nursing Officer at the Department of Veterans Affairs in Washington, DC
2008	Harris	Building the business case for the clinical nurse leader role.	CNL explanatory commentary in journal	Clinical director	CNL implementation	JLH is the Program Director of Leadership Development in the Office of Nursing Services, VA in Washington, DC
2009	Hix	Clinical nurse leader impact on clinical microsystems outcomes.	Report/research on CNL practice	Faculty CNL program	Research on CNL	LM is an Assistant Professor University of Tennessee Health Science Center, Memphis;
2014	Hynds	The affordable care act 2010: educational needs of bedside nurses	Non CNL-related report/research	Faculty CNL program	Expert commentary	JGS is an Associate Professor, University of New Hampshire, NH
2013	Jordan	The clinical nurse leader: an innovative role.	CNL brief in newsletter	Faculty CNL program	Expert commentary	KJ is faculty at University of central Arkansas
2013	Jukkala	Creating innovative clinical nurse leader practicum experiences through academic and practice partnerships.	Report/research on CNL education	Faculty CNL program	Curriculum development/testing	AJ is an Associate Professor, School of Nursing University of Alabama, Birmingham, AL
2014	Karas-Irwin	Facing the facts: in-person peer review	Non CNL-related report/research	Faculty CNL program	Expert commentary	RLH is an Assistant Professor and Clinical Nurse Leader Coordinator, University of Pittsburg School of Nursing, Pittsburg, PA
2013	King	Holistic clinical nurse leader.	CNL explanatory commentary in journal	Faculty CNL program	Expert commentary	MOK is a Professor, Xavier University School of Nursing, Cincinnati, OH, that is a certified Advanced Holistic Nurse, Gerontological Nurse
2011	L'Ecuyer	Educating students for a new nursing role: the clinical nurse leader.	CNL brief in newsletter	Faculty CNL program	Expert commentary	BH Clinical Faculty, Xavier University School of Nursing Cincinnati, OH
2010	Lammon	Innovative partnerships: the clinical nurse leader role in diverse clinical settings	Report/research on CNL education	Faculty CNL program	Curriculum development/testing	KL is faculty at St Louis University
2014	Lampe	Timing is everything: results to an observational study of mealtime insulin practices	Non CNL-related report/research	Faculty	Curriculum development/testing	CL is an Associate Professor and CNL Curriculum Coordinator, Capstone College of Nursing, University of Alabama, Tuscaloosa, AL
2015	Maresca	Lessons learned: accessing the voice of nurses to improve a novice nurse program	Non CNL-related report/research	Faculty CNL program	Research	MS is a Professor and Assistant Dean of the Graduate Program, Capstone college of Nursing, University of Alabama, Tuscaloosa, AL
2016	McGowan	Physical exercise and cancer-related fatigue in hospitalized patients: role of the clinical nurse leader in implementation of interventions.	CNL explanatory commentary in journal	Staff nurse	Research	AB is an Assistant Professor of Nursing, Adventist University of Health Sciences, Orlando, FL
2011	Moore L	Second degree prelicensure master's graduates: what attracts them to nursing, their views on the profession, and their contributions.	Non CNL-related report/research	Faculty CNL program	Curriculum development/testing	TE is an Assistant Professor, Christine E. Lynn College of Nursing, Florida Atlantic University, Boca Raton, FL
2012	Moore L	Implementing the new clinical nurse leader role while gleaning insights from the past	CNL explanatory commentary in journal	Faculty CNL program	Expert commentary	KM is a nurse in the surgical intensive care unit at the University of Maryland Medical System in Baltimore, MD
2011	Moore L	Second degree prelicensure master's graduates: what attracts them to nursing, their views on the profession, and their contributions.	Non CNL-related report/research	Faculty CNL program	Expert commentary	LWM is an Associate Professor, Xavier University, Cincinnati, OH
2011	Moore L	Second degree prelicensure master's graduates: what attracts them to nursing, their views on the profession, and their contributions.	Non CNL-related report/research	Faculty CNL program	Expert commentary	CWK is an Assistant Professor, Xavier University, Cincinnati, OH
2011	Moore L	Second degree prelicensure master's graduates: what attracts them to nursing, their views on the profession, and their contributions.	Non CNL-related report/research	Faculty CNL program	Expert commentary	SS is a Professor, Xavier University, Cincinnati, OH
2012	Moore L	Implementing the new clinical nurse leader role while gleaning insights from the past	Report/research on CNL practice	Faculty CNL program	Research	CL Instructor, Xavier University School of Nursing, Cincinnati, OH
2012	Moore P	The lived experience of new nurses: importance of the clinical preceptor	Report/research on CNL practice	Faculty CNL program	Research	LWM is an Associate Professor, Xavier University, Cincinnati, OH
2012	Moore P	The lived experience of new nurses: importance of the clinical preceptor	Report/research on CNL practice	Faculty CNL program	Curriculum development/testing	PM is an Assistant Professor and lead teacher and Coordinator, CNL Graduate Program Harris College of Nursing, Texas Christian University, Fort Worth, Texas

(continued on next page)

Table 1 (continued)

Year	First author	Article title	Article category	NHA role category	NHA CNL activities	NHA CNL role description
2013	Moore P	The academic story: introducing the clinical nurse leader role in a multifacility health care system	Report/research on CNL education	Faculty CNL program	Curriculum development/testing	PM is the lead teacher and coordinator, CNL Program, Texas Christian University, Cleburne, TX
2014	Moore P	Interdisciplinary preceptor teams to improve the clinical nurse leader student experience	Report/research on CNL education	Faculty CNL program	Curriculum development/testing	PM is an Assistant Professor of Nursing, Texas Christian University, Fort Worth, TX
2012	Norris	Using portfolios to introduce the clinical nurse leader to the job market	Report/research on CNL education	Faculty CNL program	Curriculum development/testing	LH is an Assistant Professor of Nursing, Texas Christian University, Fort Worth, TX
2014	Nugent	Comprehensive review of an accelerated nursing program: a quality improvement project	Non CNL-related report/research	Faculty	Curriculum development/testing	DS is an Assistant Professor of Nursing, Texas Christian University, Fort Worth, TX
2012	O'Grady	Bridging the gap in care for children through the clinical nurse leader	CNL explanatory commentary in journal	Staff nurse	Expert commentary	SSW Assistant Professor (location not stated)
2009	Ott	The clinical nurse leader: impact on practice outcomes in the veterans health administration	Report/research on CNL practice	clinical executive	CNL implementation	LMM is an Associate Professor and Assistant Dean for Student Affairs (location not stated)
2013	Perry	The clinical nurse leader: improving outcomes and efficacy in the emergency department	CNL explanatory commentary in journal	Staff nurse	Expert commentary	SL is a professor and coordinator of the Baccalaureate program, Curry College, Milton, MA
2012	Phillips	Clinical nurse leader: emerging role to optimize unit level performance	Report/research on CNL practice	Faculty CNL program	Expert commentary	ELO is a Registered Nurse, University of Maryland, Baltimore School of Nursing, Baltimore, MD
2014	Purbaugh	Alarm fatigue: a roadmap for mitigating the cacophony of beeps	Non CNL-related report/research	Staff nurse	Literature review	JLH is the Deputy Chief Nursing Officer at the Department of Veterans Affairs in Washington, DC
2014	Rainier	Reducing physical restraint use in alcohol withdrawal patients: a literature review	Non CNL-related report/research	Faculty CNL program	Literature review	AP is a Staff Nurse II, Sutter Roseville Medical Center, Roseville, CA
2015	Rankin	Professional issues. Clinical nurse leader: a role for the 21st century.	Report/research on CNL practice	clinical director	CNL implementation	PC is an Assistant Professor, Department of Health Restoration and Care Systems Management, School of Nursing University of Texas Health Science Center, San Antonio, TX that serves as a Deputy Chief Nurse in the US Air Force
2011	Reid	The clinical nurse leader: point-of-care safety clinician.	CNL explanatory commentary in journal	Faculty CNL program	Expert commentary	TP is a critical care staff nurse, Tacoma WA
				Specialty Clinical	Expert commentary	NCR is an adjunct faculty nursing instructor and critical care staff nurse, Tacoma WA
2013	Rivet	A closer look at hybrid nurses.	Report/research on CNL practice	clinical director unit manager	CNL implementation	VR is the Clinical Nurse Leader Coordinator, Carolinas Medical Center, Charlotte, NC
2015	Samuels	Opportunities to improve pain management outcomes in total knee replacements: patient-centered care across the continuum	Non CNL-related report/research	Faculty	Expert commentary	KBR is an Assistant Professor and Director of Clinical Nurse Leader Program, University of Virginia School of Nursing, Charlottesville, VA
2015	Savoy	Depressive symptoms impact health-promoting lifestyle behaviors and quality of life in healthy women	Non CNL-related report/research	Faculty CNL program	Research	PD is a Clinical Nurse Specialist in Acute Cardiology, University of Virginia Medical Center and Clinician/Education, University of Virginia School of Nursing, Charlottesville, VA
2009	Seed	The clinical nurse leader: helping psychiatric mental health nurses transform their practice	CNL explanatory commentary in journal	Faculty CNL program	Expert commentary	Denise Brennan is the director of Emergency Services
2009	Sherman	The role of the clinical nurse leader in promoting a healthy work environment at the unit level.	Report/research on CNL practice	Faculty CNL program	CNL implementation	Michele A. Creamer is a nurse manager in the Cardiac Catheterization Lab
						JGS is an Associate Professor, Department of Nursing, University of New Hampshire, Durham, NH
						SMS is an Associate Professor, Department of Nursing, College of Health and Human Services, Saginaw Valley State University, University Center, MI
						MSS is an Associate Professor, University of San Francisco, San Francisco, CA
						DJT is an Associate Professor, University of San Francisco, San Francisco, CA
						ROS is Director of Nursing Leadership Institute, Christine E. Lynn College of Nursing, Florida Atlanta University, Boca Raton, FL

Table 1 (continued)

Year	First author	Article title	Article category	NHA role category	NHA CNL activities	NHA CNL role description
2008	Sherman	Developing the clinical nurse leader role in the twelve bed hospital model: an education/service partnership.	Report/research on CNL practice	Faculty CNL program	CNL implementation	ROS is Director of Nursing Leadership Institute, Christine E. Lynn College of Nursing, Florida Atlanta University, Boca Raton, FL
2010	Sherman	Lessons in innovation: role transition experiences of clinical nurse leaders	Report/research on CNL practice	Faculty CNL program	Research	ROS is Director of Nursing Leadership Institute, Associate Professor, Christine E. Lynn College of Nursing, Florida Atlanta University, Boca Raton, FL
2013	Shipman	Incorporation of the clinical nurse leader in public health practice.	Report/research on CNL practice	Faculty CNL program Faculty CNL program	CNL implementation CNL implementation	SS is an instructor, Capstone College of Nursing of Alabama, Tuscaloosa, AL MS is a Professor and Assistant Dean of the Graduate Program, Capstone college of Nursing, University of Alabama, Tuscaloosa, AL
2008	Siegrist	Higher education: a perspective on leadership – the clinical nurse leader.	CNL brief in newsletter	Other NHA	Expert commentary	KS is a CNL project recruiter, Montana state university
2009	Siegrist	Cnl improving outcomes.	CNL brief in newsletter	Other NHA	Expert commentary	KS is a CNL project recruiter, Montana state university
2009	Siegrist	National perspective: clinical nurse leader (cnl) role leads to improved patient outcomes and nursing job satisfaction.	CNL brief in newsletter	Other NHA	Expert commentary	KS is a CNL project recruiter, Montana state university
2008	Stanley	The clinical nurse leader: a catalyst for improving quality and patient safety.	Report/research on CNL practice	Specialty Clinical	CNL implementation	SH is the Coordinator of Nursing Research, Morton-Plant Mease, Clearwater, FL
2006	Stanton	The health care quality challenge and the clinical nurse leader role (CNL)	CNL explanatory commentary in journal	Other NHA	Expert commentary	MS is an editorial board member of a nursing journal
2011	Stanton	The clinical nurse leader: a comparative study of the American association of colleges of nursing vision to role implementation	CNL explanatory commentary in journal	Faculty CNL program Faculty CNL program	Expert commentary Expert commentary	MS is a Professor and Assistant Dean of the Graduate Program, Capstone college of Nursing, University of Alabama, Tuscaloosa, AL CL is an Associate Professor and CNL Curriculum Coordinator, Capstone College of Nursing, University of Alabama, Tuscaloosa, AL
2016	Commission on Nurse Certification	Clinical nurse leader job analysis report	Report/research on CNL practice	Faculty Clinical director Specialty clinical Unit manager Staff nurse		
2016	Toney	Chronic obstructive pulmonary disease and ventilator-associated pneumonia: an analysis and literature review into the intensive care unit exacerbation progression and acute pulmonary management	Non CNL-related report/research	Faculty CNL program	Literature review	DLS is an Assistant Professor and adult-gerontology acute care nurse practitioner concentration coordinator, Department of Advanced Practice and Doctoral Studies, College of Nursing, The University of Tennessee health Science Center, Memphis, TN
2015	Turner	Psychiatric case management in the emergency department	Non CNL-related report/research	Faculty CNL program	Expert commentary	MS is a Professor of Nursing, University of Alabama, Capstone College of Nursing, Tuscaloosa, AL
2014	Webb	A model for preparing faculty to teach model c clinical nurse leader students	Report/research on CNL education	Faculty CNL program Faculty CNL program	Curriculum development/testing Curriculum development/testing	SW is an Assistant Professor and CNL Option Coordinator, College of Nursing, The University of Tennessee Health Science Center that serve as co-investigator on this study LM is Associate Professor and Associate Dean of Student Affairs, Loewenberg School of Nursing, University of Memphis, Memphis TN
2008	Weckman	The road back to sci: from informatics nurse to nurse manager via a clinical nurse leader residency.	Report/research on CNL education	Specialty clinical	Curriculum development/testing	HNW is a Nurse Manager, SCI, James A. Haley Veterans' Hospital, Tampa, FL
2014	Wesolowski	The clinical nurse leader in the perioperative setting: a preceptor experience	Report/research on CNL education	Staff nurse Faculty CNL program	Curriculum development/testing Curriculum development/testing	SJB is a surgical quality nurse, Malcolm Randall VA Medical Center, Gainesville, FL JG is a Clinical Assistant Professor, University of Florida College of Nursing Gainesville, FL
2015	Wienand	Implementing the clinical nurse leader role: a care model centered on innovation, efficiency, and excellence.	Report/research on CNL practice	Specialty clinical Unit manager	CNL implementation CNL implementation	DMW is a Clinical Nurse Leader Liaison, Rush Oak Park Hospital, Oak Park, IL AMC is the Unit Director, Intensive Care Unit, Rush Oak Park Hospital, Oak Park IL

(continued on next page)

Table 1 (continued)

Year	First author	Article title	Article category	NHA role category	NHA CNL activities	NHA CNL role description
2015	Williams	Growing and sustaining the clinical nurse leader initiative.	CNL explanatory commentary in journal	Specialty clinical Faculty	CNL implementation Expert commentary	PRS is a Performance Improvement Specialist, Rush Health, Chicago, IL MB is an Assistant Professor, Program in Nursing Science, University of California, Irvine California
2016	Williams	Promoting a strategic approach to clinical nurse leader practice integration.	Report/research on CNL practice	Faculty CNL program	CNL implementation	RSM is affiliated with the University of Alabama, Birmingham, AL

CNLs see themselves as enacting their educational competencies, many are doing so within traditional job titles such as unit managers, unit educators, and staff nurses. In the 2016 job analysis, the response rate was lower than the 2011 survey (6.6%) but still considered “acceptable” for an unsolicited survey (CNC, 2016). In the 2011 survey 53% responded that they were currently practicing in a CNL role, regardless of job title, yet only 34% chose the “CNL” job title. Once again, this discrepancy between CNLs identifying as being in a “CNL role,” while actually being hired into other job titles (staff nurse, unit coordinator) suggests that many certified CNLs are employed as NHA CNLs in their health organization, yet perceive themselves enacting CNL competencies within these more traditional roles.

Our results generally align with this interpretation of the CNC job analyses, in that we found certified CNLs functioning in traditional roles, but accomplishing more than what might be expected from those traditional roles. For example, CNLs in the literature review

were staff nurses (e.g. Perry, 2013; Purbaugh, 2014), unit directors/managers (e.g. Wienand, Shah, Hatcher, & Jordan, 2015; Weckman, 2008), and quality leaders (e.g. Bombard et al., 2010; Wesolowski, Casey, Berry, & Gannon, 2014). Their published scholarship however arguably goes well beyond these job titles; for example reviewing the literature on topics of interest and describing preceptor/residency program development and implementation. Unfortunately, data do not exist in either the job analyses or our literature review, based on the nature of each study design and data collected, to compare the types and levels of CNL competency enactment for each job title, so more research is warranted to better elucidate the specific competencies enacted by NHA CNL roles.

Comparing findings with the AACN White Paper

It is important to note that the majority of the job titles identified in our literature review function outside the microsystem level. According to the AACN 2007 White Paper, the CNL education and role were designed to function at the microsystem level and be accountable for a set of clinical outcomes for a specific patient population, and not function as administration or management. Another assumption was that the CNL focuses on clinical care quality, and therefore requires specific competencies in: evidence-based practice; clinical outcome improvement; interdisciplinary care; informatics; nursing assessment; fiscal stewardship; social justice; and communication technology (AACN, 2007, Assumptions 1–9). However, the majority of certified CNLs identified in our literature review were functioning at the organization level, in roles such as education faculty or as a clinical executive. This raises important questions. Does practicing outside the clinical microsystem preclude the use of CNL competencies? We would argue based on our review findings that NHA CNLs do in fact still utilize their competencies to ‘add value’ to traditional roles, both inside and outside the microsystem. Do certified CNLs functioning outside the microsystem level enact different CNL competencies than those functioning within the clinical microsystem level, or is it perhaps more a matter of degree and not kind? Our literature review, while raising these interesting questions, unfortunately does not provide the data needed to answer them. Prospective research is warranted to identify the ways in which CNL competencies are being enacted by certified CNLs in job titles other than formally designated CNL roles, and whether enactment differs based on role level within the health system.

Implications for nursing education

Our literature review found that the majority of CNLs in the literature were functioning as academic faculty. In light of these findings, it is interesting to note that the 10th assumption articulated in the AACN White Paper is that “the CNL must assume guardianship for the nursing profession ... The CNL, with additional education, will be expected to assume positions in professional, policy, and regulatory organizations/agencies, leadership positions in health care facilities, practice plans, and as faculty in institutions of higher education” (AACN, 2007, p. 9–10). Our findings show that certified CNLs are assuming

Table 2
NHA CNL activity by role type

NHA CNL activities by role	NHA CNL activities count	NHA CNL activities (% of total)
Clinical director	5	5.62%
CNL implementation	3	
Expert commentary	1	
Research	1	
Clinical executive	2	2.25%
CNL implementation	2	
Faculty	5	5.62%
Curriculum development/testing	1	
Expert commentary	2	
Literature review	1	
Research	1	
Faculty CNL program	53	59.55%
CNL implementation	5	
Curriculum development/testing	17	
EBP project	2	
Expert commentary	18	
Literature review	6	
Research	4	
Research on CNL	1	
Specialty clinical	9	10.11%
CNL implementation	4	
Curriculum development/testing	1	
Expert commentary	1	
Research	3	
Staff nurse	7	7.87%
Curriculum development/testing	1	
Expert commentary	3	
Literature review	2	
Research	1	
Unit manager	3	3.37%
CNL implementation	2	
Expert commentary	1	
(Blank)		

just such positions, and suggests that certified CNLs that are not in formally designated CNL roles are nevertheless fulfilling the assumptions laid out in the CNL White Paper. It is significant that faculty have determined the need for CNL certification as part of their faculty role. Faculty in a CNL program were also the biggest contributors to identified NHA CNL activities (60%). This suggests that faculty in CNL programs are highly productive in advancing the CNL initiative's knowledge and education base. These efforts have not perhaps been as recognized as they could be, in terms of the work NHA CNL faculty are doing to educate the next generation of CNLs using innovative curriculum, and publishing expert commentaries in peer-reviewed journals exploring the potential of the formal CNL role in areas such as the emergency department, ambulatory care, and breast cancer care. There is a need for more scholarship on how NHA CNL faculty are advancing the CNL initiative. A better understanding of this emerging aspect of the CNL initiative will inform CNL education as well as expand understanding of CNL practice. Our findings suggest more research on CNL education may be warranted as well. One potential direction for inquiry is whether the dimensionality of current CNL competencies can or should be expanded based on new knowledge about NHA CNL roles and activities, and if so, how they should be taught in CNL programs.

Limitations

The lack of consistent terminology for certified Clinical Nurse Leader who are not practicing under a CNL job title led to challenges in discovering which articles to include in this study. It was necessary for researchers to pull all CNL related articles and delve deeper into selected articles to actually discover where NHA CNLs were involved in an article and what title or role they fulfilled. This review only included articles that were published at the time of the literature search. It is possible that articles that were in review or yet to be published were not included in this report. Also, there may be certified CNLs publishing work without using their CNL credential, which would have precluded inclusion in this study. The conclusions reached in this review are limited by the scarcity of articles that directly address NHA CNLs. The reviewers made several iterative decisions that potentially introduced selection bias into the review. However, a systematic approach was used to document all iterative decisions during the data collection process in an effort to minimize any selection bias.

Conclusion

The certified Clinical Nurse Leader has been in existence for a decade now. The data indicates that CNLs are maturing and transitioning from being considered an innovative new role to one that is prepared to fulfill a strategic position in the healthcare teams both within and beyond the microsystem. This literature review is the first to review this topic systematically, and we hope it spurs more dialogue and research. Although findings from this study were insufficient to provide a comprehensive typology of the NHA CNL, the information obtained about the diverse job titles and roles offers a solid beginning for understanding the professional journey of these nurses and how they may be using the CNL competencies along the way.

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