

Conceptualizing clinical nurse leader practice: an interpretive synthesis

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Conceptualizing clinical nurse leader practice: an interpretive synthesis

Background The Institute of Medicine's Future of Nursing report identifies the clinical nurse leader as an innovative new role for meeting higher health-care quality standards. However, specific clinical nurse leader practices influencing documented quality outcomes remain unclear. Lack of practice clarity limits the ability to articulate, implement and measure clinical nurse leader-specific practice and quality outcomes.

Purpose and methods Interpretive synthesis design and grounded theory analysis were used to develop a theoretical understanding of clinical nurse leader practice that can facilitate systematic and replicable implementation across health-care settings.

Results The core phenomenon of clinical nurse leader practice is continuous clinical leadership, which involves four fundamental activities: facilitating effective ongoing communication; strengthening intra and interprofessional relationships; building and sustaining teams; and supporting staff engagement.

Conclusion Clinical nurse leaders continuously communicate and develop relationships within and across professions to promote and sustain information exchange, engagement, teamwork and effective care processes at the microsystem level.

Implication for nursing management Clinical nurse leader-integrated care delivery systems highlight the benefits of nurse-led models of care for transforming health-care quality. Managers can use this study's findings to frame an implementation strategy that addresses theoretical domains of clinical nurse leader practice to help ensure practice success.

Keywords: care quality, clinical nurse leader, interpretive synthesis, nursing care model

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Background

The American health-care system as currently structured, with its disciplinary 'silo' approaches to patient care, is characterised by fragmented care delivery systems lacking formal interprofessional collaborative processes (Porter-O'Grady *et al.* 2010, Baernholdt & Cottingham 2011). This lack of collaboration has resulted in hierarchical care patterns that prevent

clinicians from fully translating their abilities, knowledge and motivation into optimal care performance (Bartels 2005). Consequences include errors in clinical practice and preventable adverse patient outcomes such as increased mortality, morbidity, readmission rates, lengths of stay and care costs (Fewster-Thuente & Velsor-Friedrich 2008). Professional, policy and educational organisations have recognised the need to transform the health care workplace to better provide

patient centred and team oriented care (Interprofessional Education Collaborative 2011).

As part of this transformation, The American Association of Colleges of Nursing (AACN) spearheaded the development of the clinical nurse leader (CNL), a Master's-prepared registered nurse (RN) educated to coordinate patient care through collaboration with the health-care team at the microsystem level (AACN 2007). Microsystems are the cultural units in which multiple clinicians are situated to provide care to patients, and where the quality and safety of care is ultimately determined, which makes it an important focus for action (Nelson *et al.* 2008). Numerous reports have documented the development, implementation and outcomes of these CNL partnerships (for a review see Bender 2014).

However, CNL practice is not yet understood in terms of the essential practices necessary to influence documented quality outcomes (Fitzpatrick & Wallace 2008). Notably, variation in CNL implementation has been found across reports, leading to questions about which CNL practices mediate commonly reported outcomes (Bender 2014). The ambiguity surrounding CNL practice reflects the overall absence in the literature of a well-defined theoretical framework to help guide CNL application in practice. Recognising the importance of defining CNL practice as a basis for informing and evaluating future CNL implementations and expected practice outcomes, the purpose of this study was to gain a theoretical understanding of fundamental CNL practices and their connection with care outcomes.

Methods

An interpretive synthesis design was used to integrate methodologically diverse CNL practice narratives into a conceptual understanding of CNL practice. Interpretive synthesis involves the integration of primary evidence related to a phenomenon of interest through reinterpretation and reanalysis of pre-existing textual evidence. Its strength is it can be conducted on diverse forms of primary evidence (Dixon-Woods *et al.* 2004, Mays *et al.* 2005). Interpretive synthesis generates new interpretations of a phenomenon of interest not found in any single report, but derived from synthesising all reports as a whole (Thorne *et al.* 2004).

Literature search

Purposeful sampling of the literature was used to identify documents describing clinical nurse leader practice

in action. A literature search was performed in the Cumulative Index to Nursing & Allied Health Literature (CINAHL), PsycINFO, Pubmed and Dissertations & Theses using the term 'clinical nurse leader'. The time frame was 2000–2012, to capture potentially meaningful reports describing early CNL role development initiatives as well as later implementation and outcome reports. A grey search was also performed in Google that identified the Virginia Henderson International Nursing Library, Agency for Healthcare Research and Quality (AHRQ) Innovations Exchange and AACN websites as additional sources of CNL narratives. The search returned 400 unique documents. This study did not exclude reports from the synthesis on the grounds of poor methodology, which is consistent with previous interpretive synthesis studies (Dixon-Woods *et al.* 2006, Thorpe *et al.* 2009). The focus instead was on identifying descriptions of CNL practices embedded within the documents; reports were included if they described some aspect of CNL practice in action (see Figure 1 for flowchart). Thirty CNL practice reports, eight qualitative or mixed methods studies, three quantitative correlation studies and 254 conference abstracts were included in the synthesis. Document characteristics including first author, year, category and stated aims are detailed in Table S1, which includes a bibliography of all included reports. Abstract characteristics, including category, title, year and source are detailed in Table S2.

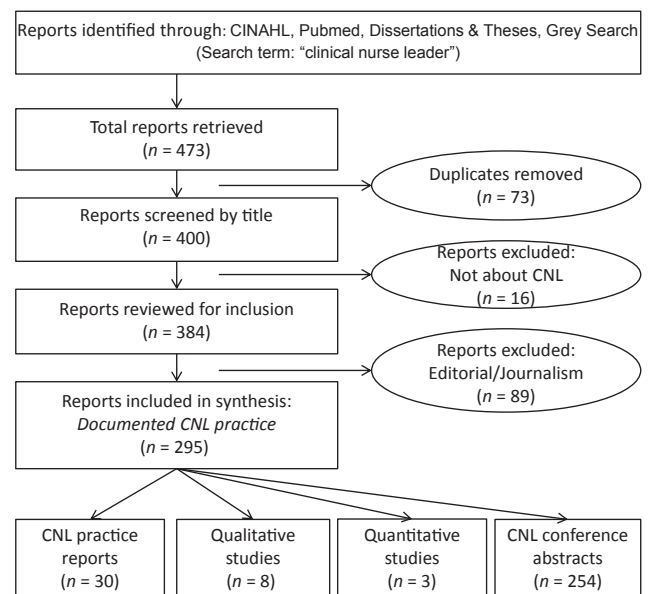


Figure 1
Literature search flow chart.

Analysis and synthesis

The complete texts for all included documents were analysed following Strauss and Corbin's grounded theory methods (Strauss & Corbin 2007). This qualitative, comparative approach is well suited to reinterpretation and reanalysis of text-based forms of evidence (Pope *et al.* 2007). Data handling and analysis was facilitated through use of Dedoose, a web-based qualitative and mixed methods analytical application package (Lieber & Weisner 2010). Excerpting, coding and memoing were conducted within the application package. Line-by-line coding of the texts during grounded theory analysis resulted in 1311 excerpts abstracted into 58 preliminary codes. As relationships became apparent, primary codes were refined and integrated into groups representing diverse components of CNL practice. As patterns of connectivity emerged, groups of components were refined and synthesised into domains of CNL practice. Domain codes were densely distributed across the literature, providing evidence of data saturation.

Results

The core phenomenon of CNL practice is continuous clinical leadership, which involves four fundamental domains or activities: facilitating effective ongoing communication; strengthening intra and interprofessional relationships; building and sustaining teams; and supporting staff engagement (see Table 1). The following sections describe domains of CNL practice in greater depth.

Facilitating effective ongoing communication

Clinical nurse leaders start the communication process by embedding themselves within their microsystem to learn and understand practice dynamics. As one CNL put it: 'It is necessary for the unit based and/or setting based CNL to become absorbed in the unit/setting culture ... working side by side with staff' (Swan 2011, p. 28). Clinical nurse leaders were described as 'consistent points of communication' for the entire care team. One CNL put it this way 'I think the biggest thing I work on everyday is communication ... Trying to keep people all together on the same page is the biggest thing I do' (Sorbello 2010, p. 72).

Clinical nurse leaders talked about building 'knowledge banks' through ongoing communication with everyone entering the microsystem over time. The

CNLs were constantly obtaining information from all microsystem clinicians, managers and staff via their microsystem presence on a continuous basis, and were available to communicate this information on an as-needed basis to any that need it. The CNLs developed multi-modal communication tools to effectively transmit gathered information across the microsystem, including cross-disciplinary electronic databases, care guidelines and holistic care plans. The CNLs were also accountable for developing and sustaining many types of formal and informal rounding structures such as staff nurse daily huddles, targeted patient assessment rounds (e.g. daily skin or invasive line assessments with staff and/or physicians) and formal multi-professional staff rounds. Staff nurses, charge nurses, physicians, CNLs and other clinicians regularly used these communication tools and rounding structures to convey care needs to other clinicians and to each other during and across shifts and the care spectrum.

Strengthening interprofessional relationships

A significant portion of CNL workflow is time spent engaging with all members of the clinical microsystem. Building relationships is time consuming and can be difficult at first. While multidisciplinary clinicians might recognise the need to reach out to all members of the care team when planning and implementing patient care, the structures of their own practice often make this impossible on a regular basis: busy clinicians currently work in professional silos that prioritise superb clinical skills and a narrowed focus of care while discounting seemingly non-clinical skills such as relationship building. Clinical nurse leader practice corrects this flaw by creating formal microsystem accountability to reach out and make meaningful connections with patients and all multi-professional clinicians involved in patient care. This formal and continuous relationship builds bridges and sustains interprofessional connectivity, which is generally missing in most clinical microsystems but is a critical antecedent for interprofessional collaboration and shared decision-making (San Martin-Rodriguez *et al.* 2005). One report's description typifies this correction of 'silo' practice after CNL implementation: 'within just a few years, the CNLs have established a network of partners who once may have acted in isolation. They have increased collaboration among disciplines in both clinical and non-clinical settings' (Wilson *et al.* 2013, p. 177).

Table 1
Domains of the core phenomenon of CNL practice: continuous clinical leadership

<i>Domain</i>	<i>What it means</i>	<i>What it looks like</i>	<i>Influence on microsystem</i>
Facilitate effective ongoing communication	Use multiple domains of communication: written, spoken, nonverbal	Synthesise various pieces of information into coherent story Cross professional databases, care plans, electronic health records Formal rounding, informal huddles, interdepartmental rounds, interprofessional rounds	Communication is advocacy: for patient, for staff, for better care processes Bridges staff and interprofessional team's knowledge gaps By showing value of different perspectives, communication promotes involvement
	Knowledge broker	Build a resource and knowledge 'bank' through constant informal communication with everyone who touches the patient Crossing professions to get necessary information	Ensures all voices are heard during decision-making process
Strengthen intra and interprofessional relationships	Establish a network of partners whom previously worked in isolation	Seek out the right people and say 'I need you'	Creates a sense of 'we're in it together' Share strengths from all areas Collaboration is integral to care quality
	Relationship broker	Daily presence facilitates effective utilisation of previously untapped human resources Connect people that otherwise would not have time to seek each other out	Creates insight into how other professions do their work Builds confidence in other professions Relationships create voluntary commitment for action
Build and sustain teams	Bring people together with a common goal	CNL microsystem perspective helps identify professions/departments needed on team	Teamwork emphasises the importance and interdependency of all members
	Empower groups instead of individuals	Problems usually cross boundaries and professions	Creating a shared vision for change Network facilitates and sustains innovation
	Put focus on patient-centred care, (away from discipline-centred care practices)	Transparency of goals and methods to reach them Engage all professions to bring resources to the table	Shared vision helps reduce resistance to change
Support staff engagement	Facilitate development of staff leadership skills	Daily mentor/role model for those not comfortable or familiar with leadership processes Facilitate action when staff recognise problem	Build environment where staff KNOW they have support to act Frontline ideas transformed into sustainable quality processes
	CNL is de-facto early adopter	Real-time feedback of new processes	Support builds confidence in proposed processes
	Facilitate continuous, hands-on educational environment	Continuous, non-threatening clinical process monitoring Continuous reinforcement of education provided by CNSs and nurse educators	Help staff avoid getting lost in the system and feeling overwhelmed CNL focus on staff's dynamic practice knowledge creates a continuous empowerment feedback cycle at the bedside

Building and sustaining teams

As intra and interprofessional relationships are built, teams can be formed that have a shared purpose to pursue quality improvement. Team creation was identified more than any other single component of CNL practice during analysis, with more than 101 excerpts linked across all reports. The CNL brings people together with a common goal who nevertheless may have never worked together before because of a lack of interprofessional engagement and a dearth of

coordination resources. Teams included representation from information technology, executive leadership, physicians, nutritional services, respiratory therapy, social work, physical therapy, frontline staff, educators, wound ostomy nurses, clinical nurse specialists and the quality department, to name just a few. Clinical nurse leaders, through their continuous microsystem presence, observe and understand the interdependency of all professions providing care to the patient. By bringing together all professions that affect and are affected by microsystem practices, the CNL

emphasises the importance of all professions in care functions. Team building creates interdependency that helps align motivation for solving common care process problems, including many that were described as 'entrenched' before CNL implementation.

Supporting staff engagement

The CNL does not oversee or manage clinical staff, but provides daily support for them to lead their own practice. The CNL, as a Master's prepared nurse working at the patient–health care interface, acts as a daily mentor and role model to new staff and all inter-professional clinicians within a microsystem. Clinical nurse leaders promote and sustain best practices through role modelling and are able to reinforce education in an informal, non-threatening manner through their continuous presence. The CNL is in effect a continuous resource to staff based on their needs at the moment. The CNL promotes nurse engagement in identifying and creating solutions for quality care deficits that are effective, efficient and nurse-driven: 'The CNL encourages the nurses on the team to identify patient care, process or work environment issues, and then mentors them through the problem-solving process' (Hartranft *et al.* 2007, p. 262). Another report stated: 'because the bedside nurses have the CNLs as a resource, they have begun to view their practices differently and challenge the status quo' (Wilson *et al.* 2013, p. 180). Another report described a similar process of staff engagement resulting from the role modelling and support of the CNL: 'Staff performance improved as staff began to work on professional goals... Nursing staff also became the model for the facility for implementing new processes' (Fitzpatrick & Wallace 2008, p. 182).

Outcomes of clinical nurse leader practice

By consistently gathering and communicating information across professions, building intra and inter-professional relationships, facilitating effective teamwork, and harnessing frontline staff knowledge of care deficits and their ideas for improvement, CNLs put the pieces in place to change the microsystem focus away from individual tasks and towards a broader understanding of how everyone plays a part in complex care processes to provide quality patient care. Better inter-professional relations and information sharing leads to better decision making for patient care, as described by a physician: '[CNL practice] is a major improvement in MD [physician]–RN communication and

facilitates shared decision making – it also is good role modelling for [medical] trainees so they incorporate regular discussions with RN into their workflow' (Bender *et al.* 2013, p. 171). Another report explained: '[CNLs are] the communication hub between physicians, care team leaders, staff nurses, social workers, members of other disciplines, and the patients/family members to ensure a comprehensive plan is in place for hospital care and discharge and that the patient/family is involved in planning care' (Bowcutt *et al.* 2006, p. 158).

Aligning with the initial focus of the CNL to improve care outcomes, standardised health-care quality metrics were reported as CNL evaluation measures across all reports. Metrics focused on nursing-sensitive quality indicators such as fall rates, pressure ulcer rates, restraint use, nursing turnover, nursing hours per patient day and nursing certification rates. National quality benchmarking outcomes included Joint Commission core measures along with staff and patient satisfaction scores. Positive changes in these metrics were consistently reported after CNL implementation. Reports stressed this increase in care quality was not because of more staff or resources 'thrown at the problem', but through the systematic implementation of CNL practice including thoughtful redesign of care delivery to integrate CNL practice. As one report describes it: 'Changes were attributed to the CNL's facilitation of problem solving, decision-making and improvement of patient flow. It is important to note a basic premise of the pilot was that the CNL was not intended to represent an increase in personnel. Our interpretation of these findings is that incorporating a CNL into the nurse staffing pattern resulted in more efficient, outcomes-driven hours in direct care.' (Ott *et al.* 2009, p. 366).

Discussion

The purpose of this study was to develop a theoretical understanding of clinical nurse leader practice that can facilitate systematic and replicable implementation across health-care settings. Theory makes explicit how a complex intervention, such as clinical nurse leader practice, influences a process or processes in a causal chain from intervention to outcome (Craig *et al.* 2008). Theory provides the tools to recognise, analyse and act on intervention implementation issues in a more effective manner (Sales *et al.* 2006). It is important to develop theory that explains the 'what' of CNL practice and the functional relationship between CNL practice and improved care quality so health

systems can use this information as a framework for systematic and effective CNL practice implementation and to consistently achieve expected outcomes.

Clinical nurse leader practice promotes evidence based elements of care delivery

This study has identified continuous clinical leadership as the core phenomenon of CNL practice, which includes facilitating ongoing effective communication and teamwork. Communication and teamwork have been identified as critical elements of quality health-care delivery (Shekelle *et al.* 2013). Within a microsystem, nurses, physicians, case managers, physical therapists and many other clinicians work side by side to deliver patient care. These clinicians comprise the microsystem 'team', yet traditional microsystem care delivery structures remain discipline focused, with no accountability or resources devoted to ensuring that clinicians communicate and work together *as* a team to deliver patient care. One strategy for increasing the potential for communication and teamwork is modifying health-care tasks, workflow and structures so they are more amenable to cross-disciplinary communication and teamwork (Baker *et al.* 2006). Integrating CNL practice into a thoughtfully redesigned care delivery microsystem is one approach for modifying the structures and processes of care delivery to promote consistent and effective communication and teamwork.

This synthesis also identified building intra and interprofessional relationships and promoting staff engagement as fundamental CNL clinical leadership activities. Relationship building is a critical antecedent to effective collaboration and engagement: professionals must know each other before they can make meaningful decisions to trust and collaborate with each other (D'Amour *et al.* 2008). Unfortunately, current health-care structures and processes largely consist of short-lived, irregular configurations of professionals working together to solve short-term clinical problems, rather than a stable cohort of clinicians working together in a collaborative manner (Lewin & Reeves 2011). The same is true for staff engagement, which has been linked to positive patient safety outcomes (Spence Laschinger & Leiter 2006). Engagement is influenced by the level of opportunities for interpersonal relationships, which is shaped more by organisation factors than individual factors (Simpson 2009). Contexts that are not amenable to relationship building, such as the current health-care structures described above, reduce the opportunities for interpersonal relationships and engagement. Organisa-

tion factors that influence engagement include effective leadership and the ways nursing care delivery is organised (Spence Laschinger & Leiter 2006). Clinical nurse leader practice can be considered an effective approach to integrating clinical leadership into a nursing model of care that consistently prioritises relationship building and engagement for ALL professionals working within a clinical microsystem.

CNL-integrated microsystems effectively leverage clinical leadership

There is a small but growing body of conceptual and empirical literature defining and supporting the need for clinical leadership to improve health-care quality. Clinical leadership is conceptualised in the literature as an ongoing process that involves communication, collaboration and team building by 'competent clinicians' to engage health-care providers in health-care improvement (Millward & Bryan 2005, Howieson & Thiagarajah 2011, Willcocks 2011, Mannix *et al.* 2013). Clinical nurse leader practice has been identified as continuous clinical leadership in this study: a continuously enacted bundle of four clinical leadership activities (facilitating effective ongoing communication, strengthening intra and interprofessional relationships, building and sustaining teams and supporting staff engagement) that improve health care quality over time.

The literature is less clear in identifying the 'competent clinicians' best positioned to be clinical leaders, or how clinical leadership should be structured for best outcomes (Daly *et al.* 2014). A recent study acknowledged that expectations and training for clinical leadership in front-line staff were not enough to sustain clinical leadership behaviours; it needed to be 'complemented' by elements of traditional leadership and management, and supported by executive leaders to be successful (McKee *et al.* 2013). Other reports have also identified the need for a supporting infrastructure and alignment with organisational strategy to support clinical leadership (Fealy *et al.* 2011, Leggat 2013, Martin & Waring 2013), which suggests that clinical leadership can only be as successful as the infrastructure that supports it.

This understanding of the need for a supportive infrastructure for successful clinical leadership aligns with the findings of this study and helps explain why CNL practice is effective in improving health-care quality. Clinical nurse leader practice can be considered an effective strategy for organising clinical leadership in a way that places accountability for

clinical leadership activities in a Master's prepared nursing role that is embedded into care delivery structures with organisation supports and resources. The CNLs are in effect preliminary (though certainly not the only) 'competent clinicians' who through a structured role with specific accountabilities provide an ongoing resource for clinicians to strengthen their own clinical leadership development and practice. The CNL in turn is supported by organisation resource allocation (a title, a salary, a consistent workflow, etc.) to sustain clinical leadership activities. The result is a microsystem with multiple supports to promote clinical leadership practice for all clinicians. Clinical nurse leader practice, integrated into nursing care delivery microsystems, can be considered an alternate approach for achieving the goal of clinical leadership behaviours to improve health-care quality for all frontline staff, moving beyond traditional episodic education and training approaches.

Limitations and future research

This study synthesised all available CNL evidence reported in the literature to-date to develop a conceptual understanding of CNL practice. It is recognised that synthesis is an interpretive endeavour and other interpretations of the data are possible. Furthermore, the synthesis could not include what was not published: unpublished CNL case studies and narratives may have unique trajectories and outcomes that could not be included to produce a more comprehensive conceptualisation of CNL practice. Prospective research is warranted to validate domains of CNL practice across a more comprehensive sample of clinical microsystems. A validated model for CNL practice will provide a solid framework to identify and/or develop measures of CNL practice and quantify CNL-specific influence on care environments and quality.

Implications for nursing management

Managers should consider the ways that CNL practice demonstrates the benefits of nurse-led models of care for promoting intra and interprofessional communication, collaboration and practice to improve health care quality. The interprofessional component of CNL practice identified in this study is important because it expands the boundary of nursing practice to influence *all* professions that are making contributions to patient care within a clinical microsystem. Managers are in a key position to use this study's findings to frame an implementation strategy that incorporates

CNL practice as part of care delivery redesign to improve care quality. To ensure CNL practice success, it is important to recognise that variability in CNL practice has been associated with role confusion and inconsistency in outcomes (Bender 2014). This study provides a preliminary theoretical framework for CNL practice that defines fundamental CNL activities and describes the relationship between the ways this bundle of activities is organised and improvements in microsystem care quality. Managers must recognise the need to fully integrate CNL practice into redesigned care delivery models and to develop CNL workflows that *consistently* incorporate all fundamental CNL activities to reduce the risk of role confusion and to ensure that CNL practice will result in expected care quality improvements. If expected outcomes are not being realised, managers can use this study's findings to determine if CNL practice is adequately integrated into the microsystem's nursing care delivery model, or whether CNL workflow may have drifted away from theory-based practice. Is CNL practice consistent, or are CNLs also engaging in non-CNL roles, such as charge nurse or staff nurse, or administrator? Are CNLs consistently available to clinicians as a role model and resource for practice? Are CNLs developing multi-modal information tools that all clinicians can use to base practice decisions? Inadequately supported CNL practice and/or CNL workflow that has drifted from theoretically defined practice can explain the lack of expected results, and managers can work to refine CNL supports and workflow to ensure it consistently adheres to theory-based practice to improve care quality outcomes.

Conclusion

The Future of Nursing report highlights the need to transform nursing models of care to better utilise scarce nursing resources and expertise (IOM 2011). CNL practice has been identified as an innovative strategy to meet this challenge (Joynt & Kimball 2008, AHRQ 2010, IOM 2011). This study has contributed theoretical knowledge about CNL practice and its influence on care outcomes that provides a preliminary framework to facilitate systematic and replicable implementation across health-care settings.

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Ethical approval

This study was approved by the University of San Diego's Institutional Review Board.

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Supporting information

Additional Supporting Information may be found in the online version of this article:

Table S1. Characteristics of reports included in the interpretive synthesis (bibliography follows the table).

Table S2. Characteristics of abstracts included in the synthesis.