Winter 12-16-2016

Innovation through an Academic Practice Partnership: A New Clinical Nurse Leader (CNL) Implementation Model

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December 2016

Acknowledgments

First and foremost, I dedicate this work to my husband Paul, who has been a source of inspiration and my cheerleader through this journey. Thank you for your belief in me. Thank you to my amazing adult children, Michael, Chris and Katie who have been understanding and supportive, although clearly perplexed, about my motivation and drive to accomplish this goal. To my USF grad nurse sisters, Eileen and Barbara, who have listened so patiently to my long discourses about the latest exciting article or discussion from class. And finally, to my professors. Thank you to Marjorie Barter, my mentor for the past twenty years. You have been a source of inspiration and guidance through the rich career in nursing that I have loved so much. To my committee chair, Robin Buccheri, who is the ultimate professional role model, so knowledgeable and skilled with amazing empathy and ability to stimulate students to stretch to achieve their best. You always knew when I needed encouragement and inspired me to climb the next hill. Finally, to Wanda Borges, who motivated me to begin thinking about the DNP. You have been an amazing mentor. We began this project as an idea, and have watched it develop and grow into a partnership through dialogue and collaboration. Finally, I would like to acknowledge the legacy of the undergraduate SONHP faculty from 1975, who inspired me to see nursing as a sacred profession. My formation as a nurse was developed through exposure to their unrelenting commitment and dedication to the patient as the center of care. This laid the foundation for my vision as a clinical nurse and a nursing leader: strive always to improve care for patients, support the professional work environment for nurses, and articulate the contributions that nursing makes to improving patient outcomes. Thank you, to all of you.

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The Institute of Medicine's 2000 report *To Err is Human* shocked the health care industry and the public with descriptions of widespread medical errors and care fragmentation within the health care system and concluded that hospital patients were being placed at great risk. The report described a troubled health care system in which estimates of 44,000 patients die annually because of medical error (IOM, 2000). The IOM reports that followed, *Crossing the Quality Chasm: A New Health Care System for the 21st Century* (2001) and *The Future of Nursing: Transforming the Work Environment for Nursing* (2004), were catalysts for the development of the first new nursing role in the past 40 years - the Clinical Nurse Leader (CNL). Innovative academic practice partnership models are needed to integrate the CNL role as a strategic intervention to improve patient quality and safety outcomes in acute care settings. Academic practice partnerships are mechanisms designed to create opportunities for collaboration between practice sites and academic centers to improve care for patients, while meeting the strategic goals of each partner.

Context

In May 2015, the regional patient care service department of a large integrated health care system in Northern California launched the Nurse Scholars Academy, an ambitious professional development initiative. The program was established to prepare nursing leaders within the organization with the capacity to lead the transformation of health care systems through attainment of advanced education, which includes Master of Science in Nursing (MSN) CNL programs.

Intervention

The intervention is described as the CNL implementation model. The model consists of four components: (a) academic practice partnership advisory charter; (b) academic practice partnership roles (MSN CNL program director, MSN CNL faculty liaison, and hospital-based CNL preceptor/mentor); (c) CNL preceptor/mentor educational module; and (d) electronic CNL program implementation toolkit.

Measures

Process and outcome measures were chosen to study both the process and outcomes of the intervention. All the measures were developed de novo. The process measures include the elements of the model: (a) academic practice partnership charter example, (b) CNL program director role and responsibilities description, (c) CNL faculty liaison role and responsibilities description, (d) CNL preceptor/mentor role description, and (d) CNL preceptor/mentor educational program outline. Likert-type scale questionnaires were developed to assess the impact of the intervention on the organizational leaders within the pilot hospital and the MSN CNL students participating in the pilot site hospital model.

Results

The participants' responses to the Organizational Leader Questionnaire indicated that nursing leader participants from the pilot site hospital are familiar with the competencies of the CNL, and perceive that graduates with these competencies bring value to the organization. This could indicate an association between the hospital-based CNL implementation model and organizational leader perception of the value of CNL practice. This association supports an early hypothesis by the DNP student that the CNL program implementation model can impact organizational readiness to integrate CNL practice in a positive way.

The student survey responses to the CNL Student Questionnaire demonstrated that the hospital-based model is very important to most of the participants, who prefer to attend courses held at the hospital rather than travel to attend courses at the university. Students valued the skills associated with scholarly communication in both written and oral presentations, and reported incorporating new CNL competencies into their current leadership roles. The quality improvement, education, and leadership courses were considered the most impactful courses so far in the program, and students report applying valuable content from these courses in their work setting.

Conclusions

The CNL program implementation model is a strategic tool for both academic and organizational leaders who are seeking innovative ways to develop long-term, sustainable academic practice partnerships. Academic practice partnerships support both the integration of CNL education and new models of CNL practice within organizations, and can close the theory-to-practice gap, thereby improving patient and health care system outcomes.

Section II. Introduction

Problem Description

The 2000 Institute of Medicine (IOM) report *To Err is Human* shocked the health care industry and the public with findings of widespread medical errors and care fragmentation within the health care system and concluded that hospital patients were being placed at great risk. The report described a troubled health care system in which estimates of 44,000 patients die annually because of medical error (IOM, 2000). The IOM reports that followed, *Crossing the Quality Chasm: A New Health Care System for the 21st Century* (2001) and *The Future of Nursing: Transforming the Work Environment for Nursing* (2010), were catalysts for the development of the first new nursing role in the past 40 years - the Clinical Nurse Leader (CNL) (American Association of Colleges of Nursing [AACN], 2007).

The IOM 2010 report *The Future of Nursing* described the CNL role as "an innovative strategy for restructuring care delivery settings and services to improve quality" (p 2). Innovative academic practice partnership models are needed to integrate the CNL role as a strategic intervention to improve patient quality and safety outcomes in acute care settings (AACN, 2007). Academic practice partnerships are mechanisms designed to create opportunities for collaboration between practice sites and academic centers to improve patient care, while meeting the strategic goals of each partner.

The goal of this project was to develop, test, and evaluate a CNL implementation model within an academic practice partnership. The model was developed using evidence-based interventions that support CNL practice, best practices for successful academic practice partnerships, and lessons learned from pilot site testing.

Academic and practice leaders can lead this effort to collaborate and together merge

different cultures and teams to work together, instead of in silos, towards the goal of improving

the health of the public through CNL integrated practice (Beal, et al 2012). The CNL program

implementation model provides an infrastructure that can be adapted and used in other settings

across the country as a strategic approach to improving patient and system outcomes through

academic practice partnerships. The CNL practice is a new model of care. The model may be

useful for university CNL program directors as a mechanism to engage health care systems in

similar programs that integrate MSN CNL students in their settings, thereby increasing the

numbers of CNL graduates and strengthening the viability of CNL programs.

Health care systems face increasing pressure to improve outcomes, reduce costs, and

demonstrate a change from provider-centric practice to patient-centered practice (IOM, 2010).

Nursing leaders are held accountable for the financial implications of poor quality outcomes in

the current pay-for-performance environment (Jeffers & Astroth, 2013). As leaders of clinical

microsystems, nurses have the opportunity to transform care environments that provide excellent

patient-centered quality care in fiscally efficient practice models.

To meet the current health care challenges, nurse leaders are needed at the microsystem

level to implement change efforts that improve fragmentation in care, poor outcomes, and high

costs in health care settings. Nursing leaders need competencies based on firm foundations in

leadership, evidence-based practice, systems, finance, ethics, and improvement science theory.

MSN CNL programs prepare future nursing leaders with these competencies.

Description of Setting

In May 2015, the regional patient care service department of this large integrated health

care system in Northern California launched the Nurse Scholars Academy, an ambitious

professional development initiative. The program was established to prepare nursing leaders within the organization with the capacity to lead the transformation of health care systems through attainment of advanced education, which includes the MSN CNL program and the Executive Doctor of Nursing Practice (EDNP) program. The MSN CNL program is within the scope of this project, and the ELDNP program is beyond the scope of this project.

Frontline nursing leaders in good standing within the health care system of 21 hospitals, holding exempt leadership positions, such as assistant nurse manager, nurse manager, house supervisor, quality nurse, and transitions in care nurses, are eligible to apply to the organization's Nurse Scholar Academy to be considered as a candidate for the MSN CNL program. Once approved by the Academy, they can apply to the university for entrance to the MSN CNL program. If applicants are accepted to the university as an MSN CNL student, they receive generous tuition support from the Academy to attend the MSN CNL program.

Leaders from the Nurse Scholar Academy identified a pilot hospital to launch a hospital based MSN CNL program. Nursing leaders from this hospital site had experience with CNL students and some familiarity with CNL competencies learned from prior CNL pilot programs. Senior leaders from this partner hospital were supportive and excited to be the pilot hospital for the initiative, and a meeting to plan the program with university leaders was scheduled.

The university leadership team, including the associate dean, CNL faculty liaison, CNL core faculty, and CNL program director, met with senior leaders from the partner hospital to design the MSN CNL program. The class structure for the MSN CNL program was determined by university team in collaboration with hospital leaders, and was designed to meet course objectives and at the same time minimize disruption to unit operations. A day of the week for weekly classes and the times for course offerings were established to accommodate students who

work three shifts. Classes were held at the hospital. Time away from the hospital was reduced by

eliminating student travel time to the college campus, which also reduced costs associated with

providing manager backfill for those managers attending the program. Tailored to meet the

operational needs of the hospital team, the program was held on site at the hospital one day a

week for a 4-hour block of time, from 2:00 pm to 6:00 pm.

This program represents the integration of different organizational cultures and systems.

Two additional CNL cohorts will begin within the next year. The practice setting stakeholders

include regional and local hospital leaders: chief executive officers, chief nursing officers,

nursing directors, managers, nursing staff, and CNL leader/students. The university stakeholders

include the university dean, associate dean, CNL program directors, CNL faculty liaison, and

CNL faculty and staff.

The CNL program implementation model was developed, tested, and evaluated during

this project. The CNL program implementation model can be used as a strategic planning tool for

future CNL cohorts and can be replicated and adapted for CNL academic practice partnerships

with other health care systems in the future. The project is endorsed by the associate dean at the

University of San Francisco (USF), leaders from the organization Nurse Scholar Academy, and

the chief nursing executive (CNE) from the partner hospital.

Partnership with the organization's newly developed Nurse Scholars Academy provided

an opportunity to design a CNL implementation program in a unique way that benefits both the

organization and university. The benefits to the organization include developing a highly skilled

nursing leadership team prepared to advance the scholarship of nursing practice, thereby

improving patient outcomes. The program graduates are a pipeline of internal MSN-prepared

nursing leaders for succession planning and executive leadership positions. The benefits of such

a program can also be quantified based on the impact of the program on retention and recruitment rates for skilled nursing leaders.

The university benefits from increased enrollment of CNL students from the organization. The specialized and expensive private school program is facing competition from less expensive, online CNL programs. The CNL role has not been widely accepted in this geographic area due to a variety of factors. According to a U.S. News and World Report poll, California nursing salaries averaged $98,000 and were among the highest in the nation, as compared with the national average of $71,000 (Registered nurse: Salary details, 2015). Higher salaries, along with state legislated nurse-patient ratios and a highly unionized work environment, have improved working conditions for nurses, but have also taxed the financial resources of health care systems.

The CNL role is new, and the evidence supporting the return on investment (ROI) of this model is limited. Consequently, health care financial leaders, focused on financial viability in a turbulent market, are reluctant to add an additional high salary role into existing nursing care models. Understanding the scope of CNL competencies and the potential positive impact of CNL practice has been embraced by only one large health care system in the area. This factor negatively affects demand for CNL program graduates, CNL program student enrollment, and poses a risk to future program viability.

In a highly competitive geographic location, the CNL program implementation model can be adapted and used by the university to increase student admissions to the CNL program and increase CNL program stability. This implementation model provides a purposeful infrastructure that develops, evolves, and supports the complex systems that require attention to merge different organizational cultures in a newly developed partnership. The model also prepares the

health care system environment to integrate CNL practice and supplies the structure to support a long-term sustainable partnership between the health care system and the university.

Implementation of the CNL program in an academic practice partnership is an exciting opportunity. Through collaboration, the university and the health care system can leverage their resources to elevate nursing scholarship within an organization, improve the quality of care, and prepare nursing leaders to lead clinical improvement programs that will result in improved patient outcomes.

An implementation plan, with a defined infrastructure that maintains close alignment of goals and communication between the two organizations, is vital to success (Beal, et al., 2012). The MSN CNL implementation model project includes processes and tools for the development, implementation, and evaluation of the following model components of the MSN CNL program. This model provides a sample infrastructure that can be adapted to other settings. The CNL implementation toolkit is composed of the following components:

a. MSN CNL academic practice partnership advisory council charter

b. MSN CNL academic practice partnership communication matrix

c. CNL MSN academic practice partnership role descriptions

    i. MSN CNL faculty liaison

    ii. MSN CNL academic practice partnership director

    iii. CNL preceptor mentor

d. CNL preceptor/mentor educational module

e. CNL preceptor educational module post-test evaluation tool

Available Knowledge

The 2000 IOM report *To Err is Human* shocked the health care industry and the public with findings of widespread medical errors and care fragmentation within the health care system and concluded that hospital patients were being placed at unnecessary risk. Health care costs in the United States represent 17% of the gross national product, and the U.S. spending per capita is one of the highest among 13 high-income countries (Squires & Anderson, 2015). Of even greater concern, Americans have a lower life expectancy, see a physician less frequently, and have a higher prevalence of chronic disease, despite high health care costs in comparison with 20 other high-income nations (Squires & Anderson, 2015).

A large proportion of federal budget monies have been allocated to health care over the past 18 years. When 20% of the budget is allocated to health care dollars, other vital public services, such as education, social services, pensions, and defense are negatively impacted as less monies are available (Squires & Anderson, 2015). The IOM (2001) report *Crossing the Quality Chasm* described two factors that continue to characterize the U.S. health care system – poor quality and high cost. This created a sense of urgency for health care systems and major government funding sources, such as Medicare, to introduce cost containment measures and, at the same time, to improve high-risk patient care environments and to streamline and personalize systems of care. *The Future of Nursing* report called for nursing leaders to assume leadership roles in closing this quality gap by exploring new nursing roles and care delivery models (IOM, 2010).

A proposed solution to this crisis was the new CNL role in nursing. The 2004 IOM report *Keeping Patients Safe* described the role of the nurse in ensuring patient safety, care quality, and cost reduction in the health care system as indispensable. These IOM reports were catalysts for

the development of the CNL, the first new nursing role in the past 40 years (AACN, 2007). *The*

Future of Nursing report described the CNL role as "an innovative strategy for restructuring care

delivery settings and services to improve quality" (IOM, 2010, p. 2).

The CNL initiative was launched by AACN in collaboration with the American

Organization of Nurse Executives (AONE) and was specifically designed to address the current

problems in health care delivery systems (AACN, 2007), including those outlined in the 2004

IOM report. The AACN (2007) defined the CNL as a master's prepared generalist with expert

knowledge of leadership, clinical systems outcomes management, and care environment

management. A national academic practice partnership task force of academic and practice

leaders developed guidelines for partnership models to pilot CNL education and integration into

practice.

PICOT Question: Clinical Nurse Leader

The PICOT question that guided the search for evidence in this project was: In acute care

hospitals (P), how does employing CNLs (I) compared to hospitals not employing CNLs (C)

affect patient and system outcomes (O) from 2005 to the present (T). A comprehensive

electronic search was conducted in September 2016 reviewing evidence that examined the CNL

role in acute care hospitals and CNL patient and system outcomes in the following databases:

Cochrane Database of Systemic Reviews, CINAHL Complete, Pub Med, Scopus, and Joanna

Briggs. These databases were searched using combinations of the following search terms:

clinical nurse leader, patient outcomes, outcomes and clinical nurse leader role. Limitations were

set to include English only, research, systemic reviews, randomized controlled trials, and

publication dates no earlier than 2009. The search yielded 153 articles. Articles were considered

for inclusion if they included analysis of both the CNL role and CNL outcomes. Exploratory

articles, opinion pieces, and reviews without reference to outcomes of the CNL role were

excluded. Seven articles met inclusion and exclusion criteria and were selected for review.

The Research Evidence Appraisal Tool (Dearholt & Dang, 2012) was used to appraise

the evidence for this review. A thorough and accurate appraisal of the evidence is a critical step

in implementing evidence-based changes in practice with confidence (Melynk & Fineout-

Overholt, 2014). The appraisal tool includes criteria to evaluate the strength and quality of the

evidence.

The AACN sent an invitation to universities interested in developing curriculum for the

CNL (Sherman, 2008). To be considered for a pilot project, interested nursing academic centers

were required to enlist a clinical practice site partner to ensure that the new CNL graduates could

begin practice in a supportive clinical practice setting. Using a grounded theory method,

Sherman (2008) conducted a qualitative study to explore the reasons that chief nursing officers

(CNO) chose to participate in the CNL project and found that chief nursing officers control

budgets, are accountable for the quality of care in organizations, and are credible sources for

understanding the research question. A convenience sample of 10 CNOs in Florida were

recruited to participate in semi-structured face-to-face interviews consisting of eight open-ended

questions. This study described specific outcomes that CNOs hope to achieve with CNL

integration. Five factors were identified from the data analysis that described the reasons for

CNO interest in participation in the CNL project: (a) existing organizational needs, (b) desire to

improve clinical outcomes of care, (c) opportunity to redesign care models, (d) improve the

professional image of nursing, and (e) improve collaborative relationships with physicians

(Sherman, 2008). These are universal goals/outcomes for most nursing leaders, provide a starting

point for dialogue in other settings exploring CNL practice, and offer transferable findings to

many organizations.

Moore and Leahy (2012) conducted a qualitative descriptive study designed to explore

the experience of CNLs who have implemented the role. The study methods included

distribution of an investigator-developed survey with demographic data and 13 open-ended

questions sent to a convenience sample of 49 CNL certified attendees from the 2009 CNL

summit. The authors reported that CNLs experience: (a) challenges in role integration related to

lack of leadership support and (b) role confusion related to lack understanding of CNL practice.

They also found that the major source of job satisfaction is the opportunity to improve outcomes

(Moore & Leahy, 2012). These findings are similar to other literature describing challenges for

clinical nurse specialists (CNS) when the role was first implemented (Moore & Leahy, 2012).

The authors recommended proactive strategies based on the CNS' experiences, which includes

formal planning for CNL role introduction, clarification of CNL practice, and strong nurse

administrator support (Moore & Leahy, 2012).

Bender and colleagues conducted two quantitative studies to evaluate improvement in

patient satisfaction and interdisciplinary collaboration in units with a CNL (Bender, Connelly, &

Brown, 2013; Bender, Connelly, Glaser, & Brown, 2012). These studies were followed by a

synthesis review of the CNL literature that also included seven qualitative studies that evaluated

experiences of both nursing leaders and CNLs who have implemented the role (Bender, 2015).

The review supported the development of a theoretical model describing CNL practice. Using a

grounded theory method to identify CNL practice, a predominant theme of continuous clinical

leadership in CNL practice containing four domains emerged: "Facilitating ongoing

communication; strengthening inter and intra professional relationships; building and sustaining

teams; supporting staff engagement" (Bender, 2015, p 3).

Based on the integrated synthesis, Bender (2016) developed a conceptual model for CNL

integrated care delivery that can guide the implementation of innovative CNL practice models in

health care settings. The four domains of the model include: (a) organizational readiness for

CNL practice, (b) clear job description describing CNL practice, (c) prominent domain of CNL

practice as continuous clinical leadership (in job description), (d) CNL accountability for clinical

and system outcomes (in job description), and (e) value to the organization (Bender, 2016).

Bender (2016) described CNL practice as a highly systematic process of microsystem

care delivery redesign to structure CNL competencies (clinical leadership, care environment

management, clinical outcomes management) into a workflow that improves patient and system

outcomes in a microsystem. Bender's model provides a framework for standardization of CNL

practice and sets the stage for development of studies that can more extensively evaluate the

impact of CNL practice on system and patient outcomes.

PICOT Question: Academic Practice Partnerships

In academic practice partnerships (P) what are the best practices (I) that support CNL

program and practice integration (O) from 2007-present (T).

A comprehensive electronic search was conducted in September 2016 reviewing

evidence that examined best practices in establishing academic practice partnerships with CNL

programs in the following databases: Cochrane Database of Systemic Reviews, CINAHL

Complete, and Pub Med. The databases were searched using combinations of the following

search terms: academic practice partnerships, best practices, and clinical nurse leader.

Limitations were set to include English only, research, systemic reviews, randomized controlled

trials, and publication dates no earlier than 2009. The initial search did not yield any articles. The

search limitations for research, randomized controls trials were removed, which then yielded 198

articles. Articles were considered for inclusion if they included academic partnership best

practices. Since limited research evidence is available, exploratory articles, consensus guidelines,

and expert opinion articles were considered. Eight articles were selected for review. The Non-

Research Evidence Appraisal Tool (Dearholt & Dang, 2012) was used to appraise the evidence

for this review.

Leaders in practice and academia have long recognized the need to collaborate to

advance nursing practice, position nurses to lead change, and improve outcomes in troubled

health care systems (Beal et al., 2012). The *IOM (2010) Future of Nursing* report has been a

catalyst for academic and practice leaders to accelerate the development of academic practice

partnership models (Nabavi, Vanaki, & Mohammadi, 2012). Innovative, collaborative

approaches implemented through partnership models provide a mechanism to strengthen nursing

practice and improve the health of the public (Beal et al., 2012; Sherman, 2008).

The development of new approaches to advance professional nursing and improve patient

outcomes through partnerships should be encouraged. One such approach could be the

development of a new model to accelerate the translation of new knowledge into practice by

educating nurses to be facilitators and champions of evidence-based practice implementation

(Kitson & Harvey, 2016).

Academic practice partnerships leverage the expertise of both university faculty and

practice setting leaders to improve the health care system, extending mutual benefits to both

partners to build capacity for the future (Todero, Long, & Hair, 2015). The AACN-AONE

Academic Practice Taskforce (2012) developed eight guiding principles that serve as a road map

for partnerships and are included in Appendix L. These steps provide a foundation for new academic practice partnerships positioned for success and sustainability.

Effective partnerships can be challenging to establish and to maintain. Merging organizational cultures with different leadership structures, systems of accountability, and metrics by which to measure success can be difficult (Moore, 2013). Collaborative relationship agreements that are intentional and formalized facilitate a healthy partnership (AACN-AONE, 2012; Todero et al., 2015). Effective partnerships share common elements: senior leadership and support from both organizations that drive the partnership vision, intentional and formalized relationships at the senior leader level within both organizations, and formal written agreements (Nabavi et al., 2013). The agreements outline the common vision, communication structures, and mutual outcomes and reinforce the commitment to open and transparent communication with regular contact (Beal et al., 2012; Nabavi et al., 2013; Todero et al., 2015).

The CNL role is new, and research supporting the positive impact of CNL practice on outcomes is emerging. Because of the Affordable Care Act (ACA), health care systems are struggling to adapt to changes in patient acuity, access to health care, and new pay-for-performance reimbursement models (Jeffers & Astroth, 2013). Leaders are hesitant to implement new models of care, such as CNL integrated practice, in fiscally challenging times. Continued growth and success of the CNL role is dependent upon academic practice partnerships that collaborate to design innovative programs that demonstrate the value of the CNL practice (Jukala, Greenwood, Motes, & Block, 2013).

Rationale

To meet the current health care challenges, nurse leaders are needed at the microsystem level to implement change efforts to improve the fragmentation in care, poor outcomes, and high

costs in health care settings. Nursing leaders need competencies based on firm foundations in leadership, evidence-based practice, systems, finance, ethics, and improvement science theory.

Executive leaders in the health care system have recognized the need to empower frontline nursing leaders with new knowledge and skills needed to improve outcomes. The MSN CNL program prepares future nursing leaders with these competencies. The specific aim for this DNP project is to develop, implement, and evaluate a CNL program implementation model through an academic practice partnership in an acute care hospital by December 2017.

The MSN CNL program has potential to improve the current high turnover rate of nursing managers and to be an effective recruitment tool for new nursing leaders. The university faces increasing competition from less expensive, online CNL programs. The CNL role is new, and the evidence supporting the ROI of this model is limited. Consequently, health care financial leaders, focused on financial viability in a turbulent market, are reluctant to add an additional high salary role into existing nursing care models. Understanding the scope of CNL competencies and the potential positive impact of CNL practice has been embraced by only one large health care system in the area. This factor negatively affects demand for the CNL program that translates to low student enrollment, which poses a risk to future program viability.

A CNL program implementation model provides a purposeful infrastructure that develops, evolves, and supports the complex systems that require attention to merge different organizational cultures in a newly developed partnership. The CNL program implementation model will also prepare the health care system environment to integrate CNL practice, providing a structure for a long-term sustainable partnership between the health care system and the university. Implementation of the CNL program in an academic practice partnership is an exciting opportunity. Through collaboration, university and health care system resources are

leveraged to elevate the nursing scholarship within an organization, improve quality of care, and prepare nursing leaders to lead existing clinical improvement programs that will result in improved patient outcomes.

Conceptual Framework

The conceptual framework for the project is comprised of two components: self-efficacy theory and the PARIHS (promoting action on research implementation in health services) framework. The conceptual framework will guide the development of mentoring competencies that are required for effective implementation of the program director, faculty liaison, and preceptor mentor roles, which are the new roles developed in the CNL implementation model.

Albert Bandura (1999) is credited with developing self-efficacy theory of social cognition. According to the theory, people can learn through experience, and a major determinant to effective learning is the concept of self-efficacy. Self-efficacy leads to confidence in one's ability to confront challenges and succeed. The CNL is a new practice role, and successful implementation requires nurses to make a career transition as they assimilate CNL competencies (Gilmartin, 2015). The role transition to the advanced generalist CNL is dependent on both personal characteristics, such as self-efficacy, and organizational readiness for CNL practice (Bender, 2016; Gilmartin, 2015).

Successful career transitions are dependent on the ability of the individual to adapt to increasingly complex roles (Gilmartin, 2015). Clinical nurse leader confidence with performing core role functions affects self-efficacy. Gilmartin suggested that the acceptance of CNL integrated practice as a new model of care is dependent on developing the self-efficacy of new CNLs. The CNL implementation model provides a framework to develop CNL student self-efficacy in core CNL competencies.

The second component of the framework guiding this project is the PARIHS framework. The PARIHS framework is a structured approach used to introduce new clinical knowledge into practice. Successful implementation of evidence into practice is based on the quality of the evidence, characteristics of the setting and context, and the way the evidence is introduced into practice (Kitson & Harvey, 2016). The PARIHS framework defines three levels and competencies for facilitators who work with clinical teams to translate clinical evidence into practice. Complex clinical projects require facilitators who are experienced in implementation methods to work with improvement teams (Kitson & Harvey, 2016).

The conceptual model is the foundation for facilitation of competency development in new roles within the CNL program model. The CNL preceptor mentors will develop confidence in their ability to guide the CNL students during their course projects, and support CNL practice integration in the future after attending the CNL Preceptor Mentor Educational Program. This newly developed program will support introducing new evidence-based knowledge and will develop the preceptors as novice facilitators using the PARIS framework. Changing models of care and program curriculum can be threatening to stakeholders. The new roles within the CNL program implementation model represent a change in the status quo. University faculty, preceptors and CNL students must be firmly grounded in self-efficacy, effective facilitation skills, and personal resilience to be effective change agents and manage the transformation associated with a new role (Gilmartin, 2015).

Specific Aim

The specific aim of this DNP project is to develop, test, and evaluate a new CNL program implementation model in a pilot site hospital that is part of an integrated health care system in Northern California by December 2016. The secondary aim is to explore the understanding of

CNL practice and perceptions of the value of the MSN CNL program held by nursing leaders in the partner hospital, and the CNL students who are enrolled in the MSN CNL program.

Section III. Methods

Context

The key stakeholders in this project include members from both partner organizations. Health care system partner stakeholders include the pilot site hospital administrators, nursing leaders, CNL student employees, regional CNOs, Nurse Scholar Academy leaders, and their administrative support teams. The university stakeholders include the dean and associate dean of the School of Nursing and Health Professions (SONHP), MSN program director, MSN CNL partnership director, MSN CNL core faculty, and university administrative support team.

The organizational and university leaders participating in this project were aware and open to the need for change in the way nursing leaders are educated to lead frontline teams as leaders of clinical microsystems. This was an opportunity to position nurses to transform care environments to provide excellent patient-centered quality care in fiscally efficient practice models.

To meet the current health care challenges, nurse leaders are needed at the microsystem level to implement change efforts that improve the fragmentation in care, poor outcomes, and high costs in health care settings. Clinical nurse leaders are educated to demonstrate competencies based on a firm foundation in leadership, evidence-based practice, systems, finance, ethics, and improvement science theory. In partnership with the Nurse Scholar Academy, this was an opportunity to design a CNL program implementation program in a unique way to meet the current challenges in health care today.

The senior leaders who sponsored this project acknowledged the need for change to develop a highly skilled nursing leadership team prepared to advance the scholarship of nursing practice, thereby improving patient outcomes. They envisioned that MSN CNL program graduates would be a pipeline of internal MSN-prepared nursing leaders for succession planning and executive leadership positions. The benefits of such a program can be quantified in several ways but one way is the impact of the program on retention and recruitment rates for skilled nursing leaders in an organization.

Through collaboration, university and health care system resources are leveraged to elevate nursing scholarship within an organization. This collaboration can also help improve the quality of care, and prepare nursing leaders to lead existing clinical improvement programs that will result in improved patient outcomes.

Effect of Prior Work on the Context

During the evolution of this project, two different faculty positions, a CNL faculty liaison and a partnership director, were developed and implemented by the DNP student and are elements of the implementation model. The CNL faculty liaison role is described first. In 2014, the DNP student, as a CNL faculty from the university, collaborated with the associate dean and hospital leaders to develop a CNL pilot project. The project was proposed as a new model for CNL student internships within a regional quality department and one of the hospitals in the health care system. The goal of the pilot project was to provide students with a structured CNL student practicum experience and to demonstrate the value of CNL practice to the health care leaders within the organization. Students developed and implemented improvement projects in selected microsystems, thereby reinforcing the assertion of the 2010 IOM *Future of Nursing*

report that CNL practice is a strategic solution to improve quality, safety, and cost at the point of

service.

University CNL courses include a clinical practicum where students apply CNL theory in

clinical environments. Students are educated to complete a microsystem assessment, identify

gaps in care, and design an improvement project that addresses the care gap. The CNL faculty

liaison worked with students in health care settings to design improvement projects using the

performance methodology of the organization, the Institute for Healthcare Improvement (IHI)

Model for Improvement (MFI) (2016). Students gained experience leading and collaborating

with multidisciplinary microsystem teams on projects selected by the organization or hospital

quality leader and the hospital CNO.

Students presented their projects at the end of each semester to senior leaders in the pilot

hospital. These individuals possessed the position power that drives organizational priorities and

budgets, and securing their support was critical to success. Five students developed 10 projects in

different microsystems over the course of three semesters. This strategy demonstrated the value

of the CNL skill set. The CNO of the pilot site hospital requested to be the first partner hospital

to participate in the hospital based MSN CNL program offered through the new academic

practice partnership between the organizational Nurse Scholar Academy and MSN CNL

program, targeted to begin in 2015.

The CNL faculty liaison, along with the associate dean, CNL core faculty team, and CNL

program directors, met with senior leaders from the CNL pilot hospital to design the MSN CNL

program. The class structure was designed to minimize disruption to unit operations by

eliminating student travel time for nursing leaders and reducing costs associated with providing

manager backfill for those managers attending the program. Tailored to meet the operational

needs of the hospital team, the program was held on site at the hospital one day a week for a 4-hour block of time, from 2:00 pm to 6:00 pm.

Setting the Stage

Based on a strength, weaknesses, opportunities, and threats (SWOT) analysis, the first step taken by the academic partner was the development of a CNL program proposal that created a compelling case for the impact of CNL practice to improve patient and organizational outcomes. Understanding of the organizational culture and priorities was needed to develop a cogent proposal, and the SWOT analysis was critical to this step.

As the first step in this process, the CNL faculty liaison and associate dean delivered formal presentations to the senior leadership and hospital nursing leadership team. The purpose of the presentation was to introduce the MSN CNL program of study and the value of the CNL role to practice site leaders who were unfamiliar with CNL practice. The MSN CNL curriculum pattern, CNL competencies, and selected current research describing positive outcomes of CNL practice were included in the presentation materials. The leaders expressed their expectations for CNL graduates related to the necessary knowledge and skills required to be effective nurse leaders within the organization. These expectations included a formal graduate level theoretical foundation in transformational leadership, evidence-based practice, along with the ability to apply theory in practice by leading interdisciplinary improvement teams using improvement science methods. In other words, they expect CNLs to impact patient and system outcomes as leaders within the organization. These expectations were communicated to the core faculty who teach in the program, and the focus areas identified by organizational leaders are emphasized throughout the MSN CNL program.

The students complete a formal PowerPoint presentation in most classes each semester, and hospital leaders were invited to attend. The student presentation provides the opportunity to develop student confidence and expertise and to demonstrate the value of the CNL program and CNL practice to senior leaders at the partner hospital. This practice builds trust and credibility between leaders and faculty. The working relationships between regional and local practice site leaders and university leaders were established during the CNL pilots and continue into this phase of the partnership.

The CNL program implementation model represents the integration of different organizational cultures and systems. Two additional CNL cohorts will begin within the next year. The practice setting stakeholders include regional and local hospital leaders, chief executive officers, CNOs, nursing directors, managers and nursing staff, and CNL leader/students. The university stakeholders include the university dean, the associate dean, CNL program directors, CNL faculty liaison, and CNL faculty and staff.

Intervention

A partnership infrastructure that maintains close alignment of goals and communication between the two organizations is vital to success (Beal et al., 2012). The intervention in this project is the CNL program implementation model. The model consists of four components: (a) academic practice partnership advisory charter; (b) academic practice partnership roles (MSN CNL program director, MSN CNL faculty liaison, and hospital-based CNL preceptor/mentor); (c) CNL preceptor/mentor educational module; and (d) electronic CNL program implementation toolkit.

Gap Analysis

The MSN CNL program implementation model was developed based on completing a formal gap analysis, which is used by organizations as the first step in implementing a new program. The desired future state for the project is a vital academic practice partnership in which both partners work together to leverage the expertise within both organizations to prepare nurses and nurse leaders prepared to lead the transformation the health care environment, and improve patient and system outcomes. The current state of the academic practice partnership between the university and the health care system at the beginning of the project was a working relationship focused on finding clinical placements for students. A formal academic practice agreement that outlined a shared vision, goals and outcomes for a MSN CNL partnership did not exist. The CNL program implementation model was developed to address this gap.

The future state, current state, and next actions were developed by the DNP student in collaboration with key stakeholders from both partner organizations Specific objectives were developed to address the gap between the current state and the future state. The gap analysis is the foundation for planning the CNL implementation model. Five objectives were identified: (a) formalize the academic practice partnership based on best practices, (b) improve the CNL theory-to-practice gap, (c) develop an academic practice infrastructure to support CNL program implementation, (d) build internal capacity within the organization to implement CNL practice, and (e) develop and evaluate a CNL program implementation model to facilitate initiation of new synergistic academic practice partnerships (see Appendix B: Gap Analysis).

Project Milestones

The objectives identified in the gap analysis are the primary milestones of the project. A Gantt chart was developed to define the milestone timeline and specific tasks associated with each milestone objective (see Appendix C: Gantt Chart).

SWOT Analysis

A SWOT analysis that explored the internal strengths and weaknesses and external

opportunities and threats for the model was conducted. This analysis was used to refine the

model based on feedback from the team involved with the work, which included key academic

and practice partner stakeholders.

An internal strength identified was a positive working relationship between the

organizational leaders and the university leaders, which was established during the initial CNL

pilots. These relationships became a foundation for the new partnership. The strategies used by

the CNL faculty liaison and associate dean during the pilots were replicated, including formal

presentations of the CNL program and predicted outcomes from CNL practice, along with the

predicted benefits to the health care system from CNL practice. Senior leaders from the hospital

were invited to describe their expectations for CNL graduates, and coursework was structured to

meet those expectations. The hospital leaders attended student formal presentations at the end of

each semester, which helped to build trust and credibility between leaders and faculty and

reinforced the value of CNL practice. As a result, the hospital leaders provided support and

encouragement to the leader/students in the program

An additional strength was the experience gained by the CNL faculty liaison role during

the CNL pilots. The DNP student, an adjunct faculty member, designed and served in this role.

The CNL faculty liaison worked with students and leaders at the health care organization,

providing guidance for CNL student practicum projects. Microsystems for student immersions

were identified collaboratively by the faculty liaison, practice faculty, and CNO and were based

on the following criteria: (a) nursing leaders receptive to CNL students and new models of care,

(b) microsystems that would benefit from graduate level student support, and (c) opportunities

for CNL students to work with unit teams on project. The projects met the following criteria: (a)

new or existing microsystem clinical initiative, (b) project meets learning objectives of CNL role

courses, and (c) appropriate scope for a semester project.

There were several internal weaknesses identified in the analysis of the organization.

Lack of experience with CNL integrated practice models in the organization was noted as a

vulnerability, with potential to create both student and leader dissatisfaction if expectations of the

role were not congruent with organizational expectations for CNL graduates. Recent turnover

rates for new assistant managers, who are CNL graduates, were found to be high. The CNL

program implementation model created opportunities for senior leaders to participate in the

educational experience of their employees. Senior leaders were invited to present as guest

speakers during leadership and quality improvement courses. These senior leaders also

presented at the celebration event honoring the CNL students at the beginning of their program

and attended CNL student presentations each semester. Active senior leadership engagement

during the program sent a clear message of support and encouragement to the CNL students.

Employee perception of leadership support creates a positive work culture and correlates with

higher employee retention (AACN, 2013).

An external opportunity existed for the academic practice program to be a model for

other health care systems and universities, setting both organizations apart as leaders in

innovation of a new practice model. This model is supported by recommendations from the IOM

(2010) *Future of Nursing* report, in which the CNL is an innovative solution that can transform

nursing practice care at the microsystem level.

An external threat to the project was a possible shifting of financial or strategic priorities

for both organizations. Given the volatility of the current business environment for health care

systems, an unstable health care environment is a possibility, which could negatively impact the

funding and/or focus of the project. In a similar fashion, university priorities could shift

resources away from this project to meet other priorities (see Appendix F).

Detailed Statement of the Work

The work breakdown schedule (WBS) consists of the following five project development

stages: initiation, planning, execution, control, and closeout. Each stage includes multiple steps,

along with completion dates. In the first stage (initiation), the evidence-based practice change

was identified. Melynk, and Fineholt's (2015) evidence based practice approach was used to

develop the CNL program implementation model during the initiation stage of the project. The

following steps of the approach were used to define the project intervention: 1) using the PICO

format, clinical questions were developed to find evidence in the literature that described

improved outcomes related to CNL practice and best practices for developing and sustaining

academic practice partnerships 2) a comprehensive literature search was conducted to find the

best evidence 3) the evidence was critically appraised and rated using the JHEBP research and

non research appraisal tools 4) input from clinical experts from the university and the partner

hospital was integrated into the CNL program implementation model were consulted. The CNL

program implementation model was developed in the first stage of the project using this

approach.

In the second stage (planning), the basic structure of the project was outlined. The third

stage (execution) is the most extensive, outlining steps to accomplish the work of the project.

The fourth (control) and fifth (closeout) stages include project milestones to ensure that needed

adjustments are included in the final CNL program implementation model and a complete

project outcome analysis for the final project report and DNP presentation.

Budget Return on Investment Plan

Net revenue for the university generated by student tuition from 30 students enrolled in the new KP USF CNL program partnership is $674,889 for the academic year 2016-2017. Cost of the CNL program implementation model is $75,111 in payroll expense for the same period. The ROI for the university is 8.9%, based on the ROI calculation (net revenue/cost of a program = ROI). The ROI for the pilot hospital was calculated based on cost avoidance. The pilot program will cost the pilot hospital $6,795 in payroll expenses. The expense can be recouped with the avoidance of one hospital-acquired infection (HAI) and the associated $15,000 reimbursement penalty for HAI, with a surplus of $8,205 (see Appendix H).

Communication Responsibility Matrix Plan

The communication responsibility matrix plan describes the structure for communication among the different project stakeholders, which includes the regional advisory council, university leadership team, pilot site hospital team, MSN CNL core faculty, CNL preceptor mentors, health care system senior leadership, and community advisory board (see Appendix E).

Cost Benefit Analysis

The ROI calculation ([net revenue - cost of program]/cost of the program) was used to determine cost benefit analysis for the university. The USF MSN CNL program was selected as the major academic partner in the Nurse Scholar Academy. Competition from less expensive MSN programs is a potential threat; and therefore, the stakes are high to ensure that the practice partner is satisfied with the product offered and the outcomes achieved. The success of the program was dependent on ensuring a positive learning experience for students through careful curriculum development and relevant content based on current health care practice.

University costs include faculty salary costs for partnership activities, CNL preceptor/mentor education program development, and teaching time. The director's salary and benefits expense costs are reflected for year one of the program and are estimated. Thirty percent of revenue from tuition is included as an expense in the operating budget to account for recruitment, admission, and business administrative staff salaries and benefits. The ROI for the university was calculated by dividing the cost of the project model by the net revenue from student tuition (approximated). The ROI for the university is 8.9%.

The ROI for the medical center was based on cost avoidance using the IHI ROI improvement model calculation. Expenses included salary, taxes, and benefits for hospital-based CNL mentor/preceptors, CNL preceptor/mentor education, and active mentoring of CNL students with faculty (estimated). If one hospital-acquired infection (HAI) is avoided, the medical center will recoup the costs of this model project. Therefore, the break-even point is the avoidance of one HAI. It was anticipated that the CNL MSN program will improve the current retention rate of 50% for assistant nurse managers. The program was projected to improve job satisfaction, as nursing managers gain confidence through advanced education in their ability to effectively lead teams to improve outcomes within microsystems. The total cost of the CNL program can be recovered one-year post graduation by retaining 10 CNL graduate students within the organization and avoiding recruitment costs. (see Appendix H).

Description of the Intervention

Component 1: Academic Practice Partnership Advisory Council. The regional CNL program academic practice partnership advisory council was formed and charged with oversight of the CNL program implementation at a system level. A committee charter was developed in collaboration with the academic and practice partners using guiding principles for academic

practice partnerships as a starting point (AACN, 2007). The purpose of this advisory group was to develop a forum for ongoing evaluation of the CNL implementation model. Attendees included representatives from both the university CNL core faculty and regional nursing leaders. The CNL program director and practice site regional leader co-chair the meetings of the advisory group. Long-term partnership outcomes are in development and will be measured and reported through both organizational leadership channels. All outcomes from this project will be reported through this council.

A proposal for local advisory groups at host hospital sites will be developed. The purpose of this advisory group is to develop a forum for ongoing evaluation of the CNL implementation model at each of the local hospital sites. Attendees will include representatives from both the university CNL core faculty and local nursing leaders. Meetings will be chaired by the faculty liaison and host hospital CNO.

Component 2: Partnership roles. The DNP student designed the CNL faculty liaison role, which has been tested and refined during the project. The faculty liaison is a visible presence at the hospital and works with hospital leaders to facilitate working relationships between faculty and facility leaders and to organize program logistics, such as securing classrooms and facility orientation for faculty. Based on the initial pilot program, the CNL faculty liaison works with leaders at the health care setting to identify ideas for student practicum projects that are aligned with current quality improvement priorities. This process reinforces the value of CNL practice within the setting. The projects were identified based on the following criteria: (a) new or existing microsystem clinical initiative, (b) project meets learning objectives of CNL role courses, and (c) appropriate scope for a semester project.

The CNL faculty liaison teaches the CNL role courses and acts as the preceptor for the students, providing guidance in the application of the IHI MFI as a framework for CNL role course projects (IHI, 2016). The CNL coursework in leadership, evidence-based practice, and teamwork is integrated with improvement science content. Students are guided in learning to provide and to receive constructive feedback on their projects through peer-to-peer consultation on project aims, measures, and implementation strategies. Application of course theory occurs when students work with microsystem teams to design an improvement project

The IHI MFI performance method used by the organization is integrated as the framework for student practicum projects by the faculty liaison. Course requirements, such as project presentations and final paper formats, are aligned with familiar organizational templates. Students present their leader with a bound copy of the project summary each semester, and leaders use them as a guide for other quality initiatives, again adding value to the organization.

A CNL program director role was developed to ensure program stability using the model. The program director acts as the primary communication conduit with different cultures and systems from both organizations. The program director operates within both organizational systems and acts to facilitate the integration of multiple stakeholder interests, as the program expands to include students from multiple hospitals within the system. Coordination of complex communication is the responsibility of the program director, who as the conduit between both organizations, represents the perspectives of both partners. The program director facilitates opportunities for the CNL core faculty to integrate practice site expectations in CNL coursework, to ensure program relevance and added value to the organization. The program director supports faculty liaisons in their roles and co-chairs the regional advisory group in setting direction for the program in this setting. The program director and the faculty liaison facilitate connections and

collaboration between both organizations though relationship building and political acumen and are catalysts that drive changes in both the academic and practice site environments.

Component 3: Preceptor/mentor educational module. The threat identified in the SWOT analysis included lack of experienced CNL preceptors to provide guidance for CNL students new to the role. This threat has the potential to create both student and leader dissatisfaction if expectations of students from the preceptor/ mentor are not congruent with organizational expectations for CNL graduates. Likewise, preceptor mentors need a firm foundation in the CNL program curriculum and AACN required CNN competencies to meet student learning needs (AACN, 2013).

The risk of misalignment of expectations of CNL graduates will be mitigated with the development of a CNL preceptor/mentor role for interested nursing leaders within the organization who will have a university affiliate faculty appointment. A job description, application process is developed. This strategy will imbed the organization with internal leaders who understand the CNL role and curriculum and can help build internal capacity to integrate CNL practice from within the organization.

An educational program for CNL preceptor/mentors was developed. The program is a one-day educational event hosted at the university and taught by CNL faculty. The program will be tested and evaluated with the partnership hospital as a part of the project. This educational program for CNL preceptor/mentors can be adapted and implemented in other hospitals within the system as the program continues to recruit CNL students.

Component 4: Electronic CNL program implementation toolkit. The CNL program implementation model components were developed during the project. The following model components are included in the electronic tool kit: (a) academic practice partnership charter

example, (b) CNL program director role and responsibilities description, (c) CNL faculty liaison

role and responsibilities description, (d) CNL preceptor/mentor role description, and (d) CNL

preceptor/mentor educational program outline.

The CNL program implementation model components were consolidated in an electronic

toolkit. Instructional design staff at the university provided the DNP student with a shell course

from the CANVAS platform, which is the learning technology program used by the university.

The toolkit is included in a shell course titled: CNL Program Implementation Model within an

Academic Practice Partnership. The toolkit will be used to orient CNL faculty teaching in later

student cohorts at additional partner hospitals within the integrated health care system in

Northern California. (See Appendix L)

The CANVAS course can also be useful for adaptation by university faculty, as a starting

point for initiation of new academic practiced partnerships. Long term, the CANVAS course can

be used as a method to disseminate a strategic approach for academic practice partnerships

designed to introduce and integrate CNL practice in health care systems.

Sustainability Plan.

The sustainability plan includes development of the CNL program implementation tool

kit. The toolkit is available on the university CANVAS site and will be used as a resource for

faculty teaching in the MSN CNL academic practice partnership program. The toolkit describes

the evidence supporting model development, and contains standardized information related to the

unique characteristics of the hospital based CNL program model. The information is presented in

modules that provide the background, context, and roles that have been developed in a new

approach to providing MSN CNL education within a defined academic practice partnership.

Descriptions of the model infrastructure include the academic practice advisory council,

partnership director, faculty liaison and CNL preceptor mentor roles, unique to the CNL program academic practice partnership. The toolkit elements provide a structure that supports ongoing development of a synergistic relationship between two different organizational cultures, who share mutual goals to advance the scholarship of nursing and improve system and patient outcomes.

The long-term plan for sustainability is to identify a faculty liaison and CNL preceptor mentors at each new hospital site location for the MSN CNL program. In addition, the CNL preceptor mentor educational program will be offered each semester for nursing leaders within the health care system who are interested in supporting CNL students during practicum courses and acting as champions to advance CNL practice in their hospital. Infusing a critical mass of CNL champions and students within a hospital can accelerate the implementation of CNL integrated models of care. This is a critical step towards sustaining the long-term goals of the academic practice partnership to improve patient and system outcomes.

Study of the Intervention

The approach chosen for assessing the impact of the project implementation model was establishment of process and outcome measures to evaluate the effectiveness of the CNL program implementation model intervention. The CNL program implementation model provides an infrastructure to strategically introduce the value of the CNL role to hospital leaders though a hospital based program model. The CNL program implementation director, faculty liaison and CNL preceptor mentor roles allow for a visible presence for CNL champions the partner hospital. Advancing the integration of CNL practice is dependent upon building relationships between the university and hospital partners. When the academic practice partnership relationship is developed, and actualized at the hospital level, both partners can work collaboratively at the

point of service to advance professional nursing practice through CNL integrated care models, thereby improving patient outcomes.

<div align="center">**Measures**</div>

Process Measure

The process measures are included in the CNL program implementation toolkit, which provides guidelines for dissemination of the program. The toolkit was developed and imported into a CANVAS shell course, which is the learning technology platform used by the university. The CNL program implementation model toolkit was developed de novo by the DNP student. CNL program implementation model elements included in the toolkit were developed by the DNP student based on best practice examples from the literature review and from input obtained from key stakeholders from the university and the pilot site hospital to increase content validity. The toolkit is described in detail in section III Intervention and is also available in Appendix J.

Outcome Measures

The outcome measures for the project are two questionnaires developed de novo by the DNP student to assess the impact of CNL implementation model intervention. Each of these instruments are briefly described below.

Organizational leader questionnaire. The Organizational Leader Questionnaire contains 12 questions designed to explore the understanding of the CNL role and perception of the value of the CNL program from the perspective of nursing leaders from the partner hospital. Refer to Appendix J for a copy of the instrument.

CNL student questionnaire. The CNL Student Questionnaire contains eight quantitative and two qualitative questions designed to assess the value of the hospital-based CNL

program model from the perspective of CNL students who are in the second year of the program.

Refer to Appendix J for a copy of the instrument

Instrument Development, Participation and Methods.

The Organizational Leader Questionnaire was developed using the AACN CNL

competencies and input from faculty and hospital leaders to ensure instrument validity (AACN,

2013). The questionnaire contains 12 quantitative questions with Likert -type scale responses.

The qualtrics platform was used to develop an electronic questionnaire link that could be sent to

the e mail address of participants. The questionnaire was configured so that individual responses

were not traceable to the e mail address of the participant.

Before administering the questionnaire, the DNP student attended a nursing leader

meeting at the partner hospital to describe the DNP project and purpose of the questionnaire. 20

nursing leaders at the partner hospital were sent the link for the questionnaire via email; 14

leaders participated by completing the questionnaire. Participation was optional, and the DNP

student was not in attendance when participants responded to the questionnaire.

The CNL Student Questionnaire was developed containing two qualitative questions and

eight quantitative questions using a Likert-type scale items. To ascertain instrument validity,

AACN CNL competencies were included in the questionnaire, along with input from students,

faculty, and hospital leaders. The qualtrics platform was used to develop an electronic

questionnaire link that could be sent to the e-mail address of participants. The questionnaire was

configured so that individual responses were not traceable to the e mail address of the

participants The DNP student attended a class session to describe the DNP project and purpose

the questionnaire. Eleven CNL students in the first cohort of the program were supplied the link

for the questionnaire via email. Participation in the survey was optional, and 11 questionnaires

were completed. The DNP student was not in attendance when participants responded to the

survey.

Qualtrics instructional survey tips were used to assist in constructing both questionnaires.

The ease of use of the evaluation tool and quality of the questions were tested and revised based

on feedback from experts in health care organizations and nursing education who confirmed the

validity of both instruments.

Analysis

Ordinal data from the quantitative data from both questionnaires were analyzed using

descriptive statistics: frequency distribution and percentages were calculated and reported as

aggregate results for each question. The qualtrics platform was used to calculate the results. The

student questionnaire contained two qualitative questions. Themes from the responses were

identified, confirmed by an expert with qualitative data analysis expertise and summarized.

Ethical Considerations

Privacy and Protection of Participants

The process for gaining permission to conduct this evidence-based change in practice

project involved obtaining approvals from both the university and the health care system. The

project was reviewed by faculty who participate in the SONHP DNP project approval process and

by the chairman of the university institutional review board (IRB) to ensure that the student

survey did not require IRB approval. The health care system requires a non-research

determination review by the compliance department and the physician chair of the institutional

IRB. All approvals were obtained and are documented in Appendix A. Participation in the

organizational leader and CNL student questionnaires was voluntary. To protect participant

confidentiality, the results are reported as aggregate data and are not traceable to participant email addresses.

Jesuit Values and American Nurses Association Ethical Standards

An academic practice partnership is a social contract between the university and the health care organization, and both parties have an ethical obligation to meet mutual short- and long-term program objectives. Initiating an educational CNL program together, with the goal to prepare future nurse leaders to transform the care environment and improve patient outcomes, is a complex endeavor. Ethical issues can arise during implementation that require early identification and collaborative problem solving.

Nursing goals are aligned with a successful academic practice partnership. These agreements are based on the nursing Code of Ethics, in which the ethical principles of autonomy, beneficence, maleficence, and justice are applied to address ethical issues (American Nurses Association [ANA], 2015). The ANA Code of Ethics is a foundation for ethical leadership practices that support an effective academic practice partnership agreement.

The CNL Standards of Conduct have been developed to guide CNL practice and include ethical behaviors, such as altruism, accountability, human dignity, integrity, and social justice (AACN, 2013). Both the ANA Code of Ethics (2015) and the CNL Standards of Conduct describe universal nursing goals shared by both academic and practice partners. Articulation of these shared values is a starting point to establish mutually acceptable objectives to implement CNL practice integration and form the basis of an effective working relationship.

Both partners were affected by the outcome of this partnership. This is the first CNL program partnership between a large, integrated health care system and the university. The university partner must demonstrate that CNL students are prepared to meet the IOM objectives

and add value to the organizational mission to improve patient outcomes. The organizational

leaders are establishing a prototype to enhance the professional practice within the nursing

workforce, which includes successful integration of the CNL leader.

The principle of distributive justice, as applied to individuals, supports the organizational

value to offer this educational opportunity in a fair and equitable way to all employees. The

proposed approach opens this opportunity to nurses from all 21 hospitals in this health care

organization to attend the CNL program at different university branches close to their residence.

Similarly, the principle of distributive justice supports the university value to implement a

best practice CNL hospital model to benefit the health care community in hospitals where CNL

practice is well-integrated. Both partners share the same goal to allocate valuable human

resources ethically and to demonstrate the return on investment of this program to improve the

health of communities served by the organization.

Universal organizational moral values that serve to guide an effective academic practice

partnership include trust, respect, accountability, fairness, and caring (Hickman, 2010). In

addition, principles of nursing ethics guide organizational and academic leaders to share the

responsibility for creating ethical working environments for nurses that support patient safety

(Grace, 2014).

Effective academic practice partnerships are a key strategy to achieve the vision of a

transformed health care system (Everett, 2016). Academic practice partnerships require highly

evolved working relationships based on mutual respect and formal partnership agreements based

on the ethical principles of beneficence and justice. The organizational values of mutual respect

and trust form the foundation of the relationship. Shared conflict enactment agreements, joint

accountability, meaningful engagement, and transparency should be well described in the formal agreement (AACN-AONE, 2012).

Ethical cultures are nurtured and supported by leaders of the organization (Ganz, Wagner, & Toren, 2015). Integrity, persistence, and courage are required by nursing leaders in academia and practice to take bold action in morally distressing situations (Broome, 2015). The resolution of ethical conflict in academic practice relationships is possible with development of formal agreements that clearly articulate shared ethical values and conflict resolution strategies. When academic practice partnerships contain clear, ethical underpinnings, academia and practice can work effectively and meet the promises espoused in the professional code of ethics. Together they can prepare nurses of the future to lead new innovative models that strive to improve health care for populations and meet the health care needs of society.

Section IV. Results

Program Evaluation and Outcomes

CNL Program Implementation Model Toolkit.

The CNL program implementation model intervention evolved over time as the academic practice partnership matured. Modifications in the CNL program implementation model elements were made based on PDSA cycles during pilot site testing before the formal program began in 2014 and during the first year of the formal launch of the MSN CNL partnership program (see Figure 1). The CNL program implementation toolkit is available as a resource on the university technology learning platform. Access to the toolkit can be obtained by requesting access from the DNP student at nptaquino@usfca.ecu

Organizational leader questionnaire results.

Nursing leaders from the partner hospital (n=14) participated in evaluating the CNL

program implementation model by completing the organizational leader questionnaire. The first

four questions asked participants about their position in the organization, leadership experience,

understanding of CNL practice, and authority to implement new models of care. Twelve of the

14 respondents were nursing mangers; two held a nursing director or a CNE position. The

experience level of the organizational leader group was diverse with 30% percent of the group

having three to five years of leadership experience; 30% with six to 10 years of leadership

experience, and 30% with more than 10 years of leadership experience. A majority, 65% of the

nursing leaders, indicated that they had authority to develop new models of care. A large

majority of the leaders indicated that they were familiar with CNL competencies, and only one

participant responded that he/she had no exposure to the CNL role.

The remaining eight questions asked participants to rate their perception of the value of

the CNL competencies to prepare effective nursing leaders in their organization using a 5-point

Likert scale. Participants answered either "strongly agree" or "agree" to all the questions. There

were no "neutral", "disagree" or "strongly disagree" responses.

For the questions regarding the value of the CNL to implement evidence-based practice

and lead teams, 85% of the respondents responded "strongly agree" and 15% gave an "agree"

response. There was a range of "strongly agree" responses, from 69% to 78%, from participants

for questions related to leading interdisciplinary team efforts, supporting health work

environments, designing improvement efforts using performance improvement methods, and

identifying gaps in care process responses. For the questions regarding leader perception of the

value of the CNL to promote patient advocacy and facilitating integration of care across the

continuum, 57% of the respondents selected "strongly agreed". See Table 1 for full results of the organizational leader questionnaire.

CNL student questionnaire results. Eleven CNL students were sent the link for the CNL Student Questionnaire Survey, and 11 completed a questionnaire. Themes were analyzed for two qualitative questions in the evaluation. Six themes emerged from the first qualitative question: What course content have you found to be most useful in your leadership role. The responses fell into the following categories: leadership and education, understanding EBP, quality improvement, outcomes measurement, and model for improvement, and patient safety.

Six themes emerged from the second qualitative question: Describe a tangible contribution that you will make as a CNL in your leadership role. The themes included understanding my microsystem, using a model such as the IHI model for improvement to improve quality in my microsystem, having a stronger foundation in my leadership role, leading teams to embrace change, improving patient outcomes and experience, and making a positive change using evidence based practice.

The responses to the quantitative questions in the CNL Student Questionnaire were varied. All participants indicated that the course content in the MSN CNL program supports the development of effective clinical nurse leaders. Participants also universally indicated that scholarly writing and presentation skills are essential leadership skills that are important to being effective as a CNL. For the question regarding the importance of having the CNL program on site at the hospital, 90% of participants responded strongly agree or agree. However, 27% responded that they would prefer classes on campus rather than at the hospital. Only 27% strongly agreed that having the course on site supported their ability to balance work and graduate study. Only 27% of the respondents strongly agreed that leaders and staff support their

graduate learning experience and 9% disagreed with this question. See Table 2 for full results of the CNL student questionnaire.

Section V. Discussion

An assumption in this work is that nurse leaders are skeptical about the value of the CNL role due to limited knowledge and the paucity of research evidence demonstrating positive patient outcomes from CNL practice. Bender (2016) posited that there are two components necessary for achievement of the outcomes expected from CNL practice: (a) preparing new nurse leaders with the knowledge and skills to lead necessary system redesign and (b) organizational readiness for CNL practice. A key factor in establishing readiness is the belief that the CNL role brings value to an organization (Bender, 2016). Therefore, in this project, an important outcome of the evaluation process was an increased understanding of the perceptions of the value of CNL practice by both organizational nursing leaders within the partner hospital and MSN CNL students in the first pilot cohort. The perceptions of these key stakeholders are critical to analysis of the impact of the CNL program implementation model.

Key Findings

Readiness for CNL practice is identified as a key element in successful implementation of CNL integrated practice (Bender, 2016). Organizational readiness for CNL practice depends on exposure to CNL practice and the perception of the value of CNL practice in a health care organization. The limited exposure to CNL educational programs and CNL practice negatively impacts dissemination and integration of CNL integrated models in hospital systems. Prior to the introduction of the CNL pilots by the university faculty at the partner hospital, the nursing leaders had limited exposure to the potential benefits of CNL practice. Nursing leaders are key stakeholders that have a vested interest and operational influence that is critical to successful

integration of new models of care. Positive nursing leader perceptions regarding the value of

CNL competencies to improve patient and system outcomes is a critical first step towards the

successful integration of CNL integrated practice within models of care and nursing roles. The

benefits of improved outcomes at the microsystem level resulting from CNL practice are more

likely to be actualized when the leaders within an organization see the value of CNL

competencies in nursing leadership roles.

The Organizational Leader Questionnaire was designed to explore whether CNL

competencies are perceived as value added knowledge and skills for nursing leaders. The results

support that nursing leaders at the partner hospital perceive CNL competencies as being

important skills for nursing leaders to acquire to meet the goals set by their organization. These

results imply that the partner hospital nursing leaders are ready to consider integration of the

CNL competencies into practice models, which is a predictor of the readiness for CNL practice

described by Bender, (2016).

The CNL student questionnaire results indicate that students see value in the CNL

program to enhance their leadership skills. Responses indicate that the program course content is

relevant and applicable for the CNL students in their current leadership roles. Results also

indicate a good understanding of the CNL competencies that have been emphasized in the

program, and illustrated that students can articulate the CNL competencies and associate these

competencies with the leadership knowledge and skills that are required to excel as nursing

leaders in their organization. The responses related to the value of the location of the CNL

program at the hospital are less clear, and some of the responses appear to be contradictory.

Further exploration of the students' perceptions of value of the hospital-based program is

warranted to better understand this aspect of the implementation model.

Understanding the lived experience of CNL students as they attempt to balance work and

graduate school and manage expectations of both their leaders and their staff is warranted to

better understand the factors that support CNL student success in the program. Further study is

needed to understand the factors that can influence rapid dissemination of CNL integrated

practice through academic practice partnerships.

Contextual Elements

A culture of innovation is present in both organizations. This contextual factor may have

interacted with the intervention and could account for the outcomes of this project. Organizations

with a culture of innovation encourage creativity and collaboration within and among teams.

Senior leadership support for an innovation is essential to the success of a new idea. Therefore,

the context of a culture of support of innovation could account for the positive perceptions of

CNL practice expressed by nursing leaders in the organizational leader questionnaire.

Leaders from both organizations acted to advance the partnership activities through

visible presence at activities designed to support the CNL students. By participating together, the

leaders of both organizations sent a message of endorsement for the CNL program to both

practice leaders and university faculty. They attended the monthly advisory meetings, new

student orientation celebration events, and a joint CNL program speaker event. Leadership

support of the academic practice partnership was critical to the development and implementation

of the CNL program implementation model.

The practice partner established the Nurse Scholar Academy, and this innovation had a

direct impact on the intervention. The academy structure supports advanced education for

nursing leaders in the partner hospital. The nursing leaders who responded to the organizational

leader questionnaire are aware of the opportunities available through the Nurse Scholar

Academy, which may have influenced their individual responses regarding the value of the CNL

program to prepare future nurse leaders.

An additional contextual factor that interacted with the intervention is a culture of

innovation within the university department. Faculty are supported by university leaders to

advance new ideas and approaches that improve patient and system outcomes. Therefore, the

development and implementation of the CNL program implementation model was supported as

part of the effort to increase the number of effective and sustainable academic practice

partnerships within the health care community.

Unintended Consequences

Leadership changes at the hospital and within the larger organization impacted the project

progress. New health care system leaders needed time to become oriented to their new roles, and

this delayed the original timeline for the project implementation by three months. In addition, the

new CNL program was implemented very quickly, which required rapid evolution of effective

working relationships between the university and the health care system leaders.

Summary

The CNL program implementation model provides a structured approach to successfully

introduce and begin the integration of CNL practice in an acute care setting. The project aim,

which was to develop and implement a new CNL program implementation model within an

academic practice partnership, was achieved. The model provides a vehicle to systematically

orchestrate change within two complex organizational systems with very different cultures. A

model provides a framework and a road map for innovation in health care systems. The CNL

program implementation model was developed using current evidence, best practice knowledge,

changes developed and tested through pilot testing, and the clinical and leadership experience of

expert partners from both organizations. The CNL program implementation model provides a road map and a mechanism for synergistic partnerships between academia and practice partners, as they collaborate to meet the IOM (2010) challenge to transform health care through nursing.

The academic practice partnership between the two organizations has been strengthened, and collaboration has accelerated because of the model. The costs of personnel committed to the model by the academic partner have already been recouped through tuition received for student enrollment associated with the partnership. The practice site cost of the CNL preceptor/mentor and advisory council is projected to be recovered costs through cost avoidance of one HAI or readmission within one-year post-program. The projected ROI is projected to be recouped if one nurse manager is retained one-year post-program.

Conceptual Model

The findings support the elements of the conceptual model: self -efficacy theory and the PARIHS framework for facilitation. Refining the CNL program implementation model through cycles of change resulted in an increase in hospital and university leadership trust and confidence in the value of the CNL implementation model. The faculty roles within the model provide a visible presence within the organization, and encourage hospital leader engagement in the MSN CNL program. Partner hospital leaders are invited to present as speakers during CNL courses, and attend CNL student presentations. Leadership presence signifies leadership support, and supports the development of CNL student self- efficacy and confidence in their newly acquired CNL competencies. Faculty collaborate with partner hospital leaders to design projects and learning experiences that are relevant to the challenges facing nursing leaders within the culture of the health care system. Integration of the organizational performance methods augment the CNL curriculum, and students' responses reflect emerging confidence in implementing change

and leading teams, evidence of emerging self-efficacy which supports rapid role integration

(Gilmartin, 2015).

Transformational change, such as CNL role integration, requires the infrastructure of the

academic practice partnership, and requires experts within the system to support a change in

practice (Beal et al., 2012). The CNL program implementation model was designed with the

PARIHS framework of expert facilitation as a foundation. Effective facilitation skills are

essential for leaders who are planning to integrate new evidence-based models of care such as

CNL integrated practice. The PARIHS framework was used to develop the preceptor mentor role

and the educational program for hospital based nurse preceptors. Faculty liaison and preceptor

mentors are essential roles that support CNL integration in individual hospitals within the

system. Without active promotion of CNL practice by faculty liaisons and local CNL preceptor

champions, the risk exists that the outcomes expected from CNL practice will not occur if

graduates are not able to utilize their knowledge and skills.

Existing nursing leadership roles require redesign. The prominent domain of the CNL role

is clinical leadership (Bender, 2016). Clinical nurse leaders are needed at the front line of care,

and new levels of performance in improving patient and system outcomes can transform the care

environment if nursing leadership roles are designed with CNL knowledge and skills as the

foundation for leadership practice using these conceptual models as a foundation.

Limitations

This work occurred within one hospital that is part of a large integrated health care

system that committed financial resources to supporting nurse leaders in their pursuit of graduate

education. This is a DNP project and thus is not generalizable to other settings. However, the

CNL program implementation model can be used and tested in other settings.

Evaluation tools for the model did not exist, and the questionnaires developed by the DNP student had not been tested for validity and reliability, which may result in imprecise interpretation of results. The hospital setting in which the work occurred has a distinctive culture of embracing new innovations that might make it different than other hospitals. The results from the organizational leader questionnaire might reflect responses that are biased because of the culture of the pilot hospital, rather than from the intervention itself. The sample size for both outcome measures is small.

Conclusions

The goal of this project was to develop, test, and evaluate a CNL implementation model within an academic practice partnership. The model was developed using best practices for successful academic practice partnership, evidence-based interventions that support CNL practice, and lessons learned from pilot site testing of the model components. The model provides an infrastructure that can be adapted to fit other CNL program academic practice partnerships. The model may have utility for university CNL program directors as a mechanism to engage other health care systems in similar programs that integrate MSN CNL students in their settings, strengthening university MSN CNL program viability.

Additional study is required to identify and quantify the best practices that are associated with establishing vital academic practice partnerships. Additional research examining the impact of CNL integrated practice on patient outcomes is needed to test the effectiveness of the CNL program implementation model. Study of the phenomenon of clinical nurse leader integrated practice itself is also needed.

The DNP project Organizational Leader questionnaire provides a starting point to further explore the perceptions held by nursing leaders related to the value of CNL practice in their

organizations. To close the gap between theory and practice, the CNL Student questionnaire can be expanded to study the lived experience of students who are working as nursing leaders in demanding positions, and the contributions they expect to make because of their graduate education. These are critical areas that require study to advance the evidence needed to redesign health care using patient care models that utilize CNL knowledge and skills and improve patient and system outcomes.

Preliminary evidence demonstrates that CNLs add value to organizations by improving patient and system outcomes (Bender, 2012; 2013). Academic and practice leaders can lead the effort to collaborate by merging different cultures and teams to work together, instead of in silos, towards the goal of improving the health of the public. The CNL program implementation model is a strategic tool for both academic and organizational leaders who are seeking innovative ways to develop long-term sustainable academic practice partnerships. Academic practice partnerships support the integration of CNL education and new models of CNL practice within organizations and have great potential to close the theory-to-practice gap, improving patient and health care system outcomes.

Section VI. Other Information

Funding

No funding was awarded for this quality improvement project. The costs of this program were folded into current organizational positions held by persons employed by the university and the health care organization.

Section VII.

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Table 1

*Nursing Leader Perceptions o*f *the Value of the CNL Program Competencies (n=14)*

CNL Practice Domain	Question Please rate your perception of the value of the CNL to:	Responses	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Care Environment	Promote patient advocacy	14	57.14%	42.86%	0.00%	0.00%	0.00%
Care Environment	Implement evidence-based practice	14	85.71%	14.29%	0.00%	0.00%	0.00%
Leadership	Lead interdisciplinary improvement efforts	14	78.57%	21.43%	0.00%	0.00%	0.00%
Leadership	Support healthy work environments	13	69.23%	30.77%	0.00%	0.00%	0.00%
Outcomes	Design improvement efforts using PI methods	14	71.43%	28.57%	0.00%	0.00%	0.00%
Leadership	Lead teams	14	85.71%	14.29%	0.00%	0.00%	0.00%
Outcomes	Identify gaps in care processes	14	71.43%	28.57%	0.00%	0.00%	0.00%
Care Environment	Facilitate integration of care across the continuum	14	57.14%	42.86%	0.00%	0.00%	0.00%

Table 2

CNL Student Perceptions of the Value of the Hospital-Based CNL Program (n=11)

Question	Responses	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Does the content in the CNL program support development of effective leaders in your organization?	11	54.55%	45.45%	0.00%	0.00%	0.00%
Scholarly writing is essential to your effectiveness as a CNL.	11	63.64%	36.36%	0.00%	0.00%	0.00%
Presentation skills are essential to your effectiveness as a CNL.	11	63.64%	36.36%	10.00%	0.00%	0.00%
Having CNL program on site was very important to me.	10	50.00%	40.00%	10.00%	0.00%	0.00%
Did having the course on site support your ability to balance work/graduate study?	11	27.27%	18.18%	36.36%	18.18%	0.00%
Do your leaders and staff support your graduate learning experience?	11	27.27%	9.09%	54.55%	9.09%	0.00%
I would prefer classes on campus rather than at the hospital.	11	0.00%	27.27%	18.18%	45.45%	9.09%

PDSA cycle for development of the CNL program module intervention
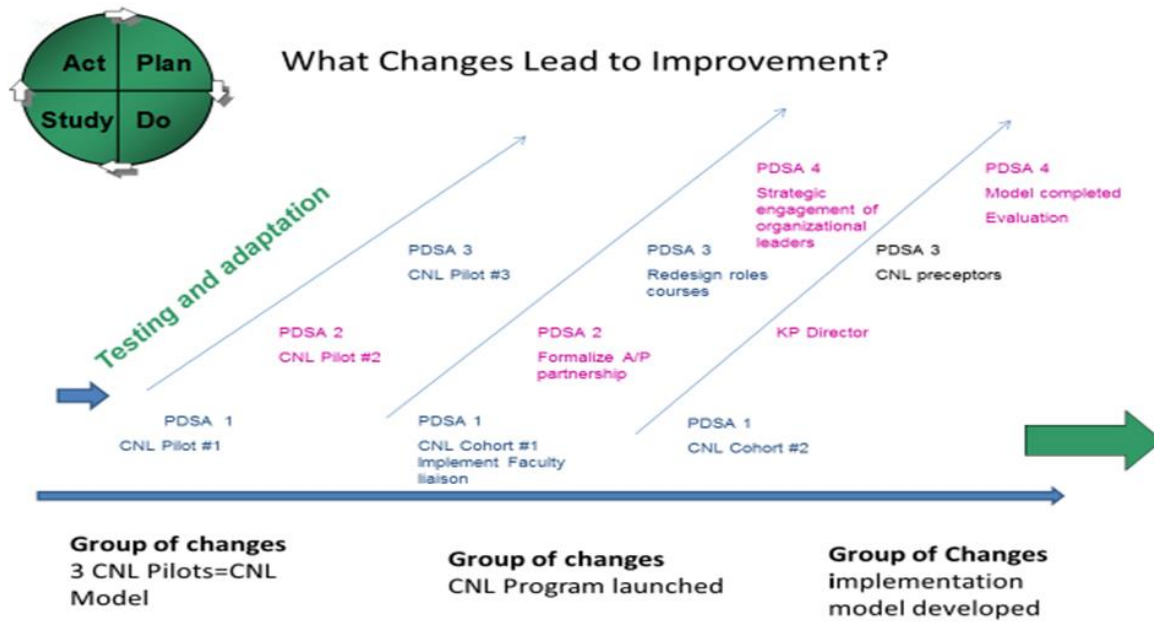
Figure 1

Section VIII. Appendices

Appendix A

Project Approval Forms

DNP Project Approval Form: Statement of Determination

<u>Student Name</u>: Nancy Taquino

<u>Title of Project:</u> Innovation through an academic practice partnership: A new clinical

nurse leader (CNL) implementation model

<u>Brief Description of Project:</u> The aim of this DNP project is to develop, test, and

evaluate a new CNL program implementation model in a pilot site hospital that is part of an

integrated health care system in Northern California. There are four parts of the project that will

be developed, implemented, and evaluated:

1) A strategy for developing academic practice partnerships at local facilities

2) CNL implementation model with four components: a) CNL practice faculty liaison role, b) academic practice partnership advisory council, c) hospital based CNL preceptor role, and d) standardized CNL preceptor

3) One day training program for new hospital based CNL preceptors, integrated into web based modules

4) An electronic tool kit for future faculty using the CNL implementation model

The evidence-based conceptual framework that will guide this project is comprised of

the Kotter's eight-stage change model, and Benner's CNL practice model. The model for

improvement (MFI) methodology from the Institute for Healthcare Improvement (IHI) will be

used to design and implement the model. The toolkit and lessons learned from this project are

intended to be generalizable and may be used to refine and spread the model in collaboration

with academic practice partners in diverse clinical settings across the continuum of care.

> **A) Aim Statement:** To develop, implement, and evaluate a CNL program implementation model and related toolkit within a pilot site hospital of a large integrated health care system in Northern California by December, 2016 through a new academic practice partnership.

Description of Intervention:

A) The CNL program implementation model intervention includes four components: 1) Development of a strategy for local academic practice partnerships within the context of a regional health care system partnership model. 2) Implementation and evaluation of CNL program implementation model with four components: a) CNL practice faculty liaison role b) academic practice partnership advisory council c) hospital based CNL preceptor role d) standardized CNL preceptor curriculum, 3) One day training program for new hospital based CNL preceptors, and 4) Electronic model implementation tool kit for future faculty using the model.

C) How will this intervention change practice? The model is designed as a strategic implementation tool for successful integration of CNL practice within a health care setting. The structure of the model facilitates a vital and mutually beneficial academic practice partnership, which is pivotal to sustainable CNL practice integration. Students in the CNL program are predicted to have a transformational impact on the microsystems in which they practice and the larger mesosystem of the hospital. A dominant domain of the Benner CNL practice model is leadership. Positioning front line leaders with the theoretical foundation in systems thinking, evidence-based practice, and improvement methodologies through the CNL curriculum can impact improved outcomes for patients and systems. It is postulated that the CNL implementation model intervention will also enhance organizational and clinical care outcomes by developing and retaining front line leaders as CNL preceptors who obtain a deep understanding of the value delivered through CNL practice. Replication and continuous improvement of the intervention model and toolkit is anticipated to maximize opportunities for evidence-based practice and improved care outcomes within a large, integrated health care system.

 D) Outcome measurements:

1. New academic practice partnership
Academic Practice Advisory council is formed and meets quarterly. Local hospital system council is formed and meets regularly.

2.CNL Program implementation model   An
evaluation tool (Likert scale questionnaire developed by DNP Student) to measure the alignment of student projects with agency goals and priorities administered to hospital nursing leaders the results will provide information regarding agency leader perceptions of perceived value of CNL practice.

3. One day training program for new hospital based CNL preceptors Pretest and posttest evaluation tool (DNP developed) to evaluate knowledge acquisition from new hospital based CNL curriculum administered to the hospital based CNL preceptors assessing mastery in evidence based practice, performance improvement methodologies, nursing ethics and best practices for mentoring.

4.Electronic CNL Program Implementation toolkit with following components a) Lead practice faculty role description and expectations b) CNL preceptor recruitment and selection process with interview tool c) CNL preceptor role description and expectations d) CNL preceptor educational curriculum e) Academic practice partnership advisory committee charter to include mission, scope.

To qualify as an Evidence-based Change in Practice Project, rather than a Research Project, the criteria outlined in federal guidelines will be used: http://answers.hhs.gov/ohrp/categories/1569)

This project meets the guidelines for an Evidence-based Change in Practice Project as outlined in the Project Checklist (attached). Student may proceed with implementation. ☐ This project involves research with human subjects and must be submitted for IRB approval before project activity can commence.

Comments:

EVIDENCE-BASED CHANGE OF PRACTICE PROJECT CHECKLIST *

Instructions: Answer YES or NO to each of the following statements:

	YES	NO
Project Title: Stimulating innovation through an academic practice partnership: Designing and sustaining a new implementation model for clinical nurse leader practice.		
The aim of the project is to improve the process or delivery of care with established/ accepted standards, or to implement evidence-based change. There is no intention of using the data for research purposes.	x	
The specific aim is to improve performance on a specific service or program and **is a part of usual care**. ALL participants will receive standard of care.	x	
The project is **NOT** designed to follow a research design, e.g., hypothesis testing or group comparison, randomization, control groups, prospective comparison groups, cross-sectional, case control). The project does **NOT** follow a protocol that overrides clinical decision-making.	x	

The project involves implementation of established and tested quality standards and/or systematic monitoring, assessment or evaluation of the organization to ensure that existing quality standards are being met. The project does **NOT** develop paradigms or untested methods or new untested standards.	**x**	
The project involves implementation of care practices and interventions that are consensus-based or evidence-based. The project does **NOT** seek to test an intervention that is beyond current science and experience.	**x**	
The project is conducted by staff where the project will take place and involves staff members who are working at an agency that has an agreement with USF SONHP.	**x**	
The project has **NO** funding from federal agencies or research-focused organizations and is not receiving funding for implementation research.	**x**	
The agency or clinical practice unit agrees that this is a project that will be implemented to improve the process or delivery of care, i.e., **not** a personal research project that is dependent upon the voluntary participation of colleagues, students and/ or patients.	**x**	
If there is an intent to, or possibility of publishing your work, you and supervising faculty and the agency oversight committee are comfortable with the following statement in your methods section: *"This project was undertaken as an Evidence based change of practice project at X hospital or agency and as such was not formally supervised by the Institutional Review Board."*	**x**	

ANSWER KEY: If the answer to **ALL** of these items is yes, the project can be considered an Evidence-based activity that does NOT meet the definition of research. **IRB review is not required. Keep a copy of this checklist in your files.** If the answer to ANY of these questions is **NO**, you must submit for IRB approval.

*Adapted with permission of Elizabeth L. Hohmann, MD, Director and Chair, Partners Human Research Committee, Partners Health System, Boston, MA.

STUDENT NAME (Please print):   Nancy Taquino

Nancy Taquino _____**DATE 3-18-16**

Signature of Student:

SUPERVISING FACULTY MEMBER (CHAIR) NAME (Please print):

Robin Buccheri, PhD, RN, Professor

*Robin Buccheri*_____**DATE_3-29-16**
Signature of Supervising Faculty Member (Chair):

<u>University IRB Approval for non-research</u>

Dear Nancy,

Two responses: DNP projects have been delegated to the Director of the DNP program for approval through an agreement between the Dean's Office and the IRB in 2014;

- Your project is a program evaluation/quality improvement project that would not otherwise require IRB review.

Best wishes,

Terence Patterson, EdD, ABPP, Chair
IRBPHS- University of San Francisco
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San Francisco, CA 94115-1080
Irbphs@usfca.edu

Project Approval Forms: Practice Setting

Not Human Subjects Research Determination

Please provide a response to each of the following questions. Indicate N/A where items is not applicable. In your response, please include any information sheets that will be distributed to the participants.

Name: Nancy Taquino, RN MSN CNL Asst. Professor, University of San Francisco
Project Title: Doctor of Nursing Practice (DNP) Improvement Project Innovation through an academic practice partnership: A new clinical nurse leader (CNL) implementation model
Principal Investigator: Nancy Taquino, RN MSN CNL
Contact information: nptaquino@usfca.edu
Notes:
Tracking number (To be filled in by the RDO) :

1.   Purpose, specific aims and/or objectives

The aim of this DNP project is to develop, test, and evaluate a new CNL program

implementation model in a pilot site hospital that is part of an integrated health care system in

Northern California.

Project evaluation will be assessed using two evaluation tools (developed by DNP student)

1.Organizational leader Questionnaire. An evaluation tool (DNP developed Likert

scale questionnaire).

Purpose: Evaluation tool to assess nursing leadership perception of the value of the CNL

program to prepare new leaders to meet KP organizational goals.

Participants: Health care system leaders and nursing managers of CNL student

employees (N=10).

Method: Anonymous electronic questionnaire (Qualtics . Results aggregated

3. Student evaluation of Hospital Based Clinical Nurse Leader Program Model

Purpose: Evaluation tool (DNP developed Likert scale questionnaire) used to assess

student perception of the value of the hospital based CNL program model

Participants: CNL students (who are KP employees) in first cohort group n=11

Method: Anonymous electronic questionnaire (Qualtrics). Results aggregated

2. Target population

> Nursing executives at KP facilities with employees in the CNL program
>
> Nursing leaders at KP San Francisco (Program pilot site)
>
> CNL student who are KP employees

3. Procedures used to gather information
   a. Indicate if these procedures would be conducted as part of standard of care, regardless of the proposed activity.

> 1. Procedures do not involve patients. Interviews with nursing executives will be done in person. Organizational leader and student questionnaires will be sent to groups through anonymous on line questionnaire

4. Description of the data/samples gathered about individuals including names of datasets, URL, etc.
   a. What data/samples will be collected, how and by whom the data will be analyzed.

> 1. I (DNP student) will send Organizational leader questionnaire, anonymous electronic questionnaires (Qualtrics) to SFO nursing leaders. DNP student will collect and analyze data. Results will be aggregated
> 2. I (DNP student) will send Student questionnaire, anonymous electronic questionnaires (Qualtrics) to CNL students and will analyze data. Results will be aggregated

   b. How will/were the data/samples gathered from individuals? (e.g., obtained as part of an IRB approved protocol or as part of routine clinical care)

> Routine. See above

   c. Can the collected data/samples be directly or indirectly associated/linked with individual identifiers?

> No

   d. Can others directly or indirectly associate/link the collected information with individual identifiers?

> No

5. Generalizability of project findings, or value of project findings

The model is designed to improve an existing system. Results cannot be generalized beyond this setting.

6.   Purpose, specific aims and/or objectives

> The aim of this DNP project is to develop, test, and evaluate a new CNL program implementation model in a pilot site hospital that is part of an integrated health care system in Northern California.
>
> Project evaluation will be assessed using two evaluation tools (developed by DNP student)
>
> **1.Organizational leader Questionnaire.** An evaluation tool (DNP developed Likert scale questionnaire).
>
> **Purpose:** Evaluation tool to assess nursing leadership perception of the value of the CNL program to prepare new leaders to meet KP organizational goals.
>
> **Participants**: Health care system leaders and nursing managers of CNL student employees (N=10).
>
> **Method:** Anonymous electronic questionnaire (Qualtics . Results aggregated
>
> **3. Student evaluation of Hospital Based Clinical Nurse Leader Program Model**
>
> **Purpose:** Evaluation tool (DNP developed Likert scale questionnaire) used to assess student perception of the value of the hospital based CNL program model
>
> **Participants:** CNL students (who are KP employees) in first cohort group n=11
>
> **Method:** Anonymous electronic questionnaire (Qualtrics). Results aggregated

7. Target population

> Nursing executives at KP facilities with employees in the CNL program
>
> Nursing leaders at KP San Francisco (Program pilot site)
>
> CNL student who are KP employees

8. Procedures used to gather information
   a. Indicate if these procedures would be conducted as part of standard of care, regardless of the proposed activity.

   > 2. Procedures do not involve patients. Interviews with nursing executives will be done in person. Organizational leader and student questionnaires will be sent to groups through anonymous on line questionnaire

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   a. What data/samples will be collected, how and by whom the data will be analyzed.

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   > 4. I (DNP student) will send Student questionnaire, anonymous electronic questionnaires (Qualtrics) to CNL students and will analyze data. Results will be aggregated

   b. How will/were the data/samples gathered from individuals? (e.g., obtained as part of an IRB approved protocol or as part of routine clinical care)

   > Routine. See above

   e. Can the collected data/samples be directly or indirectly associated/linked with individual identifiers?

   > No

   f. Can others directly or indirectly associate/link the collected information with individual identifiers?

   > No

10. Generalizability of project findings, or value of project findings

The model is designed to improve an existing system. Results cannot be generalized beyond this setting.

9-30-16
Ms Taquino

Subject: RDO KPNC 16-23 Doctor of Nursing Practice (DNP) Improvement Project
Innovation through an academic practice partnership: A new clinical nurse leader (CNL) implementation model.
As the Research Determination Official (RDO) for the Kaiser Permanente Northern California region, I have reviewed the documents submitted for the above referenced project. The project does not meet the regulatory definition of research involving human subjects as noted here:

The activity does not meet the regulatory definition of research at 45 CFR 46.102(d):
Research means a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge.

The activity does not meet the regulatory definition of a human subjects at 45 CFR 46.102(f):
Human subject means a living individual about whom an investigator conducting research obtains (1) data through intervention or interaction with the individual, or (2) identifiable private information.

Therefore, the project is not required to be reviewed by a KP Institutional Review Board (IRB). This determination is based on the information provided. If the scope or nature of the project changes in a manner that could impact this review, please resubmit for a new determination. Also, you are responsible for keeping a copy of this determination letter in your project files as it may be necessary to demonstrate that your project was properly reviewed.

Provide this approval letter to the Kaiser Permanente Nurse Scholars Academy to determine whether additional approvals are needed.

Sincerely,

Lorna Yamaguchi, MD
Research Determination Officer TPMG, KPNC
Regional Director, Operations Design
The Permanente Medical Group, Inc.
mobile: (408) 859-5191

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October 5, 2016

Jim D'Alfonso,
Executive Director, Nurse Scholars Academy
Kaiser Permanente, NCAL Regional Offices
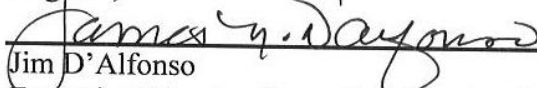
Letter of Support for DNP Project

Dear Jim,

Thank you in advance for your support.

This is a letter to support for Nancy Taquino to implement her DNP Comprehensive Project at Kaiser Permanente San Francisco Medical Center We give her permission to use the name of our agency in their DNP Comprehensive Project Paper and in future presentations and publications.

Regards,

Jim D'Alfonso
Executive Director, Nurse Scholars Academy
Kaiser Permanente, NCAL Regional Offices

Nancy P Taquino, RN MSN CNL
Assistant Professor, University of San Francisco School of Nursing
KP USF Partnership Director

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October 5, 2016

Margaret Mette

Interim Chief Nurse Executive

Kaiser Permanente, San Francisco Medical Center

Letter of Support for DNP Project

Dear Margaret,

Thank you in advance for your support.

This is a letter to support for Nancy Taquino to implement her DNP Comprehensive Project at Kaiser Permanente San Francisco Medical Center We give her permission to use the name of our agency in their DNP Comprehensive Project Paper and in future presentations and publications.

Regards,

Margaret Mette

Interim Chief Nurse Executive

Kaiser Permanente, San Francisco Medical Center

Nancy P Taquino, RN MSN CNL

Nancy P Taq ino, RN MS CNL

Assistant Professor, University of San Francisco School of Nursing

KP USF Partnership Director

Appendix B

Gap Analysis

The Gap

Future State	Current State	Next Action
Project aim: To develop a vital academic practice partnership between CNL program and practice setting with the common goal of preparing future clinical nurse leaders to improve patients and system outcomes	No formal academic practice partnership MSN CNL program infrastructure	Develop CNL program implementation model to address gap

Closing the Gap

Future State	Current State	Next Action
Objective 1 Formalize academic practice partnership based on best practices	No formal agreement document that summarizes mutual goals and objectives	Formalize MSN CNL Partnership Advisory Council members and meetings
		Develop an advisory council charter to guide partnership vison and collaboration towards meeting goals and, projected outcomes. Includes communication structures and roles
Objective 2 Improve the CNL theory-to-practice gap	Practice site leaders have limited exposure to skills and value of CNL practice	Develop and implement a faculty liaison role with a visible presence designed to build relationships and ensure alignment of student projects with current quality priorities
	Limited opportunity for practice to inform curriculum. This is needed to ensure that curriculum remains relevant	Faculty liaison communicates practice leader feedback regarding expectations for CNL leader

	and adds value to organizations.	competencies to align expectations with curriculum and CNL competency activities
	CNL students prepared with performance improvement methods used in the organization to demonstrate value of CNL practice	CNL roles course redesigned to include performance improvement method as a requirement and a foundation for all student improvement projects throughout the program
Objective 3 Develop an academic practice infrastructure to support CNL program implementation	No formal infrastructure	Develop and implement faculty liaison role to support new partnership program at the practice site
		Develop and implement Partnership Director position to support system wide implementation with multiple hospitals and with regional system team
Objective 4 Build internal capacity within the organization to implement CNL practice	Graduates of CNL program exist in the organization but do not have formal role in supporting CNL students or CNL practice	Develop role description for CNL preceptor mentor with affiliate faculty status to work with CNL students during CNL practicums, thereby building internal CNL champions to support CNL practice
		Develop and implement formal CNL preceptor/Mentor educational program to prepare CNL Mentor/preceptors within the organization
Objective 5 Develop and evaluate CNL program implementation model as a strategy to	Academic practice partnerships activities limited to finding clinical placement sites	Develop CNL program implementation toolkit that can be used and or adapted by partners

facilitate initiation of new synergistic academic practice partnerships	CNL practice has limited penetration in this geographic area Limited number of academic practice partnership models with developed tools	

Appendix C

Gantt Chart

| Period Highlight: | 1 | ▲ ▼ | Plan | Actual | % Complete |

NT DNP Project Planner

ACTIVITY	PLAN START	PLAN DURATION	ACTUAL START	ACTUAL DURATION	PERCENT COMPLETE	PERIODS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Fac job description	5-Jul	1 week	1																				
CNL prep job des	5-Jul	1 week	1																				
CNL prep interviews	12-Jul	1 week	2																				
CNL prep job des	12-Jul	1 week	4																				
CNL prep app proc	12-Jul	1 week	4																				
Affiliate fac req	12-Jul	1 week	4																				
Precp interview	19-Jul	1 day	5																				
Dev precp class	26-Jul	1 week	5																				
Plan for precep men	26-Jul	1 week																					
Plan for precep men	26-Jul	1 week	6																				
Precp class eval tool	1-Aug	1 week	5																				
Model eval tool	8-Aug	3 weeks	9																				
Charter	5-Sep	1 week	9																				
Advisory schedule	5-Sep	20-Nov	9																				

Advisory prep	5-Sep	1 week	8
Mentor precep	5-Sep	20-Nov	10
Electronic toolkit	5-Nov	15-Nov	11
Administer model eval	3-Dec	1 day	
Project write-up	8-Dec		

Appendix D

Cost/Benefit Analysis

USF SONHP Proforma Budget: CNL Implementation Model

	2016 Fall, Spring, Summer	S1	S2	S3	Total
1.	**Revenue**	$250,000	$250,000	$250,000	$750,000
2.	**Operating Expenses**				
	Salaries and Wages	13,490	13,490	13,490	40,470
	Taxes and Benefits	4,047	4,047	4,047	12,141
	MSN department (overhead)	7,500	7,500	7,500	22,500
	Total operating expenses	25,037	25,037	25,037	75,111
3.	**Net revenue**	$224,568	$224,568	$224,568	$674,889
4.	**ROI**				8.98%

1. Revenue calculation = $ 750,000

   o Revenue: 30 students/$25,000/student for year one tuition = $750,000
   o Divided equally in 3 semesters
2. Expenses calculation = $75,111
   o Salary for program director/faculty liaison
   o Taxes and benefits = (35%) of salary
   o Overhead costs for program = (30%) of tuition revenue
3. Cost Benefit = Net revenue = $674, 889
   o Revenue minus operating expenses
4. Return on Investment (ROI) = 8.9%
   o Net revenue generated divided by cost of investment

Kaiser Permanente San Francisco Proforma Budget: CNL Implementation Model

Fall 2016-Spring 2018	S1 Start Up	S2	S3	Total
Revenue from cost avoidance 1 HAI				$15,000
Operating Expenses				
Salaries and Wages	$3,300	$3,300	$3,300	$3,825
Taxes and Benefits	$990	$990	$990	$2,970
Total operating expenses	$4,320	$4,320	$4,320	$6,795
ROI from cost avoidance				+$8,205

**ROI for Hospital for Model - Cost avoidance

Cost of infection is 15,000/ infection, representing $15,000in lost revenue due to VBS
 reimbursement penalty for hospital acquired complications.
ROI = cost of improvement divided by lost revenue from infections.
ROI = if one infection is reduced, the program costs are recouped.

ROI for total CNL program for health care organization

Break-even: Program costs could be recouped in 2019 by reducing current 50% assistant nurse
 turnover rate by retaining 10 CNL
Total cost of 2-year program for 30 students = $1,500,000.
Cost avoidance = $ 150,000 cost of onboarding new managers. 10 managers = break-even point

Appendix E

Responsibility/Communication Matrix

Academic/Practice Partnership
MSN CNL Program Implementation Model
Responsibility/Communication Matrix

Information	Target Audience	When	Method of Communication	Responsible
A/P CNL program planning with partners	Regional MSN CNL program advisory council (practice and academic leaders)	Monthly	Agenda and minutes by email In person or zoom meeting	Co-chairs of A/P advisory council (DNP student is a co-chair)
Strategic planning for MSN CNL A/P program- academic partner	Associate dean, MSN CNL program director academic practice (A/P) partnership director MSN CNL program Director	Every other week	Agenda and minutes by e mail In person or zoom meeting	A/P director (DNP student)
CNL program planning/ alignment with organizational expectations	Facility chief nurse executive, nursing directors, A/P partnership director	Monthly	Agenda and minutes by e mail In person meeting	A/P director (DNP student)
CNL curriculum design	MSN CNL core faculty	Minimum 1/time per semester	Agenda and minutes by e mail In person meeting	A/P Director (DNP student)
Faculty guidance for CNL preceptors	CNL preceptor/mentors	Every other week	CNL class meetings	A/P Director (DNP student)
Updates on A/P activities	MSN CNL faculty	Semi-Annual	Monthly faculty meeting	A/P Director (DNP student)

Information	Target Audience	When	Method of Communication	Provider
Convey program activities and promote awareness of CNL practice	Health care system senior leadership	Q semester	Health care system senior leadership meetings	Associate dean, MSN CNL program director, A/P director (DNP student)
Promote awareness of A/P activities	Community academic advisory board	When requested	Quarterly	A/P director (DNP student)

Appendix F

SWOT Analysis

SWOT ANALYSIS

Strengths
- New academic practice partnership in place
- Prospective CNL preceptors are CNL certified Hospital has experience with CNL pilot projects (2014-2015)
- Strong project sponsors from university

Weaknesses
- Competing operational priorities may impact amount of time hospital partners can participate
- No infrastructure in place to support partnership

Opportunities
- Professional development for hospital leaders as affiliate faculty
- Collaboration to close theory practice gaps through advisory council
- Influence CNL integration model implementation to maximize impact on improving outcomes

Threats
- Changes in priorities related to new leadership, financial pressures, available resources that could impact project funding from university or hospital

Appendix G

Budget

A. USF SONHP Proforma Budget: CNL Implementation Model

	2016.Fall, Spring, Summer	S1	S2	S3	Total
1.	**Revenue**	$250,000	$250,000	$250,000	$750,000
2.	**Operating Expenses**				
	Salaries and Wages	13,490	13,490	13,490	40,470
	Taxes and Benefits	4047	4047	4047	12,141
	MSN department (overhead)	7,500	7500	7500	22,500
	Total operating expenses	25,037	25,037	25,037	75,111
3.	**Net revenue**	$224,568	$224,568	$224,568	$674,889
4.	**ROI**				8.98%

1.Revenue calculation /semester

Revenue: 30 students/$ 25,000/student for year one tuition= $750,000. Divided equally in 3 semesters

2.Expenses calculation /semester
Salary for program director/faculty liaison
Taxes and benefits = (35%) of salary
Overhead costs for program= (30%) of tuition revenue

3.Net revenue: Revenue minus operating expenses

4.ROI= net revenue generated divided by cost of investment
ROI = 8.9%

Proforma Budget: CNL Implementation Model

Fall 2016-Spring 2018	S1 Start Up	S2	S3	Total
Revenue from cost avoidance 1 HAI				$15,000
Operating Expenses				
Salaries and Wages	$3300	$3300	$3300	$3825
Taxes and Benefits	$990	$990	$990	$2970
Total operating expenses	$4320	$4320	$4320	$6795
ROI from cost avoidance				+$8,205

**ROI for Hospital for Model- Cost avoidance

Cost of infection is 15,000/ infection, representing $15,000in lost revenue due to VBS reimbursement penalty for hospital acquired

complications.

ROI= cost of improvement divided by lost revenue from infections

ROI= if one infection is reduced, the program costs are recouped

ROI for total CNL program for health care organization

Break-even: Program costs could be recouped in 2019 by reducing current 50% assistant nurse turnover rate by retaining 10 CNL

Total cost of 2-year program for 30 students= $1,500.,000.

Cost avoidance= $ 150,000 cost of onboarding new managers. 10 managers= break-even point

Budget Detail

Budget Breakdown	Budget Item	Description	Hours	Cost breakdown Av Salary x Hours	Actual
Personnel Expenses Medical Center	Preceptor /mentor education program	1 Day Manager/Preceptor Education program 3 NM	24	$75.00/ hr.	$ 1,800
	Practice Advisory Council	2 Meetings 1 hours/mtg 3 NM	6	75.00/ hr.	$ 450
	NM Preceptor time	7 seminars 1 hour 3 preceptors	21	75.00/ hr.	$1575.00
Total expense			**51**	**$75.00**	**$3,825**

Personnel Expenses University	Manager/Preceptor education program	1 Day Manager/Preceptors Education program	32		$57.00	$1824
		8 class				
		24 prep				
	Practice Advisory Council	2 Meetings 1 hours/mtg 3 Faculty	6		$57.00	$342
	Program director/faculty liaison	See job description 2 day/week/3 semesters	672		$57.00	$38304
Total expense			**710**		**57**	**40,470**

Budget Calculation assumptions/Estimates

Revenue	Student Tuition 30 total 10 returning; 21 new	750,000/1 year
Payroll expense	Manager	$75.00/hr.
	Faculty	$57.00/hr.
Cost avoidance	HAI cost	$15,000.00/infection
	New manager orientation	$150,000/manager

Appendix H

Return on Investment Plan

	2016.Fall, Spring, Summer	S1	S2	S3	Total
1.	**Revenue**	$250,000	$250,000	$250,000	$750,000
2.	**Operating Expenses**				
	Salaries and Wages	13,490	13,490	13,490	40,470
	Taxes and Benefits	4047	4047	4047	12,141
	MSN department (overhead)	7,500	7500	7500	22,500
	Total operating expenses	25,037	25,037	25,037	75,111
3.	**Net revenue**	$224,568	$224,568	$224,568	$674,889
4.	**ROI**				8.98%

1.Revenue calculation

 Revenue: 30 students/$ 25,000/student for year one tuition= $750,000. Divided equally in 3
  semesters

2.Expenses calculation

Salary for program director/faculty liaison

Taxes and benefits = (35%) of salary

Overhead costs for program= (30%) of tuition revenue

3.Net revenue: Revenue minus operating expenses

4. Cost Benefit Analysis – net revenue is

4.ROI= net revenue generated divided by cost of investment

ROI = 8.9%

Appendix I

CQI Method

CQI Method

The IHI Model for Improvement was used as the framework to guide this improvement work.

The Model for Improvement, * developed by Associates, is a simple, yet powerful tool for accelerating improvement. This model is not meant to replace change models that organizations may already be using, but rather to accelerate improvement.

Learn about the fundamentals of the Model for Improvement and testing changes on a small scale using Plan-Do-Study-Act (PDSA) cycles.

- Introduction
- Forming the Team
- Setting Aims
- Establishing Measures
- Selecting Changes
- Testing Changes
- Implementing Changes
- Spreading Changes

http://www.ihi.org/resources/Pages/HowtoImprove/default.aspx

Appendix J

Level of Evidence and Quality Guide

Evidence Levels	Quality Guides
Level I Experimental study, randomized controlled trial (RCT) Systematic review of RCTs, with or without meta-analysis	**A** **High quality:** Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence
Level II Quasi-experimental study Systematic review of a combination of RCTs and quasi-experimental, or quasi-experimental studies only, with or without meta-analysis	**B** **Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control, fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence
Level III Non-experimental study Systematic review of a combination of RCTs, quasi-experimental and non-experimental studies, or non-experimental studies only, with or without meta-analysis Qualitative study or systematic review with or without a meta-synthesis	**C** **Low quality or major flaws:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn
Level IV Opinion of respected authorities and/or nationally recognized expert committees/consensus panels based on scientific evidence Includes: • Clinical practice guidelines • Consensus panels	**A** **High quality:** Material officially sponsored by a professional, public, private organization, or government agency; documentation of a systematic literature search strategy; consistent results with sufficient numbers of well-designed studies; criteria-based evaluation of overall scientific strength and quality of included studies and definitive conclusions; national expertise is clearly evident; developed or revised within the last 5 years **B** **Good quality:** Material officially sponsored by a professional, public, private organization, or government agency; reasonably thorough and appropriate systematic literature search strategy; reasonably consistent results, sufficient numbers of well-designed studies; evaluation of strengths and limitations of included studies with fairly definitive conclusions; national expertise is clearly evident; developed or revised within the last 5 years **C** **Low quality or major flaws:** Material not sponsored by an official organization or agency; undefined, poorly defined, or limited literature search strategy; no evaluation of strengths and limitations of included studies, insufficient evidence with inconsistent results, conclusions cannot be drawn; not revised within the last 5 years

| **Level V**
Based on experiential and non-research evidence

Includes:
• Literature reviews
• Quality improvement, program or financial evaluation
• Case reports
• Opinion of nationally recognized experts(s) based on experiential evidence | **Organizational Experience:**

A **High quality:** Clear aims and objectives; consistent results across multiple settings; formal quality improvement, financial or program evaluation methods used; definitive conclusions; consistent recommendations with thorough reference to scientific evidence

B **Good quality:** Clear aims and objectives; consistent results in a single setting; formal quality improvement or financial or program evaluation methods used; reasonably consistent recommendations with some reference to scientific evidence

C **Low quality or major flaws:** Unclear or missing aims and objectives; inconsistent results; poorly defined quality improvement, financial or program evaluation methods; recommendations cannot be made

Literature Review, Expert Opinion, Case Report, Community Standard, Clinician Experience, Consumer Preference:

A **High quality:** Expertise is clearly evident; draws definitive conclusions; provides scientific rationale; thought leader(s) in the field

B **Good quality:** Expertise appears to be credible; draws fairly definitive conclusions; provides logical argument for opinions

C **Low quality or major flaws:** Expertise is not discernable or is dubious; conclusions cannot be drawn |

Dearholt, S., Dang, Deborah, & Sigma Theta Tau International. (2012). Johns Hopkins Nursing Evidence-based Practice : Models and Guidelines.

Appendix K

Evaluation Tables

PICOT Question

What are the best practices (O) in academic practice partnerships (P) that support CNL integration (I)?

Study	Design	Sample	Outcome/Feasibility	Evidence rating
AACN-AONE Task force on Academic Practice Partnerships. Guiding principles. (2012). Retrieved from http://www.aacn.nche.edu/leading-initiatives/academic-practice-partnerships/GuidingPrinciples.pdf	Consensus guideline	none	Provides guidelines for academic practice partnership development Useful for new partnerships in developing collaborative agreements	L IV A
Beal et al. (2012). Academic practice partnerships: A national dialogue. *Journal of Professional Nursing.*	Consensus paper	none	Useful to use as foundation for AONE-AACN task force recommendations when developing academic practice partnerships	IV A
Jukala et al. (2013). Creating innovative nurse leader practicum experiences through academic and practice partnerships. *Nursing Educational Perspectives.*	Case presentation	none	Describes a process to develop courses, prepare CNL preceptors, prepare microsystems for CNL students, and develop other partnerships Useful for ideas for design of CNL programs in collaboration with practice partners	V B

Study	Design	Sample	Outcome/Feasibility	Evidence rating
Kitson & Harvey (2016). Methods to succeed in effective knowledge translation in clinical practice. *Journal of Nursing Scholarship.*	Expert opinion	none	Describes evidenced supporting facilitation roles as a mechanism to get new knowledge into clinical practice Effective framework to design CNL preceptor role to introduce ebp and CNL practice	V A
Moore, P. (2013). The academic story: Introducing the clinical nurse leader role in a multifacility health care system. *Journal of Professional Nursing.*	Expert opinion	none	Describes implementation strategies for implementing CNL in a multifacility health care system directed towards CNL faculty Useful for specific recommendations when implementing CNL in hospital systems	V B
Nabavi et al. (2012). Systematic review: Process of forming academic service partnerships to reform clinical education. *Western Journal of Nursing Research.*	Systematic review: Process of forming academic practice partnerships to reform nursing education	85 case study articles N=15 met inclusion criteria	4 stages of A/P partnerships a) see mutual benefit b) competitors to collaborators c) joint practice d) define outcomes Comprehensive summary and road map for formation and implementation of A/P partnerships	L III A

Study	Design	Sample	Outcome/Feasibility	Evidence rating
Sherman. (2008). Factors influencing organizational participation in the clinical nurse leader project. *Nursing Economics*.	Qualitative; grounded theory methodology. Semi-structured interviews to identify themes associated with decision to participate in CNL project	25 surveys from CNOs in Florida health care systems	Five themes emerged. Common CNO goals that support CNL role implementation: organizational need; improve patient outcomes; redesign care delivery, promotion of nursing professional development, improve MD relationships. Provides information regarding CNE expectations for CNL practice	L III, B
Todero et al. (2015). Academic-practice partnerships: A tale of two cultures. *Nursing Management.*	Clinician experience	none	Describes experience of one academic practice partnership and lists recommendations for successful partnerships Useful resource regarding impact of organizational cultures on effective partnerships	L V B

PICOT Question: Clinical Nurse Leader

In hospitals (P) with CNLs (I), what is the impact on outcomes (O) as compared to hospitals without CNLs (C) from 2005 to present (T).

Study	Design	Sample	Outcome/Feasibility	Evidence rating
Bender et al. (2012). Clinical nurse leader impact on microsystem care quality. *Nursing Research.*	Quasi experimental, short interrupted time series to evaluate Press Ganey patient satisfaction scores in unit with CNL compared with patient satisfaction scores in unit without CNL	Patient satisfaction scores with admission process and nursing in progressive care unit with 2 Clan 119-bed urban academic medical center compared with scores in Oncology unit without CNL.	Patient satisfaction with admission and nursing in CNL unit demonstrated level changes and phase effects showing positive correlation with CNL implementation unit and improved patient satisfaction scores 1-year after CNL implementation. No change in patient satisfaction level or phases effects in control unit. Replicate study to evaluate in other settings	L II, A
Moore & Leahy. (2012). Implementing the new clinical nurse leader role while gleaning insights from the past. *Journal of Professional Nursing.*	Qualitative descriptive study. 24 question survey along with open-ended questions to describe experience of implementing CNL role	24 certified CNL attendees from 2009 AACN Summit	CNL experience: Planned role implementation (35%) Lack of understanding of CNL role (53%) Overburdened workload: (43%) Satisfaction from improving patient outcomes (82 %.) Use findings to develop proactive CNL role implementation plan	L III, B

Study	Design	Sample	Outcome/Feasibility	Evidence rating
Bender et al. (2013). Interdisciplinary collaboration: The role of the clinical nurse leader. *Journal of Nursing Management.*	Descriptive non-experimental design to explore feasibility of CNL role implementation and its effect on interdisciplinary collaboration in a microsystem Survey with 1-5 Likert scale to rate questions related to positive indicators of interdisciplinary collaboration RN survey MD survey	RN/Staff survey N= 16 (pre-implementation) N= 25 (4 months post) N=30 (1-year post implementation) MD Survey N=20 (1-year post-implementation)	Improvement in each item in RN Survey at one year MD survey results Improved interdisciplinary collaboration in CNL units (82%) Improved collaboration resulted in improved quality of care in CNL units (71%) Replicate study Utilize role description and adapt to setting Adapt microsystem assessment tool to setting; evaluate extraprofessional collaboration in units and develop CNL role to improve patient safety	L III, B
Bender. (2015). Conceptualizing clinical nurse leader practice: an interpretive synthesis. *Journal of Nursing Management.*	Interpretative synthesis design; grounded theory analysis to integrate sources of evidenced to develop conceptual understanding of CNL practice	N=295 reports 30 Practice reports 8 Qualitative studies 3 Quantitative studies 254 CNL conference abstracts	Develops theoretical model for CNL practice with 4 domains of leadership Standardize CNL practice Integrate findings into CNL curriculum Use in practice site implementation plans	L III, A

Study	Design	Sample	Outcome/Feasibility	Evidence rating
Bender et al. (2016). Refining and validating a conceptual model of clinical nurse leader integrated care delivery. *Journal of Advanced Nursing.*	Empirical research. Mixed method design using Delphi process with expert panel	N=518 surveys sent to practicing CNL	Validated a conceptual model of CNL integrated care delivery. Model incorporates 13 components in 5 domains: 1) Readiness 2) Structuring CNL practice 3) Continuous CNL leadership, 4) Outcomes of CNL integrated care 5) Value. Useful for strategic implementation of CNL practice	LIII A
Bender. (2016). Clinical nurse leader integrated care delivery to improve care quality and safety: Factors influencing perceived success. *Journal of Nursing Scholarship.*	Cross-sectional non-experimental study	N=585 diverse sample responses from administrator-tors, leaders, educators, clinicians and change agents involved in CNL intuitive	Identified 5 organizational and implementation factors associated with perceived success of CNL integration into microsystem care delivery models 1) Phase of initiative 2) CNL practice consistency 3) CNL instructor/preceptor involvement 4)CNL reporting structure 5)CNL ownership setting status Useful for strategic implementation of CNL practice	LIII A

Appendix L

Materials for Implementation and Evaluation

Implementation Materials

Definition of Terms

Academic practice partnerships: A mechanism for advancing nursing practice to improve the health of the public. An academic practice partnership is developed between a nursing education program and a care setting and is characterized by intentional and formalized relationships built on mutual goals, respect, and shared knowledge.

Clinical nurse leader (CNL): A master's prepared nurse with education in systems, leadership, evidence-based practice, and improvement science who assumes a leadership role within interdisciplinary health care teams to improve quality and safety for patients in point of care in health care settings.

CNL implementation model: A strategic implementation tool for successful integration of CNL education and practice integration within a health care system. The model included four components: (a) CNL practice faculty liaison role, (b) academic practice partnership advisory council, (c) hospital-based CNL preceptor/mentor role, and (d) standardized CNL preceptor/mentor educational program

CNL practice faculty liaison: A faculty member who is the liaison between the university and the organization and has a defined role and sets of responsibilities

Facility based CNL preceptor/mentor: A nursing leader and a CNL preceptor/mentor for CNL students during practicum role courses under the guidance of the faculty. Candidates complete a formal interview process, attend a CNL preceptor educational session, and hold affiliate faculty status at the university.

CNL preceptor education program: A two-day class with focus on evidence-based practice, leadership, improvement science, IHI Model for Improvement, and role course description and logistics to ensure baseline knowledge needed to effectively mentor and guide CNL students during practicum role courses.

I.   **CNL Toolkit**

   a. **Academic Practice Partnership MSN-CNL Program Advisory Council Charter**

Purpose: The purpose of the academic practice partnership advisory council for the MSN CNL program is to provide oversight and governance for the program, strengthen the academic-practice partnership, and support the achievement of mutually held goals by both organizations.

Functions: The MSN-CNL Program Advisory Council will (a) co-design a project plan for launch, implementation, maintenance and evaluation phases of the program; (b) create a communication plan to promote interest and access to the MSN-CNL program by designated RNs; (c) collect and disseminate program outcome metrics to both organizations; (d) evaluate achievement of program goals, including program effectiveness and impact; and (e) promote and leverage the academic-practice partnership to meet organizational goals.

Organizational Structure: (a) Advisory Council Executive Sponsors: Role will be filled by Practice Site Executive Director for Professional Practice, Nursing Leadership and Research, and University Associate Dean for Graduate Programs and Community Partnerships; and (b) Advisory Council Co-Chairs University A/P Partnership Director and Organizational A/P Relations Director.

Membership: (a) Membership will be made up of representatives of practice site and university leadership teams; (b) there will be at least two representatives and one alternate from each

organization; and(c) membership will be reviewed every year and reappointed as determined by

the council co-leads.

Monthly Meeting Structure:

1. Meetings will alternate between face-to-face and virtual via WebEx. WebEx meetings will be recorded for review by council members.
2. Meetings will be scheduled and hosted by practice site team in collaboration with the university team.
3. If voting is needed on specific topics, a quorum of 50% of the membership must be present. Decisions will be reached by consensus and all members agree to abide by decisions made at the meeting.
4. Meetings will be scheduled and hosted by practice site team in collaboration with the university team.

b. Roles, Responsibilities and Expectations

Role	Name	Responsibilities, Expectations
Advisory Council Executive Sponsors	Practice: Senior Leader University: Associate Dean Graduate Programs and Community Partnerships	• Oversee Advisory Council meetings and provide executive direction, recommendations, and leadership to council • Give report to the KP NCAL regional leadership and USF senior leadership re Advisory Council actions, outcomes, and issues
Advisory Council Co-chairs	Practice: A/P Director University: A/P Program Director	• Lead Advisory Council meetings • Set meeting agenda and outcomes and ensure that minutes are kept • Deploy NSA resources in support of the Advisory Council recommendations • Engage in decision-making process • Ensure transfer of information to relevant colleagues, other departments, and academic partners • Follow up on assigned tasks
Advisory Council Members	Practice Senior Leader A/P Director Research and Innovation Director Executive Consultant/Project USF: Associate Dean	• Attend MSN CNL Advisory Council meetings • Actively participate in the meeting discussions • Open and willing to adopt innovative ways of delivering the MSN CNL program

	USF MSN CNL Program KP Program Director Admin	

MSN CNL Program Director

UNIVERSITY OF SAN FRANCISCO

SCHOOL OF NURSING & HEALTH PROFESSIONS

Position Description: USF CNL Partnership Program Director

Participate as a contributing member of the School of Nursing & Health Professions' Leadership Team in creating a climate that advances the Vision, Mission, and Values of the School and the University.

Collaborate with colleagues to ensure congruence with standards established by the American Association of Colleges of Nursing, Commission on Collegiate Education, California Board of Registered Nursing, the Commission on Nurse Certification, and other accreditation and professional associations as appropriate.

Collaborate with Associate Dean of Community Partnerships to develop strategic plans to initiate and maintain an academic practice partnership with the Northern California Region of the Kaiser Permanente (NCAL-KP) organization. Partnership activities include the MSN CNL Program, KP Work Study program, and future workforce development opportunities.

Collaborate with university and KP practice leaders to develop a formal academic practice partnership agreement outlining mutual goals, activities, and outcomes of the partnership.

Use expert knowledge of the KP practice site culture and organizational structure to facilitate effective collaborative working relationships between the academic and practice partner leaders.

Establish communication structures with the university faculty and partner leaders in collaboration with the Associate Dean of USF Community Partnerships to ensure effective implementation of the program.

Provide leadership that promotes growth and innovation for the CNL role.

Collaborate with the RN MSN Program Director to evaluate applicants for the KP USF MSN CNL program and develop degree plans.

Collaborate with program director to assign KP RN MSN students to faculty advisors.

Collaborate with the Department Chair and Associate Dean in preparing faculty teaching assignments for the KP CNL cohorts.

Teach courses in KP RN MSN CNL program.

Collaborate with the Associate Dean and MND Chair in recruitment, interviewing, orientation, and coaching of affiliate faculty for the KP program who demonstrate expertise that is consistent with the needs of the RN-MSN program.

Participate in the evaluation of clinical preceptors.

Collaborate with MSN/MSN/CNL Program Director and faculty to develop curriculum patterns and relevant MSN CNL roles course content based on current evidence, KP organizational priorities. and feedback from practice site leaders.

Joint appointment (in development).

KP USF MSN CNL Faculty Liaison

Role and Responsibilities

The KP CNL faculty liaison is a conduit for communication between the host hospital leaders and the KP CNL program core team.

The KP CNL core team may include the MSN CNL Program Director, KP Partnership Director, and core CNL faculty.

The host hospital team may include the Chief Nurse Executive or designee who is the local CNL Champion, and other nursing leaders identified by the CNE.

The host hospital champion and the faculty liaison work closely to organize logistics of the program and establish communication channels, as appropriate to the setting.

The faculty liaison position is a leadership role requiring knowledge of the culture and organizational structure of both the academic and practice settings.

In this capacity, the liaison facilitates collaboration between the academic program and the individual host hospital/s, in addition to facilitating alignment with the system wide KP USF academic practice partnership

Responsibilities:

1. Faculty liaison to hospital partners:
   - Establish relationships with the facility CNL champion in the host hospitals: may be the CNO, Director of Education; administrative personnel responsible for classroom assignments, and/or nurse leadership team
   - Identify local contacts for classroom assignments, providing class dates, room accommodations for class size, and needed technology
   - Ensure adequate technology availability for courses on site
   - Communicate classroom information to faculty and students each semester
   - Coordinate new cohort welcome reception with university and practice site leaders

- Coordinate new graduate student orientation with university colleagues within first month of new cohort
- Onboard new CNL faculty – orientation, badge, introductions, tour
- Coordinate CNL program communication meetings with hospital CNO
- Collaborate with CNO to explore the option to develop a local academic practice partner advisory council; coordinate quarterly advisory group meetings with hospital leaders; co-chair meeting with CNO
- Recruit nursing leaders as CNL preceptors for KP cohort group in practicum courses
- Provide one day CNL preceptor course for local CNL preceptors
- Coordinate preceptor assignments; ongoing mentor for CNL preceptors during program
  Alignment with system implementation of academic practice partnership
- Member of regional academic practice CNL Advisory Group with KP Academic Practice Director
- Coordinate cohort logistics with KP Program Director at hospital site
- Attend and present, as needed, at prospective student recruitment events, i.e. informational webinars, CNL Program information sessions

2. Attend practice site educational programs

3. Faculty responsibilities:
- Coordinate faculty assignments with MSN Program Director and CNL Program Director
- Integrate the organizational performance improvement method as foundation in roles courses and course assignments and requirements
- Orient new faculty to program model
- Student advisor as assigned

CNL Preceptor/Mentor

Role Description

CNL preceptor/mentors are nurse leaders within the organization. Ideally, they have graduated from the CNL program and are familiar with CNL practice and understand the culture of the organization in which CNL students conduct improvement projects. As university affiliate faculty, CNL preceptor/mentors work in collaboration with university faculty to guide students to apply CNL theory to design and implement a microsystem improvement project in the health care setting.

CNL Mentor/Preceptor Educational Program

Objectives: At the completion of this program the CNL preceptor/ mentor will:

1. Demonstrate understanding of evidence-based practice, the model for improvement method, CNL leadership, and effective preceptor strategies

2. Design a project charter using the IHI model for a hypothetical improvement project
3. Describe the CNL mentor/preceptor role

Course Outline:

 A. CNL and Evidence-Based Practice (EBP)

  1. Evidence-based practice (EBP) review – 7 steps of EBP
  2. Quantitative and qualitative research critique tools
  3. Hierarchy of evidence
  4. John Hopkins Evidence Based Practice (JHEBP) Appraisal Tool
  5. Using EBP in improvement projects

 B. CNL and the IHI Model for Improvement

  1. Description of the IHI model
  2. Developing aim statements
  3. Developing a measurement strategy
  4. Developing and implementing changes
  5. Data and evaluation

 C. CNL as transformational leader

  1. Horizontal leadership
  2. Effective strategies for leading interdisciplinary teams

 D. CNL as Educator-the Preceptor Role

  1. Communication
  2. Feedback
  3. Learning styles
  4. Adult learning principles
  5. Difference between coaching and mentoring

 E. CNL Practice at KP

Evaluation Materials

I.   Measurement Strategy

Aim (Goal Statement): To develop, test and evaluate a new CNL program implementation

model in a pilot site hospital that is part of an integrated health care system in Northern

California by December 2016.

Population Criteria: Inclusion criteria for the organizational leader questionnaires includes the

population of nursing leaders at the pilot hospital; nurse executive, nursing director, nursing

managers, assistant nurse managers. Exclusion criteria: nursing leaders from the pilot site

hospital who are currently enrolled in the CNL program. Likert type scale questionnaire was

developed by the DNP student to evaluate the perceptions of the knowledge of CNL

competencies and the value of the CNL program from the perspective of current nursing leaders

at the pilot site hospital. Population inclusion criteria for the CNL student questionnaire is

limited to the current students in the pilot site hospital CNL program. A Likert type scale

questionnaire was developed to assess the perceptions of current students regarding the value of

the hospital-based CNL program model.

Data Collection Method: Two separate questionnaires were developed by the DNP student and

formatted for electronic administration using the Qualtrics platform. An email containing

information about the DNP project, with directions for completing the questionnaire, was sent to

the targeted population. All responses were voluntary and could not be linked back to the email

address.

a. **Project:**

Data Definitions

Data Element	Definition
Organizational leader	Population of nursing leaders at the pilot hospital, including nurse executive, nursing director, nursing managers, assistant nurse managers, and excluding nursing leaders from the pilot site hospital who are currently enrolled in the CNL program.
Clinical Nurse Leader (CNL) Student	Current students in the pilot site hospital CNL program.
Clinical Nurse Leader (CNL)	Masters-prepared clinical nurse leader prepared as a generalist to improve outcomes at the front line of care using evidence-based practice, leadership, improvement science, and team collaboration knowledge and skills.
Hospital-based CNL program	CNL program courses are taught at medical center to reduce travel time for student nurse leaders and decrease time and associated organizational costs related to cross coverage for leaders in the program.
Patient advocacy Evidence based practice Lead multidisciplinary change efforts Support healthy work environments Design improvement initiatives using the IHI model Lead teams Identify gaps in care Integration of care across the continuum	CNL domains of care and associated competencies, as outlined in AACN CNL Competencies (AACN, 2013)

b. **Data Collection Plan for outcome measures: 10-5-2016**

Process Measure CNL Program Toolkit elements are complete.

a) MSN CNL Program Academic Practice Partnership Charter
b) CNL Faculty Liaison Job Description
c) Partnership Director Job Description
d) CNL Preceptor/Mentor Role Description and Educational Program
e) CNL Preceptor/Mentor Program Post Test
f) Academic Practice Partnership Goals

II.   Evaluation Tools

  a. Organizational Leader Questionnaire:

Purpose: To assess the knowledge of CNL competencies and perceptions of the value of the

CNL program, preparing nursing leaders to meet organizational goals.

Participants: Nursing leaders in host hospital for MSN CNL program.

Method: Anonymous electronic questionnaire (Qualtrics). Results aggregated.

<p align="center">Organizational Leader Questionnaire</p>

  A. Please answer the following questions that describe your role and understanding of CNL
      practice

  1. Leadership position within the organization
      o   Nursing Director/CNE
      o   Nursing Manager
      o   Senior leader

  2. Years of experience in a leadership position
      o   3-5 years
      o   5-10 years
      o   10 years

  3. Do you have the authority to develop new models of care in your area of responsibility
      o   Yes
      o   No
  4. How familiar are you the competencies of the Clinical Nurse leader (CNL)

      o   Very familiar
      o   Some understanding
      o   No exposure

  B. Please indicate your perception of the value of the CNL educational program to prepare
      KP nursing leaders to meet your organizational goals using the following scale for each
      question.

      1. Domain: Clinical Leadership

          a) Facilitate lateral integration of care for patients across the continuum
                  1=Strongly agree

2=Agree

3=Neutral

4=Disagree

5=Strongly disagree

b) Promote patient advocacy
   1=Strongly agree

   2=Agree

   3=Neutral

   4=Disagree

   5=Strongly disagree

c) Promote professional development for nursing staff
   1=Strongly agree

   2=Agree

   3=Neutral

   4=Disagree

   5=Strongly disagree

d) Execute horizontal leadership with interdisciplinary teams
   1=Strongly agree

   2=Agree

   3=Neutral

   4=Disagree

   5=Strongly disagree

e) Promote staff engagement to meet unit goals
   1=Strongly agree

   2=Agree

   3=Neutral

   4=Disagree

5=Strongly disagree

2. Domain: Care Environment Management

    a) Implement evidence based nursing practice
        1=Strongly agree

        2=Agree

        3=Neutral

        4=Disagree

        5=Strongly disagree

    b) Lead improvement efforts to meet regulatory requirements
        1=Strongly agree

        2=Agree

        3=Neutral

        4=Disagree

        5=Strongly disagree

    c) Develop and support and develop healthy microsystem work environments
        1=Strongly agree

        2=Agree

        3=Neutral

        4=Disagree

        5=Strongly disagree

3. Domain: Outcomes Management

    a) Lead interdisciplinary microsystem improvement initiatives
        1=Strongly agree

        2=Agree

        3=Neutral

        4=Disagree

        5=Strongly disagree

b) Utilize performance improvement methods and theory to structure improvement
    efforts
        1=Strongly agree

        2=Agree

        3=Neutral

        4=Disagree

        5=Strongly disagree

c) Demonstrate effective team leadership skills
        1=Strongly agree

        2=Agree

        3=Neutral

        4=Disagree

        5=Strongly disagree

d) Improve patient and system outcomes
        1=Strongly agree

        2=Agree

        3=Neutral

        4=Disagree

        5=Strongly disagree

b. Student Evaluation:

Student Evaluation of Hospital-Based Clinical Nurse Leader Program Model

Purpose: To assess student perception of the value of the hospital-based CNL program model

Participants: CNL students (who are KP employees) in first cohort group (n=11)

Method: Anonymous electronic questionnaire (Qualtrics), results aggregated

1. How would you rate the importance of having the CNL program on site at the place that you work?

       5=Strongly agree

       4=Agree

       3=Neutral

       2=Disagree

       1=Strongly disagree

2. Did having course taught onsite support your ability to balance work and graduate studies?

       5=Strongly agree

       4=Agree

       3=Neutral

       2=Disagree

       1=Strongly disagree

3. Would you prefer classes on campus rather than at the medical center?

       5=Strongly agree

       4=Agree

       3=Neutral

       2=Disagree

       1=Strongly disagree

4. Did the practicum site team of leaders and staff encourage and support your graduate learning experience?

> 5=Strongly agree
>
> 4=Agree
>
> 3=Neutral
>
> 2=Disagree
>
> 1=Strongly disagree

5. Describe a tangible contribution to organizational goals you will make in your leadership role because of your graduate education.

   c. Academic Practice Partnership Outcomes:

Measure	Timeframe for data collection	Target	Data source	Responsible party
% students pass CNL certification exam at end of program	Q 4 2017	80%	NCC certification board data	USF MSN department chair and KP Program director
WPI questions in People pulse scores in units with CNL leader/students	Q4 2015(baseline) Q 4 2016 Q 4 2017 Q4 2018 (continue for two years' post program completion)	Positive trends from baseline Q4 2015 through Q 4 2019	People pulse unit scores (need to choose a metric from people pulse)	Practice Partner
Sustained performance in CNL project quality metrics in units with CNL leaders	Q3 2016 (baseline) 2017 Q1,2,3,4 2018 Q1,2,3,4	Positive trend from baseline Q 2 2016 to Q 4 2018	Unit dashboard reports	Practice Partner
Manager retention rate and/or career advancement for CNL graduates	Q 4 2014 (baseline) Q4 2016 Q4 2017 Q4 2018	Positive trend from time of end of program (Q3 2016) for two years' post program	HR reports	Practice Partner