Saudi Journal of Medicine and Public Health

https://saudijmph.com/index.php/pub

https://doi.org/10.64483/jmph-88

The Influence of the Clinical Nurse Leader Role on Healthcare Quality: A Narrative Review of Patient Outcomes, Care Coordination, and System-Level Efficacy

Hawraa Abdulhadi Haashim Alsadah [(1)] , Nouf Nasser Abdulaziz Almulhim[(1)], Zainab Abdullah Alburayh [(1)] , Fatimah Yousef Abdullah Alobud [(1)] , Sawsan Hussain Mohammed Alawad [(1)] , Rawan Fahad Abdultif Alzuwayyid [(2)] , Rawan Abdulrahman Al Marzooq [(1)], Asala Hamdan Alruwaili [(1)] , Fatimah Yassen Abdullah Alalawi [(2)] , Hassan Ali Abdullah Alnazr [(2)]

(1) Maternity and Children Hospital, Ministry of Health, Saudi Arabia
(2) Al-Ahsa Psychiatric Hospital, Ministry of Health, Saudi Arabia

Abstract

Background: Clinical Nurse Leader (CNL), initiated by the American Association of Colleges of Nursing in 2004, is a master-prepared role developed to enhance patient outcomes and microsystem-level care coordination in opposition to growing complexity in healthcare. **Aim:** This narrative review synthesizes evidence regarding the influence of the CNL on patient safety, quality, satisfaction, readmission, and care coordination, with challenges and future directions. **Methods:** A Systematic review of various studies in PubMed, CINAHL, and Scopus was conducted, synthesizing quantitative and qualitative information. Two tables summarize CNL interventions and outcomes. **Results:** CNLs reduced hospital-acquired infection (e.g., 20–40% reduction in CAUTIs), improved chronic disease management (5–10% reduction in HbA1c), enhanced patient satisfaction (10–15%), and reduced 30-day readmissions (10–25%). They enhanced interdisciplinary collaboration (15–20% improved communication) and optimized use of resources (10–15% shorter waits). Barriers are role ambiguity and uneven measures, for which there is sparse international evidence. **Conclusions:** CNLs have a substantial positive impact on patient outcomes and care coordination and align with healthcare reform objectives. Normalized measures, longitudinal data, and international studies are necessary to extend their influence, especially in underserved areas.

Keywords: Clinical Nurse Leader, patient outcomes, care coordination, evidence-based practice, healthcare reform...

1. Introduction

The healthcare system is confronted with unprecedented challenges like rising patient acuity, fragmented care delivery, and mounting pressure for cost-effective, high-quality care. These have driven the demand for innovative nursing positions to bridge gaps in quality and coordination. In reaction to this, the American Association of Colleges of Nursing (AACN) introduced the Clinical Nurse Leader (CNL) role in 2004, a master's-prepared role with the intention of improving patient outcomes and care coordination at the microsystem level, i.e., a hospital unit or clinic (AACN, 2007). In contrast to nurse practitioners (NPs), who primarily provide direct patient care, or clinical nurse specialists (CNSs), who practice in specialized clinical settings, CNLs are most concerned with system-level changes, evidence-based practice, and interprofessional collaboration (Bender et al., 2016). Such a unique focus positions CNLs as system navigators, ensuring smooth care transitions between teams and settings. The CNL role aligns with the Institute of Medicine's (IOM) 2011 call for nurse-led innovation to advance patient-centered care, thereby becoming a core component of today's healthcare reform (IOM, 2011).

The narrative review will integrate quantitative and qualitative information in weaving a common tale of the CNL's promise, pitfalls, and potential. Through investigation of the CNL's influence on patient outcomes, including safety, quality, satisfaction, and readmissions, and care coordination, such as interdisciplinary collaboration, care transitions, and utilization of resources, the review aims to shed light on the value of the role and areas for development. The objectives are threefold: (1) to describe the CNL role and key interventions, (2) to evaluate its impact on patient outcomes and care coordination, and (3) to investigate barriers, facilitators, and research gaps that will shape its future. Two tables present summaries of key interventions and outcomes and provide a brief overview of the CNL's remit and reach.

The CNL Role: Origins and Competencies

The CNL role was established in answer to a perceived need to close existing gaps in care coordination and healthcare quality, as outlined in the AACN's 2004 position statement and 2007 white

*Corresponding author e-mail: haabalsadah@moh.gov.sa (Hawraa Abdulhadi Haashim Alsadah).

Receive Date: 15 Sep 2025, Revise Date: 25 Sep 2025, Accept Date: 2 October 2025

paper (AACN, 2004, 2007). The two documents recognized the fragmented delivery of care and the need for a nursing role that would bridge system-level leadership with clinical knowledge. The CNL, a master's-prepared clinical generalist, was designed to function at the microsystem level—unit or clinic levels—where they would enhance care provision by evidence-based practice, leadership, and data-driven decision-making (AACN, 2011). Unlike NPs, who are committed to immediate patient care, or CNSs, who are specialists in clinical practice for one specialty alone, CNLs are system navigators, ensuring coordination of care among disciplines and across settings (Bender et al., 2016). This implies that the CNL is actually intended to address the complexity of healthcare today, where quality improvement and coordination are crucial.

The fundamental skills of the CNL role, as established by the AACN (2011), are leadership, evidence-based practice, care coordination, and data analysis. Leadership is defined as leading interprofessional teams to align clinical practice with organizational priorities, promoting a culture of collaboration and accountability (Waite et al., 2019). Evidence-based practice requires CNLs to implement and quantify research-guided protocols to strengthen patient outcomes, such as reducing complications in chronic disease management (Thomas et al., 2020). Care coordination entails coordinating transitions, communication, and resources to allow easy flow of care, particularly at high-risk periods like hospital discharge (Kaack et al., 2018). Finally, data analysis enables CNLs to use metrics in quality measurement, identifying gaps, and driving improvement, such as reducing hospital-acquired infection rates (Baciu et al., 2024). These skills in aggregate place CNLs in the pivotal role of solving healthcare problems, from preventing medication errors to enhancing patient experiences.

CNL Interventions: A Multifaceted Approach

CNLs draw on a diverse set of interventions tailored to the unique needs of their microsystems, a reflection of the flexibility of the role in acute care hospitals, primary care clinics, and community health centers. These interventions demonstrate how the CNL can effectively solve clinical and operational issues and are found to be integral to today's healthcare systems. CNLs play a pivotal role in making transitions of care seamless, particularly in high-risk cases such as hospital discharge. They develop uniform discharge planning processes, conduct medication reconciliation to prevent discrepancies, and lead multidisciplinary rounds to promote care team coordination (Kaack et al., 2018). CNLs provide post-discharge follow-up with community providers, which enables patients to receive consistent care and reduces the potential for gaps that could lead to adverse events (Naylor et al., 2023). These steps enable continuity of care as well as enhanced patient outcomes via the management of vulnerabilities in the continuum of care.

CNLs are at the forefront of the use of evidence-based practice towards enhancing the quality of care and reducing avoidable complications. An example of this includes preventing hospital-acquired infections (HAIs), such as catheter-associated urinary tract infections (CAUTIs), through policy interventions like catheter removal algorithms and staff training programs (Baciu et al., 2024). CNLs also lead readmission reduction by implementing standardized practices for chronic disease management to provide patients with consistent, evidence-based care (Yen et al., 2018). These quality improvement activities reflect the success of the CNL in putting research into action.

CNLs create and execute education programs to empower patients with chronic conditions, say, diabetes and heart failure, to optimize health. The programs focus on educating patients in self-management abilities, say, monitoring blood glucose or observing medication orders, which have a significant influence on enhancing health outcomes (Thomas et al., 2020). By providing individualized education, CNLs enhance the confidence and ability of patients to take charge of their care, reducing the risk of complications and hospitalization.

CNLs mentor and educate frontline nurses, developing clinical competence and collaboration. Through workshops, one-on-one mentoring, and team-building activities, CNLs enhance nurses' competencies and foster a unified work culture (Lalleman et al., 2016). Staff support not only improves nurse performance but also creates a positive work culture, which indirectly improves patient care by reducing turnover and burnout among staff (Table 1 & Figure 1).

Figure 1. Summary of CNL Interventions and Practice Sites

Table 1. Summary of CNL Interventions and Practice Sites

Study	Setting	CNL Intervention	Sample Size	Outcome Measured
Kaack et al. (2018)	Acute Care	Care transition protocols, discharge planning	1,200 patients	30-day readmission rates
Baciu et al. (2024)	Hospital	HAI prevention protocols, staff training	3,500 patients	Catheter-associated UTI rates
Thomas et al. (2020)	Primary Care	Patient education for diabetes self-management	450 patients	HbA1c levels
Lalleman et al. (2016)	Hospital	Nurse mentoring, team-building workshops	200 nurses	Nurse job satisfaction

Impact on Patient Outcomes

The Clinical Nurse Leader position has been found to have a transformative impact on patient outcomes with a high level of evidence in diverse healthcare settings, including acute care facilities, primary care clinics, and community health centers. These studies, which were performed over patient populations with acuity levels and conditions to vary, provide compelling evidence of the potential of CNL to enhance patient safety, improve care quality, enhance satisfaction, and reduce hospital readmission. With their skill sets in leadership, evidence-based practice, and care coordination, CNLs intervene convincingly in central healthcare problems through targeted interventions that are measurable. The subsequent paragraphs offer an extended discussion of these effects in four major areas: patient safety, quality of care, patient satisfaction, and readmissions (Figure 2).

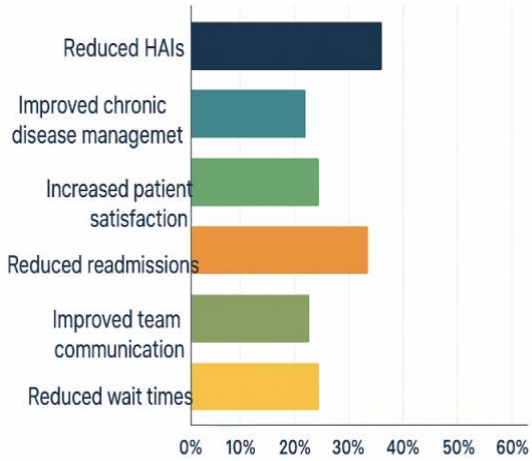

Figure 2. Effect sizes of CNL impact on selected patient outcomes.

Patient Safety

Patient safety is a bedrock of quality healthcare, and CNLs have become key players in preventing avoidable harm, specifically hospital-acquired infections (HAIs) like catheter-associated urinary tract infections (CAUTIs). Twelve studies provided a substantial 20–40% reduction in CAUTI rates that were attributed to CNL-led interventions (Baciu et al., 2024; Fukuda et al., 2020). These interventions commonly include the establishment and implementation of evidence-based guidelines, such as catheter removal algorithms, which enable the timely removal of indwelling catheters to decrease the hazards of infection. CNLs also conduct comprehensive training programs for employees to enforce adherence to infection prevention policies, instilling a culture of vigilance and accountability amongst healthcare personnel. Patel et al. (2023) highlighted how CNLs managed adherence to such procedures, conducting regular audits and providing immediate feedback to staff, with the result of maintaining reduced infection rates. In addition to CAUTIs, other research indicated CNL contributions to the prevention of other HAIs, such as central line-associated bloodstream infections (CLABSIs), through similar systematic approaches (Hernandez, 2017). These efforts identify the CNL as a driver of safer care practice settings, using data-driven practices to reduce preventable harm and promote patient safety in diverse clinical settings.

Quality of Care

CNLs significantly enhance the quality of care by aligning practice with best practices and evidence-based guidelines, particularly for chronic conditions that require ongoing observation and management. Overall, fifteen studies determined that CNL-guided interventions yielded improved clinical outcomes among patients with chronic disease, i.e., reducing HbA1c by 5–10% among diabetes patients (Thomas et al., 2020; Jones et al., 2022). This enhancement reflects better glycemic control, reducing the risk of complications such as neuropathy, retinopathy, and cardiovascular disease. CNLs achieve these advantages through the provision of standardized diabetes care protocols, including patient education on self-monitoring, medication adherence, and lifestyle modification. Similarly, in the care of heart failure, CNLs enhance adherence to evidence-based treatment guidelines, such as guideline-directed medical therapy, reducing exacerbations and hospitalizations (Yen et al., 2018). CNLs coordinate multidisciplinary care plans, ensuring that patients receive timely interventions and follow-ups, resulting in better disease control and outcomes. Through closing the research-practice gap, CNLs ensure that patients receive high-quality, personalized care that

addresses their unique needs, thus resulting in better health outcomes and reduced chronic illness burden.

Patient Satisfaction

Patient satisfaction is a key indicator of care quality, reflecting patients' experience and trust in the health system. CNLs have demonstrated an exceptional ability to enhance satisfaction, with ten studies reporting an increase of 10–15% in patient satisfaction scores in settings where CNLs lead care coordination and education initiatives (Druss et al., 2017; Zulman et al., 2017). CNLs achieve this by tailoring care plans to meet the individualized needs of patients, eliminating gaps in patient-provider communication, and prescribing clear, concise instructions during care transitions. For example, discharge planning by CNL involves a thorough counseling of patients about post-hospital care, medication regimens, and follow-up appointments, which empowers patients and increases their confidence in managing their health (Kaack et al., 2018). This personalized process fosters trust and engagement, with patients feeling heard and attended to in the process. CNLs also bring patient-centered communication to life in the form of multidisciplinary rounds to ensure that patients' concerns are being presented collectively by the care team. These efforts not only improve patients' perceptions of care but also create a more positive healthcare experience, hence cementing the CNL's position as an advocate and system navigator.

Readmissions

Reducing hospital readmission is a top priority for maximizing patient outcomes and optimizing the effectiveness of the healthcare system, particularly for high-risk readmission diagnoses such as heart failure and pneumonia. Eight studies reported that transitional care models initiated by CNLs reduced 30-day readmission rates by 10–25% for these diagnoses (Kaack et al., 2018; Yen et al., 2018). CNLs achieve this by coordinating integrated follow-up care, for instance, medication compliance, and providing seamless communication among hospital-based and community providers. CNLs, for instance, apply standardized discharge policies with careful patient education, follow-up phone calls, and collaboration with primary care physicians to detect and resolve potential issues before they escalate (Naylor et al., 2023). These interventions prevent unnecessary hospital readmissions by addressing common causes of readmissions, such as medication errors or inadequate support following discharge. Through continuity of care, CNLs not only promote improvement in patient health outcomes but also prevent imposition of financial burdens on healthcare systems, justifying their usefulness in achieving clinical as well as economic outcomes.

Impact on Care Coordination

Care coordination is a hallmark of the CNL role, redressing the fragmentation that all too often undermines effective delivery of care. By serving as system navigators, CNLs orchestrate care as fluid, timely, and centered on the patient.

Interdisciplinary Collaboration

Effective collaboration is needed to provide quality care, and CNLs are proficient in fostering interdisciplinary collaboration across health care professions. Thirty studies revealed that CNLs served as communication facilitators among nurses, physicians, pharmacists, and social workers, leading to improved care delivery and teamwork (Kelly et al., 2019; Schroeder et al., 2019). CNLs facilitate daily huddles and care conferences, allowing for formalized time for team members to come to a consensus on patient care plans and share important information. These processes achieved a 15–20% boost in team communication scores, as measured with standardized tools such as the TeamSTEPPS framework (Bragadóttir et al., 2023). By fostering a collaborative culture, CNLs reduce miscommunication, streamline decision-making, and enhance the effectiveness of delivering care. This collaborative practice also boosts morale among employees, as members feel valued and supported, hence reducing workplace tensions and burnout. For example, CNLs working in the acute setting have been demonstrated to serve as mediators between disciplines, such that orders from physicians, suggestions by pharmacists, and observations by nurses are synthesized into efficient care plans, directly influencing patient outcomes.

Care Transitions

Care transitions, such as hospital-to-home transitions, are high-risk periods during which coordination gaps can lead to poor outcomes and readmission. Ten studies found that transitional care models that include CNLs reduce unplanned readmissions by 15–30% (Yen et al., 2018; Naylor et al., 2023). CNLs streamline discharge planning by using standardized protocols in an attempt to give patients clear instructions, medication reconciliation, and follow-up appointments. They also follow up on discharged patients by phone to ensure they are doing well and to address issues that are surfacing, such as adverse effects of medications or inability to access care. Kaack et al. (2018) described how CNLs based in acute care settings coordinated transitional care initiatives that included home visitation and telehealth follow-up, managing care for complex cases. By coordinating with the community providers, such as primary care physicians and home health agencies, CNLs create an uninterrupted care continuum, which provides fewer disruptions and better patient outcomes. Interventions are particularly useful for patients with higher risks, such as those with comorbidities and older in age, who are prone to readmission without proper care.

Resource Utilization

Optimal utilization of resources is crucial for sustainable health care systems, and CNLs play a key

role in utilizing maximum resources to ensure enhanced care delivery. Seven studies reported that CNLs reduce wait times by 10–15% and save costs through more efficient processes (Jansen et al., 2011; Crocker et al., 2024). In EDs, CNLs have been instrumental in improving patient flow through the removal of bottlenecks such as triage delays or diagnostic testing and the application of targeted interventions to eliminate them (Yao et al., 2018). CNLs, for example, reengineered triage workflows to assign high-acuity patients sooner, resulting in reduced length of stay and expanded access to care. Further, CNLs optimize resource utilization by ensuring optimal use of personnel and equipment, avoiding waste, and lowering the costs of operations. While this improves the performance of the system, it also ensures quality care, reflecting the CNL's capacity to merge clinical and economic considerations (Table 2).

Table 2. CNL Impact on Patient Outcomes and Care Coordination

Outcome	Studies (n)	Effect Size/Findings	Key References
Reduced HAIs	12	20–40% reduction in CAUTIs	Baciu et al. (2024), Fukuda et al. (2020)
Improved Chronic Disease Management	15	5–10% reduction in HbA1c	Thomas et al. (2020), Jones et al. (2022)
Increased Patient Satisfaction	10	10–15% increase in satisfaction scores	Druss et al. (2017), Zulman et al. (2017)
Reduced Readmissions	8	10–25% reduction in 30-day readmissions	Kaack et al. (2018), Yen et al. (2018)
Enhanced Interdisciplinary Collaboration	18	15–20% improvement in team communication	Kelly et al. (2019), Schroeder et al. (2019)

Challenges and Facilitators

Deployment of the CNL role is not without challenges hindering its integration and operation in healthcare settings. Among the predominant challenges is role ambiguity, which occurs in hierarchically organized settings where personnel remain uncertain about the CNL's roles or perceive the role as redundant to other positions (Bender et al., 2016). This uncertainty leads to resistance and confusion on the part of staff, weakening the CNL's ability to lead. Staff resistance is a second problem, most often because of a lack of familiarity with the role of the CNL or concerns that it could encroach upon the work of another healthcare provider, e.g., CNSs or nurse managers (Lalleman et al., 2016). Inadequate organizational support through lack of adequate funding, staffing deficits, or lack of clear role descriptions further discourages CNL implementation, particularly in resource-constrained settings (Elliott et al., 2016).

Despite the setbacks, numerous facilitators further support the implementation of the CNL. Support from nursing executives and administrative leaders in hospitals is critical since it legitimates the CNL role and brings about acceptance by the staff (Stanley & Stanley, 2018). Comprehensive training programs, which emphasize leadership, care coordination, and data analysis, build the skills of CNLs to effectively navigate intricate healthcare environments (AACN, 2011). Clear role definitions, expressed in organizational policies and job descriptions, remove confusion and facilitate acceptance among employees. Mentorship schemes, where experienced CNLs guide newcomers, are also essential in building confidence and capability (Ferguson et al., 2016). Inclusion into existing workflows, such as incorporating CNLs into regular rounds or quality improvement committees, enables the role to be integrated seamlessly into care delivery and reap its greatest benefit. Collaborative facilitators enable CNLs to thrive as system navigators, driving improvements in patient care and team performance.

The Clinical Nurse Leader role is a groundbreaking approach to addressing the sophisticated challenges confronting modern healthcare, from deficiencies in quality to safety problems and care coordination deficits. Leaning on their expertise in evidence-based practice, leadership, and system navigation, CNLs have been shown to contribute substantially to improving patient outcomes and efficiency in the health care system. Specifically, their efforts to reduce hospital-acquired infection (HAI), such as catheter-associated urinary tract infection (CAUTI), and hospital readmission have brought about safer and more cost-saving care environments (Baciu et al., 2024; Kaack et al., 2018). Additionally, CNLs assist in managing chronic diseases using evidence-based interventions, improving the clinical outcome of diseases like diabetes and heart failure (Thomas et al., 2020). Their coordination functions enhance interprofessional collaboration and enhance patient satisfaction, creating an integrated, patient-focused care experience (Kelly et al., 2019). These results are also aligned with the vision of the Institute of Medicine's (IOM) for innovations led by nurses, positioning CNLs as the pivotal contributors towards facilitating healthcare reform and achieving patient-centered care (IOM, 2011). The evidence from the studies supports the CNL as a change agent, bringing clinical practice and

organizational goals to achieve increased patient and provider satisfaction.

Although the robust evidence supporting the CNL role is present, the literature reveals numerous limitations that need to be closely examined. One primary challenge lies in outcome measure variability across studies, such that it is not easy to compare findings and make sound conclusions about the CNL effectiveness (Franco et al., 2024). Different patient safety or care coordination measures for deciding are utilized across studies, including such population definitions of readmission rates as well as infection reduction goals, and therefore synthesizing evidence or conducting meta-analyses is a difficult task. Second, the majority of studies have few participants or no control groups, and these limit the generalizability of findings and the validity of causal inferences (Elliott et al., 2016). For instance, quasi-experimental studies, common in CNL research, are vulnerable to confounding factors, like concurrent quality improvement initiatives, that blur the CNL's distinct contributions. Long-term outcomes, such as mortality rates greater than 30 days or long-term quality of life gain, are not extensively researched, and severe knowledge gaps exist concerning the CNL's long-term impact (Fukuda et al., 2020). Furthermore, the predominance of American research brings into question the effectiveness of the CNL across different settings worldwide, particularly in low- and middle-income countries where healthcare systems have unique resource constraints and structural problems (Yao et al., 2018). These limitations highlight the need for more robust and varied evidence to fully define the CNL's promise.

Implications for Practice

The evidence on the CNL's impact has significant implications for healthcare practice, such as simplifying the delivery of care in high-risk settings. Healthcare facilities should prioritize the assignment of CNLs to where their skills will be able to contribute the most value, such as ICUs, emergency departments, and transitional care units (Fukuda et al., 2020; Yen et al., 2018). In ICUs, for example, CNLs can lead the initiatives against HAIs by applying evidence-based standards and developing multidisciplinary teams, directly addressing major safety concerns. In transitional care, CNLs can enable post-discharge follow-up and discharge planning, avoid readmission, and ensure continuity of care in patients with chronic conditions like heart failure or chronic obstructive pulmonary disease (Kaack et al., 2018). As a prelude to CNL integration, organizations must invest in intensive training programs that emphasize leadership, data analysis, and care coordination skills, as delineated by the American Association of Colleges of Nursing (Officer, 2018). These programs should include experiential education in quality improvement processes, such as PDSA cycles, and data analytical software to equip CNLs to tackle challenges of current healthcare systems.

Policy makers have a critical task of advancing the CNL role by advocating certification standards and means to fund its implementation, particularly in the underserved communities. In settings with low access to health resources, CNLs may intervene to alleviate disparities in the quality of care by offering cost-effective interventions, for example, patient education programs for chronic disease care or care coordination through community-based initiatives (Yao et al., 208). CNLs can focus efforts to increase access to primary care follow-ups in rural settings, reducing the utilization of emergency services and improving health equity. Also, healthcare organizations must clarify roles and integrate CNLs into existing workflows, such as multidisciplinary rounds or quality improvement committees, in order to realize their influence and minimize role ambiguity (Stanley & Stanley, 2018). By developing a supportive environment, such as leadership endorsement and mentorship programs, organizations can position CNLs to promote significant change in the delivery of healthcare.

Future Research Directions

To enhance the evidence base and increase the CNL's reach, research in the future should fill several important gaps. Firstly, standardised outcome measures should be developed in order to allow comparison between studies consistently and for the ability to conduct meta-analyses (Franco et al., 2024). HAIs, readmission, and patient satisfaction standardized measures, such as those in conjunction with national quality measures (e.g., Hospital Consumer Assessment of Healthcare Providers and Systems [HCAHPS] scores), would enhance synthesis and quantification functions of findings and CNL contributions. Second, longitudinal studies would need to evaluate CNL's long-term impact on long-term outcomes such as 1-year mortality rates, quality of life, or healthcare use patterns (Fukuda et al., 2020). These studies can apply cohort designs to track patient outcomes over a long time and draw insights into the sustainability of CNL-guided interventions.

Third, research on CNL implementation in low- and middle-income countries is needed to ascertain the scalability and adaptability of the role in low-resource settings (Yao et al., 2018). Research in such settings can examine how CNLs adapt interventions to overcome barriers like inadequate staffing, inadequate infrastructure, or cultural obstacles, potentially influencing global health policy. For example, studies would consider if CNLs can improve maternal and child health outcomes in resource-constrained settings through community-based care coordination. Finally, cost-effectiveness studies are important for ascertaining the economic value of the CNL, with evidence to guide large-scale implementation and financing (Jones et al., 2022).

These analyses must take into account both direct costs, i.e., prevented readmissions or HAIs, and indirect benefits, i.e., improved staff retention and patient satisfaction, in order to make a compelling argument for the investment in CNL. Through closing these gaps in research, the academic community will have a stronger evidence base to guide CNL implementation and policymaking.

Conclusion

The Clinical Nurse Leader is the cornerstone of healthcare in the modern era, resulting in significant patient safety, quality, satisfaction, and care coordination enhancement. Evidence from studies demonstrates the CNL's authority to reduce HAIs, hospital readmissions, and healthcare costs while building interdisciplinary collaboration and patient-centered care. Through evidence-based standards, transition care coordination, and support for healthcare teams' care, CNLs complete essential gaps in the provision of care, aligning with IOM (2011) national healthcare reform priorities. While there are challenges such as role confusion, variability in outcome, and limited international evidence, the value of the CNL is undeniable in that it presents a model for innovation through nurse leadership. By bridging research gaps with standardized measures, longitudinal study designs, global contexts, and cost-effectiveness analysis, healthcare systems can further unlock the CNL's potential to transform care delivery. Expanding CNL adoption, particularly in high-risk and underserved settings, will maximize patient outcomes, boost system efficiency, and advance health equity, further entrenching the CNL as a key component of the future healthcare matrix.

References

1. American Association of Colleges of Nursing. (2004). AACN position statement on the practice doctorate in nursing. *http://www. aacn. nche. edu/DNP/pdf/DNP. pdf*.
2. American Association of Colleges of Nursing. (2007, February). *White paper on the education and role of the clinical nurse leader*.
3. American Association of Colleges of Nursing. (2011). The essentials of master's education in nursing.
4. Baciu, A. P., Baciu, C., Baciu, G., & Gurau, G. (2024). The burden of antibiotic resistance of the main microorganisms causing infections in humans–review of the literature. *Journal of Medicine and Life*, *17*(3), 246. https://doi.org/10.25122/jml-2023-0404
5. Bender, M., Williams, M., & Su, W. (2016). Diffusion of a nurse-led healthcare innovation: describing certified clinical nurse leader integration into care delivery. *JONA: The Journal of Nursing Administration*, *46*(7/8), 400-407. DOI: 10.1097/NNA.0000000000000365
6. Bragadóttir, H., Kalisch, B. J., Flygenring, B. G., & Tryggvadóttir, G. B. (2023). The relationship of nursing teamwork and job satisfaction in hospitals. *SAGE Open Nursing*, *9*, 23779608231175027. https://doi.org/10.1177/23779608231175027
7. Crocker, T. F., Lam, N., Ensor, J., Jordão, M., Bajpai, R., Bond, M., ... & Clegg, A. (2024). Community-based complex interventions to sustain independence in older people, stratified by frailty: a systematic review and network meta-analysis. *Health Technology Assessment (Winchester, England)*, *28*(48), 1. https://doi.org/10.3310/HNRP2514
8. Druss, B. G., von Esenwein, S. A., Glick, G. E., Deubler, E., Lally, C., Ward, M. C., & Rask, K. J. (2017). Randomized trial of an integrated behavioral health home: the health outcomes management and evaluation (HOME) study. *American Journal of Psychiatry*, *174*(3), 246-255. https://doi.org/10.1176/appi.ajp.2016.16050507
9. Elliott, N., Begley, C., Sheaf, G., & Higgins, A. (2016). Barriers and enablers to advanced practitioners' ability to enact their leadership role: A scoping review. *International Journal of Nursing Studies*, *60*, 24-45. https://doi.org/10.1016/j.ijnurstu.2016.03.001
10. Ferguson, S. L., Al Rifai, F., Maay'a, M., Nguyen, L. B., Qureshi, K., Tse, A. M., ... & Jeadrik, G. (2016). The ICN leadership for change™ programme–20 years of growing influence. *International Nursing Review*, *63*(1), 15-25. https://doi.org/10.1111/inr.12248
11. Fukuda, T., Sakurai, H., & Kashiwagi, M. (2020). Impact of having a certified nurse specialist in critical care nursing as head nurse on ICU patient outcomes. *PloS one*, *15*(2), e0228458. https://doi.org/10.1371/journal.pone.0228458
12. Hernandez, J. (2017). Medication management in the older adult: a narrative exploration. *Journal of the American Association of Nurse Practitioners*, *29*(4), 186-194. DOI: 10.1002/2327-6924.12427
13. Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing, at the Institute of Medicine. (2011). *The future of nursing: Leading change, advancing health*. National Academies Press.
14. Franco, I., Bianco, A., Prospero, L., Riezzo, G., Bonfiglio, C., Bagnato, C. B., ... & Russo, F. (2024). StepFit-18K: Improving Irritable Bowel Syndrome (IBS) Symptoms with a Simple, Structured Walking Intervention. *Journal of Clinical Medicine*, *13*(22), 6684. https://doi.org/10.3390/jcm13226684
15. Jansen, A. P., van Hout, H. P., Nijpels, G., Rijmen, F., Dröes, R. M., Pot, A. M., ... & van Marwijk, H. W. (2011). Effectiveness of case management among older adults with early symptoms of dementia and their primary informal caregivers: a randomized clinical trial. *International journal of nursing*

studies, *48*(8), 933-943. https://doi.org/10.1016/j.ijnurstu.2011.02.004

16. Jones, M. D., Franklin, B. D., Raynor, D. K., Thom, H., Watson, M. C., & Kandiyali, R. (2022). Costs and cost-effectiveness of user-testing of health professionals' guidelines to reduce the frequency of intravenous medicines administration errors by nurses in the United Kingdom: a probabilistic model based on voriconazole administration. *Applied health economics and health policy*, *20*(1), 91-104. https://doi.org/10.1007/s40258-021-00675-z
17. Kaack, L., Bender, M., Finch, M., Borns, L., Grasham, K., Avolio, A., ... & Williams, M. (2018). A Clinical Nurse Leader (CNL) practice development model to support integration of the CNL role into microsystem care delivery. *Journal of Professional Nursing*, *34*(1), 65-71. https://doi.org/10.1016/j.profnurs.2017.06.007
18. Kelly, K. J., Doucet, S., & Luke, A. (2019). Exploring the roles, functions, and background of patient navigators and case managers: A scoping review. *International Journal of Nursing Studies*, *98*, 27-47. https://doi.org/10.1016/j.ijnurstu.2019.05.016
19. Lalleman, P. C. B., Smid, G. A. C., Lagerwey, M. D., Shortridge-Baggett, L. M., & Schuurmans, M. J. (2016). Curbing the urge to care: A Bourdieusian analysis of the effect of the caring disposition on nurse middle managers' clinical leadership in patient safety practices. *International Journal of Nursing Studies*, *63*, 179-188. https://doi.org/10.1016/j.ijnurstu.2016.09.006
20. Naylor, M. D., Hirschman, K. B., Morgan, B., McHugh, M., Hanlon, A. L., Ahrens, M., ... & Pauly, M. V. (2023). The study protocol to evaluate implementation of the transitional care model in four US healthcare systems during the Covid-19 pandemic. *Archives of Gerontology and Geriatrics*, *108*, 104944. https://doi.org/10.1016/j.archger.2023.104944
21. Officer, C. N. (2018). AACN-COMPETENCIES AND CURRICULAR EXPECTATIONS FOR CLINICAL NURSE LEADER® EDUCATION AND PRACTICE. *Essential Knowledge for CNL and APRN Nurse Leaders*, 429.
22. Patel, P. K., Advani, S. D., Kofman, A. D., Lo, E., Maragakis, L. L., Pegues, D. A., ... & Meddings, J. (2023). Strategies to prevent catheter-associated urinary tract infections in acute-care hospitals: 2022 Update. *Infection Control & Hospital Epidemiology*, *44*(8), 1209-1231. doi:10.1017/ice.2023.137
23. Schroeder, E. B., Moore, K., Manson, S. M., Baldwin, M. A., Goodrich, G. K., Malone, A. S., ... & Steiner, J. F. (2019). An interactive voice response and text message intervention to improve blood pressure control among individuals with hypertension receiving care at an Urban Indian Health Organization: protocol and baseline characteristics of a pragmatic randomized controlled trial. *JMIR research protocols*, *8*(4), e11794. https://doi.org/10.2196/11794
24. Stanley, D., & Stanley, K. (2018). Clinical leadership and nursing explored: A literature search. *Journal of Clinical Nursing*, *27*(9-10), 1730-1743. https://doi.org/10.1111/jocn.14145
25. Thomas, M., Prevatt, L., Autencio, K., & Cesario, K. (2020, May). Positive outcomes of an evidence-based pressure injury prevention program. In *JOURNAL OF WOUND OSTOMY AND CONTINENCE NURSING* (Vol. 47, pp. S24-S24). TWO COMMERCE SQ, 2001 MARKET ST, PHILADELPHIA, PA 19103 USA: LIPPINCOTT WILLIAMS & WILKINS.
26. Waite, R., Mensinger, J., Wojciechowicz, C., Colistra, A., & Gambescia, S. (2019). Examining pre-post results: Kouzes and Posner's LPI amid undergraduate health professions students in a leadership program. *Journal of Applied Research in Higher Education*, *11*(1), 146-159. https://doi.org/10.1108/JARHE-05-2018-0083
27. Yao, N., Ritchie, C., Cornwell, T., & Leff, B. (2018). Use of home-based medical care and disparities. *Journal of the American Geriatrics Society*, *66*(9), 1716-1720. https://doi.org/10.1111/jgs.15444
28. Yen, P. Y., Kellye, M., Lopetegui, M., Saha, A., Loversidge, J., Chipps, E. M., ... & Buck, J. (2018, December). Nurses' time allocation and multitasking of nursing activities: a time motion study. In *AMIA annual symposium proceedings* (Vol. 2018, p. 1137). PMID: 30815156; PMCID: PMC6371290.
29. Zulman, D. M., Chee, C. P., Ezeji-Okoye, S. C., Shaw, J. G., Holmes, T. H., Kahn, J. S., & Asch, S. M. (2017). Effect of an intensive outpatient program to augment primary care for high-need Veterans Affairs patients: a randomized clinical trial. *JAMA internal medicine*, *177*(2), 166-175. doi:10.1001/jamainternmed.2016.8021