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A Guide for Outcomes Evaluation and Sustainability of a Dedicated Education Unit within an Academic-Practice Partnership

Jennifer Pfannes
pfannes@cox.net

A GUIDE FOR OUTCOMES EVALUATION AND SUSTAINABILITY OF A DEDICATED EDUCATION UNIT WITHIN AN ACADEMIC-PRACTICE PARTNERSHIP

By

Jennifer Pfannes

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University of Nevada, Las Vegas
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Jennifer Pfannes

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Mary Bondmass, Ph.D.
Examination Committee Chair

Kathryn Hausbeck Korgan, Ph.D.
Graduate College Dean

Tricia Gatlin, Ph.D.
Examination Committee Member

Richard Tandy, Ph.D.
Graduate College Faculty Representative

Abstract

The Dedicated Education Unit (DEU) has emerged as an innovative approach to providing a positive, high-quality, collaborative clinical learning environment that fosters the growth and learning of undergraduate nursing students. Additionally, the DEU model has demonstrated success in beginning to bridge the education-practice gap, tackling the faculty shortage, and easing the new graduate transition from education to practice; however, developing, evaluating and sustaining an economically successful DEU takes thoughtful, strategic planning. The challenging nature of developing and sustaining a DEU that mutually benefits both the academic and clinical partner over time, reveals the need for more guidance to secure long-term benefits of maintaining the DEU within an academic-practice partnership. While the literature is robust with current knowledge on the positive practicality of the DEU, there are few data available regarding expected outcomes and long-term planning for sustainability for a successful DEU within an academic-practice partnership.

The purpose of this Doctor of Nursing Practice (DNP) project was to develop a guide inclusive of strategies for evaluating objective, subjective, and economic outcomes, and the long-term sustainability of a DEU within an academic-practice partnership.

The literature was extensively reviewed to find evidence gaps and areas needing improvement in existing DEU models. Subsequently, a guide was developed detailing strategies for implementing and evaluating objective, subjective, and economic outcomes that benefit both collaborators of the academic-practice partnership. The guide includes measurement tools to evaluate student and nurse satisfaction, in addition to the evaluation of the clinical learning environment and economic benefits of nurse retention, decreased orientation and training times, and decreased recruitment efforts. The guide also includes multiple resources for the implementation and sustainability of new and existing DEUs.

The development and implementation of this DNP project will allow the leadership team of the academic-practice partnership to measure short- and long-term outcomes and further demonstrate the DEU's benefits to the non-medical leadership at the medical center and the University. The guide translates and expands the available evidence to create a manual for evaluation and sustainability, inclusive of several psychometrically tested tools and recommendations for the partnership leaders to consider when evaluating outcomes and sustainability of the DEU. The guide will also serve as an exemplar for others considering implementing and maintaining a DEU within their institutions.

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Dedication

I would like to dedicate the completion of this project to my husband, Andrew, and my two children, Alyssa and Jaden. The commitment and achievement of completing this project would not have been possible without their love, support, sacrifices, and encouragement throughout the entire process. This project will help to show my children the importance of life-long learning and the dedication and commitment necessary for attaining both personal and professional goals.

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Chapter I: Introduction

Innovation in nursing education is not only a key factor in preparing the future nursing workforce to keep up with the rapidly changing healthcare environment, but it is a necessity in learning to provide high-quality, evidence-based care to patients (Adams, 2014; Caputi, 2017). Outdated teaching pedagogies, the looming faculty and nurse shortages, the lack of quality clinical placements, and the multitude of budgetary constraints are all indicative of the need for innovation in clinical education that develops nurses who are efficient in critical thinking, decision-making, and collaboration (Caputi, 2017; National Council of State Boards of Nursing [NCSBN], 2017; Robert Wood Johnson Foundation [RWJF], 2014).

The call for the transformation of clinical nursing education is further supported by the need for academic and health care organizations to align, not only for improvement in the quality and safety of patient care, but to create a solution to combat the growing education-practice gap and the barriers associated with transitioning new nurses into practice (Institute of Medicine [IOM], 2011; Mulready-Schick & Flanagan, 2014).

Significance

Due to the highly complex healthcare environment and the lack of current clinical expertise of faculty, educators have been challenged to explore alternative methods for clinical instruction that meet the needs of the current and future generation of the nursing workforce (Adams, 2014; Caputi, 2017; Institute of Medicine [IOM], 2010; RWJF, 2014; Thomas, Seifert, & Joyner, 2016). The Dedicated Education Unit (DEU) has emerged as an innovative approach to providing a positive, high-quality, collaborative clinical learning environment that fosters the growth and learning of undergraduate nursing students. In addition, the DEU model has proven

success in bridging the education to practice gap, addressing the faculty shortage, and easing the transition from education to practice (Teel, MacIntyre, Murray, & Rock, 2011).

The development of a DEU within a sustainable academic-practice partnership may also be a solution to meet the IOM's recommendations of increasing the education of the nursing workforce, engaging nurses in a lifetime of learning, providing innovation to enhance collaboration, and improving the quality and safety of patient care (Beal, 2012).

While the need for clinical innovation, combating faculty shortages and advancing nursing education in the workforce are all indicative components to establishing an academic-practice partnership, the transition to practice and retention of a new graduate nurse is also a costly endeavor that has the potential for financial resolution through a partnership. In a recent report by Nursing Solutions, Inc (NSI), 25.6% of all new hires left their positions within one year of hire (2017). Additionally, new graduate nurse turnover, or the turnover of a nurse with less than one year of experience, can surpass 57.8% of a hospital's total nurse turnover rate (Nursing Solutions, Inc. [NSI], 2017). This percentage is staggering, as the national average cost of the turnover of one RN ranges from $38,900 to $59,700 (NSI, 2017). Furthermore, estimates show that the average hospital can potentially lose up to $5.13M – $7.86M annually due to RN turnover (NSI, 2017). DEUs and new nurse residency programs within academic-practice partnerships that continue from pre-licensure to post-licensure are not only critical in preparing future nurses for the workforce, but they also provide for an improved transition to practice and decreased costs for the health care organization (Trepanier, Mainous, Africa, and Shinners, 2017).

Problem

The challenging nature of developing and sustaining a DEU that mutually benefits both the academic and health care partner over time, reveals the need for more guidance to secure long-term benefits of maintaining the DEU within an academic-practice partnership. While the literature is robust with current knowledge on the positive practicality of the DEU, there are few data available related to the sustainability of a DEU or the economic impacts of a DEU on a health care organization (Mulready-Schick & Flanagan, 2014; Murray & James, 2012; Murray, Macintyre, & Teel, 2011).

Purpose

The purpose of this Doctor of Nursing Practice (DNP) project is to develop a guide inclusive of strategies for evaluating objective, subjective, and economic outcomes, and the long-term sustainability of a DEU within an academic-practice partnership at a public, academic medical center.

Chapter II: Review of the Literature

This literature review included extensive searching of the full university library database of journals, in addition to The Cumulative Index to Nursing and Allied Health Literature (CINAHL), and The Cochrane Library. Search terms included dedicated education unit, long-term outcomes of a dedicated education unit, academic-practice partnership sustainability, dedicated education unit and nurse retention, dedicated education unit and economic impact, and dedicated education unit and economic outcomes.

For this project, the literature review will focus on the history, model, and the current research findings of DEUs, the sustainability of a DEU within an academic-practice partnership, and the current factors contributing to the need for DEUs.

The need to develop and sustain academic-practice partnerships to grow the value of quality nursing education and provide solutions to the increasing nursing shortage, budgetary constraints and education-practice gap are evident in the literature (Beal, 2012; Burke & Craig, 2011; Gorski, Gerardi, Giddens, Meyer, & Peters-Lewis, 2015; Heidelburg, Peters, Moultrie, & Yoon, 2017; IOM, 2011; Mulready-Schick & Flanagan, 2014; Pappas, 2007; Teel et al., 2011). With the numerous challenges currently faced by both academic nursing institutions and clinical practices, it is essential that both partners begin to develop fiscally sound, long-term plans that prepare future nurses for the reality of working in a complex health care environment. The DEU within an academic-practice partnership not only provides a solution to many of the challenges faced by the academic and clinical side of the nursing profession, but it provides the opportunity for student nurses to grow and flourish into highly skilled, socialized, and competent nurses that are ready to transition from the student nurse role to the role of new graduate registered nurse (RN) within the same facility. There is mounting evidence in the literature to not only support

the success of implementing and evaluating a DEU, but also the economic benefits applicable to the clinical partner (Greene & Turner, 2014; Heidelburg et al., 2017; Moscato, Miller, Logsdon, Weinberg, & Chorpenning, 2007; Moscato, Nishioka, & Coe, 2013; Mulready-Schick & Flanagan, 2014; Murray & James, 2012; Murray, Macintyre, & Teel, 2011; Springer et al., 2012).

Dedicated Education Unit

History of the dedicated education unit. The concept of the DEU originated in 1997 by the Flinders University of South Australia, (FUSA) School of Nursing after responding to a call for a new approach to clinical nursing education (Edgecombe, Wotton, Gonda, & Mason, 1999). According to FUSA, the DEU encompasses an existing clinical unit that involves a collaborative partnership between bedside and academic nurses. The primary goal of a DEU is to utilize the expertise of the clinical nurse in providing hands-on patient care, along with the evidence-based teaching and learning strategies of the academic nurse in providing nursing students the best possible clinical learning environment (Edgecombe et al., 1999). The foundation of the DEU is built upon mutual respect and trust that transcends from all collaborative partners to the totality of the clinical environment. The nurturing and supportive nature of the clinical experience on a DEU provides the nursing student with an immersion into "real world" nursing that will effectively prepare the next generation of the nursing workforce. FUSA successfully implemented seven DEUs with preliminary reports of not only creating an optimal learning environment for students, but efficiently utilizing the expertise of both clinicians to increase student, faculty, and staff satisfaction within the DEU concept (Edgecombe et al., 1999).

After the initiation of the first DEU at FUSA with promising preliminary results, The University of Portland School of Nursing implemented the first DEU within the United States

(U.S.) in 2003 (Moscato, Miller, Logsdon, Weinberg, & Chorpenning, 2007). The Oregon Nursing Leadership Council (ONLC) challenged both nursing schools and clinical practices to develop new models of clinical education that assisted in solving the nursing shortage while utilizing the available workforce more efficiently. The University of Portland worked closely with multiple clinical partners to develop and implement the first nationwide DEU. Within three years the university and clinical partners successfully implemented six DEUs on medical-surgical units that supported the clinical learning for 333 nursing students (Moscato et al., 2007, p. 34). The University of Portland has set the stage for valuable clinical innovation and has since supported the development and implementation of numerous DEUs across the nation. With the inception of the DEU model for clinical education and the consideration of future application and fidelity, the authors established a definition of the purpose of a DEU. As defined by Moscato et al. (2007),

> A Dedicated Educational Unit (DEU) is a client unit that is developed into an optimal teaching/learning environment through the collaborative efforts of nurses, management, and faculty. It is designed to provide students with a positive clinical learning environment that maximizes the achievement of student learning outcomes, uses proven teaching/learning strategies, and capitalizes on the expertise of both clinicians and faculty (p. 32).

DEU model. The current literature supports a diverse variety of DEU models that have been described by different schools and their respective clinical partners. Each translation of the model represents the unique collaboration of the academic-practice partnership and the ensuing resources available within each relationship. Despite the differences set forth by each program's specific partnership model, all DEU models of clinical education encompass nursing academic

faculty who support the bedside RN, now acting as a clinical instructor to a small group of students on a designated nursing unit.

The DEU model is heavily grounded in maintaining high-quality patient care while both partners have a mutual commitment to clinical education, respect for the contribution of all partners, and trust (Moscato et al., 2013). In addition to the trustworthy dedication to clinical education, goals of utilizing the DEU model for clinical nursing education include (a) enhancing the collaboration between academia and practice; (b) closing the theory-practice gap by utilizing expert clinical instructors; (c) immersing students into the "real world" of nursing by expanding quality learning experiences; and (d) combating the faculty shortage by utilizing staff nurses as educators (Hunt, Milani, & Wilson, 2015).

Furthermore, the DEU model is distinctive from other models of clinical nursing education in that a specific nursing unit at the partnering facility is selected to become the dedicated teaching unit for one school of nursing on a given day. The closure of the unit to other nursing programs not only allows for the staff nurse to build a rapport with the same students throughout the semester but it aids in facilitating an environment more conducive to continuous student learning. The continuity of having the same student and staff nurse partner over the length of the clinical rotation creates a learning environment favorable to optimal student development and growth.

A key component of the DEU model is the incorporation of several differing roles for the academic faculty and clinical nurses that are established by the partnership team members (Moscato et al., 2007). Understanding the Clinical Instructor (CI), and Clinical Faculty Coordinator (CFC), roles are vital to the implementation and sustainability of the DEU (Mulready-Schick & Flanagan, 2014). The CI is an RN from the designated nursing unit who

has met the necessary qualifications to become the expert clinical instructor to the student. The qualifications of the CI vary by program but may include the level of nursing degree, years of experience, recommendations from their supervisor, and the dedication and willingness to teach. The role of the CI includes mentoring and providing direct, hands-on patient care with the same student throughout the clinical rotation. In contrast, the CFC is a faculty member from the university who provides support and coaching to the CI. The CFC is responsible for ensuring a quality clinical environment by maintaining mutual relationships with all members on the unit and assisting the student in developing critical thinking by utilizing theoretical concepts to guide clinical care (Moscato et al., 2013; Rusch et al., 2018).

Partnering School of Nursing's DEU model. One year ago, our public university developed a strong and effective academic-practice partnership with a large, public, academic medical center with the mutual goal in developing a DEU for our undergraduate baccalaureate (BSN) nursing students. The model consists of a CFC from the School of Nursing (SON), multiple Clinical DEU Instructors (CDIs) from a designated unit at the medical center, and support from the lead SON course coordinator, and nursing administrative leadership from the medical center. A separate DEU Coordinator from the SON manages and oversees the collaboration.

In our partnership, each role of the DEU model upholds a variety of responsibilities that are all geared towards providing an optimal clinical learning environment for the students, as well as the long-term recruitment of nurses, a pathway into the new graduate nurse residency program, and retention of nursing staff for the hospital. The CFC is responsible for coordinating the clinical learning experience and mentoring the CDI on teaching, learning, and evaluation approaches, while the primary role of the CDI is to supervise and engage the student in clinical

learning at the bedside. The CDI and CFC work closely together to evaluate each student on the stated clinical objectives and learning outcomes. The CDI is paired with the same two nursing students each week, in which they provide clinical expertise and hands-on patient care together for the fifteen-week semester. Congruent with the Nevada State Board of Nursing regulations, the SON CFC is responsible for a clinical group of eight students that are paired with a total of four CDIs each semester. To provide administrative support, coordinate meetings, prepare and conduct CDI training and orientation sessions, and maintain open communication and collaboration with nurse managers and administrators, a DEU Coordinator position with the SON was established. The administrative team at the partnering medical center includes the Clinical Director of Professional Practice and Magnet & Shared Leadership Coordinator, the Clinical Supervisor and Charge Nurse of the DEU unit, the Nurse Manager of the designated unit, the Associate Chief Nursing Officer and the Chief Nursing Officer for the medical center. Appendix A depicts a table describing the roles of the School of Nursing's DEU model.

As of today, this academic-practice partnership consists of two DEU's at the medical center that provides clinical learning experiences two days a week for both level two students on a general medical-surgical nursing unit and level three gerontology students on an IMC/ICU nursing unit. Both DEU's commit to eight-hour clinical rotations and are closed to other nursing school rotations on the two agreed upon and set days of clinical. In addition to the two established medical-surgical DEU's, the partnership team is in the planning stages of opening maternal-child and pediatric DEUs. Figure 1 depicts the School of Nursing's DEU model.

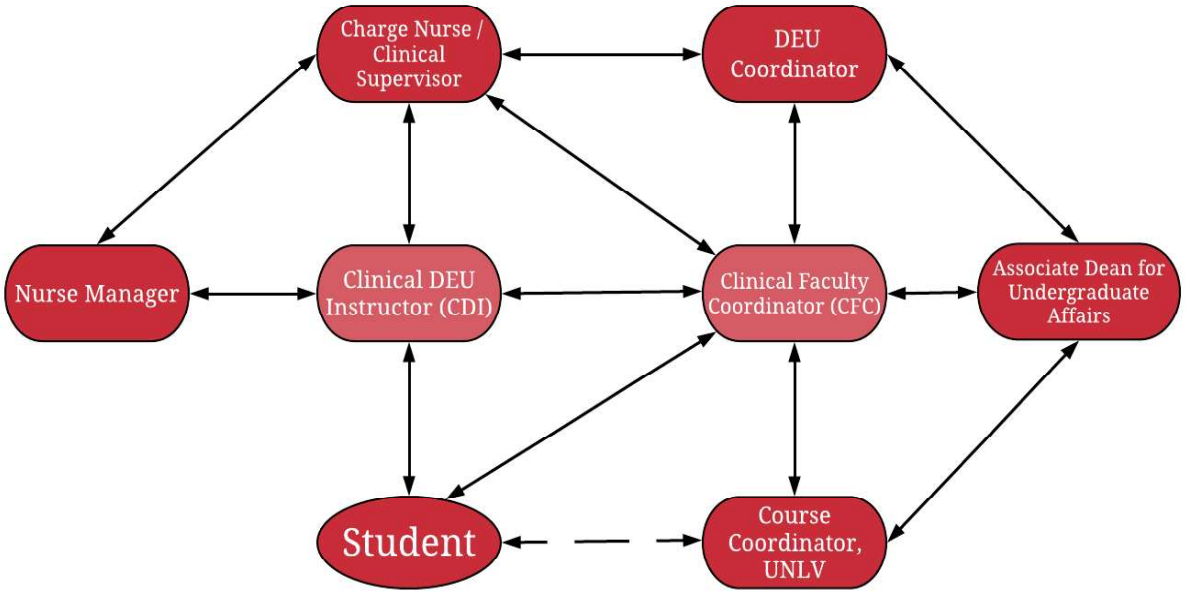

Figure 1. School of Nursing DEU Model. See Appendix A for a description of the roles.

Current reported findings. In addition to implementation strategies, the delineation of the DEU model itself, and the need for innovative efforts, the literature is saturated with data on student self-efficacy and the generalized satisfaction of students, faculty, and hospitals with the DEU model of clinical education (Claeys et al., 2015; George, Locasto, Pyo, & Cline, 2017; Nishioka, Coe, Hanita, & Moscato, 2014; Rhodes, Meyers, & Underhill, 2012). Overall, students, faculty, hospital staff, and administration are highly satisfied with the quality of education and clinical experiences provided by the DEU model. Not only does the literature suggest a higher student satisfaction with the DEU clinical placement, but it also supports the notion that mentorship by the same nurse over the course of the clinical rotation provides a more consistent and individualized form of learning (Claeys et al., 2015; Nishioka et al., 2014). This

mentoring partnership has also allowed the students to feel like a member of the nursing unit team, not just the next group of students to be on the unit for clinical. The mentors took upon themselves to grow the students and usually took pride in becoming a part of their success. From the student and staff perspectives, the developing relationships that occur on a DEU are irreplaceable (Rhodes, Meyers, & Underhill, 2012). In comparison, while students are feeling a sense of empowerment by their mentors, the mentors are reciprocally feeling empowered by the students to continue their education. According to Rhodes, Meyers, and Underhill (2012), 80% of the nurses on the DEU were compelled to work on their professional growth, including returning to school for higher education.

Additionally, in aligning with the quality and safety competencies set forth for pre-licensure nursing education, several studies have also eluded to the enhancement and success of further developing these competencies through the use of a DEU model for clinical education (McKown, McKown, & Webb, 2011; Mulready-Shick, Kafel, Banister, & Mylott, 2009). The DEU model provides the students with more enhanced learning opportunities that assist them in attaining development of the competencies (Mulready-Shick, Flanagan, Banister, Mylott, & Curtin, 2013).

Sustainability of a Dedicated Education Unit within an Academic-Practice Partnership

With 33 to 70% of innovations deemed unsustainable, it is imperative that one attends to the viability of an innovation during the initial development and implementation stages. Furthermore, the underdevelopment and lack of literature regarding the sustainability of nursing innovations poses a challenge in guiding the process of long-term sustainability (Fleiszer, Semenic, Ritchie, Richer, & Denis, 2015).

While the definition of sustainability varies in the literature, many authors conclude that the benefits, routinization, and development are all essential components in the long-term endurance of an innovation (Fleiszer et al., 2015). The ability of a new idea to become a mainstay in healthcare requires the steady attainment of goals and positive outcomes for all stakeholders before it can be deemed "sustainable." In addition to the continual achievement of goals, the routinization of the process of any change is also an important factor. Numerous implementations of the same innovation that utilizes the same processes begin to create a pattern that becomes the norm. No longer would the idea be an innovation, but with the success of long-term sustainability, the concept would "lose its separate identity" and become "business as usual" (Fleiszer et al., 2015, p. 1490). Lastly, the ongoing development or adaption that occurs throughout the implementation of the innovation is also a vital part of sustainability. The ability of all stakeholders to continually assess and enhance the process of maintaining the innovation on a day to day basis helps to create an environment conducive to maintaining the change (Fleiszer et al., 2015).

Academic-practice partnerships are prime examples of nursing innovations that require more research and literature on long-term sustainability. Several studies have eluded that for nursing related academic-practice partnerships to be successful, specific elements are essential. These factors include effective collaboration and planning, open communication, mutual trust and respect, a shared vision, leadership support, and the reward and celebration of success (Beal, 2012; Bvumbwe, 2016; Mulready-Schick & Flanagan, 2014; Teel et al., 2011).

Few studies have begun to develop processes for standardizing implementation and evaluation strategies for the long-term sustainability of a DEU within an academic-practice partnership (Mulready-Schick & Flanagan, 2014; Murray et al., 2011; Murray & James, 2012).

The University of Portland, School of Nursing and the University of Massachusetts Boston, College of Nursing have developed resources available that outline and describe the successful replication and implementation of a DEU (Moscato et al., 2013; University of Massachusetts Boston [UMass], 2018). These include templates and guideline to utilize in routinizing and maintaining the fidelity of implementing a clinical DEU model (Moscato et al., 2013; UMass, 2018).

Mulready-Schick and Flanagan (2014) presented a figure depicting their interpretation of a cycle of sustainability for a DEU. This cycle encompasses the notion that over time a successfully implemented DEU will sustain itself through a positive feedback loop as depicted in the figure presented in the publication. The feedback loop is further described by the authors as follows:

1. More nurses become DEU CDIs through formalized instruction. CIs take breaks and other staff nurses take on the instructor role. In time, the collective knowledge of clinical education outcomes and instructional strategies becomes more pervasive throughout the unit.
2. CIs become more proficient in their instructor role with CFC coaching and help as mentors for new CIs. They are professionally rewarded for their involvement.
3. Students, units, and patients become the beneficiaries of heightened professional, educational, and clinical practices. Unit benefits include enhanced teamwork, satisfaction, professionalism, productivity, evidence-based practice changes, and emerging patient care improvements.

4. As graduates become more practice ready, more DEU students are hired into new graduate positions on DEUs, become future CIs, and perpetuate the cycle (Mulready-Schick & Flanagan, 2014, p. 292).

In addition to the sustainability cycle, the Single Alliance Key Success Model was utilized in two separate studies to evaluate an academic-practice partnership for long-term success. While the model provided a successful framework to evaluate the long-term viability of the partnerships, both authors suggested the need for future research in the arena of the long-term sustainability of nursing academic-practice partnerships (Murray & James, 2012; Murray et al., 2011).

Factors Contributing to the Need for a DEU

When creating a plan for the sustainability of a DEU, it is imperative to consider why the implementation of a DEU is so crucial in moving clinical nursing education towards a new and acceptable practice.

The Institute of Medicine (IOM) published its report, *The Future of Nursing: Leading Change, Advancing Health* (2011) with several recommendations to revamp nursing education and practice. In the report, the IOM calls for an 80% increase in the number of RN's prepared at the baccalaureate level by 2020, in addition to doubling the number of doctorally prepared nurses, overall. The report also recommends improvement in collaboration and further engagement of nurses in lifelong learning (IOM, 2011). Within this recommendation, the IOM calls upon colleges and organizations to assist with providing the resources to achieve these goals (IOM, 2011).

The totality of the academic-practice partnership, including the establishment of successful DEU units, not only allows for clinical innovation, but a well-established route to

further educate the current nursing workforce. Furthermore, in addition to the IOM's highly respected plea for more baccalaureate-prepared RNs, numerous studies have sought to stress the importance of attaining this goal by linking a higher incidence of improved patient outcomes with RN's that hold a baccalaureate degree (Blegen, Goode, Park, Vaughn, & Spetz, 2013; Gorski, Gerardi, Giddens, Meyer, & Peters-Lewis, 2015; Yakusheva, Lindrooth, & Weiss, 2014).

In addition to meeting the proposals set forth by the IOM, academic-practice partnerships are also useful in helping to alleviate the growing nursing faculty shortage. According to the American Association of Colleges of Nursing (AACN), "64,067 qualified applicants from baccalaureate and graduate nursing programs in 2016 were turned away due to an insufficient number of faculty, clinical sites, classroom space, clinical preceptors, and budget constraints" (2017, p. 1). The AACN also concluded that in 2016 there was a 7.9% national nurse faculty vacancy rate, in addition to the numerous positions that needed to be added to keep up with increasing student demands (AACN, 2017). A systematic review by Lake, Tran, Bowman, Needleman, and Dobalian (2013), concluded that the most widespread method of tackling the nursing faculty shortage was the use of an academic-practice partnership model. Not only does it assist with utilizing the existing faculty more efficiently, but it also has the potential of supporting both the academic and health care organizations fiscal challenges set forth by the faculty shortage (Wyte-Lake, Tran, Bowman, Needleman, & Dobalian, 2013).

Lastly, budget shortfalls and monetary constraints have led hospitals and clinical partners to establish ways to decrease costs, all while maintaining optimal patient care standards. Academic-practice partnerships, including implementation of DEUs, are shown to have positive financial benefits, not only to the university but also to the clinical partner (Greene & Turner, 2014). There is scant literature available regarding cost effectiveness and monetary savings

associated with the successful sustainability of a DEU. Greene and Turner (2014) describe the development of an Excel model that can be utilized to estimate university and hospital program costs and benefits. The model depicts multiple values that calculate both partners' expenses of the collaboration, along with the benefits and cost savings associated with the partnership. At the completion of their study in 2011, the overall net favorable financial result for the school of nursing and the associated hospitals was $46,061 (Greene & Turner, 2014, p.48). The capability for other schools to utilize this tool to aid in cost analysis would be beneficial in further determining the financial benefits associated with sustaining a DEU long-term.

Needs Assessment

Current State of the DEU at the Academic Medical Center

The collaborative partnership between the SON and the Academic Medical Center began with the consideration of many factors including the needs and goals of both partnering agencies and the ability and willingness of the leadership teams with the organizations to support the long-term success of the alliance. The review of the literature has supported the notion that DEUs are aiding in bridging the gap between education and practice and are becoming a more prevalent solution to the growing nursing shortage. Furthermore, short-term results in the literature depict cost savings for both organizations with the establishment and utilization of a successfully implemented DEU. In addition to the decreased cost of new employee training, data suggests that the implementation of a DEU also contributes to higher retention and reduced attrition of nursing staff at the partnering medical center.

The determination of available resources, nursing and staff support, interdisciplinary collaboration, readiness to utilize evidence-based practice and teaching methods, and the

willingness and drive to accept and implement change are all factors that contribute to the long-term sustainability of a DEU (Mulready-Schick & Flanagan, 2014; Parker & Smith, 2012).

Organizational Assessment

The comprehensive Academic Medical Center, which opened in 1931, has become a large safety net, public, teaching hospital with a 600-bed capacity. The medical center encompasses the state's only Level One Trauma Center, regional Burn Care Center and Center for Organ Transplantation, a Stroke Center, a Pediatric Trauma Center and the only state-designated Children's Hospital. The medical center is currently governed by a Board of Trustees, in addition to the Governing Board selected by the County Commission to ensure its necessity in the community. The medical center currently operates two DEUs with the partnering SON on two days of the week. In addition to the existing DEUs, the SON also utilizes this medical facility for traditional clinical rotations and multiple preceptors in a variety of units. The implementation of two additional specialty DEUs will occur this year.

In 1954, the identified public University held its first classes and continues to thrive as an urban research institute today. The SON, established in 1965, currently employs more than 45 full-time faculty members and boasts the recognition of holding a spot in the top 20th ranking of the best online graduate programs in the nation, according to the 2018 U.S. News and World Report.

Key Stakeholders

This project includes key stakeholders from both the SON and the Academic Medical Center. Nursing leaders and executive administration from both organizations are highly vested in the success of a DEU. In addition to executive management, nursing faculty and BSN students from the SON, and mid-level management, staff RN's, and patients from all units in the

medical center are also valuable stakeholders. The long-term sustainability of a DEU greatly impacts not only the initial planning and implementation teams and the DEUs themselves but also new graduate nurses and the patients, who are ultimately affected by its success.

Summary

While there is sufficient evidence to link the DEU with successful short-term outcomes associated with satisfaction and improved economic benefits, there is very little to guide the process of sustaining a DEU long-term. In addition, while the implementation of the first two DEUs at the medical center have been successful, the SON and Academic Medical Center have yet to develop a strategy for the long-term sustainability of the DEU and the partnership. Based on this data, it is expected that this project will provide a valuable guide for key stakeholders to follow when implementing and evaluating both the short- and long-term results of a DEU within an academic-practice partnership. This project may also contribute beneficial knowledge to support the utilization of a DEU not only as a pilot innovation in nursing but as the primary foundation of a nursing academic-practice partnership.

Chapter III: Theoretical Framework

The implementation of a DEU within an academic-practice partnership is not only a challenging endeavor in itself but requires careful consideration of the impact on the long-term sustainability of the innovation within both organizations. When planning a massive change within a healthcare organization, it is imperative to include how the transformation will not only encompass the goals set forth but also how this will impact the future of both partners and all of the stakeholders involved. According to Nelson-Brantley and Ford (2016), 40% to 80% of change efforts will fail due to the lack of transparency in leading and managing change and the lack of simplicity of utilizing the appropriate change framework for implementation (p. 835). With very little literature on the long-term sustainability of nursing innovations, it is also essential for nurse executives to utilize a model that not only facilitates the change process but also creates a platform for sustainability (Fleiszer et al., 2015). This chapter will present John Kotter's change model as the theoretical framework utilized to guide this final DNP project. An overview of Kotter's model and the relevance of the eight stages of the model will be discussed. The implementation of the DEU at the medical center, while perhaps not noted, has conformed to following the steps set forth by Kotter. Although this model can take years for successful implementation, it provides the precise groundwork to move towards sustainability.

John Kotter's Change Model

John Kotter (2012) describes a unique eight-stage process to utilize when implementing a major change transformation within an organization. What makes the Kotter model different from several other change models, is the ability for an organization to create and implement an innovation that is sustainable for both the short- and long-term. All too often big ideas are implemented without regard to the commitment of all affected personnel, the availability of

resources, the necessity and urgency of the change project, an aligning vision, and ingraining the change into the culture of the organization (Kotter, 2012). Without the success of each stage in the process, it is almost inevitable that the change will fail. There may be significant wins for the short-term, but the long-term sustainability of the project will diminish.

In addition to the eight-stages of implementing a substantial change, Kotter also describes what he believes to be the driving forces of any sizeable transformation project. Economic and social forces are the primary drivers of change. With this, organizations must find ways to keep up with the economy and maintain their competitiveness within the broader community. Advancements in technology and privatization are two reasons why many organizations are looking to improve (Kotter, 2012). In the healthcare industry, the growing competition of medical centers all equip with varying services and certifications, advancements in technology, and the expectation of increased quality with shortages in nursing staff and providers, are all reasons why many healthcare agencies are implementing significant change initiatives. Keeping up with the status quo, despite all of the workforce challenges, is imperative as the healthcare market continues to grow at a rapid pace.

Kotter's Eight-Stage Process

Kotter (2012) describes the eight stages necessary to produce a successful change in an organization as:

1. Establishing a sense of urgency.
2. Creating the guiding coalition.
3. Developing a vision and strategy.
4. Communicating the change vision.
5. Empowering broad-based action.

6. Generating short-term wins.
7. Consolidating gains and producing more change.
8. Anchoring new approaches in the culture (p. 23).

Steps one through four are necessary for setting the tone needed for the successful implementation of the project. It takes a tremendous amount of effort to create the working environment for a large-scale project to move forward. Steps five through seven are essential in implementing the projects and establishing the new practices outlined in the plan. Lastly, stage eight is the crucial component that incorporates the change into the culture of the organization. Regarding long-term sustainability, it is imperative for any innovation to become the "norm," to become routinized within the institution to the point where it is no longer an innovation, but standard business (Fleiszer et al., 2015; Kotter, 2012).

Establishing a Sense of Urgency

Kotter believes that the first step to successful change is assessing and establishing a sense of urgency as to why the innovation is crucial at this point in time. When any stakeholder that will be involved or become a necessary figure in facilitating change does not believe the project to be pressing, there will be no cooperation in the implementation of the plan. Kotter describes several ways that leadership can convey a sense of urgency that requires the execution of the proposed intervention. These include discussing financial losses, consistent employee turnover, layoffs, constant documentation of errors, poor customer satisfaction, resorting to utilizing consultants to help within the organization, and overwhelming the staff about the rewards of what the proposed change would bring to the organization (Kotter, 2012). Usually, some form of economic crises within an organization are the urgent drivers necessary for change. For the next steps of the change model to move forward successfully, Kotter believes that nearly

75% of all management, including the top executives, involved need to believe that this change is inevitable and essential in moving the organization forward (Kotter, 2012, p. 51).

The initial establishment of the DEU was driven by the urgencies faced by both the SON and the public, academic medical center. These include the growing nursing shortage affecting both partners, the lack of effective clinical placements for nursing students, and the long-term hope for established DEU students to effectively transition into the culture of the workforce from the DEU to the nurse residency program and ending with new graduate nurses being employed by the medical center.

Creating the Guiding Coalition

The difficulty of accomplishing change sets the tone for the necessity of establishing an efficient team. According to Kotter, one individual, namely a member of executive leadership is unable to fulfill all the needed steps of implementing change. It takes a village with shared goals and trust to move forward with any change project (2012). It is important to develop a team that has enough credibility within the organization to be successful. One of the downfalls of establishing a team is creating a "workgroup" that does not believe in the project and is not committed to the long-term success. In the case of failed change implementation, ultimately the workgroup was enthusiast at first but lost its luster over time. Fast-paced implementation of a project requires a strong and committed team to guide the process. It is also essential to have top leadership involved at the table. Although it takes a dedicated team from the bottom up to sustain change, it takes a commitment from the top to aid in making decisions on behalf of the organization quickly (Kotter, 2012). Kotter (2012) describes four key components to effective guiding coalitions as (a) position power, (b) expertise, (c) credibility, and (d) leadership (p. 59). Effective teams must have members from all levels of power and expertise within the

organization. The team must also have enough representatives that have good reputations and are credible sources of information for the entire organization. Lastly, the team requires an effective leader that is committed to driving the change process (Kotter, 2012). One of the most important concepts of the team is to ensure that leadership and management are always both involved; the leader keeps the process moving and the manager guides and drives the change (Kotter, 2012).

The academic-practice partnership between the medical center and the SON began with an initial conversation of interest between the Dean of the SON and the Chief Nursing Officer (CNO) at the medical center. Once it was determined that the partnership would provide attainable goals for both colleagues, a DEU leadership team was established. The core of the guiding coalition includes representation from each level of management within both organizations. On the academic side, the SON is represented by the Associate Dean for Academic Affairs, the Associate Dean for Faculty Affairs, the Projects Coordinator, the BSN Coordinator, the DEU Coordinator, the lead Course Coordinator and all SON Faculty involved in the course that is linked to the DEU. On behalf of the medical center, representatives include the Clinical Director of Professional Practice and Magnet & Shared Leadership Coordinator, the Clinical Supervisor and Charge Nurse of the DEU unit, the Nurse Manager of the designated unit, the Associate Chief Nursing Officer responsible for the DEU and the CNO. All education efforts also include the clinical nurses that will transition to the CDI role. This DEU guiding coalition is based on respect and mutual trust with shared objectives and goals that have been set forth by each partnering body.

Developing a Vision and Strategy

A successful transformation is based on a vision. According to Kotter (2012), a good vision is one that simplifies the direction for change, motivates people to take action, and coordinates all individuals to accomplish their part. An effective vision states "this is how our world is changing, and here are compelling reasons why we should set these goals and pursue these new products or programs to accomplish the goals" (Kotter, 2012, p. 71). It is important to portray the vision as one that may include temporary sacrifices for the long-term benefits. The long-term benefits that may not be reachable without this project. Creating the concept and the strategy to move forward is essential before moving forward to the next steps. In this process, the lack of clarity in the mutual goals for the short- and long-term can cause the project to fail, resulting in starting back to square one (Kotter, 2012).

The partnership established by the SON and the medical center is one built upon shared goals between each organization. The creation of one DEU unit was the initial change project that has led itself to become successful. Within the implementation phase of the first DEU, the coalition team had already been discussing what other projects that would benefit both organizations in the future. It was initially discussed that long-term goals would include a second DEU for gerontology students, multiple pediatric and obstetrical DEUs, and transition for graduating students into the medical center's nurse residency program. Some of the mutual goals set forth are for some of the nursing staff to become adjunct faculty for the SON, the possibility of nurses returning to the SON for further graduate education, and the SON providing continuing education for the CDIs. Both partners are committed to attaining the goals set forth, even though it may take years to accomplish the long-term milestones fully.

Communicating the Change Vision

Communicating the vision to all personnel that will be involved is vital in sharing the goals and direction of the project and is the next step in the overall change process. Kotter (2012) believes that simplicity, providing an example or analogy, repetition, utilizing multiple methods, leadership demonstration, and two-way communication are key components in successfully sharing the vision. Continual "brief mentions" of the short- and long-term benefits of achieving the vision must frequently be repeated by using forums such as meetings, briefings, flyers, posters, and organization newsletters. Leadership must also be visible during the efforts and dedicated to the cause. Lastly, it is important for workers to have the opportunity to discuss the vision, see a picture of the future and what it would mean to them, and ask questions early in the process. To successfully move on to the next step in the process, people must be accepting of the vision and the means to move forward with the transformation. According to Kotter (2012), if stakeholders are reluctant at this point, it is essential to stop and take into consideration the feedback that has been received before moving on. Long-term sustainability is dependent on the positive results of each step in the process (Kotter, 2012).

Throughout the implementation of the DEUs at the medical center, the executive leadership team on the clinical side had already been working on a cultural transformation of the organization. In line with working towards achieving Magnet status for the hospital, they implemented a shared leadership style. The ownership and autonomy that mid-level managers and clinical supervisors have on their units have made communicating and accepting the vision of the DEU simpler. Although the guiding coalition has been involved in the planning and implementation of driving the change, the staff nurses and mid-level managers have also had input on the logistics and preferences that would benefit both the unit and the patients. Communication of the DEU concept was initiated early in the process which allowed for a

minimum of six months of discussion before the implementation date. Regularly scheduled staff meetings, leadership meetings, newsletter communication, educational training, and brochures were all utilized to communicate the DEU concept and what it means for the nursing staff and the patients on the units. Initially, the buy-in was low as this is a new concept to clinical nursing education, but the nursing staff began to see the benefits of what this innovation could bring to the hospital long-term. At this point, the urgency of successfully implementing the project was high, and the leadership drivers were committed to ensuring its success. Success not only to the DEU being rolled out but for future units to follow, as laid out by the long-term vision and plan.

Empowering Broad-Based Action

The next phase of the change process emphasizes the worth of empowering action. At this point, it is necessary to break down the barriers in place that prevent people from feeling powerful enough to engage in the project (Kotter, 2012). Many of the barriers that cause difficulty in progressing through this phase of the project include departmental silos, lack of skills and training, executive leadership posing obstacles that prevent movement, and personnel and information systems that are uncooperative (Kotter, 2012). It takes more than the guiding coalition to be successful in the long run. It takes a village, and the village needs to be empowered and motivated to stay committed to the vision.

As the roll-out of the DEU plan continues to evolve, it would be essential for both partners to keep resolving any issues that are preventing the DEU from continuing along the proposed timeline. Many obstacles that have arisen include lack of resources, including classrooms, office and meeting space and conflicting schedules of team members. Within the implementation of the first unit, other barriers included lack of training for all personnel on the unit about the DEU and their roles and the stress that the CDIs had with piloting the first group

of students on the unit. The opening of the pilot DEU and the solutions to the posed barriers have empowered the team and given light to the opening of the second unit. The nurses of the pilot unit have utilized their voices to motivate the next group of nurses and their peers with the many accomplishments of implementing the DEU. While barriers will persist, the keynote is for both partners to work rapidly at removing the barriers and providing realistic solutions to the obstacles that are preventing people from achieving the vision.

Generating Short-Term Wins

Another fundamental component in the successful long-term sustainability of any change project is having short-term results that encourage people to move forward in seeing the long-term effects. According to Kotter (2012), change efforts will fail at this stage if there isn't clear data that is beginning to show results. Those people that were initially resistant to the project will lose the motivation to continue, primarily if a significant number of resources have been used and no win has been generated for the organization. Short-term gains are considered to be largely visible within the organization, are clearly related to the change project, and are unmistakable (Kotter, 2012).

Although it is believed that short-term wins can take up eighteen months for an organization to begin to see, the medical center and the SON did reach several milestones earlier in the DEU implementation process. Rewarding and congratulating the CDIs who completed their training as clinical instructors commenced with a white coat ceremony in which the executive leadership of both partners presented a distinctive white coat and certificate to the new CDI. This ceremony not only provided the CDI with prestige, but it gave the patients and other providers on the unit a concrete visual on the execution of the DEU. A dedicated wall on the

clinical unit showcasing the CDIs certificates also commends them for their dedication and commitment to the vision.

Also, short-term wins for the medical center and the SON will continue to incur as the project persists along its timely path. As students complete their clinical rotation on the DEU, it is anticipated that they will transition into the next clinical unit at the hospital with very little orientation and training needed. As the student continues to move along the continuum, other short-term wins within the eighteen-month mark include graduating the first class of DEU students and integrating them into the nurse residency program. It won't be until this first class of nursing students become employees of the medical center that long-term results will begin to show for the medical center. The SON will continue to generate wins as the quality of clinical education for the students is increasing as the DEUs continue to be successful. For now, all small accomplishments are treated as large successes as the partnership continues to build the momentum needed to integrate the DEU program into the culture of the organization.

Consolidating Gains and Producing More Change

As the organization celebrates the short-term wins of the project while moving along in reaching milestone goals, it is essential to continue the momentum needed to finish driving the change. Far too often do team members and stakeholders "relax" a bit after accruing several short-term wins that progress ceases on working towards a culture of long-term sustainability (Kotter, 2012). The early successes that are established should now allow the opportunity for people to identify what can be improved in the process to make long-term success achievable and fluid. Many smaller change projects will be endured along the way, to create a system of overall organizational change. The successful implementation of the earlier stages is critical in continuing to drive the long-term change. For example, the guiding coalition has, by now,

accrued more motivated members needed to break down the barriers and implement the change. People are being rewarded for their success, and changes are being made for a smoother implementation of the next project.

Kotter (2012) believes that outstanding leadership is focused and committed to a long-term vision that could potentially take years or even decades to achieve. At this point in the process, leadership may decide to hire more professionals or experts to help drive the process. Middle management and lower ranked individuals are working on mini-projects that will support the sustainability of the broader vision.

In the case of the academic-practice partnership between the SON and the public medical center, the implementation of the first DEU could be considered a mini-project that will contribute to the long-term vision of the partnership. The intent would include hiring and retaining more high-quality, competent BSN prepared nurses that are committed to the culture of the organization and the medical center's goal of combating the nursing shortage, all while achieving and sustaining magnet status for the medical center.

Anchoring New Approaches in the Culture

The last step in Kotter's eight-stage process is ingraining the change projects into the culture of the organization. By creating the new norm, all current employees will ensure the continued success of the projects set forth to reach the long-term vision. These innovations will become a day to day business at the organization and no longer will be known as the improvement or project. Long-term sustainability is dependent on culture. The culture of the organization determines what operations continue and which fail. The culture influences how new practices are affixed to the vision of the organization and can be sustainable without failure (Kotter, 2012).

Implementing a multi-level, multi-unit DEU that integrating these new graduate nurses into a residency program is something that will not be a part of the culture of the medical center until results show that the DEU is a solution to the problems that each partner faces. It is hopeful that the DEU is a solution to combating the nursing shortage, increasing the retention of new graduate nurses, and providing a smoother and more fiscally sustainable transition into the organization as employees.

Summary

The fast-paced, complex nature of the health care environment requires organizations to utilize innovation to maintain a high-quality, but fiscally sustainable establishment. John Kotter provides an eight-step process, which if implemented successfully, lays the groundwork for the long-term sustainability of the change project. With little research to support the implementation and sustainability of nursing innovations within an academic-practice partnership, it is imperative to utilize a theoretical framework that has proven to set the foundation for successful change. Application of Kotter's change model is not only effective in the implementation of a new DEU, or subsequent future DEUs, but it aids in establishing a change within the culture of the organization, which is key to long-term sustainability.

Chapter IV: The Project

Consistent with the purpose of the project, this chapter will detail development of a guide for the economic evaluation and sustainability of a DEU at a public, academic medical center. This chapter will also address strategies for implementing and evaluating objective, subjective, and economic outcomes.

Population of Interest and Setting

The target population for the use of the DEU sustainability guide includes the executive nursing and non-nursing leadership teams, the clinical director of professional practice, and the clinical supervisors and nurse managers of the respective DEUs at the public, academic medical center. Because this all-inclusive guide incorporates resources beneficial to the academic partner, the intended population would also include respective leaders of the SON.

Measurements, Instruments, and Activities

The long-term sustainability of a DEU within an academic-practice partnership is not well-described in the literature, as it is still considered an innovation that necessitates more long-term data collection. There is numerous literature to support the evaluation of a DEU on student and nurse satisfaction, in addition to subsequent literature supporting the evaluation of the clinical learning environment. Furthermore, several authors have illustrated various components of what may contribute to the sustainability of a DEU, including an economic evaluation for the clinical partner, and metrics including nurse retention, decreased orientation and training times, and decreased recruitment costs (Greene & Turner, 2014; Hillman & Foster, 2011; Murray & James, 2012; Pappas, 2007; Springer et al., 2012; Trepanier et al., 2017). These different components, as detailed in the literature, were utilized to create a guide book for sustainability that includes several instruments with demonstrated reliability and validity, and

recommendations for the partnership leaders to consider when evaluating the long-term outcomes of the DEU. This project's author has completed all components of the sustainability guide during the implementation phase of the DNP project course, which occurred during the Fall of 2018. In addition to the design of the elements, the project author has requested necessary permission for the reprinting of all appropriate instruments. The completed sustainability guide includes the following components for the academic medical center to utilize when evaluating short- and long-term objective, subjective, and economic outcomes. The subsequent components may be reviewed in Appendix B and Appendix C.

Academic-practice partnership coordinator. This project's author has designed the position description for a designated role that oversees the implementation and evaluation of the DEU model long-term. The position details include job duties, and a recommendation that the contract is a joint appointment between the academic medical center and the SON. This position would allow for a representative who is affiliated with both organizations and whom is familiar with the policies and systems of both organizations to provide for smoother operations when managing all components of the DEU. It also allows for long-term continuity of the role and the management of the DEU as leadership members change over time. A potential position description is provided in Appendix D.

DEU implementation checklist. To ensure fidelity of the implementation of the DEU model, the University of Portland developed a 33-item checklist that measures whether implementation sites utilized all components set forth by the Portland DEU Model (Moscato et al., 2013). Utilization of these components when implementing a new DEU would be beneficial in aiding in changing the culture of a DEU from innovation to expected clinical practice and

would ensure the reliability of the model. Appendix E depicts the 33-item implementation checklist.

Work plan template. This exemplar includes a working master template for the roll-out of a new DEU and all components necessary to maintain the existing DEUs at the medical center. It also includes a suggested schedule for partnership meetings and continuing education courses. This work plan tracks all essential elements that require planning and intervening on a timely schedule that is maintained and reviewed throughout monthly partnership meetings. The template also allows for the designation of duties and accountability for the progression of the plan. Appendix F represents a DEU roll-out work plan template, as designed by a member of this medical center.

Guide to establishing a DEU. In congruence with the DEU implementation checklist, as designed by Moscato et al., (2013), a leadership member at this medical center has created a guide to establishing a DEU and all the working components to be addressed at this facility. It may be edited and adapted for use at any facility planning on launching a new DEU. The components of this guide are illustrated in Appendix G.

Revised professional practice environment scale (RPPE). The original Professional Practice Environment (PPE) scale was developed in 1998 to aid in evaluating the practice environment that supports a clinician's care. The scale underwent a revision for further clarity in 2005, which led to the current valid and reliable RPPE scale. This 39-item scale includes eight components of the professional practice environment for evaluation: handling disagreement and conflict, leadership and autonomy in clinical practice, internal work motivation, control over practice, teamwork, communication about patients, cultural sensitivity, and staff relationships with physicians (Ives Erickson, Duffy, Ditomassi, & Jones, 2009). This tool is not only valuable

for nursing administrators to measure the readiness of a clinical unit within the organization for establishing a DEU, but it is also beneficial in measuring perceptions of the total professional practice environment, which is congruent with the elements necessary when pursuing Magnet recognition (Ives Erickson, Duffy, Ditomassi, & Jones, 2009; Parker & Smith, 2012).

Clinical learning environment scale (CLES). The CLES is a 23-item instrument that incorporates five subscales for evaluation: staff-student relationships, nurse manager commitment, patient relationships, interpersonal relationships, and student satisfaction (Dunn & Burnett, 1995). This previously validated instrument provides a way to evaluate the clinical learning environment after implementation of a DEU. It is important for the long-term sustainability of the DEU, to identify the impact that the DEU is having on the clinical learning environment, as well as identifying areas that need further improvement. In addition, this instrument may also be adapted to include questions related explicitly to the DEU and the unique roles of the DEU staff members (Rhodes et al., 2012).

Clinical learning environment, supervision, and nurse teacher survey (CLES+T). This 34-item survey was developed to add another subscale to the already designed CLES tool. The additional subscale aimed to measure the quality of nurse teachers and their collaboration with other members of the clinical team on the unit (Saarikoski, Isoaho, Warne, & Leino-Kilpi, 2008). Because this tool was formulated within the European healthcare system, some vocabulary may need to be changed for clarity and use in the U.S. (Nishioka et al., 2014). The CLES+T tool has been provided for review in Appendix H.

Student evaluation of clinical education environment instrument (SECEE). The SECEE instrument was developed to assess the students' perceptions of the quality of clinical instruction and the opportunities for learning available on the clinical unit. Utilization of version

three of the SECEE inventory would be beneficial in evaluating the overall success of the DEU and whether the unit itself is sustainable for continual learning with the DEU concept. This 32-item validated instrument utilizes three subscales: student's clinical experiences and interactions with the instructor or facilitator, students' clinical experiences and interactions with the preceptor or resource, and the overall unit learning opportunities (Mulready-Shick et al., 2013; Sand-Jecklin, 2009). If utilized for further research, this instrument may need adaptation to include clarification of 'instructor' and 'preceptor' as it relates to the varying roles within the DEU concept. Appendix I illustrates Version Three of the SECEE instrument.

Focus groups. Focus groups with investigator-generated questions are essential for evaluating qualitative data related to CDI and student satisfaction. These data would provide an opportunity to enhance the learning environment and make the necessary changes before the implementation of further DEUs or to complement the long-term sustainability of existing units. Questions for the interviews are to be determined by the medical center staff and SON leadership based on evaluation data that both parties would like to gather. Ideally, focus groups with CDIs and students should be held at the end of each clinical rotation with a predetermined set of questions. Because this SON operates in trimesters, the focus groups could be held three times per year with data collection from both students, faculty and CDIs.

Nurse competence scale (NCS). This 78-item instrument was designed to evaluate the level of nurse competence. The NCS instrument is divided into seven different constructs: helping role, teaching-coaching, diagnostic functions, managing situations, therapeutic interventions, ensuring quality, and work role (Meretoja, Isoaho, & Leino-Kilpi, 2004). This validated instrument would be useful in comparing the competence of new graduate nurse hires who participated in the full SON DEU program and those who did not. The instrument may be

applied as whole or modified to include only the subscales that pertain to the research question at hand (Claeys et al., 2015).

Economic evaluation of the partnership. Cost-benefit analysis and return on investment budget sheets would be formulated with a financial officer from the clinical partner's institution. It is important from a fiscal standpoint to determine the long-term costs and benefits associated with the implementation and long-term maintenance of the DEU program. In 2014, the Johns Hopkins School of Nursing formulated a "Hospital Nursing Unit Staffing and Expense Worksheet" to aid in the financial planning for their academic-practice partnership. The Johns Hopkins School of Nursing template provides a "real time" summary of the savings, benefits, and expenses for both the academic and clinical partners (Greene & Turner, 2014). This project's author has developed a sample cost-benefit analysis template that can be utilized to complete a basic analysis. This template is illustrated in Appendix K.

Initial start-up and maintenance costs of the DEU could include:

- additional staff needed to supplement the unit and provide patient care on days that the DEU encourages a decreased patient load for CDIs.
- additional staff needed to cover for CDIs that are attending training sessions.
- clinical partner providing paid-time for CDIs to attend training sessions.
- clinical partner providing paid-time for CDIs to attend CDI refresher training sessions once per year.
- non-staffing costs associated with the development of DEU wall on the unit, banner design and printing, purchasing and embroidery of white lab coats for new CDIs, certificates for CDIs, wall plaques, and photography.

Measures to track for evaluation of economic outcomes at the medical center. Based on the literature presented, several measures are indicated for the tracking of economic outcomes at the medical center. The following are metrics to consider when evaluating the economic impact of a DEU:

- Recruitment costs. How many DEU new graduates are hired each trimester by the medical center and does this decrease the cost of recruiting staff in the long run? Also, the literature depicts a potential decrease in nurse turnover as a result of DEUs within academic-practice partnerships; therefore, is the SON graduating enough DEU students to fill the number of positions available at the medical center?
- Nurse residency program expenditures including the cost of one new graduate nurse attending the program. Does the DEU allow for decreased time spent in the nurse residency program? Would this result in reduced costs?
- The percentage of RN's that are BSN prepared before the implementation of a DEU and those that are BSN prepared one to two years after. Long-term metrics could include percentages at the two and five-year marks and whether nurses were hired with BSN degrees or went back to school for further education.
- Retention rates of new graduate nurse hires at one year of employment before the implementation of the DEU. Measurements could also include how many nurses who leave their jobs at the one-year mark who were DEU students in comparison to those who leave that were non-DEU students. Retention rates of DEU new graduate nurse hires compared to non-DEU new graduate nurse

would contribute data to the efficacy of the DEU model and the sustainability of the program.

- Nurse turnover rates on DEUs before and after implementation of the DEU. Also, is there an increase in applications for transfer to the DEU clinical environment?
- Leadership roles can also be considered when evaluating the effectiveness of a DEU. Do DEU graduates assume leadership roles or move through the clinical ladder faster than non-DEU graduates?
- Patient satisfaction scores on DEUs in comparison to scores on comparable non-DEUs.
- Nurse sensitive metrics have been shown to improve with the implementation of DEUs; however, the results have not been replicated for consistency in the literature. Measurement of falls, pressure ulcers, and hospital-acquired infections could be measured on the DEUs and compared to similar units that are not utilizing the DEU model.

Nurse residency program and the DEU. Evaluation of the medical center's nurse residency program curriculum, the DEU clinical objectives, and the SON preceptor program clinical objectives would also contribute to the possible reduction in costs for the clinical partner regarding the length of the nurse residency program and new graduate nursing orientation upon hire. Assimilating the nursing student into the culture and environment of the organization over sixteen months through DEUs may provide the medical center with a nursing student graduate who is already proficient in learning the policies, technology, and skills required of the nurse residency program. In addition, Trepanier et al. (2017) provides a set of 29 core-competencies

that students are expected to complete while at the facility in a student capacity. When the student graduates and is hired, it is anticipated that the student will have completed all decided upon competencies, but preceptors will revalidate them during the nurse residency program. Completion of the agreed upon skills could also lead to decreased time spent in a nurse residency program. A complete list of the core-competencies is provided in Appendix K.

The nursing practice readiness tool (NPRT). This survey developed by the Nurse Executive Center Advisory Board was designed to provide a mechanism for nurse leaders to utilize in assessing the competencies of nurse graduates (Nursing Executive Center Advisory Board, 2007). This survey may be used by nurse managers, clinical supervisors, and experienced nurse preceptors in assessing the thirty-six key competencies of new nurse graduates on the clinical unit. The academic medical center could utilize this tool for two purposes: to compare the competencies of new graduate hires that participated in the DEU with those who did not, and to establish a baseline of specific competencies that may need to be focused on during the DEU student experience and furthermore, in the nurse residency program.

Outcome measures of effective partnerships. After an integrative review of academic-practice partnerships in nursing, Beal (2012) depicts a comprehensive list of outcomes that are suggested to be measured when determining partnership success. The list of recommended outcome measures is presented in Appendix L.

Resources, Project Personnel, Cost, and Timeline

This comprehensive project has been fulfilled solely by this DNP project's author. This author was also responsible for examining and collecting all evaluation instruments and the creation of the new resources pertinent to the guide. The Associate Deans and the DEU Coordinator at the identified SON assisted in providing clarification for any policies and logistics

associated with the partnership materials. A representative from the leadership team at the medical center has contributed to explaining any information pertinent to the medical center. While no further resources are necessary for the completion of this project, this author may request assistance from the SON in the future for digitalization of the manual.

The SON and the partnering medical center incurred no costs associated with the implementation completion of this project.

Furthermore, an anticipated timeline for the exploration and development of the manual and possible digitalization of the manual is three to four months and has occurred from September to December 2018. For a complete project timeline, see Appendix M.

Risks and Threats

The implementation of this sustainability guide did not encounter any risks or threats. Minimal barriers have included the unavailability and declination of permission to re-print instruments, figures, and models by the originating authors.

Institutional Review Board Approval

It was anticipated that due to the nature of this project, Institutional Review Board (IRB) approval from the University of Nevada, Las Vegas (UNLV) would not be required for completion. However, IRB review was requested by this project's author, and the excluded letter has been presented in Appendix N.

Evaluation Plan

Because a long-term DEU sustainability plan with evaluative metrics does not exist in the literature, evaluation of this DNP project has been based on the objectives and purpose of creating this sustainability guide. The success of this project has been demonstrated by the

inclusion of all stated instruments and measurements in a comprehensive collection, as described in the project guide.

Chapter V: Implementation and Discussion

Precis

Due to the highly complex healthcare environment and the lack of current clinical expertise of faculty, educators have been challenged to explore alternative methods for clinical instruction that meet the needs of the current and future generation of the nursing workforce (Adams, 2014; Caputi, 2017; Institute of Medicine [IOM], 2010; RWJF, 2014; Thomas, Seifert, & Joyner, 2016). The Dedicated Education Unit (DEU) has emerged as an innovative approach to providing a positive, high-quality, collaborative clinical learning environment that fosters the growth and learning of undergraduate nursing students. In addition, the DEU model has proven success in bridging the education to practice gap, addressing the faculty shortage, and easing the transition from education to practice (Teel, MacIntyre, Murray, & Rock, 2011).

While the need for clinical innovation, combating faculty shortages and advancing nursing education in the workforce are all indicative components to establishing an academic-practice partnership, the transition to practice and retention of a new graduate nurse is also a costly endeavor that has the potential for financial resolution through a successful partnership. DEUs and new nurse residency programs within academic-practice partnerships that continue from pre-licensure to post-licensure not only provide for an improved transition to practice and decreased costs for the health care organization but are also critical in preparing future nurses for the workforce (Trepanier, Mainous, Africa, and Shinners, 2017).

The challenging nature of developing and sustaining a DEU that mutually benefits both the academic and health care partner over time, reveals the need for more guidance in securing long-term benefits of maintaining the DEU within an academic-practice partnership. While the literature is robust with current knowledge on the positive practicality of the DEU, there are few

data available related to the sustainability of a DEU or the economic impacts of a DEU on a health care organization (Mulready-Schick & Flanagan, 2014; Murray & James, 2012; Murray, Macintyre, & Teel, 2011).

The purpose of this Doctor of Nursing Practice (DNP) project was to develop a guide inclusive of strategies for evaluating objective, subjective, and economic outcomes, and the long-term sustainability of a DEU within an academic-practice partnership.

Threats and Barriers

The implementation of this sustainability guide encountered minimal barriers. Because this guide required a significant review of the literature, including selecting appropriate evaluation tools, implementation guides, and materials related to sustaining a DEU, associated barriers included those related to attaining permissions. The inability for this project's author to obtain recent contact information, timely, was a barrier to incorporating more resources into the guide. Also, the unavailability and declination of permission to re-print tools, figures, and models by the originating authors was also a barrier.

Project Monitoring

Prior to the beginning of implementation of the project, IRB review and approval from UNLV was requested by this project's author, and the exclusion letter has been presented in Appendix N. Throughout the course of this project, all instruments, resources, and figures displayed in the appendices either originated from the literature or were originally designed and created by this project's author. School of Nursing faculty experts reviewed all original content. To assist with including relevant and necessary components to the guide, this author volunteered as a member of the hospital's DEU research team. Initial presence on this team allowed for insight into which resources and evaluation tools would benefit the hospital partner, from the

clinical evaluation prospect. In taking into account some of the evaluation goals of the medical center, this author was able to incorporate appropriate tools and resources that would benefit both the research team and the school of nursing, moving forward.

In addition to the research team, this author was also present and active for all DEU partnership meetings between the School of Nursing and the academic medical center, beginning before the initiation of this project. Attendance at meetings allowed the author to be open to ideas and the needs of the clinical nursing leadership community in terms of barriers to sustaining a successful and growing DEU program. Resources depicting solutions for some of these difficulties have been presented in the guide.

This project's author was present for the all DEU partnership and research team meetings throughout the implementation of this project.

Discussion

The creation of an evaluation and sustainability guide for a DEU that is inclusive of many moving parts in the literature is key in moving the DEU forward in clinical nursing education. However, significant barriers in the sustainability of a DEU long-term, including leadership changes, lack of fiscal resources, and lack of knowledge on how to adequately evaluate and maintain the model have posed substantial barriers for long-term continuation of partnerships (Polvado, Sportsman, & Bradshaw, 2015).

The completed guide, as presented as this project, will be bound in a handbook and serve as an exemplar, not only to this School of Nursing's growing partnership but to other schools who wish to pursue new implementation or sustain existing DEU partnerships for the long-term. It will allow all partnerships a manual to use for timely and successful implementation through continual evaluation.

While establishing the foundation for this guide, the author discovered that the successful implementation of a DEU has a tremendous impact on the long-term sustainability of the partnership. Although evaluation is key for improvement, implementation is key to long-term sustainability. According to Kotter (2012), all too often big ideas are implemented without regard to the commitment of all affected personnel, the availability of resources, the necessity and urgency of the change project, an aligning vision, and ingraining the change into the culture of the organization. Without the success of each stage in the process, it is almost inevitable that the change will fail. There may be significant wins for the short-term, but the long-term sustainability of the project will diminish. What makes the Kotter model different from several other change models, is the ability for an organization to create and implement an innovation that is sustainable for both the short- and long-term. Utilizing this model, in conjunction with this guide can potentially create a platform for a DEU that can remain successful even with the rapidly changing health care environment.

In addition to utilizing Kotter's change model for organizational transformation, the introduction of this guide into the literature will add a comprehensive resource that is currently not available. This guide has the potential to improve nursing practice and outcomes by providing this partnership, along with other schools and health care organizations, with the resources and information they need to continually move the DEU concept further into the mainstream and the expected way of clinical nursing education. Literature has begun to present data consistent with DEU and improvement in nurse sensitive metrics, including improved patient outcomes and satisfaction; however, traditionally DEU's have not been sustainable for a long enough period to consider long-term evaluation metrics. This project may offer

partnerships the much-needed resources they need to ease the transition and create a maintenance and evaluation plan for effective evaluation of the DEU.

Sustainability and Dissemination

The emergence of the DEU model for clinical nursing education is becoming more of a widespread change within nursing academia across the nation. Because long-term sustainability and lack of knowledge on how to evaluate a DEU from the viewpoint of both partners is a significant barrier to successfully moving the innovation forward, this project has the potential to be utilized by the academic medical center and across the nation by multiple practice partners.

In addition to using this guide as a resource, the practice partner may consider using the economic evaluation metrics provided to measure the consistent need for additional DEUs that produce an increased number of highly qualified nurse graduates for their medical center's nurse residency program. Consideration of the total number of registered nurses needed to staff the hospital, in conjunction with the turnover rate for the facility, would provide the partnership with a number of potential job openings for the DEU graduates. These metrics would play a role in the continued sustainability of the current DEUs, in addition to providing evaluation data on the consideration of future DEUs within the hospital.

Furthermore, to move this guide into action, the stakeholders will first consider what component of evaluation will be implemented, taking into account the length of the partnership and their individual short and long-term outcomes. The tools provided will give the leadership easy access to making a determination on the appropriate tool for use in the process.

This project's author will provide the practice partner with a hard copy of this project to utilize by the research team members and key stakeholders involved in deciding the future of the partnership and implementation of new DEUs within the hospital. In addition to this ongoing

partnership, the guide will also be utilized for the School of Nursing to determine an evaluation strategy for an additional medical center that incorporates the DEU model of clinical nursing education.

In addition to the dissemination of hard copies of the project, this author will continue to incorporate national presentations, and publications regarding the long-term sustainability and evaluation of DEU partnerships into a long-term plan to distribute this project. The utilization of this guide by multiple partners will strengthen the success of the DEU innovation as nursing moves towards a new era of educating the future workforce of nurses.

Appendix A

Table 1. Definition of Roles within a DEU

School of Nursing	Clinical Partner
Clinical Faculty Coordinator (CFC) An MSN, PhD, or DNP prepared faculty member from the UNLV School of Nursing. The CFC's primary responsibility is to coordinate the CDI and student clinical experience by acting as a resource to the CDI and clinical unit. The CFC will mentor the CDI's on teaching, learning, and evaluation processes. The CFC's primary focus is on providing support to the CDI's and the nursing unit staff, not providing hands-on patient care with individual students. The CFC also works closely with the CDI on formative and summative evaluation of the student. The CFC is also responsible for evaluating the student's clinical paperwork and conducting scheduled post-conferences. The CFC works closely with the course coordinator, DEU coordinator, Associate Dean for Undergraduate Affairs, charge nurse or clinical supervisor, CDI, and nursing student. **DEU Coordinator** A faculty member from the UNLV School of Nursing who provides administrative oversight to the DEU. The DEU coordinator is the liaison responsible for maintaining collaboration with the clinical partner by facilitating monthly partnership meetings, providing CDI orientation, collaborating with the clinical partner's leadership teams, and facilitating semester CFC meetings. This person is responsible for maintaining the organization and logistics of the partnership. The DEU coordinator works closely with the Associate Dean for Undergraduate Affairs, charge nurse or clinical supervisor, and CFC in providing overall support.	**Clinical DEU Instructor (CDI)** A BSN prepared Registered Nurse (RN) from the clinical unit that will guide, manage, and evaluate student learning in the clinical setting on a weekly basis. In addition to a BSN degree, the CDI has a minimum of 3 years' experience as an RN. The CDI is always available to the student and directly observes and guides student learning activities with clients. The CDI's primary responsibility is overseeing student learning and providing clinical expertise and hands-on patient care together with the same students throughout the semester. The CDI works closely with the nursing student, CFC, charge nurse or clinical supervisor, and nurse manager. **Charge Nurse / Clinical Supervisor** An RN nurse leader from the clinical unit who is responsible for planning, organizing, directing, and managing the unit on a day to day basis. Responsible for assigning CDI's to students and coordinating appropriate patient assignments to meet clinical objectives. The charge nurse works closely with the DEU coordinator, CFC, CDI, and nurse manager to ensure a successful clinical experience. **Nurse Manager / Director** An RN nurse leader from the clinical unit who is responsible for managing the overall logistics of the unit. The nurse manager works closely with the charge nurse or clinical supervisor and the CDI to ensure a smooth operation.

School of Nursing	Clinical Partner
Course Coordinator An MSN, PhD, or DNP prepared faculty member from the UNLV School of Nursing who is responsible for the course design, classroom instruction, guidance for clinical instruction, and achievement of course outcomes. The course coordinator will work closely with the CFC to ensure that students are meeting course outcomes.	

Note. Roles are adapted by this project author from the UNLV School of Nursing

Appendix B

Table 2. Evaluation Instruments

Name	Author	Date of Development	Use	Valid and Reliable	Permission to Reprint
Revised Professional Practice Environment scale (RPPE)	Ives Erickson, Duffy, Ditomassi, & Jones	2005	A 39-item scale measuring the readiness of a clinical unit for establishing a DEU, and is also beneficial in measuring perceptions of the professional practice environment	Yes	Unable to obtain permission to reprint
Clinical Learning Environment Scale (CLES)	Dunn & Burnett	1995	A 23-item instrument that incorporates five subscales: staff-student relationships, nurse manager commitment, patient relationships, interpersonal relationships, and student satisfaction; beneficial in evaluating the clinical learning environment after implementation of a DEU	Yes	Unable to obtain permission to reprint
Clinical Learning Environment, Supervision, and Nurse Teacher Survey (CLES+T)	Saarikoski, Isoaho, Warne, & Leino-Kilpi	2007	A 34-item instrument that added an additional subscale aimed to measure the quality of nurse teachers and their collaboration with other members of the clinical team on the unit	Yes	Permission to reprint granted

Name	Author	Date of Development	Use	Valid and Reliable	Permission to Reprint
Student Evaluation of Clinical Education Environment instrument (SECEE)	Sand-Jecklin, Kari	Version 3 2001	32-item instrument to assess student perceptions of the quality of clinical instruction and the opportunities for learning available on the clinical unit	Yes	Permission to reprint granted
Nurse Competence Scale (NCS)	Meretoja, Riitta	2004	A 78-item instrument to evaluate the level of nurse competence	Yes	Permission to reprint denied
The Nursing Practice Readiness Tool (NPRT)	Nurse Executive Center Advisory Board	2007	The survey is used by nurse leaders to assess the competencies of nurse graduates	N/A	CNO of the organization may request access to the survey toolkit
Clinical Learning Environment, Supervision, and Nurse Teacher Survey (CLES+T)	Saarikoski, Isoaho, Warne, & Leino-Kilpi	2007	A 34-item instrument that added an additional subscale aimed to measure the quality of nurse teachers and their collaboration with other members of the clinical team on the unit (Saarikoski, Isoaho, Warne, & Leino-Kilpi	Yes	Permission to reprint granted

Note. See Appendix O for sample permission letter.

Appendix C

Table 3. Resource List

Resource	Author	Date	Permission
Academic-Practice Partnership Coordinator Position Description	Pfannes, Jennifer	2018	Created by this project author
DEU Implementation Checklist (Version 4) University of Portland	Moscato, Nishioka, Coe	2012	Permission to reprint granted
Work Plan Template	Hamel, Cathleen	2017-2018	Permission to reprint granted
Guide to Establishing a DEU	Hamel, Cathleen	2017-2018	Permission to reprint granted
Focus groups	Per academic and clinical partners	n/a	n/a
Cost-Benefit Analysis Template	Pfannes, Jennifer	2014	Created by this project author
29 Core-Competencies of the nursing student moving into a residency program	Trepanier, Mainous, Africa, Shinners	2017	Permission to reprint granted

Appendix D

Academic-Practice Partnership Coordinator

Position Description

The Academic-Practice Partnership Coordinator is a registered nurse who has overall responsibility for the coordination, implementation, and evaluation of the Dedicated Education Units (DEU). The position is a joint appointment between the academic School of Nursing and the designated clinical partnering facility. The Academic-Practice Partnership Coordinator would oversee and manage all administrative duties related to the maintenance and implementation of the DEUs.

Responsibilities and Expectations

- Initiates and coordinates regularly scheduled DEU meetings between academic and clinical partners.
- Collaborates with academic and clinical partners to establish new DEUs.
- Coordinates opportunities for professional growth, including working with the Clinical Faculty Coordinator (CFC) from the academic institution on scheduling Lunch and Learn educational sessions for Clinical Dedicated Instructors (CDI) at the clinical facility.
- Reports on DEU activities at appropriate academic and clinical facility meetings.
- Regularly communicates new policies regarding aspects of the DEU.
- Collaborates with the academic partner and clinical agency to promote DEU growth.
- Assist academic and clinical partner with ongoing evaluation of the DEU.
- Maintains all DEU databases and documents.
- Assists with DEU presentations, publications, and consultations.
- Maintains all advertising publications, websites, and pamphlets for DEU marketing.

Qualifications

- Holds a current unrestricted Registered Nurse license in the state of Nevada.
- Possesses a Master's degree or higher in a field related to clinical nursing education or nursing leadership (doctoral degree preferred).
- Demonstrates a minimum of 3 years of clinical nursing education experience or experience in the management of a DEU.
- Possesses excellent communication, organizational and interpersonal skills.
- Possesses strong problem-solving skills and the ability to build relationships with different members of the management and leadership teams.

Demonstrates knowledge of Word, Excel, PowerPoint, and email interfaces.

Appendix E

Dedicated Education Unit (DEU) Implementation Checklist

Date DEU checklist completed: _____ Month/year DEU implemented: _____

Clinical facility: _____ Unit: _____

School of Nursing partner: _____ Patient care specialty: _____

No. of BSN clinician instructors: ____ No. of ADN clinician teachers ___

Does your unit accommodate students from other nursing schools? □ Yes □ No □ Don't know

Does your unit accommodate students who are provided clinical instruction directly from a nurse education clinical or academic faculty member? □ Yes □ No □ Don't know

Review Team:

_____

Purpose of the DEU Implementation Checklist

The Dedicated Education Unit (DEU) Implementation Checklist is a pilot tool that is designed to gather information about implementation of the DEU model at your unit or healthcare setting. The purpose of this tool is to provide information that DEU partners may use for planning purposes. There are no right or wrong answers – the important thing is to be as accurate as you can. The DEU Implementation Checklist is organized into seven sections:

A. Readiness for the DEU Model
B. Relationship between the nurse education program and clinical partner
C. Clinical faculty coordinators
D. Clinician instructors
E. DEU clinical education environment
F. Clinical team
G. Evaluation and quality assurance

Important Vocabulary Terms

Nurse education program refers the academic institution's accredited school or college of nursing , or the academic institution's nurse education program.

Clinical partner refers to the acute care, hospital, or health care facility that provides clinical placements for the nursing students.

Clinical faculty coordinators are university faculty members that provide clinical supervision and support to the unit-based clinician instructors/teachers and student nurses.

Clinician instructors are BSN-prepared unit-based nurses that provide clinical mentorship, teaching, and supervision for the nursing students.

Clinician teachers are non-BSN prepared unit-based nurses or clinicians who provide clinical mentorship, teaching, and supervision for the nursing students.

Clinical education team is a representative team (clinical faculty coordinator, clinician instructors and clinician teachers) that provides clinical mentorship, teaching, and supervision for the nursing students as they learn the various roles of the health care setting.

Dedicated Education Unit (DEU) Implementation Checklist

Instructions: Please read the Checklist items. Please indicate if the item is *Not in place, Partially in place, or Fully in place*. Please mark *Don't Know* if you are unsure or don't have the information required to determine the item's level of implementation. Please record the information source or sources that you used to determine this rating.

	Level of implementation			
A. Readiness for implementing the DEU model	Not in place	Partially in place	Fully in place	Comments
1. The leadership of the nurse education program and clinical partner endorse the DEU model.				
2. Increasing the quality of clinical education for the student is the highest priority for the nurse education program and clinical partner.				
3. The health care and nursing community believe the DEU model supports their organization's goals.				
4. The State Board of Nursing believe the DEU supports their goals for the nursing workforce.				
5. The political and social climate seems "right" for starting a DEU.				
6. The nurse education program and clinical partner commit resources to planning and development of the DEU model.				
7. The nurse education program and clinical partner have a liaison to coordinate and help plan DEU implementation.				
8. DEU planning/advisory committee members identify and agree on a written set of core values or assumptions for DEU model.				
	Level of implementation			
B. Relationship between the DEU partners	Not in place	Partially in place	Fully in place	Comments
1. The nurse education program administrator and nurse executive provide oversight of the DEU model.				
2. Stakeholder meetings include administrators, coordinators, and DEU program implementers (clinical faculty coordinators, DEU clinician instructors/teachers).				
3. Stakeholder meetings are conducted at least twice yearly.				
4. The DEU partners have an established process for communication between stakeholder meetings.				
5. The nurse education program and clinical partner use a set of core DEU values or assumptions to guide decision–making and planning.				
6. The nurse education program and clinical partner have the necessary resources to operate a DEU.				

7. Decision-making is by consensus between the nurse education program and its clinical partners.				

Comments:

DEU Implementation Checklist

C. Clinical Faculty Coordinators	Level of implementation			Comments
	Not in place	Partially in place	Fully in place	
1. The student to clinical faculty coordinator ratio is 16:1 or less.				
2. Clinical faculty coordinators and didactic faculty meet regularly to discuss DEU issues, share best practices, and coordinate clinical instruction.				
3. Clinical faculty coordinator communicates with the nurse manager on a routine basis.				
4. Formal communication processes are in place between the clinical faculty coordinator and clinical instructors/teachers.				
5. Clinical faculty coordinators receive orientation to prepare them for their clinical education role.				
6. Clinical faculty coordinators receive on-going professional development and supervision.				
7. Clinical faculty coordinators ensure the clinical curriculum objectives actively guide the students' clinical instruction.				
D. Clinician Instructors or Clinician Teachers	Level of implementation			Comments
	Not in place	Partially in place	Fully in place	
1. The nurse manager or program administrator selects unit personnel for the clinician instructor/teacher positions.				
2. Clinician instructor/teachers receive orientation to prepare for their clinical role that includes five components:				
i) Nurse education program's mission, philosophy, and curricular design				
ii) DEU concept and model of clinical instruction				
iii) Adult learning principles and situated coaching strategies				
iv) Clinical reasoning tool				
v) Course syllabus and objectives				
3. Continuing education sessions related to clinical teaching are conducted annually for clinician instructors/teachers.				
4. The student to clinician instructor/teacher ratio is 2:1 or less.				
5. Clinician instructors/teachers are responsible for the same students throughout the entire rotation.				

6. Clinical instructors/teachers work on their students' designated clinical days throughout the entire rotation.				
7. Clinician instructors/teachers receive compensation and recognition (e.g., monetary compensation, adjunct faculty privileges, clinical ladder advancement, professional development opportunities, etc.).				
8. The clinical partner releases nurses and clinicians to attend orientation and professional development.				
9. Clinician instructors/teachers participate in the evaluation of their students.				

DEU Implementation Checklist

E. DEU clinical education environment	Level of implementation			Comments
	Not in place	Partially in place	Fully in place	
1. The DEU manager does not schedule students from different nurse education programs at the same time.				
2. The majority of unit personnel understand the basic components of the DEU model.				
3. The majority of unit personnel agree that student education is a high priority for their unit.				
4. Unit personnel are flexible about shift scheduling and float assignments to accommodate the schedule of clinician instructors/ teachers.				
5. Unit personnel are proactive in creating learning opportunities for students.				
6. Unit personnel always answer students' questions.				
7. Students are an integral part of the unit's daily operations.				
8. Unit personnel are proactive in creating interdisciplinary learning activities for the student.				
9. Communication and rotation assignments are integrated into the unit routines and flow.				
F. Clinical education team members	Level of implementation			Comments
	Not in place	Partially in place	Fully in place	
1. Clinical faculty coordinator and clinician instructor/teacher communicate face to face every clinical rotation day.				
2. Clinical education team members have shared goals and a strategic plan for maintaining or improving the DEU's quality.				
3. Clinical education team members understand and agree with the organization of their roles and responsibilities.				
4. Clinical education team members always respect each other's expertise and ability to support quality clinical education for the student.				
5. Clinical education team members agree with the clinical learning goals and expectations for their students.				
6. Clinical education team members use solution-focused problem solving to resolve concerns in a timely matter.				

7. Clinical education team members have an equal partnership in addressing student learning and discipline needs.				

G. Evaluation and quality assurance	Level of implementation			Comments
	Not in place	Partially in place	Fully in place	
1. Student evaluations indicate the DEU clinician instructors/teacher or instructor team member were professional and effective clinical educators.				
2. Clinician instructor/teacher evaluations indicate the clinical faculty coordinator provided timely, effective support for the DEU.				
3. Clinical faculty coordinator evaluations indicate the clinician instructor/teacher provided effective clinical instruction for the student.				
4. Clinical education team members assess the quality of their working relationships after each rotation.				
5. A DEU planning/advisory committee meet regularly to review evaluation and quality indicator data.				
6. Clinician instructors/teachers receive written evaluations completed by students and the clinical faculty coordinator at the end of each semester.				
7. Clinical faculty coordinators receive written evaluations completed by students and the clinician instructors/teachers at the end of each semester.				
8. Nursing administrators receive copies of all clinician instructor/teacher evaluations to include in the agency's performance appraisal process as appropriate.				

Note. Reprinted with permission: Moscato, S. R., Nishioka, V. M., & Coe, M. T. (2013). Dedicated education unit: Implementing an innovation in replication sites. *Journal of Nursing Education*, *52*(5), 259-267. https://doi.org/10.3928/01484834-20130328-01

Appendix F

Table 4. DEU Workplan Template

Task	Action	Responsible Personnel	Due Date	Complete / Notes
Initial Planning Meeting	Meeting with clinical partner staff to discuss unit specific plans	Kate Jane Mary	9/25/2017	Complete
Tool Kit for DEU Roll Out	CDI Portfolio • Template/Binder • Selection Criteria Consortium • unit locations, dates, & days of week CDI Education Plan Coat Ceremony	Jane	9/27/2017	Complete
Kick off Meeting with Clinical Partner	Meeting to include staff from clinical partner only to discuss beginning of DEU	Kate	9/27/2017	Complete
Kick Off Meeting - joint meeting with clinical partner and academic partner	DEU Coordinator Academic Team from School of Nursing Clinical Partner Team	Kate	10/18/2017	Complete
Clinical Unit CDI Candidates Prepare Portfolio	Portfolio Content List • Resume • Copy of diplomas or transcripts • Document clinical nursing years of experience • Copy of last 2 evaluations	Mary	11/1/2017	Toolkit created and instructions sent

Task	Action	Responsible Personnel	Due Date	Complete / Notes
	• Evidence of Clinical Ladder • Evidence of any additional committee work, or training related to this role • Candidates must be BSN-prepared with 3 years of experience			
	CDI Candidates Identified	Mary & Clinical Supervisors	10/18/2017	Compile portfolios
	Decision Wednesday & Thursday cohorts	Team	10/18/2017	Complete with consortium
	Candidate Portfolios Complete and Submitted	Mary & Clinical Supervisors	11/1/2017	Submitted to Academic partner for review on 11/15/17
	Portfolios Presented to Academic Partner for Review & Sign Off	Mary & Clinical Supervisors	11/1/2017	Complete
Training of CDI & Staff Orientation	Meeting logistics • Room, date, time, duration, size, frequency, content, presenters, handouts, refreshments, CEU's, flyers, publicity	Tom	11/1/2017	Dates planned for 11/28, 11/29, 12/12 @ Sim center

Task	Action	Responsible Personnel	Due Date	Complete / Notes
	CDI Lab Coat Logistics • Sizing, ordering, embroidery	Mary Jane	12/15/2017	Coat sizing, embroidery ordering & arrival before Jan 10. Coats on backorder
	Coat Ceremony	Mary	1/10/2017	3:30pm
Communication	Organizational communication plan to include hospital staff, medical staff, patients, and family	Mary	12/17/2017	
	Pamphlet	Use existing	10/18/2017	Completed
	DEU Unit Banner and Certificate Display Wall	Mary	12/23/2017	Discussion with facilities management underway, wall identified, use same colors & set up as prior DEU unit - need frames & banner. Painting complete
	Pulse Articles	Mary	1/4/2018	Article for clinical unit

Task	Action	Responsible Personnel	Due Date	Complete / Notes
Open Unit	Clinical unit closing decision re: Consortium	Kate	10/6/2017	Closed on Thursdays
	Identifying the need for additional units to be discussed	Kate	12/2017	Request for PEDS/OB in Fall 2018 by academic partner Clinical partner team needs to review and set feedback meeting
	Evaluation draft tool to be developed by the research team and presented at upcoming meeting	Susan	12/2017	Workgroup to be established and development of draft evaluation to be presented at a future meeting
Cohort moves from level 2 unit to level 3 unit	Transition farewell and welcome to new unit	Mary Jennifer	12/2017	Last day on the clinical unit is 12/13 & 12/14 - Agenda distributed - Complete
Welcome Ceremony	All clinical units	Mary Susan	1/2018	1/10, 1/11 x2, 1/18 scheduled

Task	Action	Responsible Personnel	Due Date	Complete / Notes
Progress report for all clinical units	Evaluation, data gathering, successes, celebration, research			
Clinical unit Semester 2 Cohort	Identify students, start dates, CDI refresher/feedback	Anne Jen	12/1/2017	All clinical units' plans complete, 1 additional CDI added, portfolio submitted.
Lunch and Learn	All CDIs are invited	Tom Jane	12/2017	11/8 & 12/6 complete. Need 2018 calendar.

Note. Reprinted with permission from the original author, Cathleen Hamel, MS, RN, NEA-BC, Director of Professional Practice, Las Vegas, NV. Original work plan is displayed as a colored coded Excel spreadsheet.

Appendix G

Table 5. Guide to Establishing a DEU

Objectives	Elements
Memorandum of Understanding in place with the academic institution	
Meet with academic partner	Discuss DEU concept, level of student and expectations for clinical experience, identify interest, identify the clinical unit
Conduct a DEU Leadership Introduction Educational Session	Include Assistant Chief Nursing Officer, Directors, and Clinical Supervisors Consider inviting previous live unit champions to attend to support best practice and discuss challenges
Consortium	Notify consortium of days being utilized for DEU Restrict other school cohorts on that day
Clinical Dedicated Instructors	Identify CDI's that meet criterion of the Nevada State Board of Nursing (NSBN) BSN or higher with 3-5 years of clinical nursing experience
Establish Work Plan for deadlines/due dates and conduct monthly meetings	Meeting agenda to include: all elements of the work plan, track progress on the work plan, maintain formal minutes of the meeting, set agenda in advance of next meeting, distribute all documents in meeting invite before the meeting and provide webex capability
CDI Portfolios	Compile CDI Portfolios and submit to academic partner representative by the established deadline

Objectives	Elements
DEU Toolkit	Utilize DEU toolkit (designed by the affiliated clinical organization) which includes necessary templates, portfolio guide, and content list Prepare staff letters
CDI Training	4-hour session for all CDI's Set schedule of CDI training classes Communicate with the academic partner to coordinate classes
White Coat Ceremony	Order early Size each CDI for a coat Plan for embroidery - including academic partner and clinical partner branding - see toolkit for vendor information Plan for the photographer on the day of the ceremony Publish an article with photo in the clinical partner's newsletter
DEU Unit Banner and Certificate Display wall	Work with a clinical partner for branding location and colors Order standardized white frames for display of CDI certificates on the clinical unit
Plan Welcome Session with Leadership	Plan for the beginning of the semester Tour the clinical unit Obtain ID badges for the students before the first day on the unit
Recruitment Session for graduating students	Plan recruitment session before the end of the semester for graduating students Determine open positions at the facility Hold preliminary interviews

Objectives	Elements
Evaluation	Gather input from the CDI's at the end of the semester to evaluate desire to continue for the upcoming semester Evaluate need for a CDI refresher program

Note. Reprinted with permission from the original author, Cathleen Hamel, MS, RN, NEA-BC, Director of Professional Practice, Las Vegas, NV

Appendix H

Clinical Learning Environment, Supervision and Nurse Teacher (*CLES+T*) Evaluation Scale

(Saarikoski & Leino-Kilpi 2008)

The following statements concerning the learning environment, supervision and the role of nurse teacher are grounded into main areas, each with their own title.

For each statement, please choose the option that best describes your own opinion.

Evaluation scale:

1 = fully disagree

2 = disagree to some extent

3 = neither agree nor disagree

4 = agree to some extent

5 = fully agree

The learning environment

Pedagogical atmosphere:

The staffs were easy to approach	1	2	3	4	5
I felt comfortable going to the ward at the start of my shift	1	2	3	4	5
During staff meetings (e.g. before shifts) I felt comfortable taking part in the discussions	1	2	3	4	5
There was a positive atmosphere on the ward	1	2	3	4	5
The staffs were generally interested in student supervision	1	2	3	4	5
The staff learned to know the student by their personal names	1	2	3	4	5
There were sufficient meaningful learning situations on the ward	1	2	3	4	5
The learning situations were multi-dimensional in terms of content	1	2	3	4	5
The ward can be regarded as a good learning environment	1	2	3	4	5

Leadership style of the ward manager (WM):

The WM regarded the staff on her/his ward as a key resource	1	2	3	4	5

The WM was a team member	1	2	3	4	5
Feedback from the WM could easily be considered as a learning situation	1	2	3	4	5
The effort of individual employees was appreciated	1	2	3	4	5

Nursing care on the ward:

The wards nursing philosophy was clearly defined	1	2	3	4	5
Patients received individual nursing care	1	2	3	4	5
There were no problems in the information flow related to patients' care	1	2	3	4	5
Documentation of nursing (e.g. nursing plans, daily recording of nursing procedures etc.) was clear	1	2	3	4	5

The supervisory relationship

In this form, the concept of supervision refers guiding, supporting and assessing of student nurses made by clinical staff nurses. Supervision can occur as individual supervision, or as group (or team) supervision.
The concept of mentor means a named personal supervisor.

Occupational title of supervisor:	nurse	1
	nurse specialist	2
	assistant ward manager	3
	sister/ ward manager	4
	other, what? _____	

Occurrence of supervision: (circle one alternative only)

I did not have a supervisor at all 1

A personal supervisor was named, but the relationship with this person

did not work during the placement	2
The named supervisor changed during the placement, even though no change had been planned	3
The supervisor varied according to shift or place of work	4
Same supervisor had several students and was a group supervisor rather than an individual supervisor	5
A personal supervisor was named and our relationship worked during this placement	6
Other method of supervision, please specify?	

How often did you have **separate private unscheduled supervision with the supervisor** (without nurse teacher):

not at all	1
once or twice during the course	2
less than once a week	3
about once a week	4
more often	5

The content of supervisory relationship:

The following statements concerning the supervisory relationship.

Evaluation scale: 1 = fully disagree
2 = disagree to some extent
3 = neither agree nor disagree 4 = agree to some extent
5 = fully agree

For each statement, please choose the option that best describes your own opinion.

My supervisor showed a positive attitude towards supervision	1	2	3	4	5
I felt that I received individual supervision	1	2	3	4	5
I continuously received feedback from my supervisor	1	2	3	4	5

Overall I am satisfied with the supervision I received	1	2	3	4	5
The supervision was based on a relationship of equality and promoted my learning	1	2	3	4	5
There was a mutual interaction in the supervisory relationship	1	2	3	4	5
Mutual respect and approval prevailed in the supervisory relationship	1	2	3	4	5
The supervisory relationship was characterized by a sense of trust	1	2	3	4	5

Role of the nurse teacher

Nurse teacher is a lecturer (employed by University or Polytechnic) who is responding the clinical placement. The following statements concerning the linking nurse teacher are grounded into main areas, each with their own title.

Evaluation scale:
1 = fully disagree
2 = disagree to some extent
3 = neither agree nor disagree
4 = agree to some extent
5 = fully agree

For each statement, please choose the option that best describes your own opinion.

Nurse teacher as enabling the integration of theory and practice:

In my opinion, the nurse teacher was capable to integrate theoretical knowledge and everyday practice of nursing	1	2	3	4	5
The teacher was capable of operationalising the learning goals of this clinical placement	1	2	3	4	5
The nurse teacher helped me to reduce the theory-practice gap	1	2	3	4	5

Cooperation between placement staff and nurse teacher:

The nurse teacher was like a member of the nursing team	1	2	3	4	5
The nurse teacher was able to give his or her pedagogical expertise to the clinical team	1	2	3	4	5
The nurse teacher and the clinical team worked together in supporting my learning	1	2	3	4	5

Relationship among student, mentor and nurse teacher:

The common meetings between myself, mentor and nurse teacher were comfortable experience	1	2	3	4	5
In our common meetings I felt that we are colleagues	1	2	3	4	5
Focus on the meetings was in my learning needs	1	2	3	4	5

Saarikoski M. 2002. **Clinical learning environment and supervision. Development and validation of the CLES evaluation scale**. Doctoral dissertation, University of Turku, Annales Universitatis Turkuensis, Ser. D

525, Summary available: https://www.doria.fi/bitstream/handle/10024/5820/D525.pdf?sequence=1 Saarikoski M & Leino-Kilpi H. 2002. **The clinical learning environment and supervision by staff nurses: developing the instrument**. International Journal of Nursing Studies 39: 259-267.

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Appendix I

Student Evaluation of Clinical Education Environment

Please circle or check the best answer to each question and provide written answers in the blanks provided.

University and Campus _____

Semester/Yr: Spring Fall 20____

Year in program: Freshman Sophomore Junior Senior

Clinical site you are evaluating (include both the name of facility and the department or unit)

_____

Clinical Instructor_____

Circle the number that best represents your answer to the following questions. Please provide an explanation for any questions to which you respond "can't answer" (number 6) in the space directly below the question.

Key: 1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree 6 = Can't Answer

1. My preceptor/resource RN was available to answer questions and to help with patient care.
   1 2 3 4 5 6

2. A wide range of learning opportunities was available at this agency/department.

   1 2 3 4 5 6

3. I felt comfortable asking questions of my clinical instructor.

   1 2 3 4 5 6

4. My preceptor/resource RN maintained ultimate responsibility for the patients to whom I was assigned.

   1 2 3 4 5 6

5. This clinical setting provided adequate opportunities to practice interpersonal communication skills.

   1 2 3 4 5 6

6. As my skills and knowledge increased, my instructor allowed me more independence.

   1 2 3 4 5 6

7. My preceptor/resource RN talked with me about new developments related to my patients' care.

   1 2 3 4 5 6

8. This clinical setting provided adequate opportunities for application of information gained in the classroom setting.

   1 2 3 4 5 6

9. My instructor served as a positive role model for professional nursing.

   1 2 3 4 5 6

10. High preceptor/resource RN workload negatively impacted my experience at this agency/department.

    1 2 3 4 5 6

11. There was adequate time in this clinical rotation to meet my learning goals.

    1 2 3 4 5 6

12. My instructor encouraged me to identify and pursue opportunities for learning in this environment.

    1 2 3 4 5 6

13. My preceptor/resource RN provided adequate guidance as I learned to perform new skills.

    1 2 3 4 5 6

14. This agency/department had an adequate number and variety of patients appropriate for my clinical nursing abilities.

    1 2 3 4 5 6

Key: 1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree 6 = Can't Answer

Remember to explain any questions to which you responded “can’t answer” (6) immediately below the question.

15. My instructor was available to answer questions and to provide assistance.

    1 2 3 4 5 6

16. I felt comfortable asking questions of my preceptor/resource RN.

    1 2 3 4 5 6

17. Equipment, supplies, and material resources needed to provide patient care and teaching were available in this agency/department.

    1 2 3 4 5 6

18. My instructor provided constructive feedback about my nursing actions in this setting.

    1 2 3 4 5 6

19. My preceptor/resource staff supported me in applying new knowledge / learning new skills.

    1 2 3 4 5 6

20. Competing with other health professional students using this agency for skills/procedures, patient assignments, or resources negatively impacted my clinical experience.

    1 2 3 4 5 6

21. The instructor provided me with adequate guidance as I learned to perform new skills.

    1 2 3 4 5 6

22. Nursing staff in this department informed students of potential learning experiences.

    1 2 3 4 5 6

23. In this setting, I was allowed to perform "hands on" care at the level of my clinical abilities.

    1 2 3 4 5 6

24. My instructor supported me in applying new knowledge / learning new skills.

    1 2 3 4 5 6

25. The nursing staff in this department served as positive role models for professional nursing.

    1 2 3 4 5 6

26. One-to-one interaction with clients provided sufficient opportunities for skill development.

    1 2 3 4 5 6

27. The instructor encouraged students to assist each other and to share learning experiences.

    1 2 3 4 5 6

28. The nursing staff provided constructive feedback about my nursing actions in this setting.

    1 2 3 4 5 6

29. The Student to faculty ratio in this setting provided adequate supervision and support for me to take advantage of most learning opportunities at the site.

    1 2 3 4 5 6

30. Instructor demands for performance in this setting were realistic.

    1 2 3 4 5 6

31. My preceptor/resource RN was positive about serving as a resource to nursing students.

    1 2 3 4 5 6

32. The instructor provided sufficient feedback about my clinical performance early enough within the rotation to allow for corrective actions.

    1 2 3 4 5 6

What aspects of this clinical setting helped/promoted your learning?

_____

What aspects of this clinical setting hindered your learning?

_____

Appendix J

Cost-Benefit Analysis Sample Template

Cost Benefit Analysis Sample Worksheet						
	Current Year (CY)	CY +1	CY +2	CY +3	CY +4	CY +5
Expenses						
Hospital						
DEU Implementation Costs						
Staffing on DEU Units (decreased patient load = increased # nurses per day)						
Nursing Job Recruitment						
New Graduate Orientation Program						
Compensation for Preceptor Nurses						
Total Costs (Present Value)	$ -	$ -	$ -	$ -	$ -	$ -
School of Nursing						
Faculty Time and FTE						
DEU Coordinator Position						
Total Costs (Present Value)	$ -	$ -	$ -	$ -	$ -	$ -
Benefits						
Hospital						
Decreased Orientation Time of DEU New Graduate Nurses						
Reduced Attrition of New Hire DEU Graduate Nurses						
Improved Productivity of New Hire DEU Graduate Nurses						
Total Savings	$ -	$ -	$ -	$ -	$ -	$ -
School of Nursing						
Decreased Faculty Resources (with increased faculty:student ratio for DEU)						
Total Savings	$ -	$ -	$ -	$ -	$ -	$ -
Hospital Savings (less expenses)						
School of Nursing Savings (less expenses)						
Net Savings Combined	$ -	$ -	$ -	$ -	$ -	$ -

Note. This is a sample template that can be changed to include all expenses and savings for individual partnership sites.

Appendix K

Table 6. 29 Core-Competencies of the Nursing Student

29 Core-Competencies		
Activating a medical emergency response	Providing patient and/or care partners education	Managing the care of the patient with a PIV: insertion
Coordinating patient care: diagnostic tests	Demonstrating organizational skills	Managing the care of the patient with a PIV: removal
Coordinating patient care: health care provider orders	Performing a physical assessment	Managing the care of the patient with a urinary catheter
Coordinating patient care: patient hand-off communication	Coordinating patient care: patient admission	Managing the care of the patient with a urinary catheter: insertion
Maintaining a safe environment	Coordinating patient care: patient discharge	Managing the care of the patient with a urinary catheter: removal
Managing the care of the patient at risk for impaired skin integrity	Coordinating patient care: patient transfer	Utilizing antiseptic techniques
Managing the care of the patient with pain	Managing the care of the patient requiring the collection of a respiratory specimen	Managing the care of the patient with impaired skin integrity
Practicing infection prevention including isolation precautions	Managing the care of the patient requiring the collection of a stool specimen	Safe administration of intravenous fluids and medications
Safe administration of non-intravenous medications	Managing the care of the patient requiring the collection of a urine specimen	Providing discharge planning and education
Communication and interpersonal relationships	Managing the care of the patient with a PIV	Managing the care of the patient with a PIV: insertion
Providing patient and/or care partners education	Managing the care of the patient with a PIV: removal	(PIV, peripheral intravenous line.)

Note. Reprinted from Trepanier, S., Mainous, R., Africa, L., & Shinners, J. (2017). Nursing academic-practice partnership: The effectiveness of implementing an early residency program for nursing students. *Nurse Leader*, *15*(1), 35-39. https://doi.org/10.1016/j.mnl.2016.07.010 with permission from Elsevier.

Appendix L

Table 7. Suggested Outcome Measures of Effective Partnerships

	Expected Outcomes
Outcome measures for effective academic-service partnerships at the individual partner level	The number of quality clinical placements will increase and diversify. The number of qualified clinical faculty recruited from clinical partnership sites will increase. The opportunities for shared experiences (research, practice projects, shared teaching, DEUs, etc.) between faculty and clinical staff will increase. The number of students enrolled will increase along with the quality of students accepted. Academic progression policies will support excellence. Student retention will be increased. Student performance on NCLEX-RN will increase. Student employment rates post graduation will increase. Orientation time for new graduates will decrease. Recruitment and orientation costs to service organizations will decrease. Retention rates for new graduates will increase. Patient safety and quality indicators of success will increase. The percentage of nurses who become leaders within their institutions and beyond will increase. The percentage of nurses who become politically active will increase. Satisfaction of students, staff, faculty, and employers will increase

Note. Reprinted from original published by Beal, J. A. (*2012*). Academic-service partnerships in nursing: An integrative review. *Nursing Research and Practice*, 2012. https://doi.org/10.1155/2012/501564

Appendix M

Table 8. DNP Project Timeline

Time Frame	Activities
January 2018	Establish DNP Chair and Committee Members
January – April 2018	Project Development
April 2018	DNP Project Proposal
June – July 2018	Submit proposal for IRB approval through UNLV
September – December 2018	Select evaluation tools and request permission from authors to re-print. Create new resources for inclusion into sustainability plan. Digitalize resource manual, if time permits
January – February 2019	Complete all chapters of DNP Project
February – March 2019	Submit final DNP Project to committee
April 2019	Defend DNP Project

Appendix N

UNLV Biomedical IRB - Administrative Review Notice of Excluded Activity

DATE:	May 7, 2018
TO:	Mary Bondmass, PhD
FROM:	UNLV Biomedical IRB
PROTOCOL TITLE:	[1238254-1] Outcomes and Sustainability of a Dedicated Education Unit at a Public Medical Center
SUBMISSION TYPE:	New Project
ACTION:	EXCLUDED - NOT HUMAN SUBJECTS RESEARCH
REVIEW DATE:	May 7, 2018
REVIEW TYPE:	Administrative Review

Thank you for your submission of New Project materials for this protocol. This memorandum is notification that the protocol referenced above has been reviewed as indicated in Federal regulatory statutes 45CFR46.

The UNLV Biomedical IRB has determined this protocol does not meet the definition of human subjects research under the purview of the IRB according to federal regulations. It is not in need of further review or approval by the IRB.

We will retain a copy of this correspondence with our records.

Any changes to the excluded activity may cause this protocol to require a different level of IRB review. Should any changes need to be made, please submit a Modification Form.

If you have questions, please contact the Office of Research Integrity - Human Subjects at IRB@unlv.edu or call 702-895-2794. Please include your protocol title and IRBNet ID in all correspondence.

Office of Research Integrity - Human Subjects
4505 Maryland Parkway . Box 451047 . Las Vegas, Nevada 89154-1047
(702) 895-2794 . FAX: (702) 895-0805 . IRB@unlv.edu

Appendix O

Susan Moscato, EdD, RN
Tyson Distinguished Professor Emerita
School of Nursing, University of Portland
5000 N. Williamette Boulevard
Portland, OR 97203-5798

Dear Dr. Moscato,

I am a doctoral student from the University of Nevada, Las Vegas School of Nursing, working on my Doctor of Nursing Practice project titled "A Plan for the Sustainability of a Dedicated Education Unit: Evaluation of Short- and Long-Term Outcomes at a Public Academic Medical Center."

I am writing to request a copy of Version 4 of your DEU Implementation Checklist as stated in the following article:

Moscato, S. R., Nishioka, V. M., & Coe, M. T. (2013). Dedicated education unit: Implementing an innovation in replication sites. *Journal of Nursing Education*, *52*(5), 259-267. https://doi.org/10.3928/01484834-20130328-01

I would also like to request permission to reprint the Implementation Checklist (Version 4) provided as an Appendix in the sustainability plan for my final project.

I will use the standard scholarly form of acknowledgment, including author, title, and date, unless you specify otherwise.

Thank you for considering this request.

Sincerely,

Jennifer Pfannes, RN, BSN, CPN

UNLV, School of Nursing

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Curriculum Vitae

Jennifer Pfannes, DNPc, BSN, RN, CPN
pfannes@cox.net

Education

Dates	*Institution*	*Degree*	*Field of Study*
2016 – 2019	University of Nevada, Las Vegas	DNP	Academic Leadership / Nurse Executive
1998 - 2002	University of Nevada, Las Vegas	BSN	Nursing

Current Licenses and Certifications

Dates	*License/Certification*
Exp. 01/2020	CPN (Pediatric Certified Nurse) 07/2011 - present
Exp. 06/2020	BLS Health Care Provider
Exp. 06/2020	RN License # RN41391

Honors and Awards

Dates	*Description*
05/2018	First Place Award for UMC Research Empowerment Day – Poster Presentation
2007	March of Dimes – Pediatric Nurse of the Year
2002-2006	Customer Service Excellence Award – Sunrise Children's Hospital

Presentations

Regional/State

2019 – Western Institute of Nursing (WIN) Conference Poster Presentation
"A Guide for Outcomes Evaluation and Sustainability of a Dedicated Education Unit within an Academic-Practice Partnership"

2018 – Western Institute of Nursing (WIN) Conference Poster Presentation
"Outcomes and Sustainability of a Successful Dedicated Education Unit: A Five-Year Evaluation"

2015 – Baccalaureate Education Conference Poster Presentation
"Increasing Student Retention and Success: The Role of a Nursing Student Success Facilitator"

Local

2018 – University Medical Center (UMC) Research Empowerment Day Poster Presentation
"Outcomes and Sustainability of a Successful Dedicated Education Unit: A Five-Year Evaluation"

Teaching

Undergraduate Nursing Courses

Course Title	*Institution*	*Years*
Open Lab	UNLV School of Nursing	Sp18, Su18, Fa18, Sp19
NURS 329 Physical Assessment Skills	UNLV School of Nursing	Su17, Su18
NURS 406L Pediatric Clinical	UNLV School of Nursing	Su17, Fa17,
NURS 350L Population Focused Nursing in the Community Clinical	UNLV School of Nursing	Su18, Fa18, Sp19
NURS 299 Nutritional Development Across the Lifespan – Online Theory	UNLV School of Nursing	Fa18

Employment Experience

Job Title	*Place of Employment*	*Years*
Dedicated Education Unit (DEU) Coordinator	UNLV School of Nursing	01/2019 - present
Part -Time Clinical Instructor	UNLV School of Nursing	05/2018 – present; 05/2017 – 08/2017
Graduate Assistant	UNLV School of Nursing	08/2017 – 05/2018
Nursing Student Success Facilitator	UNLV School of Nursing	12/2013 – 05/2017
Part-Time Clinical Instructor - Pediatrics	College of Southern Nevada	06/2001 – 08/2001
Relief Charge Nurse – Pediatrics	Sunrise Children's Hospital, Las Vegas, NV	12/2005 – 11/2013
Pediatric Unit Educator	Sunrise Children's Hospital, Las Vegas, NV	01/2006 – 06/2006
Registered Nurse – Pediatrics	Sunrise Children's Hospital, Las Vegas, NV	01/2003 – 11/2013
Nurse Apprentice	Sunrise Children's Hospital, Las Vegas, NV	06/2001 – 08/2001
Student Worker	UNLV, Provost Office	1999-2002

Service

Professional

Dates	*Description*
01/15, 10/15, 05/16, 02/17, 06/18, 09/18, 02/19	UNLV School of Nursing Poverty Simulation Volunteer

University

Name of Committee/Event	*Role*	*Dates*
Online Learning and Distance Education Seminar, UNLV	Student Panel Volunteer	04/2018

School of Nursing

Name of Committee/Event	*Role*	*Dates*
DNP Faculty Meeting, UNLV School of Nursing	DNP Student Representative	Spring 2019
Academic Affairs Council, UNLV School of Nursing	Graduate Student Member	Fall 2017

Community

Agency/Activity	*Service Provided*	*Dates*
Three Square Food Bank	Sort and pack food	Ongoing
Ronald McDonald House Charities	Provide and serve dinner to residents	Periodically throughout 2012 – 2016
Girl Scouts of Southern Nevada	Brownie and Junior Girl Scout Troop Leader	06/2012 – 10/2016
Juvenile Diabetes Research Foundation Walk	Volunteer and Fundraiser	
Street Teens Non-Profit for Homeless Youth	Volunteer	2000 – 2002

Memberships/Honor Societies

Dates	*Role, Affiliation*
04/2018 – present	Phi Kappa Phi Honor Society
03/2018 – present	Sigma Theta Tau International
2018 – present	Graduate Nurse Student Academy (GNSA – AACN)
2018	Western Institute of Nursing member